

TECHNICAL SUPPORT TOWARDS UNIVERSAL HEALTH COVERAGE IN ARMENIA



# STRATEGIC PURCHASING

## FOR BETTER HEALTH IN ARMENIA



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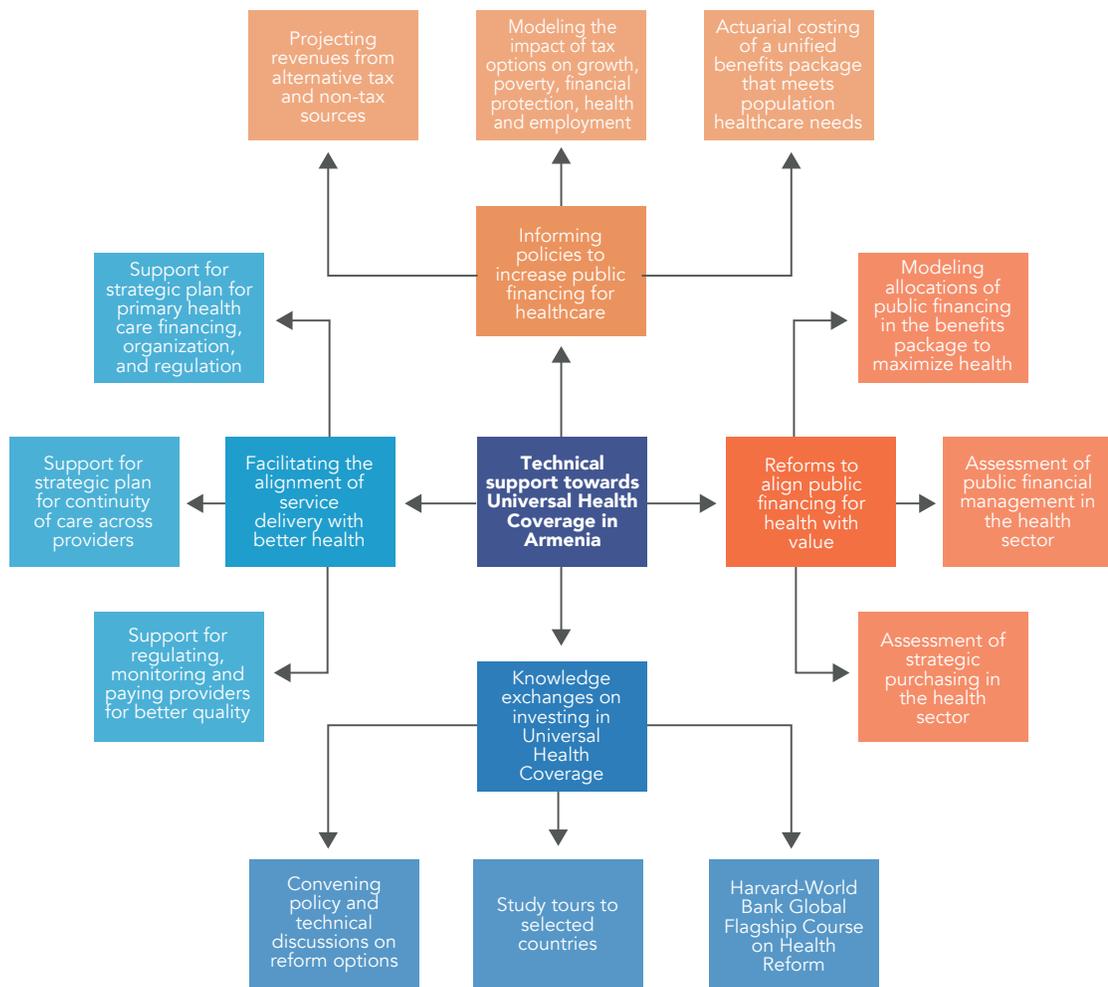
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# ABOUT THIS REPORT

This report is an activity under the Technical support towards Universal Health Coverage in Armenia, which includes Advisory Services and Analytics aimed at supporting the government’s efforts to expand access to high-quality health care. The report, *Strategic Purchasing for Better Health in Armenia*, draws on an adaptation of the strategic purchasing progress framework to examine the country’s experience in purchasing healthcare, identify contextual factors that limit the potential of purchasing to reform healthcare, and integrate these findings with relevant global examples of strategic purchasing reforms. We conclude the report with tailored recommendations for strategic purchasing that can improve population health. This technical support is financed by the Korea-World Bank Partnership Facility (KWPF).



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# ACRONYMS

<b>BBP</b>	Basic Benefits Package
<b>CBA</b>	Central Bank of Armenia
<b>CPD</b>	Continuous Professional Development
<b>CSMBS</b>	Civil Servant Medical Benefit Scheme
<b>ECA</b>	Europe and Central Asia
<b>EU</b>	European Union
<b>GDP</b>	Gross Domestic Product
<b>HIRA</b>	Health Insurance Review and Assessment Service
<b>HTA</b>	Health Technology Assessment
<b>MIDAS</b>	Medical Institution Data Analysis System
<b>MoF</b>	Ministry of Finance
<b>MoH</b>	Ministry of Health
<b>NCDC</b>	National Center for Disease Control
<b>NIH</b>	National Institute of Health
<b>NWAU</b>	National Weighted Activity Unit
<b>OECD</b>	Organization for Economic Cooperation and Development
<b>OOP</b>	Out-of-pocket
<b>PFM</b>	Public Financial Management
<b>SCDMTE</b>	Scientific Center of Drug and Medical Technology Expertise
<b>SDG</b>	Sustainable Development Goal
<b>SHA</b>	State Health Agency
<b>SHAEI</b>	State Hygiene and Anti-Epidemic Inspectorate
<b>TPA</b>	Third Party Administrators
<b>UCS</b>	Universal Coverage Scheme
<b>UHC</b>	Universal Health Coverage
<b>USD</b>	United States Dollars
<b>VAT</b>	Value-Added Tax
<b>VHI</b>	Voluntary Health Insurance
<b>WB</b>	World Bank



# EXECUTIVE SUMMARY

## THE CASE FOR STRATEGIC HEALTH PURCHASING IN ARMENIA

Armenia has made dramatic strides in improving population health over the last three decades. The country performs better on measures of adult and child survival than the average middle-income country, which is a testament to the success of past health reforms and improvements in household welfare. For example, since 1990, life expectancy at birth has increased from 68 to 75 years. However, non-communicable diseases (NCDs) now account for 93 percent of deaths. The burden of heart disease, diabetes, and cirrhosis in Armenia exceeds the average among countries with similar sociodemographic indicators. NCDs are long-term illnesses that can increase premature death, reduce productivity and increase health spending. The estimated annual cost of NCDs to the Armenian economy was 362.7 billion AMD in 2017, equivalent to 6.5 percent of the country's annual national income. Most of this cost falls on Armenian households as out-of-pocket (OOP) payments, which constitute 85 percent of health spending. This is higher than levels seen in fragile states, such as Afghanistan (76 percent) and Yemen (81 percent).

Access to quality healthcare is essential to preventing and managing NCDs. However, in 2018, 20.9 percent of individuals in non-poor households and 25 percent of individuals in impoverished households in Armenia reported health deprivation, due to gaps in the access to quality healthcare. Healthcare is underutilized. In 2015, Armenians had an average of 4 outpatient visits per person, which is below the average of 7.1 in Europe. Healthcare is not received despite severe self-reported illness in 87 percent of cases and one in five Armenians states that costs are a barrier to use. Further complicating challenges in access are the gaps in the quality of healthcare. Guidelines for appropriate clinical care are often not adhered to

or monitored. For example, following a diagnosis of hypertension, only 39 percent of service users are advised on weight control and 17.8 percent on smoking cessation. In 63 percent of cases, individuals bypass their primary care physicians and obtain hospital and emergency care directly, in part due to the perception that quality at the primary care level is poor. This pattern of healthcare use is at odds with evidence from global experience that specialist-centric healthcare is inefficient and ineffective at managing NCDs.

No health reform blueprint will apply in every context in making progress towards improving access to high quality healthcare and attaining Universal Health Coverage (UHC). However, there are important lessons for Armenia from global experience in designing health reforms. Successful countries have mobilized revenues through predominantly public sources and pooled risk across social groups for equity and efficiency. Global experience also highlights the importance of strategically allocating resources or purchasing using evidence to facilitate better access to and quality of care. Healthcare can be purchased by households directly, or on their behalf by third-party purchasers such as ministries of health and insurance agencies. However, asymmetry of information in service provision markets, particularly in the face of life-threatening medical concerns, limits the ability of households to adequately discriminate among sources of supply. Hence, third-party purchasing arrangements are often used, but require coherent national purchasing policies to facilitate the attainment of UHC.

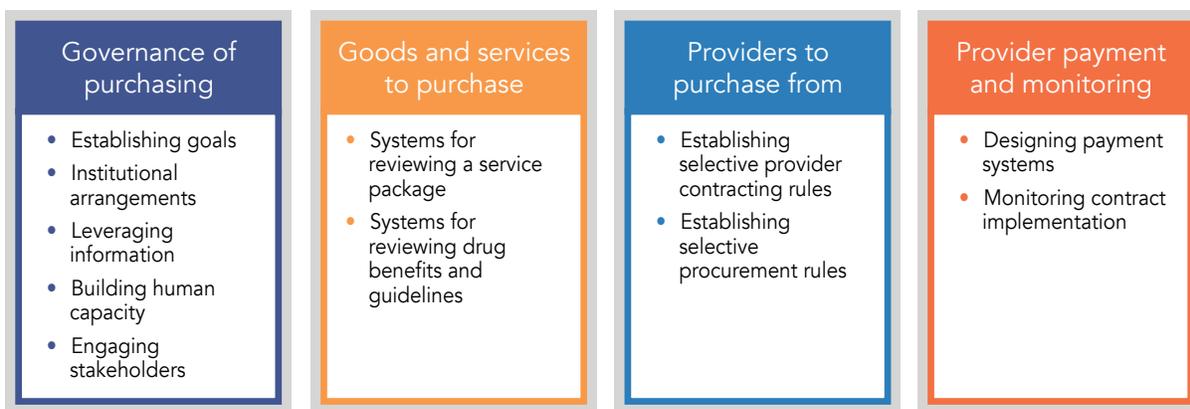


National purchasing policies should define the objectives of purchasing, the actors to be involved and their roles, the health services in the benefits package and their quality standards, and how providers are selected and reimbursed. The degree to which these decisions are aligned with broader policy goals and informed by evidence, via strategic purchasing, determines the match between health system spending and progress towards UHC.

The potential of purchasing to improve healthcare depends on the mobilization of sufficient, pre-paid, and pooled revenues to confer purchasing power on the payer. At the same time, sufficient inputs, including health workers, equipment, infrastructure, and supplies, and an adequate regulatory environment for quality, are necessary for purchasing incentives to translate to high quality services. Faced with the need to contain health expenditure growth after the dissolution of the Soviet Union, Armenia has undertaken purchasing reforms in the past and adopted complementary initiatives to mobilize revenues and improve service delivery readiness. A systematic examination of these experiences and lessons from other countries should inform the next generation of strategic purchasing reforms towards attaining UHC in Armenia. The Ministry of Health (MoH) requested technical support from the World Bank towards the development of health insurance mechanisms in Armenia. This report examines Armenia's experience in purchasing, explores complementary policies to ensure an enabling context for purchasing reforms, and develops recommendations to strengthen strategic purchasing for better health.

## ARMENIAN EXPERIENCE IN HEALTH PURCHASING

We examined purchasing experience in Armenia by reviewing the relevant literature and interviewing key stakeholders involved in the allocation of financing in the health sector. We organized our findings using an adaptation of the strategic health purchasing progress framework, which has been used to examine purchasing in other contexts. This framework classifies purchasing decisions along four main dimensions, including the governance of purchasing, the healthcare goods and services that are purchased, the providers to purchase from, and provider payment and monitoring. We summarize our main findings below.



Purchasing reforms in Armenia have focused predominantly on improving efficiency and service coverage. Since the 1990s, passive line-item budgeting has been replaced with payment mechanisms that reward higher service coverage, including capitation and case-based payments. There have, however, been challenges in defining institutional roles and decision rights for purchasing in Armenia that facilitate better efficiency and quality. The State Health Agency (SHA) was established as an independent third-party purchasing agency in 1997, responsible for the allocation of the public budget to health services. However, it was brought under the MoH and lost its independent status in 2002. This decision negated the separation of financing and provision, which is necessary for objective decision-making, as the MoH has continued to be involved in service delivery.

The functions of the SHA now overlap significantly with the roles of the MoH. Furthermore, the introduction of private insurers to process claims and coordinate care for the social package has been associated with lower efficiency relative to the SHA, with reported claims ratios of 33 to 76 percent, despite oversight from the Central Bank of Armenia. Finally, the SHA's oversight over the private sector, an important segment of service delivery, is limited to services provided using state property and funded through public health financing. Complementary policy levers are needed to ensure that purchasing arrangements, whether facilitated by the SHA or another entity, ensure high-quality healthcare in both public and private delivery.

The purchasing toolbox in Armenia has been limited to contracting, claims processing and monitoring of spending patterns, with less attention paid to quality assurance and data-driven decision-making. Armenia has invested in the ArMed system that provides real-time updates on service delivery for primary, hospital, and emergency care. However, data is not systematically used to monitor the quality of care, regulate drug prescribing behavior, refine contract design, or inform revisions to the benefits package. There is a need to clearly delineate institutional responsibility for health technology assessments to inform benefit package revision and actuarial costing of health services. There is also no clear institutional responsibility for ensuring that clinical standards are updated, that their technical quality is ensured, and that these standards are used in contracting. Purchasing has therefore not been fully leveraged to incentivize better quality of service delivery.



The design of the initial basic benefits package (BBP) was informed by population health needs and value for money, but subsequent modifications have been driven primarily by political considerations. There is a need for regulations that specify an official process for revising the benefits package, that prioritizes changing health care needs, value for money, and stakeholder engagement. To this end, Armenia can draw on the clear and systematic process that has been successfully implemented for updating the essential medicines list. The current financing gap for the BBP also generates a strong incentive for providers to demand informal payments from service users, which contributes to financial access barriers.

Contracting of health care providers needs to better incorporate conditions regarding meeting clinical standards, provider competency, and local needs, to improve the quality of care. However, the spatial monopolies created by the Semashko model limit opportunities to selectively contract by excluding poorly performing providers. Medicines are also procured inefficiently and are not guaranteed to be of high quality, due to an overemphasis on minimizing costs under decentralized procurement of medicines by facilities. Local facilities often do not have capacity to negotiate prices or define accurate technical specifications.

## **THE CONTEXT FOR PURCHASING REFORMS IN ARMENIA**

The political, fiscal, and health system context has implications for the design and effectiveness of purchasing reforms to address the above bottlenecks. Renewed political commitment to improving governance and building human capital, following the Velvet Revolution, has presented a window of opportunity to push through relevant health system reforms. However, the COVID-19 pandemic has shifted the political agenda dramatically towards policies that control the spread of the virus, strengthen the health system response, protect household welfare, and support business growth. In addition, due to the COVID-19 pandemic, the economy is projected to contract by 2.8 percent in 2020, rebounding to 4.9 percent growth by 2021. Therefore, the opportunity to advance significant health reforms will be constrained by available public spending and be facilitated where these reforms are linked to the pandemic response. Disciplined spending since the fiscal consolidation effort was launched in 2017 offers prospects for stable allocations across sectors in the medium term. Armenia has also increased fiscal space for public spending significantly over the past two decades through higher tax revenues. However, a large informal sector and a shrinking labor force will limit the feasible options for raising revenue to finance reforms in the short-to-medium term.

The low level of public financing and fragmentation of risk pools limit purchasing power in the public sector, and the potential for purchasing reforms to improve equity and efficiency. Financing from pre-paid public sources is 16.5 percent of current health spending compared to an average of 77 percent in the region. Investing in health is not prioritized in the state budget despite the high absorption capacity within the sector of above 95 percent. There is

some potential to improve the efficiency of public health spending. For example, assessments by the World Bank indicate that improvements in the efficiency of public health spending could yield per capita savings of up to USD 7.24. Efficiency gaps result in part from price variation in decentralized procurement in the health sector and challenges in optimizing the supply of health services in Yerevan. Fragmentation of financial flows in the health sector also contributes to inefficiency. Public health financing is pooled in the SHA but flows to multiple private insurers for a subset of public sector employees, duplicating administrative costs and decreasing efficiency. There are expenditures caps on different groups, limiting opportunities to improve equity in financing. Finally, multiple employer-subsidized schemes create separate pools of voluntary contributions. Health spending is financed mostly through OOP rather than pooled resources.

Ensuring service delivery readiness, including an adequate supply of inputs and compliance with appropriate clinical guidelines, is a precondition to implementing quality assurance through purchasing in Armenia. Since the 1990s, Armenia has invested in optimizing service delivery. However, there is an undersupply of skilled health workers as a result of emigration due to non-competitive wages. The density of health workers in Yerevan far exceeds the supply in the underserved Marzes. A strong regulatory environment is particularly important in Armenia given the role of private providers in service delivery and high OOP spending, which may not be significantly influenced by the SHA. There is a need to better regulate market entry via licensing of physicians, and to ensure provider competence via enforcement of regulations on continuous education of health workers. Governance of the quality of care in Armenia would also benefit from consolidated information on the state of infrastructure and equipment in health facilities, routine monitoring of the quality of the guidelines, and the adherence of providers to these standards.

## GLOBAL LESSONS IN STRATEGIC PURCHASING

We reviewed lessons from countries that have a similar political history or faced the same macro-fiscal constraints when implementing purchasing reforms. The review focused on solutions to the bottlenecks in purchasing in Armenia. Below, we summarize the main lessons for governance of purchasing, defining goods and services to purchase, selecting providers, implementing payment mechanisms, and monitoring provider performance.

Regarding the **governance of purchasing**, strategic purchasing requires clear objectives, coordination among key actors, transparent decision rights, and the use of health information systems to support decision-making. Armenia has hitherto faced challenges in reflecting purchasing objectives in policy documents, ensuring a clear separation of roles between the SHA, MoH, and private insurers, and drawing on the ArMed system to inform purchasing decisions. Hence, critical lessons for the governance of purchasing include the following:

- As the transition to strategic purchasing is often incremental, countries should have mechanisms to review and update their objectives as the challenges in the health system evolve.
- Institutional arrangements should be established through legal documents and should be appropriately designed to prevent the capture of the decision-making space by influential actors.
- For small countries, there are no strong arguments in favor of more than one purchasing agency. Centralizing purchasing capacity within one single entity will prevent fragmentation of the small pool of funds, allow the country to build a critical mass of technical expertise, and spread the fixed cost of operating the purchasing agency over the whole population.
- Collecting, analyzing, and using data to inform purchasing is what makes purchasing strategic. Purchasing agencies should use the very rich datasets generated by their digitalized payment systems to identify opportunities to improve service content, change prescribing practices, and manage the health system inventory.

Regarding the **goods and services that are purchased**, strategic purchasing requires a comprehensive understanding of decisions by actors in the health system and their implications for optimal resource allocation, as some of these decisions may be influenced through contracting, the payment mix, and benefits package design. Armenia faces key challenges, including the need for a systematic process for reviewing the benefits package to reflect changing health needs, developing the capacity to cost the service package, and developing and implementing regulations for quality that can inform contracts with service providers. Essential lessons from global experience for optimizing the coverage and quality of healthcare goods and services that are purchased include the following:

- The process for reviewing benefits should draw on the evidence of effectiveness, cost-effectiveness, disease burden, and other objective criteria. A clear benefits package is also a mechanism for controlling expenditure growth in the health sector.
- The focus of actuarial costing should shift to the use of pricing in establishing provider payment rates that encourage desired behaviors. Costing exercises should be used as a productive entry point for policy dialogue rather than solely for highlighting the difference between actual and optimal resource levels.
- Compliance with clinical guidelines to improve the quality of care can be increased through training of clinicians, developing a system for regularly updating and disseminating clinical guidelines, monitoring of provider compliance, and implementing a reward or sanction system.

- Traditionally, gatekeeping by primary care is instituted in clinical guidelines when there is overutilization of specialized care for ambulatory-care-sensitive conditions. Gatekeeping reforms are often sophisticated, with mixed results, and the difficulty of introducing these changes must be carefully weighed against the potential benefits.

Regarding the **selection of providers**, since the 1990s, health sectors in developing countries have changed in line with broader societal shifts in favor of liberalism and privatization. However, the public sector also continues to provide preventive healthcare and curative care for acute illnesses. Armenia faces key challenges in terms of defining regulations for selective contracting that do not exacerbate gaps in access to care in segmented health markets while improving incentives for high quality service provision. Below are lessons on ensuring the selection of competent providers of healthcare through strategic purchasing:

- The purchasing agency can signal what is valuable from the perspective of the society by rewarding high-performing facilities, sanctioning those creating hazards, and ensuring coherence in service delivery.
- The routine collection and use of information on performance in both the public and private sector across services within the benefits package is a precondition for selective contracting.
- The exclusion of providers below required standards promotes a better quality of healthcare. It requires clear decision-making rules, including legitimate authority, independent review, and the right of providers to appeal.
- In contexts where there are spatial monopolies and access barriers are created by provider exclusion, countries may resort to introducing financial incentives for potential new entrants into the market, facilitating changes in management of public sector facilities, and benchmarking of provider performance to provide incentive for better healthcare.

Regarding **provider payment and monitoring**, the purchaser often has incomplete information about provider performance, the clinical outcomes of service delivery, and the role of external factors. Hence, strategic purchasing requires designing the contract that aligns the provider with the objectives of the principal and monitoring compliance within reasonable costs. In Armenia, reporting via ArMed primarily focuses on prevention of fraud and monitoring coverage levels. However, payment and monitoring mechanisms do not incentivize high-quality service delivery. Critical lessons on provider payment and monitoring from global experience include the following:

- The main technical challenge is identifying the right mix of payment mechanisms as individual methods have positive and negative effects.

- Starting with a simple payment model, piloting new proposals, and adding complexity over time will allow the supporting systems to develop the capacity to handle more sophisticated mechanisms.
- To incentivize high-quality healthcare for NCDs, countries have adopted add-on payments that reward improved provider coordination and population-based payments that allow groups of primary and specialist providers to retain all or part of their savings if they meet quality criteria.
- Monitoring and refining payment mechanisms are conditional on data collection, management, and analysis by the purchaser. In many countries, routine data is still underused for updating the payment formula. Monitoring, benchmarking, and publishing provider performance can provide non-monetary incentives to improve service delivery.

Regarding the **context**, the success of purchasing reforms is often dependent on factors that may be beyond the remit of the purchaser, including provider autonomy, risk pooling, and the sufficiency and flow of financial resources in the health system. These factors influence purchasing power and service delivery readiness. A significant constraint to strategic purchasing in the Armenian health system is the low level of public health financing. Below are lessons on policies that are compatible with attaining UHC:

- Purchasing reforms can only improve service delivery if providers can respond to incentives and regulations by changing their behavior or restructuring their operations.
- Higher-level hospitals will need more autonomy than smaller facilities that provide primary care. Facility managers may need training in personnel management, procurement, administration, accounting, or reporting.
- It is easier to influence providers if resources are pooled, managed by a limited number of purchasers, and send non-conflicting signals to providers. Where multiple pools exist, interactions across schemes should be monitored. Achieving equity with multiple funds requires complex risk equalization mechanisms.
- Effective mechanisms for raising revenues must include both subsidization and compulsion, as population coverage is limited in voluntary schemes due to adverse selection, and eliminating subsidies excludes poor and vulnerable groups that cannot afford health insurance.
- Health authorities should remain focused on the total levels of public spending on health. General revenue allocations can be reduced to compensate for earmarking. Also, advocating for shares of public financing for health has not been an effective strategy for expanding fiscal space.

## TOWARDS STRATEGIC PURCHASING IN ARMENIA

This assessment demonstrates that suboptimal purchasing arrangements contribute to the challenges in accessing high-quality health care in Armenia. Overlapping institutional roles, political capture, and the difficulties in engaging stakeholders have prevented effective and responsive governance of public health financing allocations, to address health system challenges. Furthermore, while the first BBP addressed the prevalent healthcare needs, revisions have not reflected the changing burden of disease and are driven by political interests. In addition, challenges with costing benefits and setting appropriate tariffs have contributed to informal payments for health care, increases in OOP spending, and financial barriers to access. Moreover, the ArMed e-health system has supported monitoring of fraud and service outputs by the SHA, but has not been leveraged to monitor prescription practices, referral behavior, and the content of care. Also, provider payment and selection procedures do not reward high-quality service delivery. Therefore, purchasing reforms will be imperative to advancing the UHC agenda in Armenia.

Akin to the purchasing reforms after the dissolution of the Soviet Union, aimed at improving efficiency, Armenia has turned to purchasing to facilitate the health system response to COVID-19. Faced with a rising incidence of COVID-19 cases and the need to mobilize surge capacity for case management in the health system, purchasing arrangements have been adapted. The scope of services covered through contracts with providers was expanded to include COVID-19 tests, case management, and telemedicine. Payment incentives were introduced to mobilize intensive care beds at the hospital level and relevant indicators on provider performance were added to the ArMed e-health system. Given the central role of strong health systems in the COVID-19 response, to detect and manage COVID-19 cases, and ensure continuity of essential services through the pandemic, the implementation of feasible reforms in health financing and service delivery continue to be urgent and salient.

We conclude this report with recommendations to strengthen strategic purchasing to improve access to high-quality healthcare in Armenia. We also consider complementary reforms that will be needed to strengthen provider autonomy, improve service delivery readiness, and ensure sufficient pre-paid and pooled financial flows to increase purchasing power. In proposing these reforms, we identify actions that are feasible in the short-term, within two years, given the ongoing COVID-19 pandemic, political priorities, and budgetary constraints. The proposed reforms may provide a foundation for further actions in the medium-to-long term to fundamentally reform the governance and implementation of purchasing in Armenia.

## SHORT-TERM REFORMS TO LAY A FOUNDATION FOR ENHANCED STRATEGIC PURCHASING

- **Recommendation 1:** The Government should redefine the legal status for the SHA, ensuring that it is independent from the MoH, with clear decision rights and external oversight to promote accountability for results. The role of private insurers should be restricted to the coverage of health services outside the BBP to increase the purchasing power of the SHA.
- **Recommendation 2:** The MoH and SHA should develop and implement an annual strategy for quality-based purchasing, through defining indicators for priority health conditions, periodic monitoring of provider performance on said indicators, publication of comparative provider performance, and rewarding improvements in the quality and integration of healthcare.
- **Recommendation 3:** The MoH and SHA should pilot and periodically review an operations dashboard to facilitate the use of evidence in stakeholder negotiations over purchasing decisions.

## MEDIUM- TO LONG-TERM REFORMS TO EXPAND THE SCOPE OF STRATEGIC PURCHASING

- **Recommendation 4:** The Governmental decision on the proposed UHC reforms should be informed by the potential effectiveness of these reforms to reduce out-of-pocket payments, improve the quality of care, and expand the coverage of essential services for NCD prevention and control.
- **Recommendation 5:** The MoH and SHA should design and implement selective contracting of competent healthcare providers, financial incentives for market entry of new players, or changes in the management of health facilities depending on the degree of segmentation in the service delivery market and facility ownership.
- **Recommendation 6:** Given the quality and efficiency gaps in decentralized procurement of medical supplies, the MoH should scale up centralized procurement and framework contracts, while building capacity for procurement coordination, planning, and execution at the facility level in the long-term.

## MEDIUM- TO LONG-TERM REFORMS TO STRENGTHEN THE PRECONDITIONS FOR STRATEGIC PURCHASING

- **Recommendation 7:** To alleviate financial barriers to accessing health care, Armenia needs to mobilize pre-paid and pooled health financing to fund an expanded benefits package that is revised through a transparent, inclusive, and systematic legal process, and aims to cover essential health services and outpatient medicines for prevalent diseases for the entire population.
- **Recommendation 8:** To increase service delivery readiness for healthcare, the MoH should enforce appropriate regulatory standards for infrastructure, human resource for health, and clinical interactions, including provider licensing, service delivery network planning, and the development of clinical pathways for prevalent diseases.





# CHAPTER 1: THE CASE FOR STRATEGIC HEALTH PURCHASING IN ARMENIA

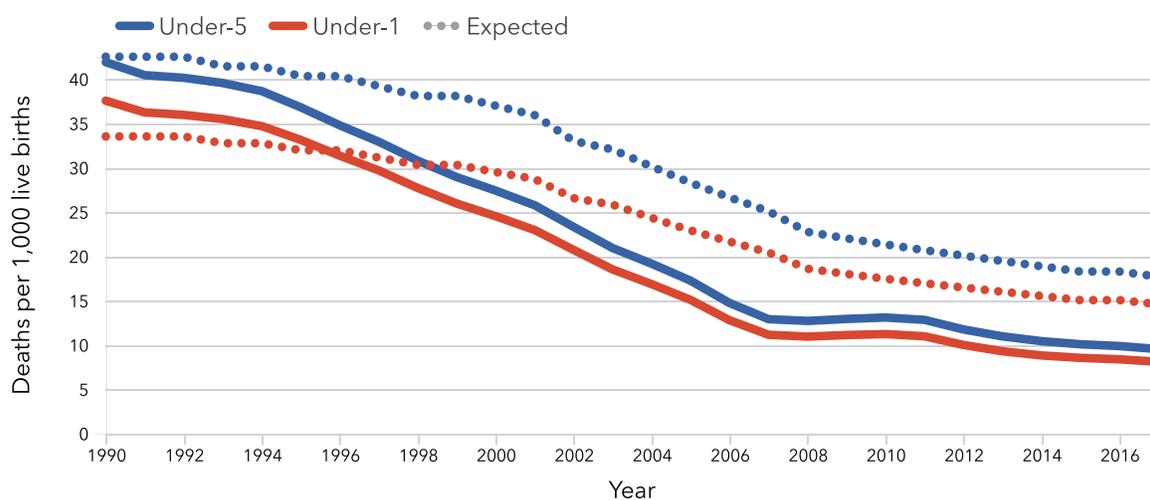
Armenia is an upper-middle-income and landlocked country located in the South Caucasus Region. With an area of 29,743 km<sup>2</sup>, the population is estimated at 2.99 million. The country is divided into 11 administrative units, including 10 Marzes and the capital city of Yerevan. Armenia's capital is home to about one-third of its population, while 28 percent of the population reside in towns and another 36 percent in rural areas. Following the collapse of the Soviet Union in 1991, Armenia began a process of structural reforms to transition to a market economy. After an initial decade characterized by socioeconomic polarization, the Gross Domestic Product (GDP) per capita has tripled from USD 1,404 in 2000 to USD 4,406 in 2018. However, total fertility rates have also fallen to below replacement levels and the net emigration of the working age population has risen. The population has progressively aged, with the population aged 65 years and above reaching 11.3 percent in 2018 (Table 1).<sup>1</sup>

**TABLE 1 • Selected social and economic indicators**

INDICATOR	1990	2000	2010	2018
<b>Gross domestic product (GDP) per capita (constant 2010 USD)</b>	1,796.9	1,404.3	3,218.4	4,406.7
<b>GDP per capita growth (annual percent)</b>	-	6.6	2.6	5.0
<b>Population growth (annual percent)</b>	0.0	-0.6	-0.4	0.2
<b>Population ages 65 and above (percent of total population)</b>	5.6	10.0	11.0	11.3
<b>Total fertility rate (births per woman)</b>	2.5	1.6	1.7	1.8
<b>Poverty headcount ratio at national poverty lines (percent of population)</b>	-	-	35.8	23.5
<b>Life expectancy at birth (years)</b>	67.9	71.4	73.3	74.9

Armenia performs better on measures of adult and child survival than the average middle-income country, a remarkable testament to the success of past health reforms and improvements in household welfare.<sup>2</sup> Since 1990, death rates among children under-five years of age have fallen from 42 to 10 deaths per 1,000 live births, and life expectancy at birth has increased from 68 to 75 years (Figure 1).<sup>3</sup> However, healthy life expectancy at birth, which negatively adjusts survival for years lived in ill-health, is 66.3 years in Armenia, and below the average in Europe of 68.4 years.<sup>4</sup> Non-communicable diseases (NCDs) now account for 93 percent of deaths, and in 2017, the top causes of ill-health included heart disease (16.9 percent), diabetes mellitus (5.7 percent), and stroke (5.6 percent).<sup>5</sup> The burden of heart disease, diabetes, and cirrhosis in Armenia exceeds the average among countries in the Europe and Central Asia (ECA) region with similar sociodemographic indicators.<sup>6</sup>

**FIGURE 1 • Significant decreases in child mortality over three decades**



Source: Institute for Health Metrics and Evaluation

NCDs are often chronic conditions requiring expensive health care when complications develop and involving multiple providers. In a study of patients with heart disease in the United States, a second hospital admission following a heart attack incurred annual costs that were 4.5 times higher than the cost of outpatient care.<sup>7</sup> High-quality health care, particularly at the primary health care level, can facilitate healthy lifestyle promotion to delay the onset of NCDs, ensure early diagnosis, and prevent complications. A high burden of NCDs increases premature mortality, reduces the productivity of the working-age population and increases health spending. In Armenia, the cost of care falls predominantly on households, at 85 percent of total health spending, driven in part by the cost of outpatient medicines and expensive diagnostic care that is not covered for some groups. This level of out-of-pocket (OOP) payments is higher than the proportions seen in fragile and conflict-affected states, such as Afghanistan

(76 percent) and Yemen (81 percent).<sup>8</sup> The estimated annual cost of NCDs to the Armenian economy was 362.7 billion AMD in 2017 or 6.5 percent of the country's annual national income (Figure 2).<sup>9</sup>

**FIGURE 2 • The estimated annual cost of NCDs to the Armenian economy**



Source: World Health Organization

Challenges in ensuring access to health care contribute to the high burden of NCDs in Armenia. In 2015, Armenians had an average of 4 outpatient visits per person, which is below the average of 7.1 in Europe.<sup>10</sup> The lower levels of outpatient use in Armenia do not reflect less need for care or higher efficiency of the health system. Only one in three Armenians visits a primary health care facility when sick.<sup>11</sup> Healthcare is not received even when self-reported illness is severe in 87 percent of cases. The main reasons for forgoing necessary care are self-treatment (56 percent) and cost (17 percent).<sup>12</sup> There are also differences between poor and non-poor households, with a higher number of visits among the non-poor (1.53 times per month) compared to the poor (1.42 to 1.45 times per month).<sup>13</sup> In response, the Ministry of Health (MoH) has championed the introduction of free screening programs, for early detection of hypertension, diabetes mellitus, and cervical cancer, at the primary health care level. Despite these efforts, the underutilization of essential health care has persisted.

Poor quality denies service users in Armenia the potential health benefits of healthcare use.<sup>14</sup> Guidelines for appropriate clinical care are often not adhered to or monitored. For example, following a diagnosis of hypertension, only 39 percent of service users are advised on weight control and 17.8 percent on smoking cessation.<sup>15</sup> Gaps in the quality of care are not actively addressed. In representative surveys, over 68 percent of the households report that no remedial action was taken following complaints about substandard healthcare.<sup>16</sup> Primary healthcare providers, who are mandated to be the first contact for services and to coordinate health care use across different providers, are also regularly bypassed for expensive specialist or emergency care. Only 26.8 percent of hospitalizations are followed by a referral from a

primary care physician.<sup>17</sup> This pattern is prevalent in urban areas, where the polyclinic model puts specialists and family physicians in close proximity, and their roles overlap.<sup>18</sup> Specialist-centric healthcare has been shown from global experience to be both inefficient and ineffective at managing NCDs.<sup>19</sup> Illustratively, hospitalization for ambulatory care sensitive conditions (ACSCs) such as uncomplicated diabetes mellitus, which can be managed in outpatient settings and at the primary health care level, is now monitored across health systems in Europe as a marker of inefficiency and poor quality. In contrast, in Armenia, a diagnosis of diabetes mellitus must be confirmed by an endocrinologist and service users can see specialists for care of uncomplicated chronic conditions.<sup>20</sup>

The implications of these challenges with access to high quality health care, particularly for NCDs, are preventable deaths, illness, and deprivation at the household level. Through household surveys, Armenia monitors the proportion of families experiencing deprivation due to the combined effect of gaps in access to and quality of health care. In 2018, 20.9 percent of individuals in non-poor households and 25 percent of individuals in impoverished households in Armenia reported health deprivation.<sup>21</sup> The Institute of Health Metrics and Evaluation developed an access and quality index, which measures the extent to which health care of appropriate quality can reduce death rates. The values range from 0 to 100, where 100 indicates that a country has no mortality from gaps in access to high quality care. In Armenia, the value of the access and quality index is 70.6.<sup>22</sup> Furthermore, a recent study estimated that 2,996 deaths result every year from inadequate access to high-quality health care and 53,000 years of life are lost due to poor quality of healthcare.<sup>23</sup> Urgent reforms to ensure access to high-quality healthcare are essential to improve population health and boost productivity.

Since 1995, there has been a stated political commitment by the Government to ensure the universal right to healthcare in Armenia, which is enshrined in the constitution.<sup>24</sup> In practice, the persistent financial barriers to healthcare use that arise from the high cost of healthcare access to households imply that healthcare is treated as a commercial product and imposes a burden on the sick. The political commitment to ensuring access to high quality health care was renewed at the highest levels of Government through the Sustainable Development Goals (SDGs). In 2015, Armenia was one of the 193 countries in the United Nations General Assembly that adopted the 2030 Development Agenda for Sustainable Development, including the target of achieving Universal Health Coverage (UHC). Countries that commit to UHC aim to make progress towards guaranteeing *“financial risk protection, access to quality essential healthcare services and access to safe, effective, quality, and affordable essential medicines and vaccines for all.”* A commitment to UHC obligates Governments to address the underlying causes of gaps in access to high quality health care, while protecting their citizens from impoverishing health spending. Following the historic Velvet Revolution in 2018, this political commitment to ensuring universal access to health care was reaffirmed by the Prime Minister.

“ This is a strategic issue for the Republic of Armenia and our government, because access to health care and medical services is the key to public welfare, and we clearly stated in the electoral program of My Step Alliance that we must achieve tangible progress in this area by 2023 ... Our political stance is as follows: health standards should be high in the Republic of Armenia.”

—Nikol Pashinyan, Prime Minister of the Republic of Armenia, January 2019

Two indicators track country progress towards attaining UHC within the SDG framework. The first indicator, the UHC health coverage index, is measured on a scale from 0 to 100 and is the geometric mean of 14 tracers of health service coverage.<sup>25</sup> The second indicator, for catastrophic health spending, is measured as the percentage of the population with household expenditures on health exceeding 10 percent of total household expenditure or income. Relative to the Europe and Central Asia regional average, Armenia has lower service coverage and higher catastrophic health spending. This is unsurprising given the gaps in access to high-quality health care and the high levels of OOP payments. Specifically, the UHC health coverage index for Armenia is 69, which falls below the average in the region of 75. The proportion of households in Armenia that spend over 10 percent of income on health is 16.1 percent, far in excess of the regional average of 7.4 percent (Table 2).<sup>26</sup>

**TABLE 2 • Gaps in attaining UHC in Armenia**

COUNTRY OR COUNTRY GROUP	HEALTH COVERAGE INDEX	HEALTH COVERAGE INDEX (NCDS)	CATASTROPHIC HEALTH SPENDING (%)
<b>Armenia</b>	69	55	16.1
<b>Europe and Central Asia</b>	75	59	7.4
<b>Global</b>	64	64	12.7

Source: World Health Organization

Notes: Figures are for the most recent year for each country or country group.

While no blueprint strategy will apply in every context, there are important lessons from global experience in designing health financing reforms to make progress towards UHC.<sup>27</sup> Most states that have successfully expanded service coverage and financial risk protection have ensured that enough pre-paid revenue is mobilized and that risk is pooled across social groups. Pooling pre-paid revenue ensures that financial risk associated with healthcare is borne by all members of the pool, rather than each individual, given the uncertainty on the timing and magnitude of healthcare needs.<sup>28</sup> To this end, increasing public health financing is vital, as higher spending predicts better population health outcomes on average. However, health outcomes also vary at each level of health spending, which highlights the importance of allocating pre-paid and pooled funds effectively.<sup>29</sup> The purchasing function of health financing involves the allocation

of funds to providers for healthcare goods and services.<sup>30</sup> While households can purchase healthcare directly, third-party purchasers, which may be ministries of health, health insurance funds, payers, or other agencies, may purchase healthcare on behalf of the population. Due to asymmetry of information in service provision markets, particularly in the face of urgent medical problems, households may be unable to adequately discriminate among sources of supply.<sup>31</sup> Hence, national purchasing policy aimed at facilitating UHC tends to leverage third-party purchasing arrangements and specify key parameters to guide allocative decisions, including the objectives, the actors to be involved and their roles, the health services to be provided and their quality standards, how providers will be reimbursed, and the process of selecting competent providers for care (Figure 3).<sup>32</sup>

**FIGURE 3 • Purchasing allocates health financing to service delivery**

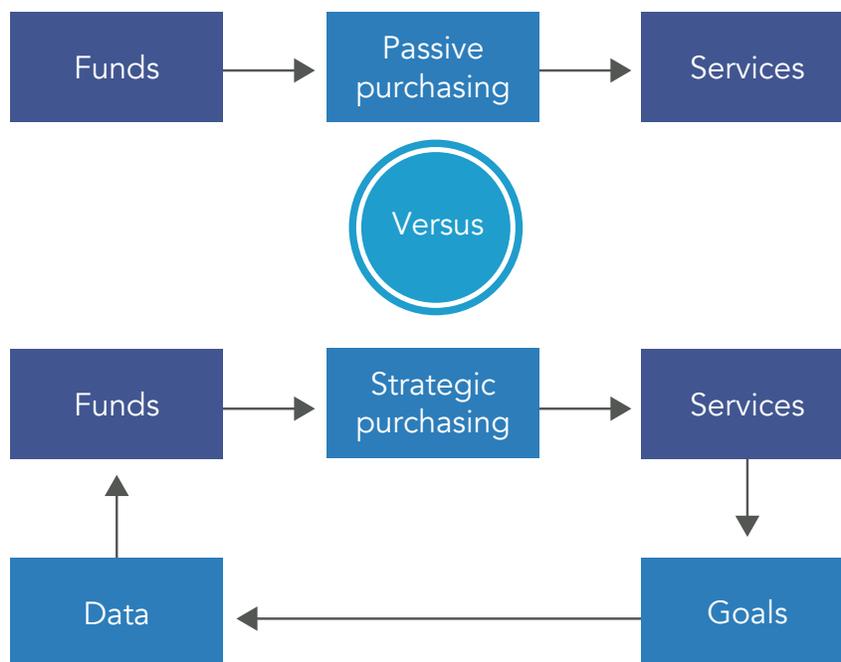


Source: World Health Organization

However, not all purchasing facilitates access to high quality healthcare and the attainment of UHC. A passive approach to purchasing is characterized by providers receiving funds independent of performance and does not deliberately seek to influence the quantity or quality of health services.<sup>33</sup> In contrast, strategic purchasing links decisions on allocations of health financing to UHC. Therefore, strategic purchasing involves the deliberate design of purchasing arrangements using available evidence to ensure that the goods and services purchased, providers contracted, and the payment mechanisms selected, facilitate the attainment of pre-defined objectives (Figure 4). The specific objectives may include ensuring the needs of the population are met, addressing undersupply or oversupply of care, improving the efficiency of health spending, and enhancing the quality of healthcare. The effectiveness of strategic purchasing in promoting better health system outcomes depends on purchasing power, which is a function of the adequacy of health financing and the degree of risk pooling within third-

party purchasers. Strategic purchasing also requires service delivery readiness, which depends on the adequacy of inputs (including health workers, equipment, and infrastructure), the appropriate regulatory environment for quality of care, and provider capacity to respond to changing incentives.

**FIGURE 4 • Passive versus strategic health purchasing**



Source: World Bank

Armenia has undertaken strategic purchasing reforms in the past. After her independence from the Soviet Union in the 1990s, the resulting economic shocks reduced fiscal space for healthcare and motivated the first generation of health financing and service delivery reforms. These reforms primarily aimed to maximize value for money and increase access to maternal and child healthcare. Armenia transitioned from providing universal access to all services through public providers to defining a benefits package and promoting an increasing role for private providers. The State Health Agency (SHA) was established to pay for services within the benefits package and selectively contract providers in line with health system goals. Assessments of the cost-effectiveness of technologies and population health needs informed the composition of the first benefits package, which extended access to basic health care services to the population, including essential maternal and child healthcare. Payment mechanisms such as capitation, case-based payments, and later, performance-based financing, were introduced to link resource allocations to health service coverage, with the aim of cost containment. These payment mechanisms replaced line-item budgeting that rewarded increases in inputs and incentivized a bloated health system.

The first generation of purchasing reforms appear to have contributed to the health system gains Armenia has achieved since the late 1990s. However, there were also challenges in sustaining some of the policies introduced, including the independent mandate of SHA and the application of burden of disease and cost-effectiveness analyses to benefits package revision. Problems related to purchasing policy may also be contributing to current gaps in access to and the quality of care in Armenia. First, the MoH is involved in purchasing and providing care, which may prevent the selective contracting of health care providers due to conflict of interest. Also, the SHA focuses mainly on processing claims and preventing fraud, neglecting essential purchasing functions such as quality assurance and tailoring contracting to local needs. The introduction of private insurers to process healthcare claims for a subset of the population has introduced administrative inefficiencies in an underfunded health system. Moreover, despite investments in the e-health system, the available information on provider performance and population needs is not routinely used for purchasing decisions.

The MoH has committed to undertaking reforms to address the barriers to access and quality of care. In the *“Concept Note for the Introduction of Universal Health Insurance,”* there is a proposal to launch a health reform that introduces Universal Health Insurance, that has been put forward for public review and debate. In addition to the proposal to mobilize revenues for health through new taxes, the Concept Note recommends leveraging strategic purchasing to improve the quality of care, access to services, and financial risk protection. First, the MoH proposes that the Government establishes a public third-party purchaser with autonomy from the MoH to separate purchasing decisions from the provision of care. Selective contracting of providers is proposed to improve the quality of healthcare and financial discipline. Also, it is planned that the purchaser will implement a systematic process of reviewing the benefits package using the information on cost-effectiveness and healthcare needs. Moreover, a universal benefits package for adults and children has been proposed that includes coverage for prevalent NCDs. Finally, performance-based payments that reward quality will be implemented to incentivize better care.<sup>34</sup>

For the proposed second generation of reforms to be successful, Armenia must learn from her past successes and failures in purchasing and other health reforms. In addition, there are relevant lessons from purchasing experience internationally that can inform the design and implementation of reforms in Armenia. Hence, at the request of the MoH, the World Bank has developed this report. In chapter two, we assess the purchasing experience in Armenia. We examine the political, macro-fiscal, and health system factors with implications for reform feasibility, purchasing power, service delivery readiness, and provider autonomy in chapter three. Chapter four reviews relevant global lessons that can inform approaches to address the bottlenecks in purchasing and the context in Armenia. Finally, chapter five concludes with recommendations for the next generation of purchasing reforms, drawing on lessons from national and global experience.



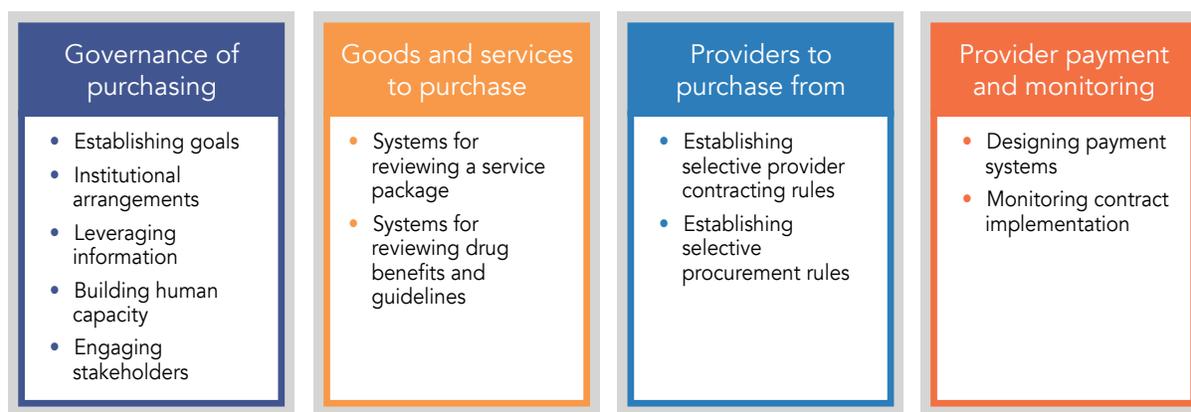
## CHAPTER 2: ARMENIAN EXPERIENCE IN HEALTH PURCHASING

We examined purchasing arrangements in Armenia by reviewing the relevant literature and conducting key informant interviews with stakeholders involved in designing and implementing past and ongoing policies. The documents examined included relevant policy documents, laws, government decrees, and regulations with their respective amendments, as well as reports and peer-reviewed publications which document the evolution of purchasing arrangements in Armenia over time. The findings from the desk review were further validated through interviews with 19 key informants, including former ministers and deputy ministers of health, chiefs of staff and heads of department in the MoH, deputy ministers of finance, current and former heads and deputy heads of the SHA, directors of private insurance companies, the leadership of the national e-health operator, national and international technical experts, as well as facility managers of primary and secondary health care facilities in Yerevan and the Marzes (provinces).

We purposively selected stakeholders based on a mapping of institutions involved in the development and implementation of past and ongoing health financing reforms. The interviews were guided by two semi-structured questionnaires, one for health financing experts and former policy makers, and a second for current policy makers and facility managers. The questionnaires were developed by a research team consisting of medical doctors, health economists, and health policy experts drawing on an adaptation of the strategic health purchasing progress framework summarized in Figure 5 below. The original framework was developed following a review of purchasing arrangements in a series of health systems and with input from technical experts in health financing globally. The framework groups purchasing decisions along four main dimensions – governance of purchasing, healthcare goods and services that are purchased, providers from whom goods and services are

purchased, and provider payment and monitoring.<sup>35</sup> The interviews were recorded with the participants' consent and notes were taken. The average duration of the interviews was 1 hour. After the interviews, the notes were transcribed, anonymized and translated from Armenian into English. We conducted a thematic analysis of the transcripts and review, and organized our findings using the framework.

**FIGURE 5 • Overview of the dimensions in the strategic health purchasing progress framework**



Source: Cashin et al. (2018)

## 2.1 GOVERNANCE OF PURCHASING

### BOX 1 • CONSIDERATIONS FOR THE GOVERNANCE OF PURCHASING

Governance involves decisions about the **goals of purchasing**, which are explicit when purchasing is strategic. In line with these goals, the roles of institutions engaged in designing and implementing purchasing are identified with clear lines of accountability and decision rights. There should also be mechanisms to promote transparency in decision-making and prevent contradictions across institutions. Adequate **human capacity** to undertake the roles defined for each institution should be built and maintained. **Information systems** that support data collection, analysis, and use in the iterative design of payment mechanisms, contracts, the benefits package, and purchasing goals are also essential for strategic purchasing. Finally, the governance function also involves defining and implementing tools for **communicating and engaging with stakeholders**, including providers and the public, to promote provider participation in an active purchasing relationship, increase consumer understanding of entitlements and obligations, and gather feedback that can serve to refine purchasing mechanisms.

## 2.1.1 ESTABLISHING THE GOALS OF THE PURCHASING SYSTEM

The goals of purchasing in the Armenian health system have been implicitly linked to broader health system reforms. However, these linkages have not always been explicitly identified in policy or legal documents. Before 2019, Armenia did not have an approved health sector strategy. The goals of health system reforms had been documented primarily in ministerial orders, reform proposals, and program documents in donor-funded health projects. In addition, the medium-term expenditure framework identifies the main policy objectives of the MoH for the health sector and links these to projected spending. The MoH presented a draft five-year healthcare system development strategy in 2019.

Purchasing reforms in Armenia have focused predominantly on improving efficiency and access. After the Soviet Union collapsed in 1991, Armenia faced a severe economic crisis. It had inherited an inefficient healthcare system with quality challenges. Armenia initiated reforms in the mid-1990s with the primary objective of improving the efficiency of health services. Purchasing reforms were undertaken with this objective. The 1996 adoption of the “law on medical aid and service to the population” introduced the basic benefits package (BBP), which defined publicly-funded healthcare services and the entitled groups.<sup>36</sup> The BBP increased the predictability of health spending and provided a mechanism to control expenditure growth in the sector. Armenia also replaced line-item budgeting with payment mechanisms linked to outputs, such as capitation for the catchment population or enrolled users at the primary health care level and case-based payments at the hospital level. Improving the efficiency of health services has continued to be a central focus of reforms in Armenia. For example, co-payments for services were introduced in 2011, formalizing informal payments for health care, such that prices reflected true costs without increasing state funding for healthcare.<sup>37</sup> Furthermore, a goal in the Concept Note for the introduction of Universal Health Insurance in 2020 is to “increase the level of health sector spending efficiency.”

Purchasing decisions have also been driven by efforts to improve the coverage of care, but to a lesser extent. For example, performance-based financing at the primary healthcare level was introduced to incentivize healthcare providers to increase the early detection of NCDs in pregnancy and among adults. The Obstetric Care State Certificate (OCSC) launched in 2008, and the Child Health State Certificate introduced in 2011, increased utilization of antenatal care services by reducing informal payments for care, reducing financial barriers to healthcare use in pregnancy and childhood. The rates of reimbursement for the targeted interventions better reflected market prices and incentivized greater supply. Hence, while in 2005, 71 percent of mothers received four antenatal care visits during pregnancy, by 2016, coverage had increased to 96 percent.<sup>38</sup> Also, the proportion of women who reported healthcare costs as a barrier to access fell from 79 to 55 percent between 2000 and 2015.<sup>39</sup>

The Concept Note put forward by the MoH addresses a neglected goal in past reforms, which is the quality of healthcare.<sup>40</sup> The MoH proposes to define clinical standards, monitor the clinical performance of providers, and introduce payment methods to reward high quality service delivery. The Concept Note also highlights the high level of OOPs and identifies the exclusion of outpatient medicines from the BBP as an important driver of financial barriers to healthcare access. While the draft 2019 health sector strategy also identifies the importance of improvements in coverage, quality, and efficiency, it does not explicitly link purchasing reforms to these goals. The draft 2019-2021 Mid-Term Expenditure Framework identifies the following areas as key spending priorities: the development of primary health care, access to urgent heart surgery, NCD care among social and vulnerable groups, improving the quality of emergency services, and ensuring access to maternal and child health care. Systematically linking purchasing reforms with these priorities and reviewing purchasing objectives as population health needs evolve is a critical first step towards being more strategic about allocations in the health sector.

### 2.1.2 DEFINING THE INSTITUTIONAL ARRANGEMENTS FOR PURCHASING

The institutional arrangements for paying for health services in Armenia have involved the Marz governments, the SHA and its Marz branches, the MoH, donors, private health insurance agencies, community-based health insurance, and service users through OOP payments. A relatively small percentage of health expenditure flows through voluntary health insurance, community-based health insurance, and external donors. Third-party purchasing has mainly occurred through the MoH and SHA.<sup>41</sup> However, there have been challenges in defining institutional roles and decision rights for purchasing in Armenia that facilitate accountability and the attainment of health system goals.

**“** *The goal behind the establishment of the SHA was to move from line-item budgeting, where you do not know what service outputs you are financing, to an active purchasing system where it is clear what the government is buying, and to make expenses more traceable, to understand the performance of healthcare providers, and finally to introduce financial discipline in the healthcare facilities.”*

*—International Expert*

Before the creation of the SHA, the Marz governments integrated financing and delivery of healthcare services. They aligned resource allocation to decisions made at the central level.<sup>42</sup> The SHA was created in 1997 to act as a strategic purchaser of all publicly funded medical services.<sup>43</sup> Third-party purchasing separated resource allocations from health service provision,

and aimed to increase the accountability of providers for achieving pre-determined service delivery objectives. The SHA was tasked with contracting facilities for health services in the BBP and undertaking quality assurance for service delivery. By linking purchasing by the SHA to specific objectives – including value for money – Armenia aimed to facilitate the transition from passive towards strategic purchasing.

The SHA started operating in 1998 by contracting a few providers in a pilot and scaled operations up nationally in January 1999. The ongoing privatization agenda had implications for SHA operations. By 1993, state health institutions had become semi-independent and able to generate their revenues. Furthermore, in 1995, hospitals and polyclinics were permitted to provide private care in addition to state-funded services, under the regulatory framework of private and commercial firms.<sup>44</sup> The contractual arrangements between the SHA and providers were limited to health services provided using the state's property. The SHA also had limited ability to supervise private enterprises and could only resolve challenges that did not violate the independence of these enterprises.<sup>45</sup> For example, hospitals could set the terms of service and had discretion over investments of surplus income.<sup>46</sup> Also, the MoH continued to undertake centralized procurement of some medicines and to define allocations for public health programs such as tuberculosis, HIV/AIDS, and oncology. Where these public health programs were financed by donor agencies, there were also reporting lines to these agencies from the MoH. The MoH continued to be directly involved in service delivery, particularly of tertiary care.<sup>47</sup>

Over time, changes in the legal status and decision rights of the SHA have reduced its ability to make independent purchasing decisions. The SHA was initially established as a public body directly subordinated to the Government of Armenia, and independent of the MoH. An inter-departmental supervisory committee, composed of senior SHA staff and the head of the SHA, was appointed by the President of the Republic of Armenia to run the day-to-day operations. It was initially envisioned that there would be external oversight of the agency through a 7-member management board consisting of stakeholders such as providers, patients, public agencies, and key ministries, and headed by the minister of health. However, the external oversight mechanism was not implemented. The resulting gaps in accountability of the agency led to calls to bring SHA under MoH leadership. However, political considerations also informed the assimilation of the SHA into the MoH in 2002. Before the creation of the SHA, the MoH had used its financial leverage to regulate the healthcare sector. For example, monopsony power allowed the MoH to set the prices of services. Senior policymakers also owned health facilities and had a personal stake in increasing the oversight of the MoH over service provision.

In July 2002, the SHA lost its status as an independent state agency and was assimilated into the MoH structure.<sup>48</sup> The inter-departmental supervisory committee was also dissolved. The functions of the SHA were regulated through Decree 1302. This mandate continued to include contracting, processing claims, and quality assurance. The SHA signed contracts with providers for services within the BBP. Providers prepared performance reports, which formed the basis

for authorization of payment. The SHA verified the accuracy of these reports. Also, the agency was authorized to participate in decisions on service delivery organization, the introduction of new payment methods, and the development of norms and standards. However, after assimilation into the MoH, there was a lack of clarity on the separate roles of both institutions. For instance, between 2002 and 2011, the MoH was responsible for reviewing the benefits package, selecting providers, and revising payment mechanisms. The MoH also defined funding allocations to services and the provisions of contracts with providers. The SHA advised these decisions, when requested by the MoH, but remained responsible for drafting contracts and paying providers. After 2011, the MoH also began signing contracts with providers directly.

“ *The transfer of the SHA into the MoH was purely a subjective decision. When the former head of the SHA became the minister of health, he wanted to take his organization with him.*”

—Health Policymaker

The administrative mechanisms for monitoring service delivery through the SHA have evolved over the years. At its inception, the structure of the SHA consisted of the headquarters in Yerevan and ten Marz branches with about 100 employees. These branches were responsible for monitoring service provision via spot checks and regular audits. They also mediated discussions on service delivery with providers and users. In 2017, the structure of the SHA was revised by closing the Marz branches, following the introduction of a new health information management system. Closing the regional SHA branches has reduced the capacity of the SHA to monitor the providers, resolve local issues, and be responsive to the needs of the beneficiaries.

“ *The SHA regional offices were closed with the justification that they were not needed anymore since the e-health system did the same function electronically, also for optimization and cost-saving. Due to this, the SHA's capacity and strength deteriorated as the problems of the facilities were much more visible to our regional offices, they knew better the local context, and the people had direct access to them to complain or get help with their cases.*”

—Health Policymaker

To address the governance challenges experienced with the public purchaser, the Armenian Government has turned to private insurers. There was the perception that a single purchaser

model was inefficient and that the existing institutional arrangements made the SHA vulnerable to corruption. By 2010, VHI accounted for 0.7 percent of the total spending on health.<sup>49</sup> However, from January 2012, some public sector employees became eligible for the “social package,” which included a private health insurance package and VHI for one family member.<sup>50</sup> Six private third-party administrators (TPAs) would pay for health services for the 100,000 beneficiaries of the social package, aiming to promote efficiency in service delivery through competition and increase access to care. The SHA contracted healthcare providers, which were selected by the MoH, to supply services defined in the package. The TPAs then paid for claims using payment methods and rates that had been defined by the MoH. Hence, there were limited opportunities for competition on price or services covered.

“*The perception during that time within the government about the SHA was that it was corrupt and would not be able to oversee the delivery of the social package efficiently. It was decided that TPAs would conduct purchasing. However, after two years, the inefficiencies and the loss of public funds were evident with the TPAs. This led to the commissioning of the SHA to carry out purchasing for the social package.*”

—International Expert

As with other private insurance in Armenia, the Central Bank of Armenia (CBA) provided oversight of the TPAs. The CBA projected that VHI premium income from the social package would increase 4.5-fold. The CBA also anticipated that the average VHI claims ratio, which is the share of VHI revenue spent on health services, would drop from 70.7 percent in 2011 to 41.4 percent in 2012. However, one year after implementation, the claims ratio was 33 percent, which is extremely low by international standards, as VHIs made profits that were higher than anticipated.<sup>51</sup> In tandem, VHI spending had increased from below 1 percent of total health spending in 2010 to 3.5 percent in 2013.<sup>52</sup> From a public health systems perspective, the low claims ratio indicated inefficient spending given the high proportion of funds that were not allocated to health service spending. The causes of the low claims ratio included a lack of information among beneficiaries about their entitlements and over-rejection of claims by TPAs.<sup>53</sup>

In 2013, given the low claims ratio, TPAs were stopped from processing claims for services provided to the military and other servicemen. By 2014, the SHA had resumed administration of the entire social package. The total amount allocated to the SHA to administer the social package was 50 percent of the funding that had been allocated to the six TPAs for the administration of the same package.<sup>54</sup> Despite the lower funding, a 2016 evaluation indicated that administration by the SHA was associated with improvements in access to care. The total number of beneficiaries increased, restrictions on coverage were lifted, participants reported

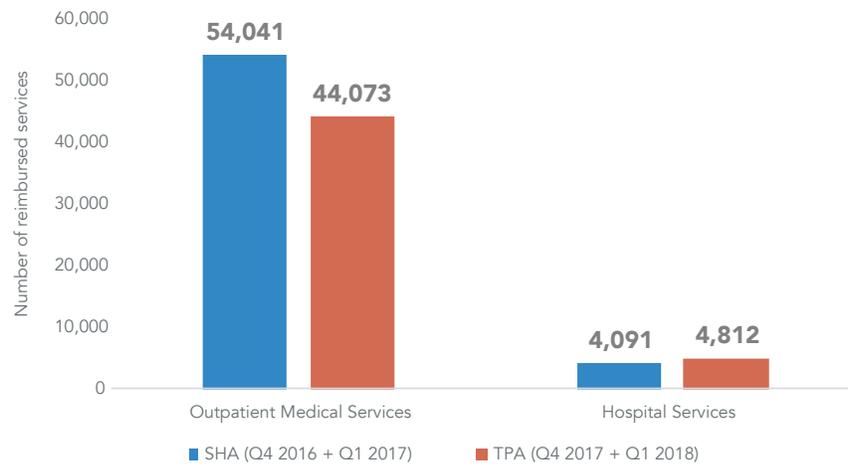
lower OOP payments, and the supply of preventive care increased.<sup>55</sup> These gains in coverage were attributed to cross-subsidization following the pooling of resources for all services funded through the government budget. The same evaluation noted that waiting times had increased under the SHA, but overall satisfaction among beneficiaries rose.<sup>56</sup>

Since 2017, TPAs have again been contracted to carry out the purchasing of services in the social package. This decision was made by a Minister of Health who had led a private health insurance company. Under this arrangement, the benefits, tariffs, providers, and beneficiaries continue to be decided by the MoH, in line with broader health system goals, and effectively reduces the scope for competition among the private insurers. The functions of the TPAs included helping beneficiaries navigate the health system and processing claims. The ratio of benefits to insurance premiums was fixed at 90 percent.<sup>57</sup> Despite this target, there are still indications of inefficiency and decreases in coverage.

“ The social package was given to the TPAs for two reasons. First, the direction which the government wanted to move in was the multi-payer system, considering the successful example of the car insurance system. Also, during that time, a huge portion of the economic development of Armenia was due to the introduction of the insurance system. The second was that the oversight of the insurance system were conducted by one of the most established organizations of Armenia and that was the Central Bank ... This (the TPA system) has contributed to the inefficiencies, bureaucracy, and informal payments that we see in the administration of the BBP.”

—Health Policymaker

Between October 2017 and March 2018, under the TPAs, the total number of services provided under the social package decreased by 15.9 percent. At the same time, the total spending on services increased by 4.2 percent (Figure 6). These changes reflected a change in the mix of services. The number of and spending on outpatient services reduced by 18.4 percent and 26.9 percent, respectively. Many outpatient services in Armenia are available to the whole population, without cost, at the primary health care level. Thus, outpatient care was excluded from coverage under the TPAs, aside from coverage for mandatory annual screenings and a few expensive outpatient diagnostic services with copayments. The utilization of hospital services increased by 17.6 percent, and expenditure increased by 16.7 percent. The rise in hospital spending was driven by a higher share of surgical services, rising from 55.1 percent to 86.9 percent. Although the spending on outpatient and non-surgical hospital services declined by 27 percent and 84 percent respectively, the total expenditure increased by 53 percent.<sup>58</sup> The claims ratio was 76.4 percent in 2017, which was below the fixed ratio of 90 percent.<sup>59</sup>

**FIGURE 6 • Change in the utilization of services with re-introduction of TPAs in 2017**

Source: World Bank

The TPAs have been associated with less efficiency in managing the social package than the SHA, despite oversight from the CBA. The TPAs are also unable to address the fundamental bottlenecks that contribute to gaps in quality and efficiency in the health system. For example, a lack of standard treatment guidelines has made negotiations with providers on standards for reimbursable services difficult, as has been the case with the SHA. Monopoly power among some service providers, particularly in remote areas, has limited the enforcement of selective contracting, under both TPAs and the SHA.<sup>60</sup> This conclusion is unsurprising. The bottlenecks in the governance of purchasing in Armenia are rooted in overlapping mandates across agencies, gaps in regulations for quality of care, and non-separation of purchasing and provision.

### 2.1.3 LEVERAGING HEALTH INFORMATION SYSTEMS TO DESIGN AND ADAPT PURCHASING ARRANGEMENTS

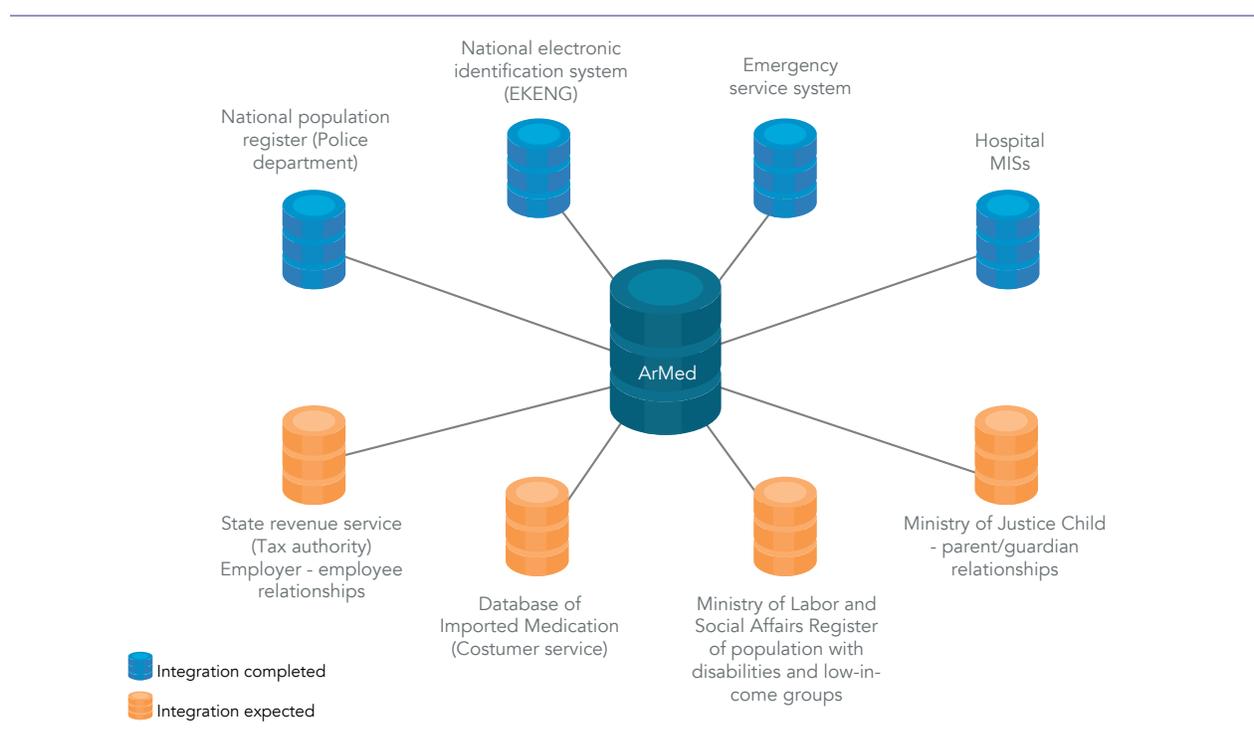
Strategic purchasing requires robust data systems and infrastructure to support the development, monitoring, and adaptation of contracts, benefits package design, service standards, and institutional arrangements. In Armenia, purchasers have used health information systems primarily to support claims processing and monitor spending patterns. This data could also be used to monitor the quality of care, refine contract design, or the benefits package.

As part of the healthcare financing reform in the late 1990s, an electronic information system was introduced in Armenia to process claims through the SHA. The financial information

system that was launched facilitated automated data analysis, payment to providers, and accounting. The system also enabled the SHA to monitor the volume of services provided under contracts, calculate allocations across different levels of providers, and undertake other analyses of financial and activity data. It was initially developed for hospitals.<sup>61</sup>

The SHA later introduced the Medical Institution Data Analysis System (MIDAS) or e-polyclinic for primary care facilities. In addition to processing claims, it was used to monitor patient registration and encounters. Over time, an e-hospital system was also designed to monitor inpatient care as part of MIDAS. However, there were challenges in using the data for purchasing across the health system. The two MIDAS systems were not interoperable. System updates were not accessible in real-time. The MIDAS system was also not linked to the national population registry so that service users had duplicate records. MIDAS provided data on volumes of services provided, patient registration, and fund allocation across facilities. However, this data did not inform the benefits package, provider payment, or facility selection.

**FIGURE 7 • Overview of ArMed system**



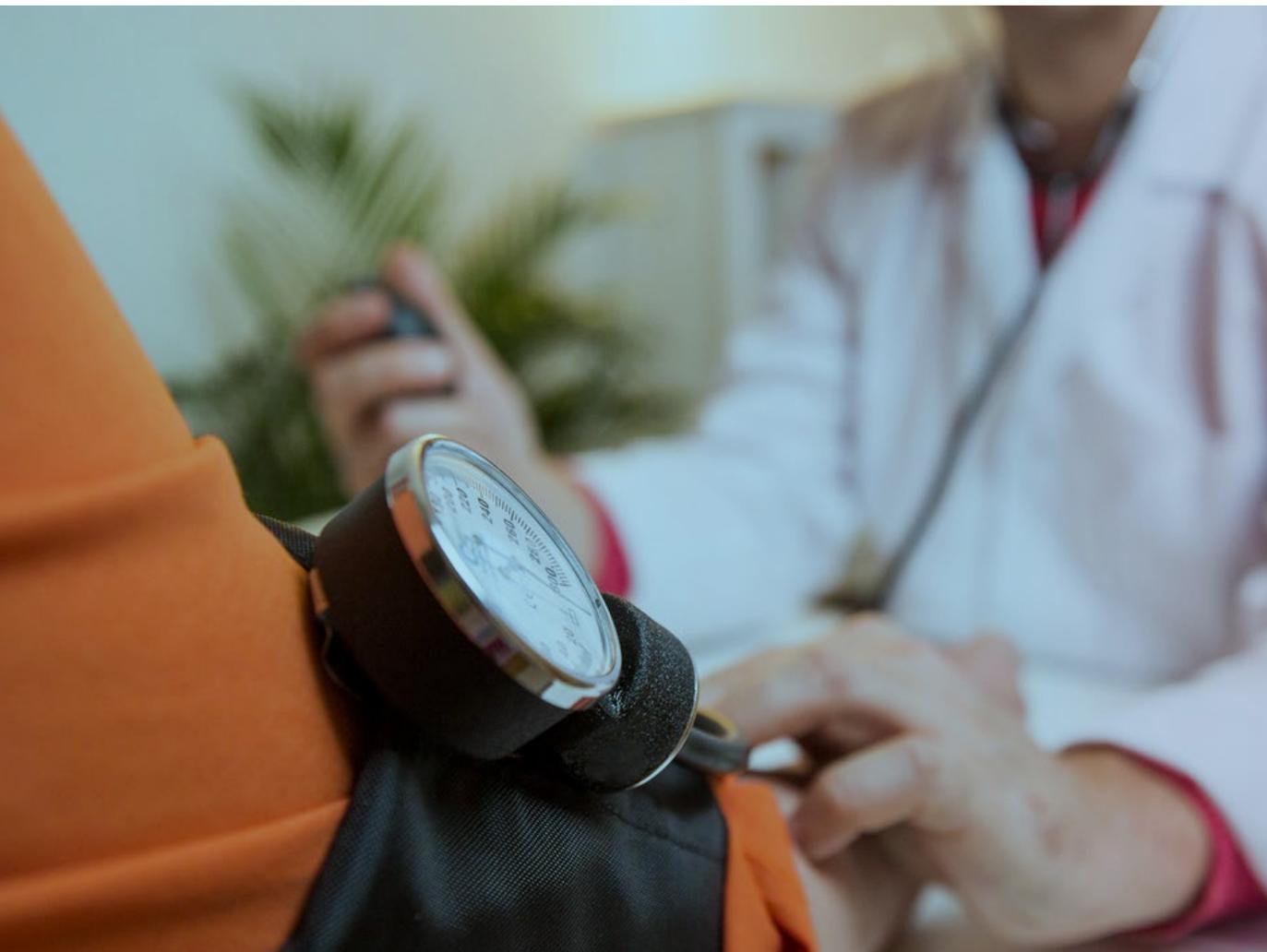
Source: E-health national operator

In 2017, the ArMed system replaced MIDAS (Figure 7). A private operator manages the ArMed system according to an agreement with the Government. The operator is responsible for upgrading and maintaining the system, user support, and training. The ArMed system allows for real-time updates. It is a unified system for primary, emergency, and hospital care. The system

is integrated with the national population registry, which prevents duplicate records. Data in the system can be accessed by contracted providers, the SHA, and TPAs. There are plans to link the system with other databases to expand its functions. For example, the integration with the state revenue service will enable the processing of sick leave payments. However, there is no defined timeline for integration with health data from the National Institute of Health (NIH) and the National Center for Disease Control, which would enable considerations for the burden of disease and population health needs in service delivery planning. In addition, it would be important to link the database to the treasury single account, which can facilitate better financial accountability and planning in the health sector.<sup>62</sup> The registries in the ArMed system and their level of implementation are described below (Table 3), where full implementation implies the use of all functions in the registry by some facilities or service users.

“*What is implemented today is about 20 percent of the full capacity of the ArMed system. At present, it functions as a reimbursement claim tool.*”

*—Private Third-Party Administrator*



**TABLE 3 • Registries in the ArMed system**

#	NAME OF THE REGISTRY	FUNCTION	LEVEL OF IMPLEMENTATION
1	<b>Claims management registry</b>	This module is used for claim preauthorization and reimbursement from the SHA for the state order, the TPAs for the social package. Claims for services are reimbursed through identifier codes developed by the SHA.	Fully implemented
2	<b>Patient flow management and visit registration registry</b>	This registry allows for scheduling online appointments by patients and registers their visit to the given health facility shortening waiting time.	Fully implemented
3	<b>Registry of medical institutions</b>	This registry includes the list of all health facilities which provide services in the BBP, and their contact information.	Fully implemented
4	<b>Registry of medical services</b>	This registry contains information about the medical services provided by healthcare providers, sorted by financing method. This registry requires unified and standardized coding of medical services.	Fully implemented
5	<b>E-referral registry</b>	This registry enables providers to track the movement and care of patients between providers, such as from primary care to hospitals and vice versa. The referral form contains the identification information of the patient, information about the referring institution, initial diagnosis, and required services at the referred facility.	Fully implemented
6	<b>E-prescription registry</b>	This registry enables monitoring of prescriptions and allows patients to receive drugs prescribed by their service providers from any pharmacy. For medicines covered by the BBP, the pharmacy can request reimbursement through the registry.	Partially implemented
7	<b>Human resources registry</b>	This registry includes the names and contacts of healthcare workers in primary care. If fully implemented, the following data would be available: information about the healthcare workers' continuous education, knowledge of languages, and other data.	Partially implemented
8	<b>Patient portal registry</b>	This registry allows patients to have access to their medical records, including laboratory and diagnostic test results and registering monitored blood pressure or blood glucose level readings into the system. There is a legal requirement of patient authentication using identity cards and PIN codes for the full version, limiting its use.	Partially implemented
9	<b>Registry of equipment and resources</b>	This registry includes information about the equipment available in registered institutions, such as the manufacturer, previous owners and maintenance history. The required data is not completed or updated regularly by all facilities.	Partially implemented
10	<b>Telehealth registry</b>	This registry can be used for consultations by physicians with patients in remote, underserved areas.	Not implemented

Source: E-health national operator

“The information entered is not always complete and up-to-date, as it is not obligatory for medical institutions to fill in the modules.”

—E-health operator

Up till 2019, the fully implemented registries in the ArMed system were the claims management registry, the registry of medical services, and the registry of medical providers, all of which enable claims review and processing for the BBP. Since 2020, patient flow management and e-referral modules have become fully operational and can be used to schedule appointments and referrals. These modules can be used to coordinate patient care across providers and to implement payment mechanisms that incentivize integrated healthcare. However, the latter opportunities have not been leveraged. The information entered in ArMed is often incomplete or not updated, particularly when data entry is not required for payment of providers. The information in the ArMed system is not routinely used to monitor or improve quality of care, revise the BBP, or inform other purchasing decisions. ArMed is also not fully utilized because of the gaps in privacy regulation, the cost of maintaining facility infrastructure, computer illiteracy, and non-mandatory use of the system. These challenges are being addressed by the MoH. In January 2020, a legislation was drafted to define the legal status of the e-health system and the national operator, mandate all licensed healthcare providers to submit administrative, financial and clinical data, define parties who are eligible to use the system and clarify appropriate data ownership and use. The national operator has implemented in-person trainings and developed video tutorials to support the use of ArMed at the facility level. The MoH has also reduced the monthly fees paid by PHCs to alleviate the cost of system maintenance.

“ A large portion of the medical personnel do not possess the required knowledge to use computers and the e-health system. Hence, we need to hire operators which increases our expenses.”

—Health Facility Manager

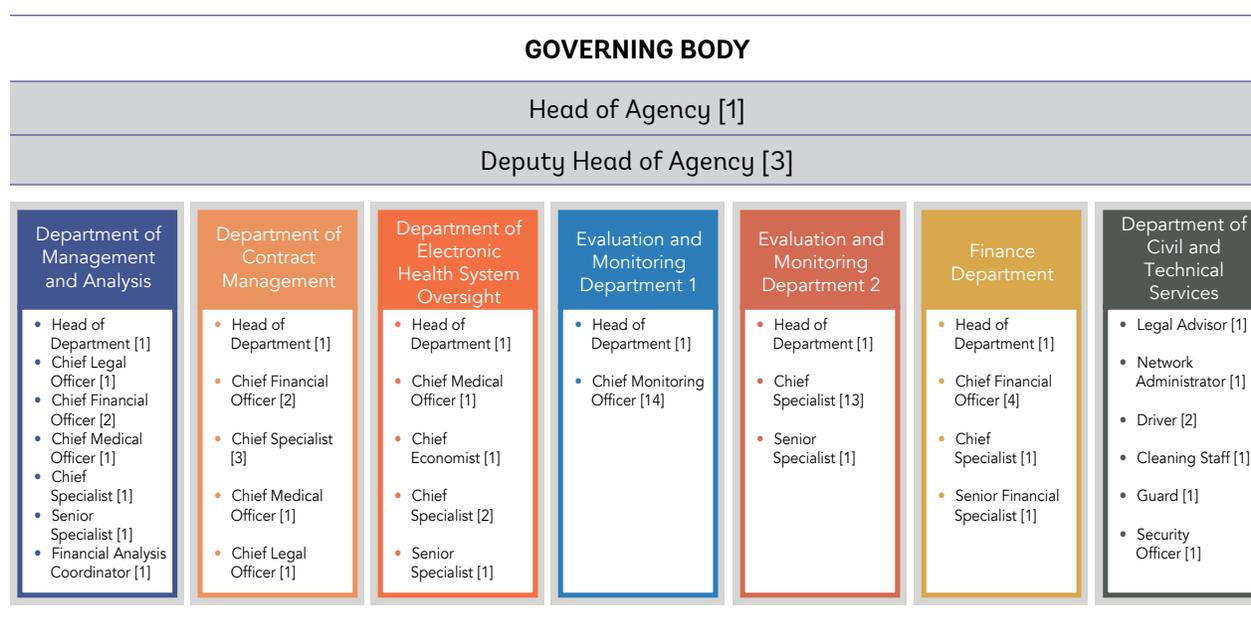
#### **2.1.4 BUILDING AND MAINTAINING THE HUMAN CAPACITY FOR STRATEGIC PURCHASING**

Building technical capacity is essential to implementing strategic purchasing. The potential functions include contracting, budgeting, accounting, designing provider payment methods, benefits package revision and costing, claims review, quality assessment, healthcare resource assessment, and drug utilization review. While some functions may reside within the third-party purchaser, other institutions including research organizations, may provide technical support for purchasing.

In the mid-1990s, with support from the World Bank, SHA and MoH staff were trained in resource planning, provider payment, and contracting. The SHA drew on this capacity to implement new provider payment methods and provider contracts. International experts

supported health technology assessments to inform the content of the BBP. Since its inception, the SHA has not had the internal technical capacity for monitoring the quality of care, undertaking health technology assessments, or performing actuarial costing of health services. No academic or other research institution has been designated responsible for undertaking periodic health technology assessments or costing of the benefits package.

**FIGURE 8 • Organogram of the SHA (2019)**



Source: Ministry of Health

Notes: Number of staff in square brackets.

The focus of SHA on contracting and financial management is reflected its organizational structure (Figure 8). In 2015, SHA employed 103 staff, of whom 90 were core technical staff, and 13 were the auxiliary staff. Out of the core staff, 45 were housed at the headquarters and 45 at the regional branches. Currently, the SHA has 70 staff, with functions that include management of service coverage and financial flows, contract management, monitoring of service delivery, financial management, and supportive functions. Actuarial costing, health technology assessments, and quality assurance would require additional skills with SHA, MoH or research institutions, including cost-effectiveness analysis, actuarial analysis, epidemiology, information technology, statistics, and health systems. After the introduction of the ArMed system, the Marz offices were closed. The SHA lost technical staff when the Marz offices were closed and after its assimilation into the MoH in 2002. The SHA also has a high turnover rate because of the low public sector salaries, which make it challenging to recruit and retain skilled technical staff.

**“** *We do not have experts on electronic health systems. It is difficult to recruit people from the well-paying IT sector to collaborate with the e-health operator in developing the system.”*

*—Health Policymaker*

## 2.1.5 ENGAGING STAKEHOLDERS

Engaging healthcare providers promotes an understanding of the goals of purchasing and may increase their willingness to participate in an active purchasing relationship with the purchaser. Engaging the public is also essential to ensure they understand their benefits and can forward complaints.

In the initial structure of the SHA, the external oversight body was to have representation by providers and patients, ensuring their inclusion in decision-making and formalizing accountability of the purchaser to these stakeholders. With the dissolution of this arrangement, there is no formal process for systematically communicating with providers on budgeting, standards of care, and tariffs of services covered, which is a lost opportunity to use their feedback to strengthen contractual arrangements. There are currently no guidelines for the timeline and process of conducting discussions, weighing opinions, identifying stakeholders, or reaching consensus, on benefit package changes, provider selection, or payment method revision. Mechanisms for ongoing feedback from and accountability to the public, such as public hotlines for complaints and the periodic publication of a performance score card for the SHA, have not been explored.

**“** *Continuous campaigns are carried out through the television and social media to increase awareness of the society on the services to which they are entitled. But there are a lot of people who do not have access to those channels.”*

*—Health Policymaker*

As regards overall allocations in the health sector, national health authorities are involved in the state budget preparation and approval process. However, front-line service delivery providers are excluded from this process, so that allocations may not reflect the needs at the delivery level. Marz health authorities also have a minimal role in planning the health budget. The historical difficulties in stakeholder engagement reflects the broader culture of making health policy decisions centrally in Armenia.<sup>63</sup> While this may be efficient, excluding stakeholders from these decisions contributes to public resistance to challenging reforms. Despite these

challenges, the perception of many interviewed stakeholders is that engagement by the MoH with stakeholders has improved since the Velvet Revolution, in tandem with ongoing governance reforms. The MoH holds discussions with stakeholders through social media and host public fora about future projects. The continuation of these engagements depends on the willingness of senior policymakers, rather than legal requirements. For broader health reforms, legal proposals are mandatorily provided for review by the public on [www.e-draft.am](http://www.e-draft.am) before their adoption. The e-draft system also allows for the public to vote for or against policy proposals.<sup>64</sup> While the e-draft system provides a useful way of informing the public of potential changes in health policy and obtaining their opinions, there are no clear procedures to weigh alternative proposals and broker consensus if there are disagreements.

## 2.2 HEALTHCARE GOODS AND SERVICES TO PURCHASE

### BOX 2 • CONSIDERATIONS FOR DEFINING GOODS AND SERVICES TO PURCHASE

When purchasing is strategic, there are transparent processes to **revise the benefit package** in line with health system objectives. In advanced systems, these processes involve health technology assessments (HTA), which systematically consider pre-defined criteria, including cost-effectiveness, budget impact, and clinical efficacy in defining the benefits package. HTAs may be informed by the engagement of stakeholders in a dialogue on proposed changes to benefits. In sophisticated systems, there is also **clarity on clinical standards** of care, gatekeeping regulations, and guidelines for referral and prescription. These standards enable the purchaser to undertake more effective contracting arrangements with providers that go beyond rewarding any care to increasing incentives for quality and efficiency. A defined process for revising these standards ensures that they continue to reflect updated evidence on best practices in service delivery.

### 2.2.1 SYSTEMS FOR REVIEWING THE SERVICE PACKAGE

The government purchases services in BBP, including primary health care for the whole population, the state order for vulnerable groups, and the social package for some state employees.<sup>65</sup> International and national experts collaborated on the initial design of the BBP in a working group established by the government. The working group reviewed international experience in designing benefits packages and conducted analyses of the burden of disease, cost-effectiveness of alternative interventions, and budgetary impact of coverage options. The Government and the Parliament approved the BBP and proposed modifications on an annual basis.

Since 2001, the parliament approves budgets for programs and has delegated responsibility for defining specific changes in BBP services to the MoH. The main considerations for reviewing the BBP appear to be political considerations and available funds.<sup>66</sup> Furthermore, no regulation specifies what factors should be considered, their relative weighting, and which stakeholders should be included in the updating process for the BBP. While the MoH is legally responsible for updating the BBP, no technical department is tasked with this responsibility. Additions to the service list are informed by recommendations to the Minister. There are frequent changes in services and population groups covered. The frequent changes and the shifting rationale for these changes may contribute to confusion about benefits and mistrust among providers and service users.<sup>67</sup>

“*Designing the BBP was part of the WB’s project, teams of experts worked and assessed cost-effectiveness to define services in the BBP. However, over time, changes in the BBP have become a purely political decision, and with each minister, the BBP was either increased or decreased based on how populist the minister was and how much power he had to resist external influences.*”

—*International Expert*

Illustratively, the groups of beneficiaries and the scope of covered services under the BBP has changed in unpredictable ways since the late 1990s. For example, coverage was extended to children up to the age of 15 years in 1998. However, in 2001, coverage was temporarily eliminated beyond three years of age. Between 2001 and 2019, the age range covered through the BBP continued to change, and in 2019, it was extended to all children from the ages of 0 to 18 years.<sup>68</sup> Similarly, in 2012, the social package was introduced for some state employees with more generous benefits than the state order for vulnerable groups. The changes in the administration of the social package, between the SHA and TPAs, affected the range of services accessed by beneficiaries. Healthcare coverage in Armenia now differs by the vulnerability, age, socioeconomic status, and employment status of individuals, resulting in a BBP that in practice, multiple sub-packages of services.

“*Costing of services is one of our main issues as everything is dependent on the limited budget. We have a big list of services that we provide in the BBP but very low financing, this leads to prices of services lower than the market prices.*”

—*Finance Policymaker*

Historically, the actuarial costing of services covered by the BBP, to inform provider payment, has not been conducted. Stakeholder interviews suggest that the tariffs for services within the BBP are determined by the availability of funds, the average rates of services paid by users, and prices set by private insurance companies. In the past, the MoF was involved in approving tariffs. Following Decree 53-N of January 2019, tariffs are now set by the MoH, in collaboration with SHA. This process is led by the department of finance and economics in the MoH. In the absence of costing studies, the tariffs set are often too low, where the Government uses its monopsony power to reduce prices, or too high where these tariffs reflect historical inefficiencies. The match between prices and the value of service is arbitrary. However, the reimbursement rates for the social package are, on average, higher than for the state order. Higher health budget allocations in July 2019 have led to an increase in reimbursements for services under the state order to match the social package, in some but not all cases. The sustainability of these changes in tariffs within the state order will depend on funding availability in the medium-term and political will among senior policymakers rather than legal provisions to fund the full cost of service provision.

*“ There has been no scientific method of calculating the actual prices of the services covered by BBP. If we do that, we will get a terrifying number where we would need to have about 500 billion AMD to cover all the services!”*

*—Health Policymaker*

The expenditure on different groups covered by the BBP is fixed. For example, medication for older people with chronic conditions are chronically underfunded, and allocations underestimate the need for care in this group. Thus, groups covered by the BBP end up paying for them OOP when their primary care facility has exhausted the global budget.<sup>69</sup> This financing gap for some services in the BBP also generates a strong incentive for providers to demand informal payments from service users and preferentially supply services whose value approximates the true cost of delivery. Informal payments amount to implicit rationing of care based on ability to pay rather than need and contributes to financial barriers to health care access in Armenia.<sup>70</sup> To address these challenges, the MoH has undertaken an extensive costing exercise for services in the BBP and has developed a methodology to calculate healthcare services prices effectively. An updated list of prices of services was approved in 2019 by order of the Minister of Health (order No. 456-A, order No. 1842-A).

### 2.2.2 SYSTEMS FOR REVIEWING DRUG BENEFITS AND GUIDELINES

The essential drugs list in Armenia is approved by order of the Minister of Health. The Scientific Center of Drug and Medical Technology Expertise (SCDMTE) proposed the first essential drug list in 1994, based on the World Health Organization (WHO) model list.<sup>71</sup> The model list was developed in 1977 and is updated every two years by an expert committee in the WHO. The list aims to satisfy the healthcare needs in most countries and defines which essential drugs should be available, at adequate amounts and dosage forms, and affordable.<sup>72</sup> Armenia has subsequently updated the essential drugs list through a process regulated through government decree No. 1178-N.

The SCDMTE continues to oversee this process of developing updated lists periodically. These updates are carried out through pre-specified steps. First, stakeholders request changes in the list of essential drugs. The application is reviewed by a committee established within the MoH. The factors considered are the burden of disease, efficacy and safety of medicines, budgetary impact, and the availability and qualifications of required health care providers. Leading healthcare professionals in Armenia are involved in the review process and account for recommendations by the World Health Organization and the updated model list. Only generic names of medicines are used in the national list of essential medicines. This systematic process provides a model that can inform the definition of systems for updating the BBP in Armenia.

Another regulation, Decree 642-N of May 30, 2019, defines the list of population groups and conditions for which medicines are provided for free or at a 30 or 50 percent discount, including children living with disabilities, orphans below 18 years of age, and military personnel. These medicines are covered through the primary health care services program. The facility provides an official prescription, which is filled by an eligible pharmacy outside the facility or the pharmacy inside the health facility. For specific conditions with public health significance, such as tuberculosis, epilepsy, and for mental health, the state provides access for the whole population. For groups with inpatient care coverage, medicines are covered through case-based payments. However, for the rest of the population, outpatient medicines are not covered by the state in general, and inpatient medicine costs are included in the OOP cost of care.

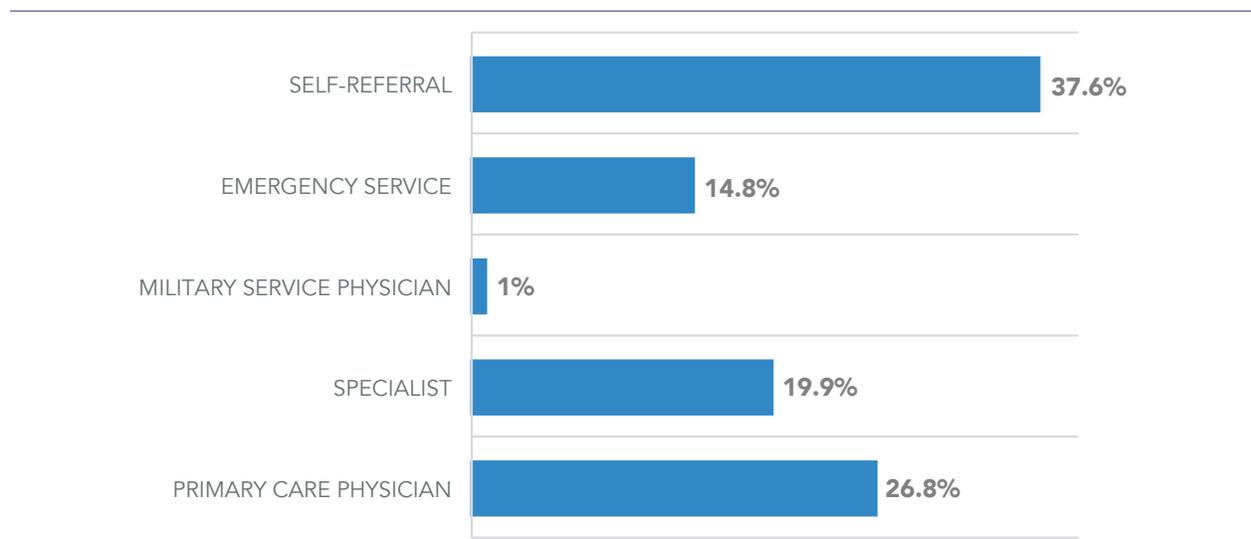
Physicians tend to prescribe brand products, despite the lower prices of generic medication, due to the perception that generic medicines are of lower quality. Generic substitution at the point of dispensing is allowed. However, appropriate prescribing behavior has not been monitored or rewarded routinely in Armenia. Antibiotics and other injectables were purchased without a prescription even though they are not included in the list of over-the-counter medicines. In 2019, through Decree 1080-N, prescriptions are now required for narcotics, psychotropic drugs, antibacterial drugs, antifungal drugs, antimycobacterial drugs, antiviral agents, immune serums, immunoglobulins, vaccines, and drugs containing misoprostol. Other medicines specified in the “List of Medicine Requiring Prescription” available on the MoH website will require a prescription starting from January 1, 2023. The e-prescription registry

has not been used to monitor prescribing practices in the past but can be leveraged to enforce these regulations and incentivize appropriate prescribing behavior.

### 2.2.3 ESTABLISHING AND UPDATING GUIDELINES FOR REFERRALS AND STANDARDS OF CARE

Service users have a legal right to choose their primary care providers and change them whenever they want in Armenia. Competition over service users can provide incentive for better healthcare. When patients need healthcare from specialists and are eligible under the state order or social package, the regulations specify that they need a referral from a primary care provider (Decree N 318-N).<sup>73</sup> Thus, the primary care physician has a de facto gatekeeping role, restricting movement across service delivery levels in the health system. In practice, only 26.8 percent of hospitalizations follow a referral by a primary care physician while 37.6 percent are self-referrals (Figure 9).<sup>74</sup> Bypassing the primary care provider is not monitored by the SHA or subject to any deterrents for providers. However, service users face higher costs in accessing the services in hospitals rather than at the primary care level.

**FIGURE 9 • Gatekeeping is not enforced in practice**



Source: National Institute of Health

Until recently, referrals were provided to patients on a standardized paper form developed by the MoH for primary care clinics. The form specifies the referring organization's name and doctor's information, the patient's information, and the reason for referral. Patients not possessing a valid form would have to pay for services even if they are covered under the state order or social package. Study respondents indicate that there are unnecessary referrals from

primary care to hospitals due to the underpayment of primary care doctors, unclear guidelines on when to refer for different diseases, and the limited diagnostic care available at the PHC level. Primary care physicians have also been known to request informal payments for referrals. In 2020, the ArMed referral registry has been implemented and may improve the monitoring of patient movement throughout the system.

The official MoH website has published over 300 clinical guidelines for more than 48 medical specialties. Of these, by 2019, 111 clinical guidelines and protocols have been approved by the MoH, and 207 are still pending for approval. However, there is no department within the MoH or SHA responsible for ensuring the quality of the approved guidelines or their regular updates as the evidence base on new technologies and services grows. Furthermore, the adherence of providers to these standards is not monitored using the ArMed system or considered in contracting. There are no other mechanisms being utilized to ensure compliance with these guidelines.

“ Our issue with treatment guidelines and standard operating procedures is that the MoH currently has very few official guidelines... Standards and guidelines should be set. This would help the purchasing system with contracting for quality.”

—Former Health Policymaker



## 2.3 PROVIDERS FROM WHOM GOODS AND SERVICES ARE PURCHASED

### BOX 3 • CONSIDERATIONS FOR PROVIDER AND SUPPLIER SELECTION

A purchaser can define **rules that determine the eligibility of providers** for service provision, that should ideally reflect competency, standards of care and population needs. Thus, selective contracting draws on regulations of service standards and licensing of providers. Ideally, these rules should specify organizational requirements and mechanisms for resolving disagreements. An effective health information system can monitor provider performance on these standards and inform changes to eligibility criteria. Contracting provisions may also have to consider incentives facing private providers specifically, for example, when public care receives subsidies for inputs. In the case of medicines, certain wholesale suppliers may be pre-qualified by the government, which may affect decisions on purchasing. Understanding the **process of procuring drugs and essential supplies** and how this enables or prevents the attainment of health system objectives is vital.

### 2.3.1 ESTABLISHING RULES FOR SELECTIVE CONTRACTING OF PROVIDERS

Before the establishment of the SHA, there was no formal contracting system in Armenia. Funding was provided through line-item budgeting and distributed to the local authorities of provinces, who integrated financing and delivery of healthcare services. Budgetary allocations were based on historical spending patterns. This funding system proved unsustainable in the face of budget constraints following independence. The establishment of the SHA formally introduced the idea of contracting, enabled discussions on value for money, and added mechanisms for accountability, including the selective contracting of providers, for provision of services within the BBP. Table 4 shows the types of medical facilities contracted to provide BBP services

**TABLE 4 • Medical Facilities Providing BBP Services in 2019**

TYPE OF THE MEDICAL FACILITY	PUBLIC					PRIVATE				TOTAL
	JSC	SNCO	CNCO	FND	TOTAL PUBLIC	JSC	LLC	IE	TOTAL PRIVATE	
<b>1. Medical Centers</b>	53	-	-	2	55	11	12	-	23	78
<b>2. Health Centers</b>	12	-	-	-	12	-	2	-	2	14
<b>3. Hospitals</b>	7	-	-	-	7	-	5	-	5	12
<b>4. Polyclinics</b>	39	-	-	-	39	-	1	-	1	40
<b>5. Other Primary Care facilities</b>	-	157	93	-	250	-	3	-	3	253
<b>6. Diagnostic Centers</b>	-	-	-	-	-	2	4	1	7	7
<b>7. Dental Clinics</b>	18	-	-	-	18	-	17	2	19	37
<b>8. Sanatoriums, Rehabilitation Centers</b>	6	-	-	-	6	-	1	-	1	7
<b>9. Ambulance stations</b>	2	-	-	-	2	-	-	-	-	2
<b>10. Other</b>	14	-	-	-	14	5	-	-	5	19
<b>TOTAL</b>	151	157	93	2	403	18	45	3	66	469

Source: State Health Agency<sup>75</sup>

Notes: JSC - Joint Stock Company, SNCO - State Non-Commercial Organization, CNCO - Community Non-Commercial Organization, FND - Foundation, LLC - Limited Liability Company, IE - Individual Entrepreneur.

The Decree 49-N defines the terms and conditions for contracting with providers.<sup>76</sup> To be contracted, medical facilities need to have a license from the MoH for the service, the necessary equipment and medical personnel, financial statements of the previous fiscal year, at least 30 percent of income from paid services, and access to the ArMed system. A committee established by order of the minister makes contracting decisions. The SHA signs the contracts and monitors the operation of the facilities through the ArMed system and periodic reports. The SHA summarizes the reports, verifies their accuracy, and submits the claims to the national treasury at the Ministry of Finance (MoF). Contracts stipulate the type of service, the total amount allocated to each service, duration of the contract, tariffs, steps for reimbursement, organizational requirements in terms of accounting and management, reporting and requirements, as well as conditions for imposing sanctions or rewards. Contracts do not stipulate quality standards, such as target waiting times. There are clear mechanisms that may be used to address deviations from contract provisions by providers, including resolution by a court of law and reduction in financing of the facility. Respondents were not aware of a known precedent for dispute resolution within the court system.

“ We currently have 125 hospitals in Armenia, when in comparison to Israel, which has three times our population, has about 70 hospitals. We end up buying services from all those 125 hospitals without any preconditions. The only condition is having a valid license. This means that despite our minimal resources we do not have a clear strategy about what are we buying from whom, where, and in what quantity. Hence, we are spending our resources inefficiently. And with a simple calculation, you could see that a big portion of our healthcare spending on the inpatient system goes for covering administrative costs of those 125 hospitals.”

—Health Policymaker

Nearly 100 percent of public hospitals in Armenia are contracted by the SHA to provide services under the BBP. Rejections of applications are often subjective and not linked to the criteria above.<sup>77</sup> Facilities may occasionally be shut down or penalized due to the quality or efficiency gaps, but these decisions are not based on formal regulations. Approximately 83 percent of private providers have been contracted by the MoH to provide BBP services, following the same procedure as public providers. Healthcare providers that are not contracted by MoH are mainly private outpatient diagnostic centers and dental offices.<sup>78</sup> The difficulty in restricting contracting based on facility performance arises in part due to the spatial monopolies in service delivery that are a legacy of the Semashko model. Outside Yerevan, the service delivery market is segmented with little overlap at each service delivery level in catchment area. Hence, provider exclusion for quality and efficiency gaps would introduce barriers in geographical access to healthcare. However, even in Yerevan, Armenia does not implement contracting conditional on meeting service standards or provider competency. Contracting tends to be uniform at each service delivery level and is not varied by local population health challenges and service use patterns.

“ The MoH has the Decree 49-N, which defines the terms and conditions for contracting, and there is no differentiation between public or private organizations to be contracted. It is a very egalitarian process.”

—Health Policymaker

### 2.3.2 ESTABLISHING SELECTIVE PROCUREMENT RULES

The law on procurement was adopted in 2016 and allows for electronic and paper-based procurement. There is both centralized and decentralized procurement in the public sector. While competitive bids are the preferred procurement method, the law also specifies

conditions for using non-competitive procurement methods. For example, single-source procurement can be used if the seller has exclusive rights.<sup>79</sup> The exception for single-source procurement has been leveraged for the centralized purchase of vaccines by the MoH.

Decentralized procurement occurs in the facilities providing services under the BBP. Primary healthcare facilities plan the purchase of medicines based on the number of registered people. The reimbursement to primary healthcare facilities by the SHA for medicines is based on the actual cost of procurement. At the hospital level, the budget for drugs and medical supplies is included in the tariffs for each case. Smaller facilities often lack the skills to develop adequate technical specifications for medicines, equipment, and supplies that are procured in a decentralized manner. Thus, suppliers are often selected based on the lowest bid price. Furthermore, while procurement regulations stipulate that there should be a separation of coordination from the contract award, smaller facilities may not have trained personnel to perform all these tasks and resort to using unqualified staff to meet these requirements.<sup>80</sup> Another common skill gap is in forecasting the annual volume of needed medicines at the facility level.<sup>81</sup>

“*In healthcare, quality is the number one priority, and low-quality materials and medicine could lead to huge problems. We need to write the specifications of the product that we need. Still, there are materials, for example, a surgical suture, it is impossible to write a detailed specification to get a quality product, so we end up buying the cheaper one which is not of high quality.*”

—Health Facility Manager

The MoH centrally procures some medicines on the essential list, defined by Decree 642-N of 2019, are procured centrally by the MoH. This procurement may occur through tenders for framework agreements or single source contracting, following exceptions by the Government. However, centralized procurement most commonly occurs through a competitive bidding process. Information on tenders is available to the public, and there is a significantly higher technical capacity to develop specifications within the MoH. There is scope to improve health system efficiency through centralized procurement. An analysis of the 2016 decentralized purchase of 2147 medicines, revealed that variation in the prices of drugs was 41.83 percent on average, with an estimated USD 2.78 million potential savings lost.<sup>82</sup> On the other hand, when the prices of 19 medications were examined, with few exceptions, the prices achieved through centralized procurement by MoH were 58.24 percent lower than in the United Kingdom.

## 2.4 PROVIDER PAYMENT AND MONITORING

### BOX 4 • CONSIDERATIONS FOR DEFINING PAYMENT MECHANISMS AND MONITORING PERFORMANCE

**How the purchaser pays providers** can influence the volume and quality of services received, and in turn, impact the health outcomes of a population. This function encompasses the design of payment methods which influences provider incentives. The purchaser establishes the contract period, basis of payment (per outcome, service, person, case, or day), rates, and mechanisms to monitor compliance with contract provisions. For inpatient care, transfers for services rendered may also cover the cost of essential medicines and supplies. Contracting and accompanying regulations provide a formal basis for defining the obligations of the purchaser and provider and monitoring of provider behavior. As purchasing systems become strategic, there is a clear definition of **indicators for provider** performance. Also, information on service use and provider response inform future payment method and contract design. Hence, **payment mechanisms are reviewed** to ensure appropriate provider incentives, while payment rates reflect optimal costs.



### 2.4.1 DESIGNING PAYMENT SYSTEMS

SHA has introduced new payment mechanisms since its inception. For inpatient facilities, a case-based reimbursement mechanism was introduced, which compensates facilities for each completed case based on pre-defined tariffs. Tariffs are differentiated by clinical specialty, inpatient or outpatient status, and the average length of stay.<sup>83</sup> Hospitals receive these funds through global budgets, with ceilings defined by funds available, historical spending, and the number of cases.

Through a Government Decision 1515-N of 2013, outpatient care for tuberculosis and mental health is covered through fixed and variable cost reimbursements. In this case, the facility receives a global budget for its operational expenses (about 70 percent), while the variable expenses cover the costs of medication and food per case. In the past, specialized care was reimbursed based on bed occupancy, which created perverse incentives to hospitalize patients for long periods.<sup>84</sup>

Reimbursement of primary care facilities is conducted through capitation, results-based financing, and fee-for-service for specialized services. Through capitation, primary care facilities receive a fixed annual amount for each enrolled patient, to cover all the expenses of service provision within the BBP as well as facility maintenance. The amount varies for adults and children. An extra 7 percent is allocated for mountainous and 14 percent for extremely mountainous areas.<sup>85</sup> A coefficient of 1.1 is also applied for per enrolled resident for facilities that serve up to 2,300 residents. In the past, capitation payments were based on catchment population. The transition to payment by enrolled population encourages service users to “vote with their feet” for more competent providers.

The results-based financing scheme was piloted in 2003 and scaled up in 2011. Facilities annually receive a bonus payment based on their performance on a set of indicators defined by the MoH.<sup>86</sup> Some specialized services, such as cardiology services or laboratory tests in outpatient facilities, are reimbursed through fee-for-service. In 2011, co-payments were introduced to formalize unofficial payments and cover the gap in state funding for services in the BBP. Taken together, payment mechanisms at the primary care level incentivize cost-containment and healthcare access in remote regions. At the hospital level, case-based payments reduce incentive for inefficiency. As specialists at the hospital level can be reimbursed for services that can be received at the primary care level, there is incentive for over-referrals.

Annual updates to service tariffs are made before contracting and approved through a Ministerial order. New payment mechanisms, such as performance-based financing, have been informed by assessments of service delivery and international experience in improving primary care performance. The N 37-A ministerial decree in 2014 established quality-monitoring groups for state-funded inpatient care services and specified 23 facility-level quality indicators. However, provider payment innovation has not been leveraged to improve the quality of care.

Health workers are paid fixed monthly wages, bonuses based on workload, or both. There are opportunities to better ensure through purchasing and regulations that health facilities pass to health workers the right incentives, as fixed wages do not inherently incentivize higher output or better quality of care. While the MoH has developed payroll guidelines, health facilities are not strictly required to follow these regulations, and health workers are relatively underpaid.<sup>87</sup>

“ I think the financing system of polyclinics needs to be revised. Why? Because for example, if I have registered 2,000 people and I get X amount of money for them, it does not matter how many of them visit or not as I will be getting my fixed amount. Good doctors who work a lot have a lot of visitors, and some doctors are not as good and do not have much visitors, at the end both get paid the same amount based on the number of their population, so there is no motivation to do more.”

—Health Facility Manager

#### 2.4.2 MONITORING CONTRACT IMPLEMENTATION

The SHA is responsible for the oversight of contract implementation, which focuses mostly on service volume and financial management. Claims reports are analyzed for accuracy before reimbursement. Monitoring visits are also conducted by the SHA to audit the patient files which have been sent previously for payment. In the past, every medical facility had a cap on the funds they can use in a month. The SHA monitors spending and adjusts the funds allocated to facilities in the future accordingly. In 2020, for a subset of services, the yearly caps have been removed, and funds have been pooled for emergency heart surgeries, obstetric care, and medical care for military personnel and their dependents. These changes enable patients to opt for better providers, which incentivizes improvement in quality, and cross-subsidize risk.

“ Continuous monitoring serves to review the amount mentioned in the contract, so for example, if one year you get 10 million AMD and you did not use it all up the next year, they would sign a contract with the amount that you have used. Now by order of the minister, the review is conducted every two months, and the e-health system facilitates that process, so if we use less of the funds for one case and more for another case, they revise the allocated funds for each, this process was done only once per year in the past.”

—Health Facility Manager

For other services, the revisions to funding caps were conducted once a year in the past. However, by order of the minister, they are now revised every other month. The ArMed system has simplified the review of contract performance. In addition, health facilities that are contracted for BBP services are required to provide monthly data on OOP payments to the SHA and submit quarterly reports to the MoH covering performance on non-financial and financial indicators.<sup>88</sup> However, these estimates of OOP payments are not consolidated for planning purposes at the regional or national level. Since its inception, the SHA has not engaged in the monitoring the quality of service delivery. The lack of a regulatory framework for clinical standards has also limited the SHA's ability to hold providers accountable for results in this area.<sup>89</sup> Data on the comparative performance of providers is not published.

## 2.5 CONSTRAINTS TO STRATEGIC PURCHASING IN ARMENIA

In summary, purchasing reforms in Armenia have focused on improving efficiency and service coverage, particularly of maternal and child healthcare. Since the 1990s, the coverage of maternal and child health care has increased, and passive line-item budgeting has been replaced with payment mechanisms that are tied to service outputs, including cases at the hospital level and enrolled users in primary health care. There have, however, been challenges in defining institutional roles and decision rights for purchasing in Armenia that facilitate efficient governance of purchasing. The SHA was brought under the MoH, losing its status as an independent state agency. This decision negated the separation of financing and provision as the MoH has continued to be involved in service delivery. The functions of the SHA now overlap significantly with the roles of the MoH. The introduction of private insurers to process claims and coordinate care for the social package has been associated with lower coverage and less efficiency relative to the SHA, despite oversight from the Central Bank of Armenia. The SHA's ability to influence service provision in the private sector is limited to services provided using state property and funded through public health financing. This highlights the need for regulation to ensure high-quality for healthcare given the high levels of private health financing.

Purchasing primarily focuses on non-selective contracting, processing claims and monitoring spending patterns, with less attention paid to quality assurance and data-driven decision-making. Armenia has invested in the ArMed system that provides real-time updates on service delivery. However, purchasers and health authorities do not systematically use data to monitor the quality of care, regulate drug prescribing behavior, refine contract design, or inform revisions to the benefits package. The health sector does not have a designated institution responsible for health technology assessments to inform benefit package redesign or perform actuarial costing of health services. Furthermore, clinical standards need to be regularly updated, reviewed, and adherence to these standards should inform contracting. There are opportunities to improve the use of purchasing to incentivize quality of care.

Following an initial benefits package informed by population health needs and value for money, other modifications have been driven by political considerations. There is a need for regulation that specifies the official process for revising the benefits package, and takes into consideration changing health care needs, value for money, and stakeholder engagement. This regulation can be informed by the clear and systematic process for updating the essential medicines list. The financing gap for the BBP generates a strong incentive for providers to demand informal payments from service users, which contributes to financial barriers to health care use. Contracting of health care providers is not conditioned on meeting clinical standards, provider competency, or local needs, which is a missed opportunity to improve the quality of care. This is in part due to the spatial monopolies created by the Semashko model that limit opportunities to reject poorly performing providers. In selecting suppliers for medicines, decentralized procurement in facilities is often used. However, many facilities lack the skills to develop technical specifications or negotiate competitive prices, which may contribute to poor quality and inefficiency.





## CHAPTER 3: THE CONTEXT FOR PURCHASING REFORMS IN ARMENIA

Broader political and social arrangements, the macro-fiscal environment, and health system functions have implications for purchasing power, service delivery readiness, and provider autonomy. These factors may limit the potential for purchasing reforms to improve service delivery in Armenia. Furthermore, the political context determines to a significant extent which health reform options are feasible.<sup>90</sup> Therefore, in this chapter, we review the implications of the political, macro-fiscal, and health system context in Armenia for the design and implementation of the next generation of strategic purchasing reforms (Figure 10).

**FIGURE 10 • Overview of contextual factors that influence purchasing reforms**



Source: World Bank

## 3.1 POLITICAL AND ADMINISTRATIVE CONTEXT

### BOX 5 • THE POLITICAL AND ADMINISTRATIVE CONTEXT AND PURCHASING OF HEALTHCARE

**How does the political and administrative context affect purchasing reforms?** The structure of government, including the extent of administrative decentralization, has direct implications for health financing reforms. Conflicts may arise when health financing reforms advocate for centralization of health functions, including pooling of risk and setting up a single purchaser, when other sectors are decentralizing. Administrative structure and public financial management affect the degree of autonomy providers have for changes in service delivery in response to incentives from the purchaser. For example, commitment controls in the PFM system may hinder flexibility in facility-level decision-making. Administrative structure may also influence the ability of national health authorities to regulate provider behavior. Political factors influence the timing for launching reforms or affect politically viable options. These factors include government turnover, interest group campaigns, changes in prevailing ideology, the presence of reform champions, and the consistency of proposed health purchasing reforms with the broader political agenda.

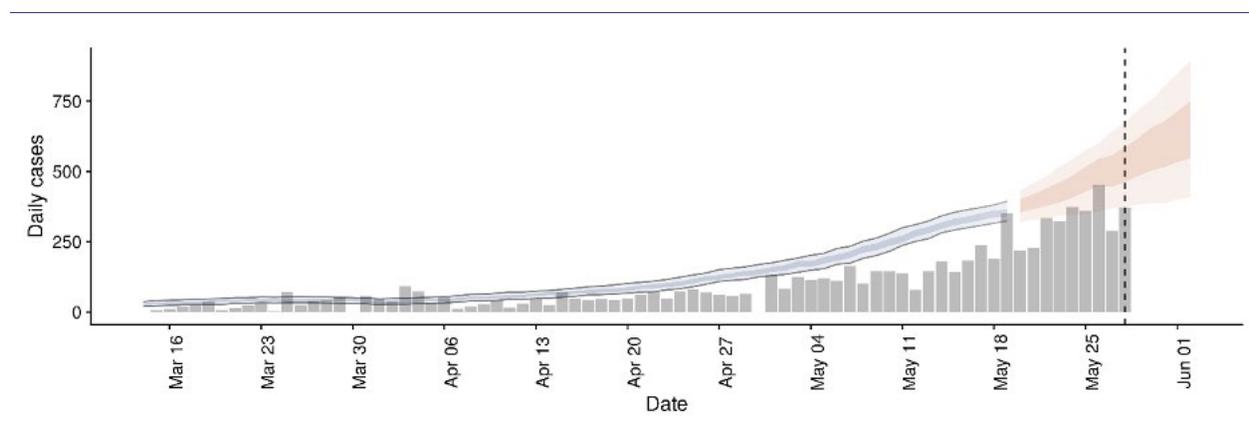
Over the past three decades, Armenia has undertaken decentralization reforms, separating the duties of the central and sub-national governments. The operation and ownership of health services in Armenia were devolved to Marz governments. However, some tertiary hospitals are owned and operated by the MoH. This devolution has given health departments of Marz administrations and local authorities significant autonomy over facility management, including spending decisions and prices for services outside the state-guaranteed package. Regulations on charges to patients by the MoH are not binding or otherwise enforced. If a health facility does not deplete the facility budget approved at the beginning of a fiscal year, the remaining funds are returned to the national treasury at the end of the fiscal year. Thus, health facilities can respond to changes in the incentive environment by restructuring their operations.

Devolution has inadvertently weakened formal regulatory oversight of service delivery through the MoH. By law, Marz governments and the MoH have limited direct control over facility management, budget execution, and human resource for health management.<sup>91</sup> Marz governments are mandated with monitoring the quality of healthcare provided, while the MoH is responsible for developing the required regulations to guide monitoring. In some cases, facilities are not obliged to comply with these regulations, as is the case for remuneration guidelines for healthcare providers. Facility managers are known to consult with Marz governors and the MoH over management decisions, but this is not a formal requirement. However, in recognition of their oversight role, concerns over service delivery are often directed by service users to the MoH, bypassing the Marz governments.

Over the past two decades, Armenia has experienced governance challenges, including in the health sector. The country was ranked 105 out of 180 countries in Transparency International's Corruption Perceptions Index 2018. Armenia was also in the bottom third of countries in the 2017 Worldwide Governance Indicators on control of corruption and accountability.<sup>92</sup> The World Economic Forum's 2018 Global Competitiveness Index highlighted that internal controls were ineffective, and the promotion of civil servants was not merit-based, which are both indicative of weak governance.<sup>93</sup> In the spring of 2018, the outgoing President sought the nomination for the new Prime Minister role. While the resulting scale of street protests and the rapid toppling of the government took everyone by surprise, Armenians' discontent with the state of governance had been building for years.<sup>94</sup>

Nikol Pashinyan, a member of the parliamentary opposition who had led the protest movement, was subsequently appointed the Prime Minister. This peaceful change in power became known as Armenia's Velvet Revolution. The Government Program endorsed by the Parliament in February 2019 has prioritized improved governance, open market competition, human capital development, and poverty reduction.<sup>95</sup> Thus, there is a high level of political commitment for reforms that will strengthen the governance of public institutions – including transparency and accountability – and leverage open market competition. The emphasis on human capital development and poverty reduction provides a window of opportunity for reforms that can improve health and, thus, workforce productivity.

Political priorities have shifted dramatically with the COVID-19 pandemic. The first confirmed case of the disease was recorded on March 1, 2020. As of May 28, 2020, there have been 8,216 cases and 113 deaths attributed to COVID-19 and the pandemic has not peaked in Armenia (Figure 11).<sup>96</sup> Following the declaration of a national state of emergency on March 16, 2020, Deputy Prime Minister Tigran Avinyan has been tasked with leading the Commandant office coordinating the immediate cross-sectoral response, while Deputy Prime Minister Mher Grigoryan has led the development of economic packages to address the medium-to-long-term impacts of the pandemic. The government has adopted a series of policies to reduce transmission of the coronavirus, mobilize surge capacity in the health sector for case management, maintain continuity of essential health service delivery, extend social assistance to socially vulnerable groups, provide financial support to businesses, and implement distance learning interventions for students.<sup>97</sup> The COVID-19 pandemic has highlighted the importance of ensuring adequate capacity and quality of health service delivery. In the short-term, purchasing reforms that contribute towards a more effective response to the pandemic are more likely to be adopted.

**FIGURE 11 • Confirmed COVID-19 cases as of May 29, 2020**

Source: Centre for Mathematical Modelling of Infectious Diseases

## 3.2 MACRO-FISCAL CONTEXT

### BOX 6 • THE MACRO-FISCAL ENVIRONMENT AND PURCHASING OF HEALTHCARE

**How does the macro-fiscal context affect purchasing reforms?** Fiscal sustainability is often an objective of health reforms because every country faces some resource constraints. The ability of a country to finance health reforms depends on economic growth, the overall public expenditure and allocations to the health sector. However, public spending correlates with the effectiveness of the tax administration, the tax base, the mix of taxes and rates, budget deficits, and debt commitments. Identifying sources of revenue to finance the costs of expanding coverage of care in a fiscally sustainable manner with stakeholders outside the health sector is often an essential step in reform planning. The implications of allocations to health are considered in the section on health system functions below.

The Armenian economy grew by 7.5 percent in 2017 and remained resilient at 5.2 percent in 2018, despite weakening external conditions. In 2019, real Gross Domestic Product (GDP) growth reached 7.6 percent, driven by private consumption. Due to the COVID-19 pandemic and falling commodity prices, the 2020 GDP growth projections for Armenia have been lowered to -2.8 percent. Hence, the COVID-19 pandemic is projected to result in contraction. It is anticipated that GDP growth will recover over the medium term to around 4.9 percent in 2021-22 as external conditions stabilize.<sup>98</sup> Overall, the COVID-19 pandemic has imposed significant additional constraints on public social spending, at least in the short-term, that have implications for the feasibility of health reforms that require expansion of fiscal space.

Tax revenue as a percentage of GDP, has increased over the past two decades, and is now above the 15 percent threshold associated with sustainable social spending.<sup>99</sup> Tax revenue increased from 15 to 21.4 percent of GDP between 2002 and 2018, due to improved economic activity and tax compliance. The main contributors were higher income, profit, and value-added tax. There have also been improvements in the collection of excise tax on fuel and tobacco. There is room to further increase excise tax on tobacco. Increasing the excise tax to 75 percent with a 45 percent price hike could prevent USD 63 million in health spending by households and USD 26 million in tobacco-related healthcare expenditure by the state.<sup>100</sup> The 2019 and 2020 Doing Business Reports recognized the advances in administrative measures that have made it easier to comply with corporate income, value-added, and labor tax rules. Tax revenues may increase further by addressing the widespread tax evasion through the under-declaration of wages and closing policy loopholes.

Unemployment and informal employment are constraints to the growth in the base for income tax in Armenia. Only 51 percent of women participate in the labor force, and the unemployment rate, at 17.7 percent, remains among the highest in Europe and Central Asia. The proportion of the population aged 60 years and older is projected to increase from 17 to 30 percent between 2017 and 2050. While the overall population has also fallen since the 1990s due to emigration, in recent years, improved economic prospects has encouraged some return migration.<sup>101</sup> A large proportion of the employed population is in the informal sector, comprising 44.5 percent of all jobs.<sup>102</sup> Hence, the government is embarking on reforms that reduce income tax to counteract incentives for informality and unemployment. This policy direction has implications for revenue mobilization options that are feasible in the medium term.

Given the growth projections and the size of the economy, health financing reforms are also constrained by the level of public spending. Armenia's general government expenditure as a percentage of GDP was 23.5 percent in 2018, lower than the average in Europe and Central Asia of 38.2 percent.<sup>103</sup> Disciplined spending by the government offers prospects for stable funding levels across sectors in the short-to-medium term. The fiscal deficit in Armenia reached 5.5 percent of GDP in 2016, and the country breached the debt ceiling.<sup>104</sup> Central government debt as a percentage of GDP had increased from 33.76 percent in 2010 to 51.93 percent in 2016.<sup>105</sup> The government launched a consolidation effort in 2017. This effort continued in 2018, lowering the fiscal deficit to 1.6 percent of GDP. The consolidation effort has improved controls over current spending. However, capital expenditures have underperformed with 44 percent execution within the first nine months of 2019. The budget is expected to register a fiscal deficit of 0.6 percent of GDP in 2019 compared to a planned deficit of 2.3 percent of GDP.

## 3.3 HEALTH SYSTEM FUNCTIONS

### BOX 7 • HEALTH SYSTEM FUNCTIONS AND PURCHASING OF HEALTHCARE

**How do health system functions affect purchasing reforms?** Purchasing interacts with other health system functions to influence the attainment of UHC goals. The mobilization of revenues in the health sector is often a function of factors beyond the purview of the health system. For example, public spending on health is a function of the political priority given to health, for which the government's health spending as a proportion of overall government spending is a proxy. Public spending on health may be low if available funds are not absorbed (or spent) by the sector or wasted if there is inefficiency. Additional resources may be mobilized through taxes, voluntary pre-payment, external funding, OOP payments, and improvements in health system efficiency. How revenue is raised has implications for financing protection, with OOP payments, being the least equitable way of raising funds for health. Following revenue collection, pre-paid revenue is pooled to varying degrees, where pooling refers to accumulation of funds (and risk) across individuals. Pooled funds are then allocated via purchasing. In some cases, pooling and purchasing are undertaken by the same agency or agencies. The degree of pooling of contributions (and risk) affects financial risk protection, efficiency in the administration of health financing, and the ability to have uniform incentives for service delivery. The capacity of public and private sector providers to deliver quality services in the benefits package is an essential link between purchasing and the service user's experience. Assessments of service delivery capacity may consider both structural and process measures, including the technical capacity of clinical and management staff, adequacy of infrastructure and equipment, availability of and adherence to clinical guidelines, and availability of safe, essential medicines. Regulations on service delivery standards are vital for strategic purchasing. For example, licensing, accreditation, and quality guidelines are necessary for the purchaser to incorporate care standards in contracting and incentivize providers to deliver quality care.

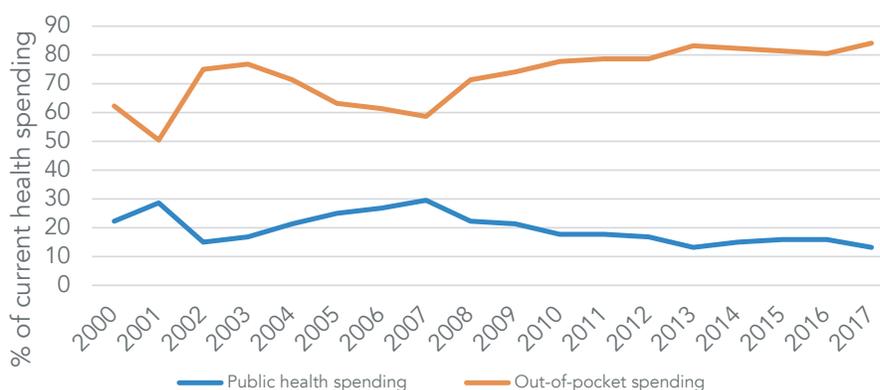
### 3.3.1 RAISING REVENUES

When financing from pre-paid public sources is low, the ability of the purchaser to improve provider performance is limited. Between 2000 and 2017, current health expenditure in Armenia increased from 6.5 to 10.4 percent of GDP, which far exceeds the average in Europe and Central Asia of 9.36 percent of GDP.<sup>106</sup> However, health spending levels are driven by private spending. Out-of-pocket (OOP) payments by households for healthcare currently constitutes 85 percent current health spending (Figure 12).<sup>107</sup> Remittances contribute significantly to household health spending, as about 25 percent of urban and 20 percent of rural households that receive remittances use these funds for their healthcare needs. About 74 percent of remittances allocated to healthcare is spent on medicines.<sup>108</sup>

OOP spending consists of formal co-payments for services within the BBP, payments for care that is not covered within the BBP, and informal payments.<sup>109</sup> The state funds primary health care and emergency services for all Armenians, apart from expensive diagnostic care, such as magnetic resonance imaging. Expensive outpatient diagnostic and inpatient care is funded by

the state solely for poor, vulnerable, and special groups, including military personnel. Service users who are not covered for expensive services can appeal to the MoH for free treatment, where coverage is limited to 10 percent of the facilities' annual budget. Otherwise, full out-of-pocket payment is required for most outpatient medicines, outside selected conditions that include tuberculosis, psychiatric diseases, cancers, and epilepsy. Public health spending as a percentage of current health expenditure was 16.5 percent in 2016, compared to an average of 77.7 percent in Europe and Central Asia.<sup>110</sup> External funding has progressively declined from 6.5 to 5.4 percent of current health expenditure between 2014 and 2018, as Armenia increases its reliance on domestic funding sources.

**FIGURE 12 • Out-of-pocket payments are the predominant means of financing care**



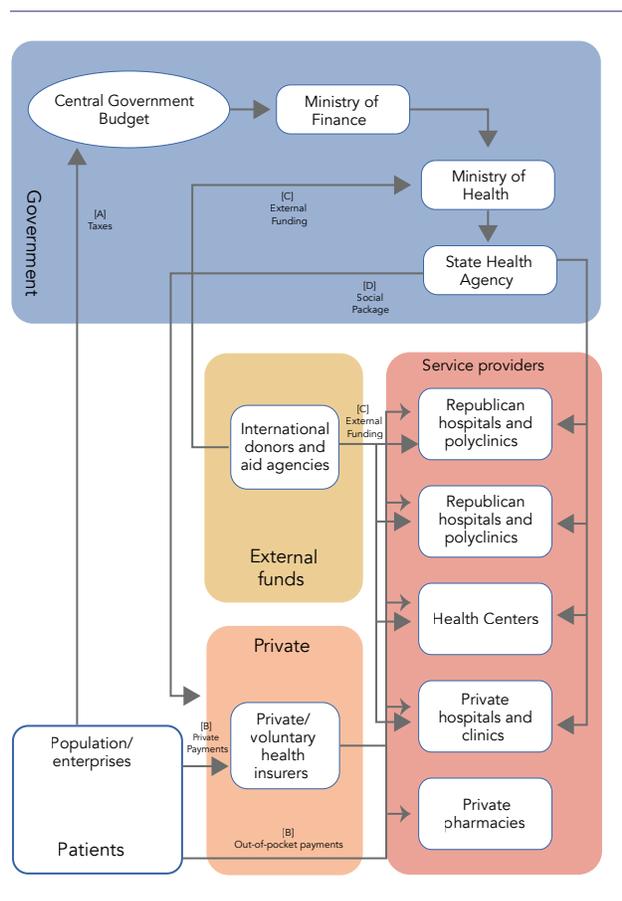
Source: World Bank

Historically, in Armenia, a lower political priority has been given to health in the national budget. For example, in 2016, Armenia spent 15.1 percent of the budget on the military, which is a high priority spending item, while health was allocated 6.1 percent.<sup>111</sup> The lower priority for health spending does not reflect a smaller capacity for absorption by the sector, as budget execution rates in the health sector are high, at 95.6 percent in 2018.<sup>112</sup> In recent years, the Government has committed to increasing healthcare. In July 2018, the Government of Armenia approved the Mid-Term Expenditure Framework for 2019-2021, projecting increases in health spending from 1.41 percent of GDP in 2018 to 1.47 percent in 2021. Also, in June 2019, the health budget increased by 13.1 percent to 103.8 billion AMD. In addition to raising health spending to match the population health needs, ensuring these increases are predictable in the medium-term will facilitate better planning and strategic purchasing.

Considering the gains in population health over the past two decades, Armenia appears to have performed relatively well in maximizing the low levels of public funding. Notwithstanding, assessments by the World Bank indicate that improvements in the efficiency of public health spending could yield per capita savings of up to USD 7.24.<sup>113</sup> Among others, two sources of

inefficiency are decentralized procurement in the health sector (discussed in the Chapter 2) and unused service delivery capacity. The MoH is in the process of exploring a scale-up in centralized procurement within the health sector to address the inefficiencies arising from decentralized procurement. With regards to unused service delivery capacity, Armenia has made considerable gains in improving the efficiency since the 1990s. In 1991, Armenia had 853 hospital beds and 37 physicians per 10,000 people.<sup>114</sup> Hospital mergers, reduction in unused bed capacity, and elimination of redundant services contributed to a 40 percent reduction in hospital capacity between 2005 and 2011.<sup>115</sup> In addition, the average length of hospital stays fell from 15.1 days in 1990 to 7.6 days.<sup>116</sup> However, by 2015, Yerevan had 73.4 beds per 10,000, above the average of 51 beds per 10,000 among countries in the European Union. Recent reviews indicate that the hospital network optimization program was less successful in Yerevan due to the difficulties in regulation of private healthcare provision.<sup>117</sup>

**FIGURE 13 • Financial flows in the Armenian health care system**



Source: Adapted from Richardson (1994)

### 3.3.2 POOLING RISK

Fragmented risk pools limit the influence of third-party purchasers and are inconsistent with improving equity, from cross-subsidization, and efficiency, by lowering administrative costs.<sup>118</sup> Public spending predominantly flows from the national budget through the MoH to the SHA. However, there are separate pools for health services provided by the Ministry of Defense and the Police. In addition, funds allocated to services received by some state employees flow through the SHA to multiple private insurers. Expenditure on different groups covered by the BBP is fixed. There are also multiple employer-subsidized schemes with separate pools of voluntary contributions (Figure 13). OOP payments are pooled at the facility level. Facilities have a high degree of autonomy over their revenues. However, surveys of facility management indicate that their spending priorities often do not align with local health needs.<sup>119</sup> In the absence of risk pooling and with the high levels of OOP payments, sick individuals are effectively taxed for their illness.<sup>120</sup>

### 3.3.3 SERVICE DELIVERY CAPACITY

As discussed above, Armenia inherited a bloated health system from the Soviet Union, in which inputs into service delivery were funded entirely by the Government. However, since the 1990s, the country has implemented reforms to optimize capacity for service delivery. The total number of hospital beds has reduced from 30,500 to 12,500 between 1990 and 2017. In 2013, Armenia had 42 beds per 10,000 population, below the regional average of 59. The number of primary health care facilities (PHC) only fell from 529 to 501, given the significant investments to improve PHC capacity.<sup>121</sup> About 52 percent of hospital beds and 32 percent of inpatient facilities are in urban areas, where 63.1 percent of the population lives.<sup>122</sup> While most of the dental clinics in the country and some of the largest multi-profile hospitals of Yerevan are private, the rest of the health service delivery system is publicly managed.<sup>123</sup>

While the service delivery network is more efficient, there is an undersupply of skilled health workers. The number of physicians per 10,000 population was 28.1 in 2015, lower than the density in Georgia (47.8) or Estonia (33.5).<sup>124</sup> The relatively lower density of physicians is in part a reflection of the net emigration of medical graduates to other countries in the former Soviet Union, as Armenian qualifications are recognized in these countries and formal salaries are higher.<sup>125</sup> There are also differences in the distribution of health workers across the country. The density of physicians in Yerevan is 84.6 per 10,000 population, which exceeds the supply of physicians in the Marzes. For example, the underserved Gegharkunik Marz has 13.8 physicians per 10,000 people.<sup>126</sup> The MoH temporarily assigns specialists from health facilities based in Yerevan to the Marzes to alleviate these gaps. However, the low supply and inequitable distribution of skilled health workers in Armenia limit the potential for incentives from purchasing to improve service delivery, particularly in the Marzes.

### 3.3.4 SERVICE DELIVERY GOVERNANCE

Adequate governance of the quality of healthcare inputs, including health workers, equipment, infrastructure, and medicines, and service delivery organization are complementary to purchasing in improving service delivery. A strong regulatory environment is particularly important given the role of private providers in service delivery and the high level of OOPs, with the limited influence of third-party purchasing restricted to public financing. In this vein, there are opportunities to further strengthen the governance of health worker quality in Armenia. Physicians receive training from accredited training centers before independent practice. However, subsequent regulation of provider competence needs to be improved. Licensing of physicians was introduced in 2001 but suspended due to inefficiencies.

In 2016, as a means of improving health worker skills and knowledge, the Continuous Professional Development (CPD) system was launched, requiring physicians and pharmacists to earn credits through training, conferences, workshops, or publication of scientific papers.

This CPD system is regulated through the order of the Minister of Health 20-N.<sup>127</sup> In theory, facility-based licenses are conditioned on post-graduate CPD credits earned by physicians and nurses. However, the training programs are not evaluated, instructors are underpaid, and the courses are not always relevant for service delivery.<sup>128</sup> There is a need for a national policy to guide human resource for health management, including guidelines on job descriptions in the health sector to harmonize roles across facilities.<sup>129</sup>

Licensing of public and private medical facilities is carried out in Armenia in compliance with Decrees 1936-N for medical facilities and 1275-N for dental clinics, polyclinics, and ambulatories.<sup>130</sup> These standards address the structural requirements for service delivery in terms of equipment, staffing, and infrastructure. However, following market entry, reviews of licenses are rarely conducted. This may inadvertently create incentives for health facilities not to maintain the standards for licensing.<sup>131</sup> There is also a need for regulation to guide the monitoring and enforcement of quality standards in the private sector and prevent financial fraud and other abuses even for private health care spending. To better manage the supply and quality of inputs for healthcare, Armenia needs to develop and maintain registries of infrastructure, and equipment in health facilities. The modules in the e-health system can provide a basis for collecting this information among health facilities that receive funding from the state, which can be expanded to other facilities over time.

With support from donor-funded projects, Armenia continues to invest significantly in improving the infrastructure in public PHCs and hospitals, and to provide equipment required for service delivery. It would be essential to establish an updated masterplan to inform future investments in physical infrastructure in the public sector and to guide approvals of private sector investments, in line with projected population healthcare needs. Despite these investments, a recent assessment by the World Bank indicates that public health facilities in the country have outdated infrastructure and equipment, primarily due to a lack of funding for maintenance. In some cases, up to 70 percent of facility budgets are spent on salaries, leaving little room for local investments in infrastructure and equipment.<sup>132</sup> Armenia has a relatively strong regulatory environment for medicine quality. The Scientific Center of Drug and Medical Technology Expertise (SCDMTE) monitors the quality of pharmaceutical products, and has modern laboratory facilities, receiving quality management ISO 90001-2008 in December 2010.

In 2017, the MoH tasked physicians with developing clinical guidelines drawing on literature reviews of best practices worldwide. However, no department in the MoH or any other public agency has monitored the quality of the developed guidelines. In addition, compliance with clinical standards of care is not routinely monitored. The N 37-A ministerial decree in 2014 provided regulations for establishing quality-monitoring groups for state-funded inpatient care services. Furthermore, with support from the United States Agency for International Development, selected primary care facilities created quality control commissions to improve

quality based on a set of indicators. Other donor-funded programs, including the World Bank Disease Control and Prevention Project, have attempted to institutionalize quality assurance mechanisms for service delivery. However, a recent study indicated that only 27 percent of facilities have any system to routinely identify and address gaps in the quality of care.<sup>133</sup> In the past, prescribing practices were not regulated or monitored. However, since 2019, the government has introduced regulation to guide prescribing practices for selected medicines, including antibiotics and narcotics.

### 3.4 THE CONTEXT FOR PURCHASING REFORMS

Renewed political commitment to improving governance and building human capital, following the Velvet Revolution, has presented a window of opportunity to push through health system reforms. However, the COVID-19 pandemic has shifted the political agenda dramatically towards policies that control the spread of the virus, strengthen the health system response, protect household welfare, and support business growth. In addition, due to the COVID-19 pandemic, the economy is projected to contract by 2.8 percent in 2020, rebounding to 4.9 percent growth by 2021. The opportunity to advance significant reforms will be constrained by available public spending. Disciplined spending since the fiscal consolidation effort was launched in 2017 offers prospects for stable allocations across sectors in the medium term. Armenia has also increased fiscal space for public spending significantly over the past two decades through higher tax revenues. Nonetheless, a large informal sector and a shrinking labor force will limit the feasible options for raising revenue to finance health reforms in the short-to-medium term.

Financing from pre-paid public sources is low at 16.5 percent of current health spending compared to an average of 77 percent in the region. The burden of financing healthcare predominantly rests on households, which significantly limits the potential influence of a third-party purchaser on provider behavior. Investing in health is not prioritized in the state budget despite the high absorption capacity within the health sector. However, there are indications of inefficient health spending. World Bank assessments estimate that improvements in the efficiency of public health spending can potentially yield savings of USD 7.24 per capita. Fragmentation in financial flows also introduces inefficiencies in the health system. Public health financing is pooled in the SHA but flows to multiple private insurers for a subset of public sector employees. There are also caps on expenditures on different groups, with restrictions on redistribution. Finally, there are multiple employer-subsidized schemes with separate pools of voluntary contributions. This fragmentation limits the potential for improving equity through pooled risk and promotes inefficiency due to duplicative administrative costs.

Ensuring service delivery readiness, including an adequate supply of inputs and compliance with appropriate clinical guidelines, is a precondition to implementing quality assurance through purchasing in Armenia. Since the 1990s, Armenia has invested in optimizing service delivery. However, there is an undersupply of skilled health workers as a result of emigration due to non-competitive wages. Furthermore, the density of health workers in Yerevan far exceeds the supply in the underserved Marzes. A strong regulatory environment is particularly important in Armenia given the role of private providers in service delivery and the high level of OOPs, allocation of which may not be significantly influenced by a third-party purchaser. There is a need to better regulate market entry via licensing of physicians, and to ensure provider competence via enforcement of regulations on continuous education of health workers. Governance of the quality of care in Armenia would also benefit from consolidated information on the state of infrastructure and equipment in health facilities, routine monitoring of the quality of the guidelines and the adherence of providers to these standards.





## CHAPTER 4: GLOBAL LESSONS IN STRATEGIC PURCHASING

There is significant cross-national variation globally in the policies that have been adopted to reform purchasing arrangements in line with the objective of facilitating UHC. In part, this variation is influenced by path dependency. Initial conditions across contexts have informed the policies implemented by countries that subsequently lock them into specific trajectories.<sup>134</sup> Hence, actions in the past impose constraints on feasible policy options for the present. As a result, policy instruments cannot be transplanted from one country to another without careful consideration.

In reviewing global lessons for purchasing reforms in Armenia, we are emphasizing experiences from countries that have a similar political history, or which had faced the same macro-fiscal constraints when these reforms were implemented. Many of these countries are emerging economies or post-Soviet nations. In some cases, we highlight a notable success or failure despite the dissimilarity in context, where these experiences illustrated important principles for optimal design and implementation of purchasing reforms. We also selectively focus our review on the bottlenecks to strategic purchasing in Armenia that were described in the previous chapter.

### 4.1 GOVERNANCE OF PURCHASING

Armenia has hitherto faced challenges in explicitly defining purchasing objectives, ensuring a clear separation of appropriate roles between the SHA, MoH, and private insurers, and drawing on the ArMed system to inform purchasing decisions. In contrast, strategic purchasing requires clear objectives, coordination among key actors, and clear rules for decision-making.<sup>135</sup> Governance reforms that reconfigure institutional arrangements will change the benefits and

costs to health system actors. Such proposals may generate opposition or lobbying for decision rights. Health policymakers must prevent the capture of decision-making space by specific actors and ensure that institutional arrangements include incentives for collaboration between actors. As a result of these political complexities, defining the optimal governance arrangements for strategic purchasing can be problematic.

#### 4.1.1 ARTICULATING REFORM GOALS

Articulating reform goals allows policymakers to coordinate the different actors in the direction of these goals. These goals should ideally be linked to addressing the underlying challenges in access to high-quality healthcare if attainment of UHC is the ultimate objective. These goals can also form the basis of a framework for evaluating the success of reforms.

##### ***When?***

Ideally, the health authorities identify health system priorities before the launch of purchasing reforms. These priorities provide objective criteria for deciding what changes are needed in purchasing arrangements to solve ongoing health system challenges. However, the transition to strategic purchasing is often incremental, and countries should have mechanisms to review and update their objectives as the challenges in the health system evolve.

#### **BOX 8 • POLITICAL SHIFT LEADING TO REFORM: THE CASE OF THAILAND**

Following the adoption of a new Constitution in Thailand in 1997, Thaksin Shinawatra, founded the Thai Rak Thai party. He structured his electoral campaign around a few promises that addressed the needs of the rural poor of Thailand, a socio-economic group neglected for decades, and an important voting bloc. At a preparatory meeting, he met with a small group of senior health technocrats committed for decades to improving access to health services. They pushed forward the idea of universal health coverage. He used it as a key theme for his campaign. The Thai Rak Thai party 2001 campaign slogan boldly declared: “30 Baht treats all diseases”. His party won a landslide victory and he became prime minister in 2001.

Thaksin’s 30-Baht scheme, ensuring that a user of a public health facility pays maximum 30 baht per visit (less than 1 USD), was launched rapidly after he took office. The overarching goal was to expand financial risk protection for health care. One of the institutional features of the scheme was the separation of provision and purchasing of health services, informed by international experience on the utility of this model for improving quality and efficiency in the health system. The Ministry of Public Health was responsible for providing health services, and a new independent entity, the National Health Security Office, managed and operated the Universal Coverage Scheme.

**Who?**

The goals for the reform may come from political leadership, as in the 30 Baht scheme in Thailand (Box 8).<sup>136</sup> As citizens voice their health needs to politicians, solutions to these challenges may become articulated as political promises, in anticipation of a political pay-off.<sup>137</sup> In other cases, the goals for health reform are identified by technocrats, with later buy-in from political leaders.<sup>138</sup> Generally, political buy-in is facilitated by framing the role of strategic purchasing in resolving issues that are salient to voters.

**How to institutionalize this function?**

Goals are often articulated in legal documents that may specify the rights and obligations of parties but may remain silent on the more technical details of policy solutions. Background documents oblige parties to define the technical intricacies of the policy, including the mechanisms through which goals will be attained via a theory of change (Box 9).<sup>139</sup>

**BOX 9 • THE UTILITY OF A THEORY OF CHANGE FOR REFORM DESIGN**

A theory of change describes how an intervention is expected to bring about some outcomes through a logical sequence of actions in each context. It articulates the change process within the intervention, describes the sequence of events linking the intervention activities to their outcomes and makes explicit the assumptions and conditions required to enable change. A theory of change is particularly helpful to think through a complex intervention in an adaptive social system, where they may be complex downstream responses to policy changes.

At the policy formulation stage, policy makers can use the theory of change as a tool to ensure that the policy is aligned with its objectives. The theory of change can also facilitate the policy dialogue among stakeholders. Such a co-production process can build trust and ownership of the policy. It is crucial that national experts lead the writing of the theory of change, given their understanding of the local context, drawing on the experience and technical expertise of external actors where needed.

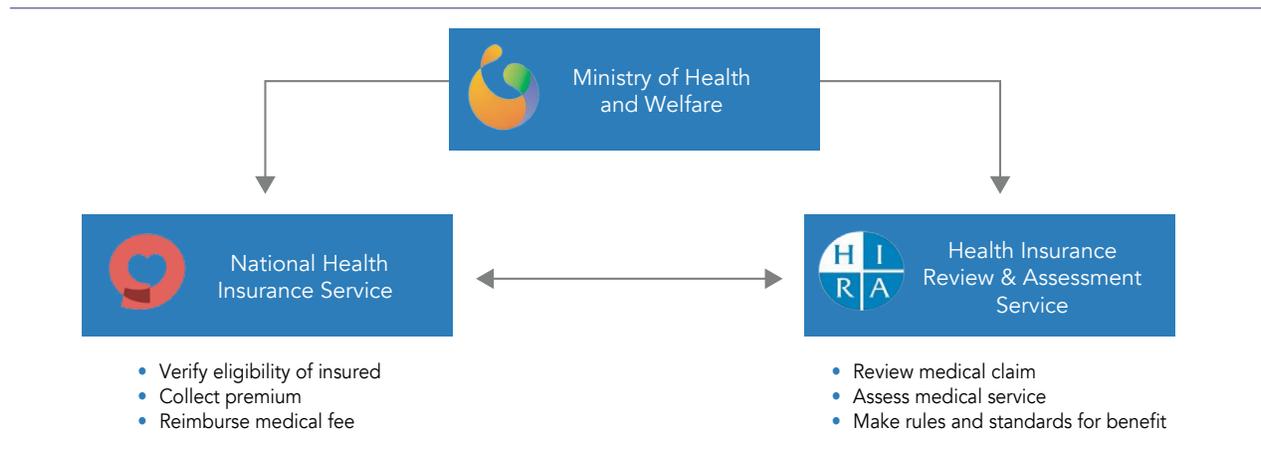
**4.1.2 DEFINING INSTITUTIONAL ARRANGEMENTS FOR PURCHASING**

As multiple actors are often involved in purchasing health services, it is crucial to define institutional arrangements for purchasing clearly. These institutional arrangements will specify their non-overlapping tasks and eliminate contradictions within legal documents. Appropriate roles will facilitate mutual accountability, incentivize collaboration, establish checks and balances, and address conflicts of interest.

Often, as in South Korea, Estonia, or Thailand, new agencies are established to undertake purchasing functions. In Korea, the 2000 National Health Insurance Act established the National Health Insurance Service (NHIS) and Health Insurance Review and Assessment Service (HIRA), with complementary but non-overlapping functions (Figure 14), and an oversight role for the Ministry of Health and Welfare. HIRA provides accreditation for providers and monitors

compliance with standards of care, while the NHIS manages revenue collection and claims processing.

**FIGURE 14 • Institutions involved in purchasing in South Korea**



Source: Korea National Health Insurance Service

### **When?**

Specifying institutional arrangements should follow the identification of the goals of purchasing. Purchasing arrangements should also be revised as countries learn from experience. Significant reforms that dramatically shift decision rights and autonomy may face resistance. At the same time, incremental improvements that postpone the optimal distribution of functions can get stuck in the middle of the journey or captured by some parties. It is also vital that institutional arrangements are consistent with fund flows within the public financial management (PFM) system.<sup>140</sup>

### **Who?**

The delineation of institutional arrangements for purchasing in a country is decided by the national government. The insights of health financing and administration experts should be sought in identifying the essential sub-tasks for purchasing, in line with the defined goals. There should also be technical input into the definition of decision rights to support the proposed strategic purchasing arrangements. Legal advisers also have a role in ensuring that the texts documenting these arrangements are compliant with existing legislation.

### **How to institutionalize this function?**

Institutional arrangements are established through legal documents. However, an operational manual may suffice when purchasing functions stay within the remit of the MoH and its associated agencies. Lack of formal legal documentation and inappropriate assignment of roles may lead to the capture of the decision-making space by influential actors. The enforcement of the new arrangements will depend on their legal backing, the quality of the

legal texts, the coherence with other laws governing the health system, and the effectiveness of the provisions in facilitating the agreed objectives. In Box 10, we discuss the lessons from the clear mandate for purchasing in the legal act that established the Health Insurance Fund in Estonia.<sup>141</sup>

### BOX 10 • A CLEAR MANDATE FOR PURCHASING: THE CASE OF ESTONIA

The **Estonian Health Insurance Fund Act** provides a useful example of the institutional setup for purchasing. Through public law, the Government has granted legal status to the Fund in 2001. The Fund is liable for its actions and use of its assets but is not liable for the performance of the State. Conversely, the State can be liable for non-performance by the Fund, where this derives from a failure of responsibilities of the State. The State can be liable if the legal reserve of the Fund is insufficient, if the government underfunds the Fund or if the reimbursement rates enacted by the government are too low. The Fund cannot go bankrupt as its rights on the credit market are restricted to prevent risky business strategies. This is an example of a legal provision to prevent deviation from the Fund's core mission.

The highest body of the Fund is its **supervisory board**. Its core mandate is to keep the management board accountable and aligned with the core mission of the Fund. It has the right to hire, fire, investigate, or take other legal actions with respect to the management team. Many decisions central to the operation of the Fund must be approved by the supervisory board. The supervisory board is chaired by the minister of health, with five other members, including the budget minister, two representatives of the employers' confederation, one representative of the Trade Union Confederation and one representative of the Chamber of Disabled People. There are strict conditions of eligibility for the last four members to prevent any conflict of interest and they are remunerated by the government. The supervisory board meets at least once every three months.

The body in charge of the daily operation of the Fund is the **management board**. It meets at least once a month and consists of three to seven members, one of whom is the chairman. Their mandate is for five years. The chairman is appointed by the supervisory board, following a public and competitive selection process. He is the director and legal representative of the Fund. The chairman then constitutes the management board. The competences of the management board and its chairman are clearly defined and pertain to ability to manage all issues pertaining to the health insurance fund, including preparation of the development plan and budget to be approved by the supervisory board, recruitment, management, and accounting.

The act also stipulates the assets of the Fund, their origin, allocation of profits, rules for reserves and budgeting obligations. The Fund budget must be approved by the Estonian parliament. Obligations in terms of accounting, quarterly and yearly reporting and audits are clearly defined. A chapter of the act is dedicated to the Fund database. Besides the Act, the Fund has statutes which specifies the obligations of each party in more detail.

### ***What are the core technical issues?***

The number of purchasing entities is of primary importance to UHC. Countries with multiple purchasers who seek to promote equitable access, a goal of UHC, often implement risk equalization mechanisms. In these situations, insurers who have a higher proportion of subscribers with high risk receive a higher risk-adjusted equalization payment than insurers with a higher proportion of lower risk subscribers. These risk-adjusted equalization payments

forestall the need for higher premiums among those with higher risk.<sup>142</sup> However, achieving equity through redistribution is not a trivial technical task even in countries with strong regulatory oversight and advanced analytical capabilities, as illustrated by the Dutch case below.

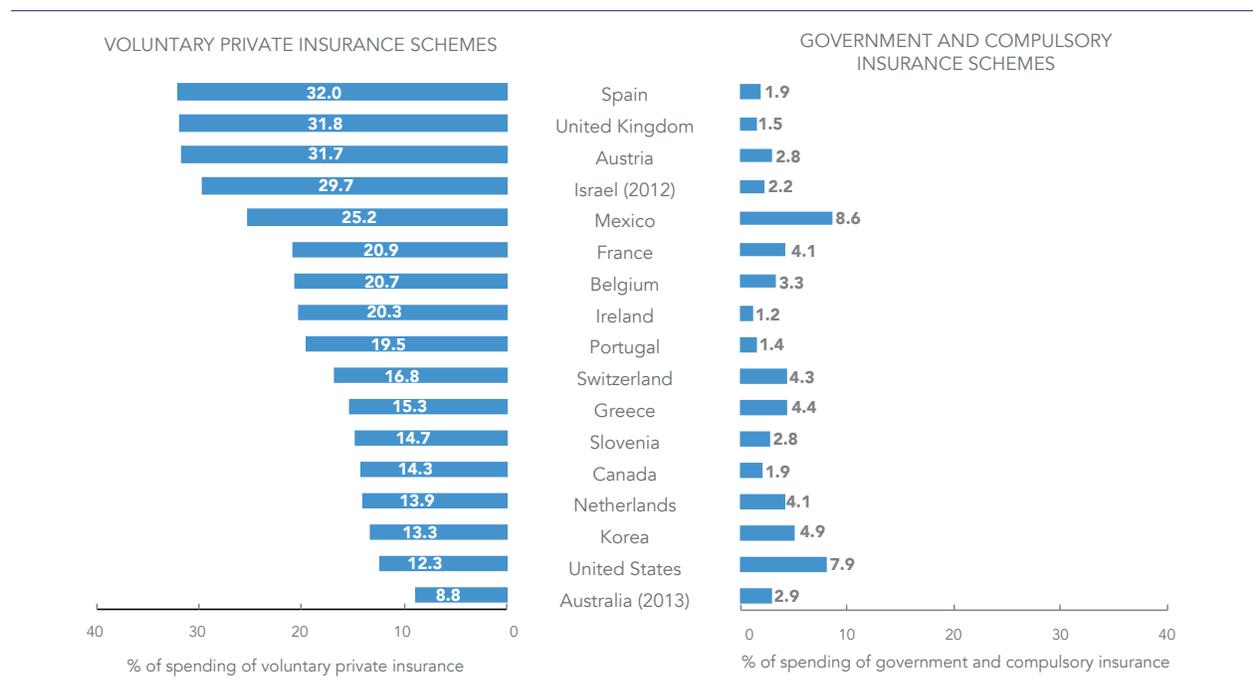
A 2006 reform established a private insurance market under regulated competition in the Netherlands. All residents are mandated to subscribe to an insurance policy which covers the benefits package. Insurers must accept all applicants, who pay community-rated premium to their insurer of choice.<sup>143</sup> An income-dependent contribution is levied from employers' payrolls and pooled in a national fund. People with lower incomes receive tax subsidies, and supplemental private insurance is available. The national fund's resources are allocated to insurers according to a risk-adjustment formula meant to eliminate incentives for risk selection, by avoiding high-cost enrollees. Health insurers and providers increasingly negotiate on price, volume and quality of care. Despite having the most sophisticated risk-adjustment formula in existence, accounting for diagnosis, utilization history, and prior costs of care, insurers continue to make substantial financial losses when they cover chronically ill patients. The risk formula continues to substantially undercompensate for high-risk consumers and the average losses per adult remain quite high.<sup>144</sup>

Countries may also adopt multiple purchasing agencies to tailor allocations to sub-national variation in health needs, responsiveness to which is a UHC objective. For example, in Canada, the decentralization of purchasing to provincial governments was linked to the objective of increasing responsiveness to local needs. However, decentralization may negatively affect the fairness of resource allocations within the country if some regions are more prosperous than others. In response, countries that aim to improve equity despite decentralized arrangements often adopt measures for redistribution.<sup>145</sup> In other countries with multiple purchasing agencies, decentralized units may be defined by employment status rather than geography. A typical pattern is the existence of separate insurance schemes for civil servants, employees of the formal private sector, the self-employed, and the poorest. Often, the government finances coverage for the poor, who tend to be ill more frequently, on average. The result of this fragmentation is that good risk is not pooled with bad, resulting in a high fiscal burden for the state.<sup>146</sup>

Competition may also motivate countries to adopt models with multiple competing purchasers, as in the United States and Netherlands. This may be driven by concerns that a monopsonist purchasing agency would have limited incentives to be efficient and to innovate. Given unregulated competition, insurers or purchasers charge risk-rated premiums and people with healthcare needs that are expensive may be priced out of the market.<sup>147</sup> In the US and Netherlands, insurers compete on price and quality of health plans, such that insurers can charge a higher price for a more attractive health insurance product. In both systems, risk adjustment models draw on demographic and utilization information to correct for the small portion of spending variation that is predictable. However, non-enrollment of healthy people has

persisted despite risk-rating and adjustment. Competition between purchasers also generates costs at multiple levels: at the level of the regulator, in purchasing agencies (e.g., marketing), in health facilities (e.g., duplication of reporting and management systems) and the households (e.g., search costs). Across the Organization for Economic Cooperation and Development (OECD), the administrative costs of private health insurance schemes range from 9 percent of spending in Australia to 30 percent in the United Kingdom. In contrast, the administrative costs in public plans represent at most 9 percent of health spending in any country (Figure 15).<sup>148</sup> Merging multiple health insurance funds in South Korea after 1998 resulted in a reduction in the proportion of administrative costs of the health insurance system, from 7.87 percent in 1996 to 2.38 percent in 2008.<sup>149</sup>

**FIGURE 15 • Administration expenditure as a share of the scheme’s total health spending in the OECD (2014 or nearest year)**



Source: Organisation for Economic Co-operation and Development

For small countries, there are few strong arguments in favor of more than one purchasing agency. Centralizing purchasing capacity within one single entity will prevent fragmentation of the small pool, allow the country to build a critical mass of technical expertise, and spread the fixed cost of operating the purchasing agency over the whole population. In this context, private insurers may provide coverage for costs that are not included within the basic benefits package, in line with good practice being implemented in several OECD countries. In the case in Canada, where provincial regulations discourage private health insurers from duplicating coverage available under the public option, instead covering the costs associated with services

such as prescription drugs, dental care or private hospital rooms, which are not available under the public option. In Denmark, while some insurance policies duplicate services, such as coverage for a private rooms or ophthalmologic surgeries, the major function of the private health insurance market is complementary.<sup>150</sup> Given the limitations of fragmented purchasing arrangements, several countries with multiple purchasing entities are trying to merge them. However, unifying once-fragmented purchasing arrangements can be politically difficult, as is the ongoing experience in South Africa. Where there are differences in the coverage across schemes, this presents a strong incentive against reducing fragmentation, despite the potential gains in efficiency (Box 11).<sup>151</sup>

### **BOX 11 • STARK CONTRAST IN PURCHASING PRACTICES WITHIN THE SAME COUNTRY**

In comparing Thailand's Universal Coverage Scheme (UCS), introduced in 2002 with the Civil Servant Medical Benefit Scheme (CSMBS), established in 1980, their management is different despite both being tax-financed.

The CSMBS (coverage: 9 percent of the population) is administered by the MoF as an entitlement of civil servants. Purchasing is passive and costs continue escalating as the management of the scheme is driven by the concern of not alienating civil servants. The UCS scheme (coverage: 75 percent of the population) is managed by a semi-autonomous body: The National Health Security Office. While the CSMBS is staffed with bureaucrats and focuses on processing claims, the UCS is staffed with health system experts who are connected to research institutes and international global health partners. The management of the UCS continues to innovate with provider payment systems and accountability to the population, to improve the quality and efficiency of care.

For any external observer, it seems obvious that the National Health Security Office would be the ideal body to lead the development of a unified system for Thailand. However, given the difference in terms of expenditure per capita per year between schemes (4 times higher for CSMBS beneficiaries compared to UCS), it is doubtful that this will happen soon.

Another vital issue to consider in defining institutional arrangements is the interaction between the purchaser(s) and other institutions. Firstly, there is significant evidence on the importance of the purchaser-provider split. That is, countries tend to move from integrated command and control models of public-operated provision to models in which third-party purchasers are kept organizationally separate from health care providers. This purchaser-provider split can enable the purchaser to use policy levers, such as contracting, payment incentives, and monitoring, to improve the performance of providers in terms of coverage, quality, and efficiency. Furthermore, decision-making by providers can then focus on efficient production of services, in line with health system wide objectives defined through the combination of regulation and incentives by health authorities, including the purchaser. Separation of purchasing and provision also enables provider competition, and the use of market mechanisms to increase efficiency.<sup>152</sup>

The purchaser requires autonomy to make objective decisions on resource allocations. When the purchasing agency belongs to the MoH, it is bound by the rules of the overall public finance administration. In some countries, this means the strict application of line-item budgets, which puts limits on efficiency and quality improvement. In contexts where the MoH is involved in service delivery, the purchasing agency may be required to contract providers mapped to the MoH, regardless of their competence, negating the purchaser-provider split. However, it would also be important to incentivize close collaboration between these institutions, such as through establishment of a legal platform for deliberation.

A good practice in this regard is the Health Insurance Policy Deliberative Committee in Korea, chaired by the Minister of Health and Welfare, and involving representatives of key groups, including from the purchasing agencies, to deliberate on and resolve health insurance matters. The cases of Kyrgyzstan and Estonia illustrate the value of clearly defining roles and accountability arrangements for purchasing and the importance of autonomy of the purchasing agency (Box 12). Delegation with a clear separation of responsibility between the purchaser and the health authority can allow for higher performance of the whole system.<sup>153</sup> A high degree of control over purchasing by the MoH and poor execution of accountability arrangements can negatively affect performance.

#### **BOX 12 • THE VALUE OF THE AUTONOMY OF THE PURCHASING AGENCY**

Kyrgyzstan established its purchasing agency in 1996. It had autonomy over day-to-day decisions, including managerial and financial decisions. Yet, close links with the ministry of health were maintained; the director of this agency was also a deputy minister of health and therefore able to develop a close personal collaboration with the minister of health. Such a close coordination on policy was key as a major priority was the restructuring of service delivery.

The initial arrangement kept public funds in the Treasury and gave the Government strict control over purchasing decisions, with limited decision rights for the purchaser. Ten years later, the agency was given full autonomy from the MoH and made accountable to the Vice Prime Minister responsible for social affairs. However, it was unclear how the Vice Prime Minister would oversee the agency, and what the new role of the MoH would be.

### **4.1.3 LEVERAGING HEALTH INFORMATION FOR STRATEGIC PURCHASING**

Establishing a data system and information architecture is key to implementing strategic purchasing. Information on population health needs and provider performance should inform the content of the benefits package, provider payment methods, and contracts.<sup>154</sup> Useful health information systems will accumulate data on patient information, consistently recorded across facilities and programs; services provided, including provider identity, symptoms, diagnoses,

medication, and procedures; and broader health information on risk factors, mortality, morbidity, and other health system indicators. An appropriately designed data strategy should check the accuracy of routine data and promote a culture of using the data in purchasing decisions.

### **When?**

An appropriate data strategy and functioning health information system are necessary preconditions for strategic purchasing. However, data systems to support purchasing must be dynamic. As the purchasing system grows in maturity, the purchasing agency may identify new data needs and opportunities created by the changes in technology. Thus, strategic purchasing can accelerate the digitization of data management systems (Box 13).<sup>155</sup>

#### **BOX 13 • HOW STRATEGIC PURCHASING CAN STRENGTHEN THE DATA SYSTEM**

After the 2001 economic crisis, the Federal Ministry of Health of Argentina launched the Plan Nacer (renamed Programa Sumar in 2012), a structured system of incentive payments focused on the health needs of the most vulnerable population groups.

At the design stage, the unit in charge of the program assessed the routine information systems of all provinces. No mechanisms were available for the timely collection of data from the primary health care network in any of the provinces. Leadership was appointed in the program. The program defined a clear and manageable set of indicators, did not impose specific tools for collection by local information technology units, and introduced incentives at the provider level to encourage the timely reporting of the required data. Technical assistance was provided to provinces and there was a concerted effort to reduce overlaps and contradictions with data entry with that of other federal health programmes. Initially, the billing process was paper-based, but over time each province developed its own digital system for billing. Technical assistance from the central executive unit was provided and an information technology department was set up within each provincial management unit.

This data system was key for the provider payment system, as it allowed to determine the payments to be made to health facilities, but it has also enabled real-time monitoring of coverage and quality within Programa Sumar. It has facilitated a culture of generating, using and analyzing data on health service utilization across provinces. Ongoing reforms are focused on improving interoperability with other information systems.

### **Who?**

This function is often the responsibility of the MoH and the purchaser(s). The identification of features of the health information system should be a participatory process. The involvement of the MoH may be particularly helpful to secure interoperability with other information systems in the health sector and with PFM systems. It is advisable to adopt non-proprietary open-source digital systems. These systems allow countries to switch providers and to develop their control of the solution. However, it is not enough to set up a sophisticated health information system. The purchaser(s) should be responsible for undertaking data analysis to monitor provider performance, understand service user experience, and provide recommendations on improvements in health services. The roles of other stakeholders in decision-making using the information collected should also be specified.

***How to institutionalize this function?***

The institutionalization of data systems involves regular use by the purchasing agency of an adapted health information system to implement, monitor, and adjust purchasing arrangements. Often, this information is only used to process claims from providers. Many purchasing agencies do not use the very rich datasets generated by their digitalized payment systems to identify opportunities to improve service content, change prescribing practices, or manage the health system inventory. Collecting, analyzing, and using data to inform purchasing is what makes purchasing strategic. The institutionalization of the data system, therefore, requires analytical capability, regulations governing data use, and a framework for decision-making using available data.

***What are the core technical issues?***

Building interoperable information systems is an important consideration. However, regulations that facilitate data sharing and system interoperability will also need to address patient confidentiality and data security. Another critical factor in developing information systems is establishing a virtuous iterative cycle of informing purchasing with the collected data.

**4.1.4 BUILDING TECHNICAL CAPACITY FOR STRATEGIC PURCHASING**

The skill needs for strategic purchasing will depend on the mandate of the responsible institutions. The Korean NHIS and HIRA have been tasked with revenue mobilization, claims review and processing, as well as value-based purchasing for quality improvement and efficient resource use. Thus, these organizations have built capacity for risk management, revenue collection, defining standards of care, assessing and rewarding quality, monitoring prescription patterns, on-site verification of services, managing health facility resources, and big data analysis. In many low- and middle-income countries, the mandate of the purchaser is limited to receiving and processing claims. Hence, supporting the transition to more strategic forms of purchasing will require skilled staff to fulfill an expanded mandate.

***When?***

Building technical capacity for strategic purchasing is an incremental endeavor. In designing purchasing reforms, it is essential to examine the relevant agencies, including the purchaser and MoH, to identify the core competencies for the strategic purchasing functions that will be undertaken and to develop a plan for building these competencies.

***Who?***

The required capacity building for strategic purchasing may be substantial. Countries can find assistance from international agencies such as the World Health Organization or the World Bank. Another strategy is to twin the purchasing agency with the national agency of a more advanced country (Box 15). There are also networks of practitioners that can offer support, such as the Joint Learning Network for Universal Health Coverage.

## BOX 14 • OVERVIEW OF FUNCTIONS IN HIRA

### A. Rule making

- Benefit standard management for treatment, drugs and medical materials.
- Fee schedule determination including payment methods, medical pricing, and code management.

### B. Monitoring and feedback

- Medical claims: Receives medical service claims submitted by providers and sends review results to providers.
- Medical claims review: Reviews and checks whether the claim details have been duly submitted within the scope allowed under the relevant statutes.
- Quality assessment: Assesses the clinical validity and cost efficiency of medical and pharmaceutical Services.
- Drug Utilization Review (DUR): Gives real-time information on drug safety, contraindications, and use of prohibited drugs to physicians and pharmacists whose computers are linked to HIRA's system.
- On-site investigation: A type of administrative investigation in which a visit is paid to a target provider to verify the lawfulness of its healthcare service claims.
- Medical fee verification: Checks medical fee paid by patients whether the amount is within the scope allowed under the relevant statutes and refunds excessive medical fees collected from patients.

### C. Infrastructure management

- Healthcare resources management: Collects information about providers' workforce, facility, and equipment which is required for the review and assessment of any covered benefits claimed to HIRA.
- Korea Pharmaceutical Information Service (KPIS): Manages the distribution of drug-related information (production, import, supply) to create a proper drug distribution system.
- Patient classification system: Classifies patients into related groups in terms of diseases, procedures, medical resources, and clinical meanings.
- Health Insurance System education: Provides education program to countries with interest to learn about Korea's Health Insurance system, claims review and quality assessment.
- Healthcare big data analysis: Supports policy-making and national statistical service by combining and analyzing medical information, benefit standard, medical resources etc..

### ***How to institutionalize this function?***

Maintaining a strong core of technical competencies for strategic purchasing requires regulations and incentives that attract and retain the skilled personnel needed. However, the staff size of the purchasing agency varies with several factors, including the population size of the country, income level, and the functions entrusted to the agency. In Thailand, a middle-income country of nearly 70 million inhabitants, the National Health Security Office had 820 staff divided among the central office and 13 regional offices, in 2016.<sup>156</sup> In contrast, in Estonia, a middle-income country of about 1.3 million inhabitants, the Insurance Fund had 196 staff members at the end of 2018. However, both countries have relatively sophisticated purchasing systems.

**BOX 15 • POTENTIAL STEPS FOR IMPLEMENTING TWINNING PARTNERSHIPS**

**Step 1. Partnership development** begins the formal establishment of a fully functioning, communicative twinning relation between two institutions.

**Step 2. Needs assessment** allows for baseline needs of the organization to be identified and understood. This forms the basis for the gap analysis and ultimately, guides all future improvement activities of the partnership.

**Step 3. Gap analysis** is a review of the needs assessment and identifies key priority areas for action. From the gap analysis, the foundation for action planning is established in a systematic approach in order to help facilitate partners to implement a more focused improvement effort.

**Step 4. Action** planning brings partners to a jointly agreed written plan of action. This action plan is grounded in the gap analysis and sets clear short-term and long-term targets for the twinning partnership. In this step, it is important to also focus upon communication, spread, and budget.

**Step 5. Action** is the start of implementing the agreed improvement activities set forth by the action plan. At this time, partners have established and strategized methods of action and have secured communication channels for ongoing partnership action.

**Step 6. Evaluation and review** enables twinning partnerships to assess the impact of both their technical improvement work and the strength and functioning of their twinning relations. This reflects on the strengths and gaps of the partnerships so that refinements can be made.

***What are the core technical issues?***

Defining the core competencies needed will follow the identification of institutional arrangements and the responsibilities of the purchaser. Some of the critical competencies to consider securing in-house are technical skills in contracting; the ability to interact with the government and to develop purchasing strategies; management skills for planning and coordination of the agency activities; legal and negotiation skills for communication with providers and to draft the relevant regulatory documents; capability to monitor adherence to clinical standards for services, that have been defined by a competent body; an understanding of service delivery organization for support to health facilities and smooth implementation of action plans; database management and data analysis including information technology, pharmaco-economics, actuarial analysis, statistics, forecast, budget follow-up, and fee schemes; and human resources, finance, and general administration skills.

## 4.2 HEALTHCARE GOODS AND SERVICES TO PURCHASE

The health budget is often the outcome of decisions taken outside the health sector, while the MoH decides on allocations within the health system. Other actors in the health system affect resource allocations. In their encounters with patients, providers choose between alternative therapies and diagnostic tests. Facility managers, depending on the degree of autonomy they have, may make decisions on resource allocations to operations versus service delivery. Users, to some extent, choose between providers and whether to comply with the prescribed treatment.

Health system performance, in terms of health outcomes, access, and quality, are the cumulative result of these decisions on resource allocations. Strategic purchasing requires a comprehensive understanding of this chain of choices and their implications for optimal resource allocation, some of which may be influenced through contracting, the payment mix, and benefits package design. In this regard, Armenia faces key challenges, including the need for a systematic process for reviewing the benefits package to reflect changing health needs, developing the capacity to cost the service package, and developing and implementing regulations for quality that can inform contracts with service providers.

### 4.2.1 CREATING SYSTEMS TO UPDATE AND COST THE SERVICE PACKAGE

In countries where all the services in public health facilities are universally accessible, rationing may be implicit. For example, service users may have to travel far to access specialized services, there may be a waiting list for elective interventions, or health facilities may experience stock-outs of essential drugs. If there are gaps in the scope of services covered or in the financing, service users may seek care in the private sector or outside the country.<sup>157</sup> Strategic purchasing often involves making entitlements for health services explicit through a benefits package (Figure 16). A defined benefits package specifies the state's obligations towards citizens and allows users to claim their legal rights to healthcare. Explicit entitlements require clear rules on the health interventions, drugs, diagnostic tests, and devices to be integrated (or removed) from the package. There should also be a clearly defined process for determining future changes in the benefits package.

**FIGURE 16 • Prioritizing services accessible by the population**

<b>EXPLICIT PRIORITY SETTING = DEFINED BENEFITS PACKAGE</b>	<b>IMPLICIT ALLOCATION = TIME, PRICE, DISTANCE</b>
Services, beneficiaries, and providers specified before the purchaser commits to cover service utilization	De facto limits to use imposed despite services being de jure made available to all.

*Source: World Health Organization*

Political statements on UHC can be translated into relevant policy solutions when the process for reviewing benefits draws on the evidence of effectiveness, cost-effectiveness, disease burden, and other objective criteria. Comparing the cost-effectiveness of interventions can promote efficiency in health spending, ultimately saving more lives for the same investment. In many countries, the benefits package is determined by historical precedent or the preferences of influential groups. Passive allocations will not result in a benefits package that improves population health within budget constraints.<sup>158</sup> Countries also cost their benefits package to inform revenue mobilization. Experience suggests that costing does not predict higher revenue mobilization. Another reason to undertake costing studies is to get a price reference to set provider payment rates. The aim should be to find the appropriate payment methods and amounts that set effective incentives for providers to achieve the desired objectives.<sup>159</sup>

### **When?**

The ability to routinely update the benefit package systematically is often built over the long term. However, a roadmap can be developed at an early stage. Core essential services can be defined in the initial benefits package, with refinements over time as the capacity for the required assessments and consultations is acquired. In Chile, the process of determining the benefits package was transparent and incorporated population preferences. This process helped build support for an otherwise challenging reform (Box 16).<sup>160</sup> Because of resource limitations, many low and middle-income countries already have a package of services for primary healthcare. With economic growth and changes in the disease profile in the population, demand may increase for services that are much closer to what is available in high-income countries. These services may be accessible with informal payments or through the private sector. If the benefits package is not updated to reflect changing needs, the above alternatives may be unaffordable for less wealthy households.

**BOX 16 • THE POLITICAL IMPETUS FOR AN EVIDENCE-BASED HEALTH BENEFITS PACKAGE IN CHILE**

Chile is known for having established a benefits package that has a strong foundation in rigorous evidence and explicit processes. Factors enabling the evidence-informed design of the benefits package in Chile lie in the institutional processes established, skilled leadership of champions, and deliberate use of population preference data. In 2000, President Lagos put Dr. Sandoval in charge of the Health Reform Commission, a new inter-ministerial body tasked with designing Chile's health reform, including developing the benefits package.

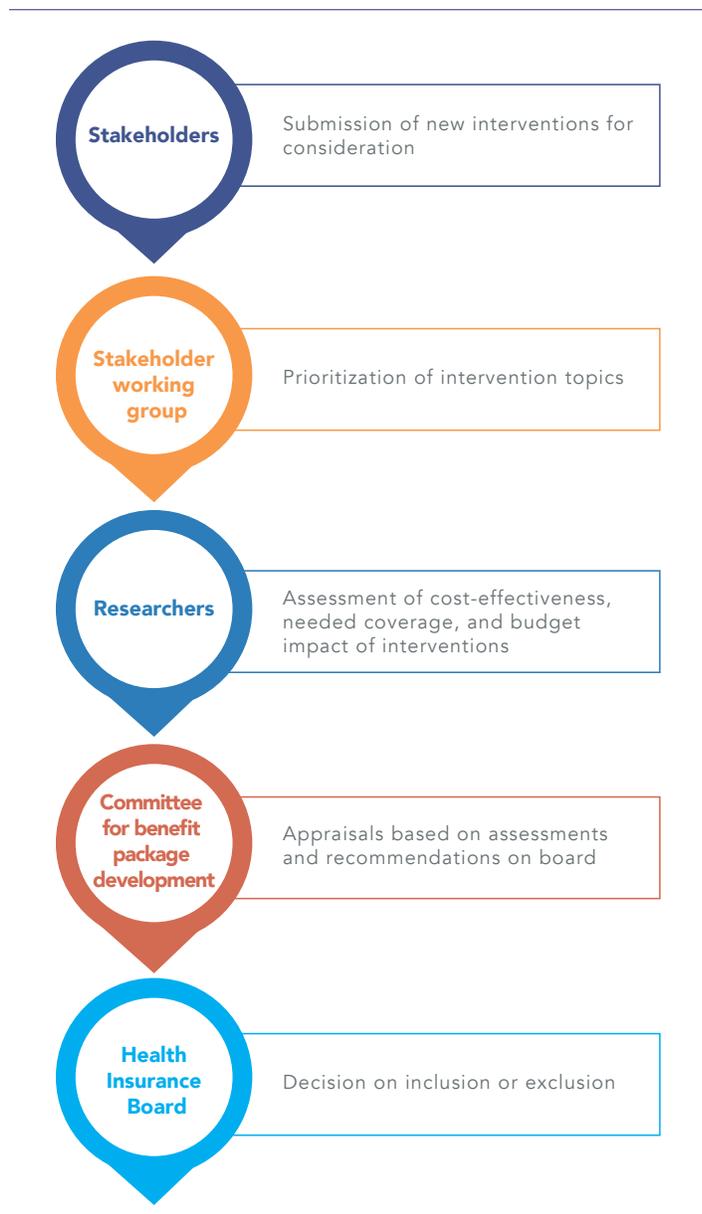
Committed to the use of evidence, Dr. Sandoval considered the 1990s Clinton health reform in the United States, learning that the isolation of technocrats from other stakeholders may have played a role in its failure. Using this evidence, President Lagos and Dr. Sandoval created processes that sought to protect the technocratic nature of the legislation while also ensuring political engagement and institutional processes for resolving points of technical disagreement.

From initial design to roll-out, President Lagos championed the reform as well as its technical and independent character through hurdles from opposition groups. President Lagos was aided by broad public support for the benefits package —created in part through deliberate efforts to ensure that the package reflected population preferences.

In many middle-income countries, making the benefits package explicit is a political priority. Growth in the gap between citizens in different income groups creates social tensions, and equal entitlement to a benefits package can be a mechanism to promote fairness. Besides, a well-informed user can use the information she has on the benefits package in her interaction with the provider. A clear benefits package is also a mechanism for controlling expenditure growth in the health sector. Whereas it is up to the health authorities to kick off the process of defining benefits, pressure may also come from external actors. Regional cross-border healthcare legislation has motivated European countries to explicitly define and price the available benefits in their health system.<sup>161</sup>

**Who?**

Proposed revisions to the benefits package are usually approved by the health authority, in consultation with the purchaser(s). The proposals may be generated by specialized agencies tasked with technical assessments as with the United Kingdom National Institute for Clinical Excellence or the Korean HIRA. When technocrats are isolated from other stakeholders in the design process, their evidence-based solutions may be rejected. It is important to have consensus over the process for discussing revisions, including the criteria to be considered, their relative priority, the list of stakeholders to be involved, and the specific steps where consultation is required (Figure 17). It will also be up to the authorities to ensure a process for managing conflicts of interest and disagreements among stakeholders. The World Health Organization is currently developing a new global solution called the UHC menu for priority setting in the benefits package.

**FIGURE 17 • Benefits package revision process in Thailand**

Source: Ministry of Public Health, Thailand

### ***How to institutionalize this function?***

There is a vast literature on how to set up a system for the definition of a benefits package. Legal documents should outline the institutional arrangements. These documents should clarify the entity that leads the process, other parties involved, criteria and relative weighting, the protocol for decision-making, mechanisms for compliance, and ways to ensure transparency and accountability. There is often an initial consultation stage, open to a variety of stakeholders, in which parties are invited to propose interventions that should be considered in the benefits package. The assessment stage involves an analysis based on the agreed criteria (Table 5). In the decision stage, the report is provided to the mandated decision-making body, which is accountable for the budget and priorities for the health system.<sup>162</sup>



**TABLE 5 • Criteria that may be relevant to refining the benefits package to facilitate UHC**

GOAL	SCOPE	RELEVANT EVIDENCE
<b>Equity</b>	Fairness in access, financial risk protection, and health outcomes	Death and disability data, utilization data, household OOP spending, disaggregated across income and geographical groups.
<b>Efficiency and Effectiveness</b>	Allocative and technical efficiency, and clinical effectiveness.	Impact on health outcomes, cost-effectiveness, unit costs of services across providers, and distribution of health outcomes across providers
<b>Financial Risk Protection</b>	Reduction of financial barriers to access	Household OOP spending and data on foregone care due to inability to pay

Source: World Bank

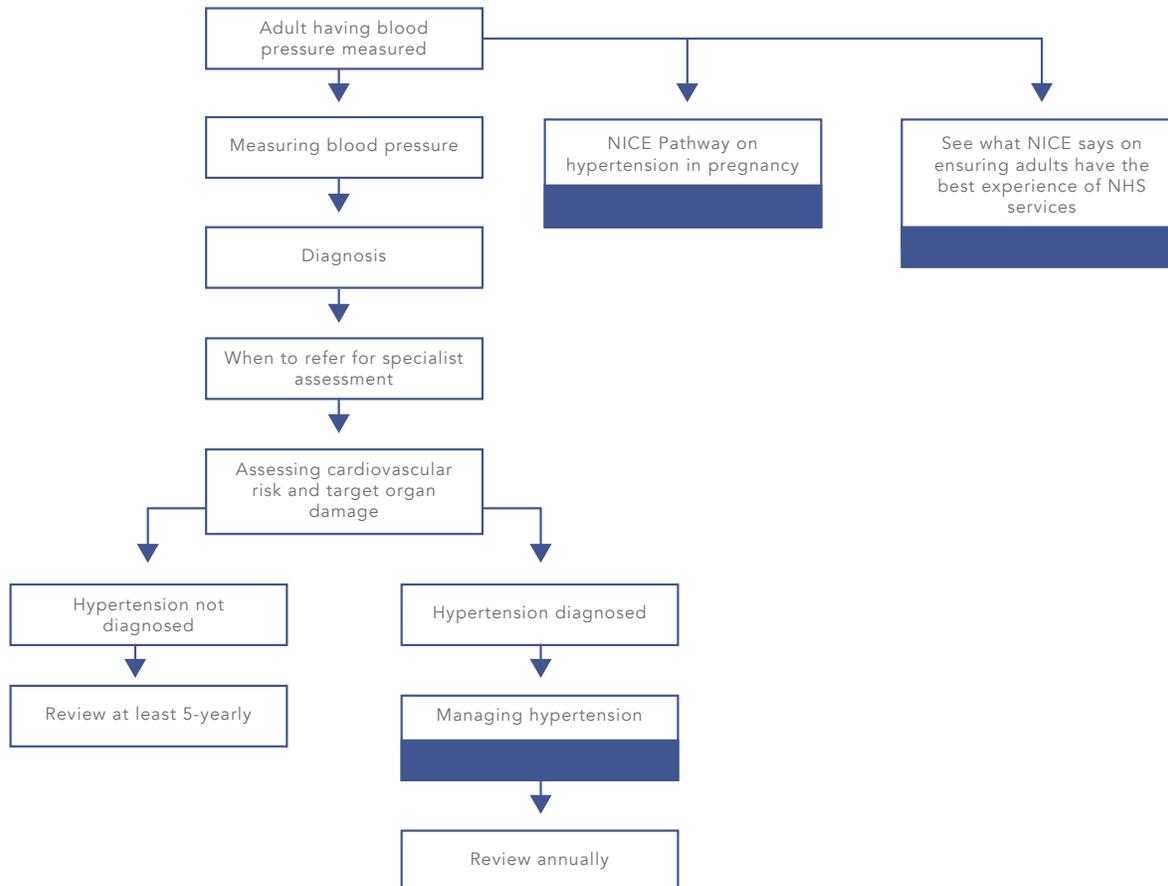
### **What are the core technical issues?**

In defining the benefits package, interventions may be evaluated on multiple dimensions, including clinical effectiveness, cost-effectiveness, equity, and budget impact.<sup>163</sup> Multilateral agencies, including the WHO, provide support for a simplified priority setting. On the cost of the benefits package, there is a need to shift the focus to the pricing of provider payment mechanisms. Costing exercises should be used as a productive entry point for policy dialogue rather than solely for highlighting the difference between actual and optimal resource levels.<sup>164</sup>

## **4.2.2 SYSTEMS FOR UPDATING CLINICAL GUIDELINES**

Provider autonomy can facilitate health system goals, where it allows front-line providers with an understanding of local health needs to define the most appropriate allocation of resources. However, self-interested providers may also act in ways that are not consistent with health system objectives. Clinical guidelines are mechanisms for specifying service delivery standards, including the appropriate level at which healthcare should be supplied, and the content of services that is aligned with empirical evidence on effective care. To this end, countries may designate to a competent institution responsibility for developing clinical pathways that specify the entry point for service delivery, the conditions for access to specialized health services (gatekeeping), and the evidence-based recommendations for provider-user interactions, including prescription guidelines (Figure 18).<sup>165</sup> Purchasing can improve quality and efficiency by incentivizing adherence to these guidelines, through payment mechanisms and monitoring, or by conditioning contract provisions on historical performance.

**FIGURE 18 • Hypertension clinical pathway by the United Kingdom National Institute for Health and Care Excellence**



Source: National Institute of Health and Care Excellence

### **When?**

Traditionally, gatekeeping is put in place when there is overutilization of specialized care for ambulatory-sensitive services. Gatekeeping reforms are often sophisticated, with mixed results, and the difficulty of introducing these changes must be carefully weighed against the potential benefits (Box 17).<sup>166</sup> The benefits of clinical pathways more generally are less contested. Many health systems already have clinical guidelines for some conditions, particularly essential maternal and child healthcare at the primary health care level. These guidelines can be expanded by consideration for coordination of healthcare across providers, including specialists and diagnostic care. Scientific evidence on clinical management, medicines, and medical devices evolves daily. Hence, there is a need for a systematic process to update clinical pathways regularly and retrain clinical staff on recent findings.

### **BOX 17 • AN OVERVIEW OF THE EVIDENCE ON GATEKEEPING**

Gatekeeping and provider choice have been dynamic areas over the last two decades among countries in the OECD. Most countries which were very restrictive in terms of allowing direct access to specialty care, such as Denmark and the United Kingdom, have made steps towards more flexibility. Countries where free access prevailed, such as Belgium and France, have tried to strengthen gatekeeping regulations by introducing systems where the patient can skip the referral by the family doctor and go straight to the specialist, if they cover an extra fee.

There is a growing body of research on the effects of gatekeeping in terms of efficiency, costs, quality, equity and patient empowerment. Households may value the choice of their primary care physician and trust their guidance as for specialized care. However, households from higher socio-economic groups tend to value free access to specialized care and indeed use specialists more than other groups. It is difficult to balance the returns. The pattern of over-utilization by the rich is detrimental to efficiency where less-expensive primary care would suffice. However, under-utilization by the other groups indicates there may be improvements in health with less restrictions to care seeking behavior.

To empower patients, where direct access to specialty care is allowed, several countries have published information on the performance of hospitals. While this seems to be an effective incentive to encourage those facilities to improve their quality, the information itself does not seem to be used much by family doctors and patients for their decisions, perpetuating inefficient health care use patterns. Econometric analyses carried out on OECD countries by suggest that when primary care doctors constitute above 30 percent of practitioners, gatekeeping countries have more efficient health care systems than their counterparts. However, other assessments conclude that “gatekeeping has the potential to increase efficiency and reduce costs, but savings are probably smaller than political expectations”.

#### ***Who?***

The MoH, in consultation with the purchaser(s), often makes decisions on gate-keeping and clinical guidelines. The MoH defines the content of these guidelines, while the purchaser enforces these recommendations through payment mechanisms. Gatekeeping entrusts to primary care providers a role in authorizing access to other categories of providers, particularly hospital care and diagnostic tests. It is essential to involve representatives of providers and patient associations in defining guidelines, to improve compliance. Involving researchers who can describe existing patient care pathways and clinical practices, is useful to inform policy revisions with evidence. Providers also need to be trained in the new guidelines to be able to comply with them.

#### ***How to institutionalize this function?***

Gatekeeping is standardized by regulation, including defining evidence-based care pathways. These pathways specify the services to be received at each level of care and systems for communicating between providers. Gatekeeping is enforced through provider payment mechanisms and monitoring of patient flow in the health system, as exemplified in several OECD countries.<sup>167</sup> Compliance with clinical guidelines is also increased through training of clinicians, developing a system for updating and disseminating clinical guidelines, monitoring of

provider compliance, and implementing a reward or sanction system.<sup>168</sup> The purchasing agency must make its payment systems consistent with other mechanisms for rationalizing healthcare use.

### ***What are the core technical issues?***

Health authorities should identify the clinical specialties for which direct access to specialists may be allowed, such as for maternal health services. However, it is important that this process of defining which services can be received at higher levels is dynamic, so that as primary health care strengthens, the scope of care can expand in line with global best practice. The purchaser and health authorities should jointly define clinical guidelines and payment mechanisms that facilitate adherence of providers with care pathways. For clinical guidelines, there should be a system to update recommendations for clinical care for prevalent health conditions regularly. There should be a defined process of training health providers and incentivizing compliance following updates.

## **4.3 PROVIDERS FROM WHOM GOODS AND SERVICES ARE PURCHASED**

Since the 1990s, health sectors in developing countries have changed in line with broader societal shifts in favor of liberalism and privatization. The private sector now has a substantial role in service provision in many health systems. The public sector also continues to provide preventive healthcare and curative care for acute illnesses. However, health authorities have been slow to adapt to the pluralistic nature of service delivery and manage the emerging private sector. In this regard, strategic purchasing presents two opportunities. First, health authorities can better regulate private providers through contracts. Second, strategic purchasing enables the introduction of market mechanisms within the public sector, such as competition on performance. Armenia faces key challenges in terms of defining regulations for selective contracting that do not exacerbate gaps in access to care while improving incentives for high quality service provision.

### **4.3.1 ESTABLISHING RULES FOR SELECTIVE CONTRACTING**

The significant role the private sector plays in healthcare is a signal from service users that they value this choice. Hence, the capacity to engage with the private sector through regulations and contracting is a comparative advantage. The purchasing agency can signal what is valuable from the perspective of the society by rewarding high-performing facilities, sanctioning those creating hazards, and ensuring coherence in service delivery. This undertaking is possible only if the purchasing agency has information on provider

performance. However, information on the performance of private providers is not routinely collected in countries with loose regulations.

Selective contracting enables the purchasing agency to enforce standards of care. Contracting can be made conditional on prior performance and technical capacity to deliver the necessary care. Where the purchaser is responsible for allocation of a significant proportion of overall funding, these incentives can entice some providers to improve service delivery organization. The purchasing agency may also be able to incentivize optimal models of care. For example, continuity of care between providers can be encouraged using data systems and payment incentives, such as bundled care payment schemes rewarding coordination.<sup>169</sup> The exclusion of providers below the required standards enables the purchaser to improve the quality of care. This function requires clear decision-making rules, including legitimate authority, independent review, and the right of providers to appeal.

Exclusion of providers from service delivery may not be possible in contexts characterized by spatial monopoly in healthcare provision. This may result where service users are unwilling or unable to travel. Spatial monopolies are also a legacy of the Semashko model, which were based on a segmented market with little overlap in the catchment area of facilities, as is the case in Armenia, outside Yerevan. The exclusion of a provider due to gaps in quality or efficiency in these contexts inadvertently contributes to physical barriers to healthcare access. Provider exclusion, even for poor competence, may be politically expensive. However, where a purchaser is not able to move to an alternative provider when contract terms are breached, the incentive for provider compliance is negatively affected.<sup>170</sup>

### ***When?***

Building capacity to contract the private sector, including negotiation procedures and data systems, takes time. In advanced health systems, the rules for payment by the purchaser are comparable for public and private providers, with appropriate adjustments to account for supply-side subsidies given to public providers.<sup>171</sup> Private providers tend to focus on activities with homogenous costs, high-profit margins, and low risk, pushing public providers to focus on other activities.

### ***Who?***

Ideally, the purchaser(s) is responsible for provider selection. To perform this function, the purchaser(s) should have the legal mandate to negotiate with providers and enforce their adherence to standards of care.

### ***How to institutionalize this function?***

The core transaction is this: “We will pay for these services, and these people, in exchange for performance information and compliance with pre-defined standards.” Building a robust health information system is a pre-requisite for selective contracting. The process of identifying and selecting providers will have to be transparent. Commissions may need to be established to

set eligibility criteria for contracting and to monitor compliance with quality standards. The process must be independent of conflict of interest. Besides, all stakeholders should have mechanisms to voice their concerns and receive redress.

### ***What are the core technical issues?***

The purchasing agency will require expertise in negotiations, performance monitoring, and health service organizations. In contexts where there are spatial monopolies and provider exclusion may introduce access barriers, countries may resort to encouraging potential new entrants into the market, facilitating changes in management of public sector facilities, and benchmarking of provider performance to provide incentive for better healthcare.<sup>172</sup>

## **4.4 PROVIDER PAYMENT AND MONITORING**

A provider is better informed of his performance than the purchaser. The purchaser(s) may also have incomplete information on the clinical outcomes of service delivery and the role of external factors in determining service outcomes. Given the asymmetry of information, providers may make decisions that have unfavorable consequences for the purchaser or patient. For instance, the provider can work less than agreed, underuse their skills, or misreport the care they delivered. Being strategic requires designing the contract that aligns the provider with the objectives of the principal and monitoring compliance, within reasonable costs. Therefore, finding the best arrangement may be challenging. In Armenia, reporting by providers to the SHA via ArMed primarily focuses on the prevention of fraud and monitoring coverage levels. However, there are opportunities to better leverage payment and monitoring mechanisms to incentivize high-quality service delivery and efficiency.

### **4.4.1 DESIGNING PAYMENT SYSTEMS**

Designing payment systems is a central aspect of strategic purchasing reform, as the way the health facility or worker is rewarded influences service provision. Ideally, the strategic purchaser uses information on provider performance and population health to drive payment system design. Refinements should consider the feasibility of implementation and compatibility with health system goals, while securing the political space for incremental revisions in the future. Post-Soviet countries inherited a provider payment system which focused on financing inputs, in terms of infrastructure, over outputs. The more beds that a hospital had, the more staff positions it could have, and the higher the budget it received.<sup>173</sup> Provider payment reforms in the region over the last two decades have focused on improving the efficiency of health systems burdened with the excess capacity created by inappropriate incentives.<sup>174</sup>

The traditional payment mechanisms tend to reward providers for outputs. These outputs may be consultations or procedures (fee-for-service payments), for enrolled patients (capitation), for a fixed time over which care was provided (salaries and global budget), and for each case (case-based or diagnosis-related group payments). Financial risk borne by the provider and purchaser varies across these mechanisms. For example, with capitation, a provider may commit to providing services regardless of how many visits a service user makes, and the complexity of their health care needs. However, fee-for-service, in the absence of a ceiling on utilization rates, exposes to the purchaser to all the financial risk.

While providers may be motivated intrinsically and by non-financial incentives, such as monitoring, they also tend to adjust their behavior in response to how they are paid. Pure fee-for-service payments may incentivize increases in supply of healthcare and access, but may be associated with oversupply, escalating costs. In contrast, capitation may incentivize providers to emphasize preventive care to reduce health care needs, but may lead to over referrals to other providers; and case-based payments may incentivize a focus on maximizing technical efficiency in healthcare production, including reduction in admission duration, but may incentivize the selection cases with higher reimbursement rates.

The incentives from pure traditional payment methods may not be consistent with providing high-quality health care. In countries with a growing burden of NCDs, and where service users suffer from multiple coincident diseases, high-quality health care involves coordination between multiple healthcare providers. However, traditional payment mechanisms do not often account for the need for coordination across levels of healthcare and tend to focus separately on incentives facing providers at each level. The result is often a payment mix that, as in Armenia, incentives fragmentation in service delivery, which exacerbates the NCD burden. In countries that have undertaken smaller-scale reforms to adjust incentives, the focus has been on adjusting traditional payment methods on the margin.<sup>175</sup> For example, blending different payment methods to balance the positive and negative effects of each pure method, such as global budgets and performance-based payments. There are currently only nine out of the 34 countries in the OECD that use a single form of payment for primary healthcare.<sup>176</sup> As countries innovate, there are emerging examples of successfully purchasing to improve coordination of healthcare and increase incentive for high quality service delivery (Box 18).<sup>177</sup>

**BOX 18 • PAYING FOR BETTER QUALITY OF CARE**

Through **add-on-payments**, bonuses or penalties are added to traditional payment mechanisms to incentivize coordination of care and adherence to guidelines. For example, in 2009, France introduced prospective add-on payments to encourage the coordination of care across multidisciplinary providers. These payments accounted for less than five percent of total provider income. However, they have been associated with improvements in quality, including better control of blood sugar in diabetes mellitus. Costs also reduced by 0.5 to 2.3 percent. This reform did not require significant investments in data systems but were limited in scope as they focused on specific aspects of the care pathway for diabetes.

Through **population-based payments**, the purchaser pays groups of healthcare providers, referred to as accountable care organizations (ACOs), for most healthcare needs for the population. These providers are permitted to retain all or part of the savings they make if they meet specific quality criteria, creating incentives for quality and efficiency. Up to 400 ACOs are contracted by Medicare in the United States. Similar concepts have been launched or are being considered in Germany, the Netherlands, Singapore, and New Zealand. ACOs often redesign the pathway of care delivery to focus on patient needs and improve provider collaboration. Preliminary results suggest there are improvements in process measures of quality of care among ACOs in the United States, including falls in readmission rates, improved blood pressure control, and increased screening for tobacco use.

The Center for Medicare and Medicaid Services has also introduced adjustments in traditional payment methods linked to performance on quality. Through the **hospital-acquired condition reduction program**, the Center imposes penalties on hospitals that are ranked poorly in terms of the extent to which their patients develop preventable conditions, including postoperative and other hospital-acquired infections, pressure ulcers, and fractures following in-hospital falls. The program saves Medicare approximately USD 350 million annually. **The hospital value-based purchasing program** rewards hospitals for high-quality inpatient care. The program withholds, by law, 2 percent of calculated annual payments for all hospitals, which is used to fund incentives to the hospitals at the end of the fiscal year. In practice, for each claim, the case-based payment is adjusted using a factor that depends on a performance score. Performance is measured on the following outcomes: mortality and other complications, healthcare-associated infections, patient safety, patient experience, and cost reduction. Payments reward hospitals for their performance relative to other hospitals as well as improvement compared to the previous year.

**When?**

It is impossible to design a strategic purchasing reform without specifying the provider payment mechanism(s) to be implemented. In turn, provider payment mechanisms determine which other functions to establish. For instance, the introduction of a capitation system for primary healthcare providers requires data on the population served by each first-line facility and the expected average amount of healthcare used over a definite period. If households can choose their provider through open enrollment, there is also a need for a civil registration system with a unique identifier for each citizen. Capitation payments may also be conditional on meeting standards of care, which would require clinical guidelines. Provider payment methods are considered at the initiation of reforms. However, there will be revisions as the population needs change and to improve the incentive structure.

**Who?**

Given their close interaction with providers, the purchaser(s) often proposes payment mechanisms to the MoH. These proposals may be informed by the shortcomings of existing payment methods, information on provider performance, healthcare use patterns, and the goals of the purchasing reforms. The options presented may also be informed by international experience. Hence, there may be a role for health financing experts.

**BOX 19 • THE EXPERIENCE OF THE KYRGYZ REPUBLIC IN PROVIDER PAYMENT DESIGN**

A central aspect of the transition to strategic purchasing in Kyrgyzstan was the institutionalization of the Mandatory Health Insurance Fund to implement innovative provider payment mechanisms, and the required data systems and contracting mechanisms. Initially, the Fund introduced a case-based payment system for hospitals and a capitation system for primary care providers. The most recent reform was the introduction of a results-based financing scheme with a focus on the improvement of quality of care. This was done with the support of a World Bank project. The performance incentives were informed by a balanced scorecard system promoting innovative quality measures, formative feedback and benchmarking.

The concept was tested first as a pilot in a rayon hospital in 2013. The adoption phase covered 42 hospitals in 2014. National scale-up in all 64 rayon level hospitals was achieved in the Fall of 2017. The Fund has institutionalized the payment mechanism across all these hospitals using public funds since July 1, 2018 (5 percent of the MHIF annual budget). Today, the payment scheme covers in total 189 facilities including 64 pilot rayon level hospitals, 12 regional hospitals, 6 city hospitals, 79 stand-alone rayon family medicine centers and 28 rayon family medicine centers under Centers of General Practice.

Results-based financing has changed provider behavior, increasing teamwork and improving quality of care in participating facilities. In the next, expansion phase, the rewarded results will expand to include quality, measured through clinical vignettes on 24 health conditions. This is expected to assure continuity and will maximize benefits generating a synergy with other quality improvement activities being planned in the country.

**How to institutionalize this function?**

It is essential to specify the process from ideation to the expansion of new mechanisms, including adoption in national policy and a funding commitment.<sup>178</sup> This process may include demonstration pilots to establish a proof of concept before scale-up. In Box 19, we review the experience of Kyrgyzstan over the last two decades.<sup>179</sup> Clarity on the roles and responsibilities of the MoH and the purchasing agency in defining, piloting, and implementing new payment mechanisms is a critical step towards institutionalizing this function.

**What are the core technical issues?**

An important technical challenge is identifying the right mix of payment mechanisms as individual methods have positive and negative effects.<sup>180</sup> There is a rich literature on provider payment mechanism design, including in Central and Eastern Europe (Box 20).<sup>181</sup> Even small

changes in payment systems can have a significant impact on provider behavior. Starting with a simple payment model, piloting new proposals, and adding complexity over time will allow the supporting systems to develop the capacity to handle more sophisticated mechanisms.<sup>182</sup> In countries where public providers receive funding towards operating costs and fixed assets, reimbursement mechanisms for selected private providers may include a premium to level the playing field.

### **BOX 20 • PURCHASING HOSPITAL CARE IN CENTRAL AND EASTERN EUROPE**

To reduce the excess capacity in the hospital sector, several countries have implemented global budgets or case-based payment for hospital services. A global budget is the payment of a fixed sum in advance to cover aggregate expenditures of the hospital over a given period. Unlike the former line-item budget system, the hospitals have the authority to make internal resource allocations within the global budget. The global budget may be based on historical output as in Romania and Slovenia. Most countries of the region have implemented, or are moving toward, case-based hospital payment systems. Case-based hospital payment systems pay hospitals a fixed amount per case. In some countries, these payments are based on a system of diagnosis-related groupings with specific cost weights for each group, that adjust for case complexity.

The need to reduce excess capacity in the hospital sector was a rationale for the introduction of a case-based hospital payment system in Kazakhstan, Kyrgyzstan, and the Republic of Moldova. The new case-based hospital payment system served as a mechanism to stimulate competition and improve consumer responsiveness. Hungary moved from an input-based line-item budgeting approach to a case-based hospital payment system in order to address the large variations in resources available to hospitals within the historical budgeting process. Case-based payments may reorient hospitals toward providing services to patients rather than creating or maintaining infrastructure; create incentives for hospitals to supply higher quality services using fewer or lower cost inputs; introduce choice for patients; and allow payment to private providers.

## **4.4.2 MONITORING PROVIDER BEHAVIOR**

A strategic purchaser should refine provider payment mechanisms over time. These refinements require verified information on the performance of providers. By design, some payment methods generate more data than others. Paying for outputs creates significant amounts of routine data on health facility performance. Conversely, a capitation system often produces information on enrolled households once a year. Monitoring and refining payment mechanisms are conditional on data collection, management, and analysis by the purchaser.

Payment mechanisms can incentivize false reporting. Output-based payment systems may entice providers to provide unnecessary interventions, overreport the volume of services or neglect the quality of care. Diagnosis-related groups incentivize providers to classify diseases under groupings with higher cost weights or to readmit patients. Providers who receive annual

payments per capita have an incentive to under-provide services if they can appropriate the surplus. For the purchaser, it will be essential to monitor potential side-effects.

Benchmarking provider performance against specific standards can also provide non-monetary incentive to improve service delivery. In 2004, Korea introduced a program to evaluate the performance of state-run hospitals. The program aimed to inform the public of hospital performance to encourage the informed choice of providers and to incentivize hospitals to improve the quality of health care. A law was developed that required hospitals to be evaluated every three years on domains that included the quality of medical services, the availability of required human resources and infrastructure, and patient-centered care. Hospitals are scored on each domain from 0 to 100 percent with clear criteria which is then ranked from A to D and published online for public review.<sup>183</sup> In many OECD countries, health authorities monitor avoidable hospital admissions, appropriate prescribing practices, inpatient care complications, surgical safety, patient experience, and quality of mental health care (Box 21).<sup>184</sup>

#### **BOX 21 • LEARNING FROM THE OECD HEALTH CARE QUALITY INDICATORS**

**Avoidable hospital admissions:** The rate of hospital admissions per 100,000 population aged 15 years and above, among patients with asthma, congestive heart failure, hypertension, chronic obstructive pulmonary disease, and diabetes mellitus.

**Appropriate prescribing practices:** The percentage of diabetes patients with at least one prescription of cholesterol-lowering medication; the percentage of adults aged 65 years and above with prescription of long-term benzodiazepines; the volume of opioids prescribed per 1000 population per day; and the total volume of antibiotics for systemic use per 1000 population per day.

**Inpatient care:** Thirty-day mortality after admission to the hospital for acute myocardial infarction, hemorrhagic stroke, or ischemic stroke per 100 patients admitted; and hip fracture surgery initiated within 2 days after admission to the hospital.

**Mental health care:** Inpatient suicide among patients diagnosed with a mental disorder per 100 patients admitted; suicide within 30 days of discharge among patients diagnosed with a mental disorder per 100 patients admitted; and excess mortality among patients diagnosed with schizophrenia among adults aged 15-74 years.

**Surgical safety:** The incidence of post-operative sepsis after abdominal surgery per 100 hospital discharges; the incidence of obstetric trauma following vaginal delivery with an instrument per 100 vaginal deliveries; and the incidence of foreign body left following a procedure per 100 hospital discharges.

**Patient experience:** The age-sex standardized number of patients that reportedly skip consultations due to costs per 100 patients; the age-sex standardized number of patients reporting having been involved in decisions about their care with any doctor per 100 patients; and the age-sex standardized number of patients reporting having received easy to understand explanations by their family physician per 100 patients.

**When?**

Given the importance of payment incentives to purchasing reforms, systems to monitor provider performance must be considered at the design phase. Under a capitation system, the main issue for the purchaser will be to determine the need for further adjustments of the payment for age, gender, or socio-economic conditions to deter risk selection. Under a performance-based financing system, it may be relevant to revise the indicator checklist according to the evolution of the burden of diseases, emerging patterns of performance, or any new societal consideration. Under a diagnosis-related group system, the fees for groups may have to be revised using updated information on costs. Monitoring systems will be refined continuously.

**Who?**

The purchaser(s) and health authorities use health information systems to monitor providers. A verification system must be put in place to reduce fraud. In some cases, the purchaser(s) recruit clerks to check the accuracy of the data. In others, there may be a physical verification of reported data via field visits. These may also serve to assess the unanticipated effects of the payment methods. Digitalization of data and transactions makes it possible to use artificial intelligence and algorithms to scan data for aberrations and inconsistencies. A multidisciplinary team of clinicians, data analysts, and information technology specialists work to define data collection standards and algorithms to detect errors and fraud.

**How to institutionalize this function?**

Continued monitoring relies on an appropriate data system and the required technical capacity. In some countries, the verification of performance is entrusted to independent parties, including audit companies. However, outsourcing this function requires a rigorous procurement process. A legal requirement to evaluate hospital performance, akin to the Korean example, can also serve to institutionalize this function.

**What are the core technical issues?**

It would be essential to set up a data system and develop a protocol for data collection, verification, analysis, scoring of providers, and publication. In many countries, routine data is still underused for updating the payment formula and benchmark provider performance.

## 4.5 THE CONTEXT FOR PURCHASING REFORMS

The success of purchasing reforms is often dependent on functions that may be beyond the remit of the purchaser. Three factors that are relevant for the Armenian context are provider autonomy, risk pooling, and the sufficiency of financial resources in the health system.

### 4.5.1 PROVIDER AUTONOMY

Purchasing reforms can only improve service delivery if providers can respond to incentives and regulations by changing their behavior or restructuring their operations. For example, even if the purchaser(s) pays a health facility to improve quality, service delivery may not improve if the facility cannot replace incompetent staff. Where providers have decision rights to respond, weak management capacity may also prevent service delivery improvements in response to purchasing reforms. Purchasing reforms may need to be accompanied by increases in autonomy for providers. Furthermore, facility managers may need training in personnel management, procurement, administration, accounting, or reporting.

#### ***When?***

Provider autonomy is a pre-requisite for successful purchasing reforms. Technical experts may identify changes in the decision rights of providers needed to support proposed purchasing reforms. Most purchasing improvements require that health facilities receive revenue via their bank account. Reform documents will need to specify if managers can hire and fire staff, accountability for operational decisions, managing surplus, etc. While capacity building for these new roles is a long-term process, training may also be necessary during the roll-out of the reform.

#### ***Who?***

While the MoH will lead the dialogue, some decisions may have to be taken together with other ministries. Allowing public entities to hold a bank account may require changes in PFM in collaboration with the MoF. If the MoH keeps tight control of the purchasing agency, it may have to let go of the ownership of health facilities. Where local governments own health facilities, these reforms may be linked with other decentralization reforms. Health facility managers will also have to be involved in designing appropriate decision rights. A team of trainers may help develop and implement orientation programs for health facility managers.

#### ***How to institutionalize this function?***

Ideally, health facilities should have the legal mandate to respond in line with the goals of purchasing reforms (Box 22).<sup>185</sup>

**BOX 22 • A TREND FOR MORE AUTONOMY FOR HOSPITALS IN EUROPE**

The European Observatory on Health Systems and Policies has recently published a policy brief on the experience of decentralized hospital governance in Europe. The brief reviews the experience in ten countries (Denmark, England, Finland, France, Germany, Italy, Netherlands, Scotland, Spain and Sweden). It examines ownership and legal form of hospitals; strategic planning of hospital infrastructure and capital investment at the national, regional or sub-regional government level; and the degree of decentralization of hospital governance.

In Western Europe, there is no trend towards privatizing public hospitals. In eight of the 10 countries, most hospitals and hospital beds remain in the public sector. The exceptions are the Netherlands, where all hospitals are by law private not-for-profit entities, and Germany, where private for-profit and private not-for-profit hospitals each account for about 30 percent of acute hospital beds. However, there is a strong trend towards giving more autonomy to public hospitals. A local or regional administration that owns the public hospitals, with varying degrees of direct political control in hospital management boards. Sometimes, different models of public ownership co-exist.

Across countries, the public bodies that own the hospitals vary in the degree of autonomy afforded. Among the 10 countries, England is at one end of the continuum, with most hospitals having taken the form of self-governing foundation trusts. Italy and Spain have also introduced public hospital enterprises or foundations, but with less autonomy.

***What are the core technical issues?***

The transfer of decision and earning rights will have to be tailored to the function and size of the health facility. Higher-level hospitals will need more autonomy than smaller facilities that provide primary care. Some decision rights, such as capital investments, may have to be centralized. Over time, decision rights may also have to be reconfigured, as is the case when hospitals are consolidated through mergers. Countries are often able to grant public facilities autonomy without significant legal changes.

**4.5.2 RISK POOLING**

Through risk pooling, health revenues from a group are pre-paid and accumulated in a common pool, held by a third party. The aim is to share the financial risk associated with healthcare needs. An individual's health care spending is largely unknowable in magnitude and timing, which makes it difficult to adequately provide for future healthcare needs.<sup>186</sup> Even with excellent information systems, only about 30 percent of variation in annual health spending at the individual level is predictable.<sup>187</sup>

A society that values equity of access, that is equal access for individuals with equal needs, may pool risk so that individuals are not responsible for the financial risk associated with seeking healthcare. However, there is also an efficiency argument for risk pooling. There is a net transfer with risk pooling of resources from richer to poorer members of the pool, and the poor are more likely to benefit from healthcare than the rich, given their worse health status, and to become more productive. Thus, there are potentially overall population health gains.<sup>188</sup>

Purchasing power of a third-party payer is also dependent on the extent to which risk is pooled. It is easier to influence providers if resources are pooled, managed by a limited number of purchasers, and send non-conflicting signals to providers. Where multiple pools exist, interactions across schemes and their implications for provider incentives should be monitored. Merging risk pools is a politically difficult endeavor, but definite successes have been realized in Eastern Europe (Box 23).<sup>189</sup>

As the size of a risk pool reduces, the impact of unpredictable health expenditure grows, incentivizing inefficiencies and inequities. There may be incentive to protect future budgetary provisions by spending up or to ration excessively if there is the expectation that the budget will be exceeded. As the risk pools perception of its budgetary provision changes over a fixed period, healthcare options available to members may also vary widely. There may also be incentive for risk selection to avoid high healthcare expenditure.<sup>190</sup>

### **BOX 23 • BUILDING ON THE SOCIAL HEALTH INSURANCE SYSTEM**

In Europe, many countries have moved from a government-financed and provided health system (Semashko model) to social health insurance, with entitlements linked to contributions to an insurance scheme. This shift would have ended coverage for large segments of the population, that is all except the formal sector and their dependents.

High-income Eastern European countries have avoided this pitfall. Croatia, the Czech Republic, Estonia, Hungary, Poland, Slovakia and Slovenia have all followed a similar strategy. These countries established state budget transfers to the health insurance funds to pay for the health insurance contributions of vulnerable population groups. This funding in most countries comes from the central government and complements the revenue collected through the payroll taxation levied upon formal sector employees.

This entrusts to the social health insurance fund a very dominant role in the disbursement of public resources for health, ranging from 83 percent of General Government Health Expenditure in Hungary to 94 percent in Croatia in 2013. Countries have identified different socio-demographic categories eligible for this status of 'state insured'. This approach has facilitated better access, quality, and financial risk protection.

**When?**

The longer countries wait, the more difficult it is to merge pools. With time, there is path divergence between pools and segments of the population covered by the wealthiest funds will oppose the reduction of their entitlements from a merger with less well-endowed pools. South Africa is an example of a country that experienced such a pitfall. Sometimes, socio-economic demographic changes can facilitate a resolution. If the formal sector continues to grow strongly, offering its entitlement to the shrinking number of informal sector workers becomes budgetary feasible.

**Who?**

The decision on institutional arrangements for risk pooling is made at the highest level of the country. The evaluation of alternative arrangements may consider the capacity to collect and steward health finances, public trust in institutions, and availability of information systems to monitor financial risk and management.<sup>191</sup>

**How to institutionalize this function?**

A single health insurance fund operates through the legal mandate to pool funds.<sup>192</sup> This approach prevents the creation of multiple pools with idiosyncratic purchasing arrangement systems and unequal benefits. As highlighted in the section on institutional arrangements, achieving equity with multiple funds requires complex risk equalization mechanisms.

**What are the core technical issues?**

In a seminal report, Smith and Witter highlight issues that should be considered in designing and operationalizing pooling arrangements.<sup>193</sup> Countries must define the institutional arrangements for risk pooling including the basis for defining pools (geography, employment, or sector), membership criteria, risk pool size, degree of competition, mandatory or voluntary status of contributions, rating of contributions (community or risk), the extent and basis for user charges, the basis and extent of risk-equalization transfers, and the basis for competition (benefits, quality, or premiums). The incentive for inefficiency that arises from unpredictable health spending, particularly in small risk pools, can be mitigated through voluntary pooling of budgets across pools, pooling budgets across multiple years, referring predictably expensive patients or services to a higher level risk pool, and identification of remediable causes of variation in health spending across risk pools.<sup>194</sup>

### 4.5.3 EXPANDING FISCAL SPACE FOR HEALTH

In most low- and middle-income countries (LMICs), OOP payments are the predominant means for financing healthcare. However, OOP payments contribute to foregone care among vulnerable populations and put them at risk of impoverishment from expenditures. Therefore, identifying ways to increase public spending on health, and expanding fiscal space for health, is critical for the achievement of UHC.<sup>195</sup> Fiscal space for health can be increased in several ways: (i) via conducive macroeconomic conditions, increases in general government revenues resulting from economic growth and by improving revenue-collection efforts; (ii) by increasing health's share in government budgets; (iii) by introducing or expanding earmarked consumption and income taxes; and (iv) improvements in the efficiency of spending.<sup>196</sup>

Not all revenue mobilization options are compatible with achieving UHC. Population coverage is limited in voluntary schemes due to adverse selection. When health insurance schemes are voluntary, individuals who have poor health are more likely to opt into them. Premiums for these schemes rise beyond the average cost of covering the entire population. As poor health often correlates with lower incomes, those who need health coverage are less likely to afford it as premiums rise.<sup>197</sup> As a result, VHI accounts for over 20 percent of health spending in only six countries. In Rwanda and China, the two countries in which VHI has supported the national scale-up of coverage, these schemes have become quasi-compulsory due to significant government efforts to ensure enrollment and to subsidize vulnerable groups. Therefore, effective mechanisms for raising revenues must meet “Fuchs conditions” of subsidization and compulsion.<sup>198</sup>

“*No nation achieves universal coverage without subsidization and compulsion. Both elements are essential. Subsidies without compulsion will not work; indeed, they could make matters worse since the healthy flee from the subsidized common pool, only to return when they expect to use a great deal of care. Compulsion without subsidies would be a cruel hoax for the millions of poor and sick who cannot afford health insurance.*”

—Victor Fuchs, 1996

#### **When?**

Allocations in the government budget are the clearest signal of political commitment to launch UHC reforms. Negotiations on these allocations are often undertaken during the reform design phase. Where planning is linked to budgeting, the development of a costed health sector strategy may be a precondition for influencing the budget formulation process.

**Who?**

The overall level of government spending is primarily the concern of the Ministries of Finance. In the health sector, arriving at the total allocation involves collating planning and financial proposals from the heads of agencies subordinated to the MoH and budget program managers. Therefore, internal coordination within the health sector is essential for the budget proposals to reflect priorities across health programs, including purchasing an expanded package of healthcare. National health authorities then engage in the political process of negotiating allocations within the state budget with the MoF.

**How to institutionalize this function?**

Ensuring a stable and predictable flow of resources through the budgeting process to finance purchasing reforms can be a technical and political endeavor. On the technical side, some countries require a transparent and coordinated process for planning and costing programs for annual and medium-term financial planning exercises. Sustaining allocations to health coverage is facilitated by demonstrating the efficient use of existing funds and by high absorptive capacity in the health sector, evidenced by budget execution rates. In many countries, decisions on sectoral funding levels are entirely political.

**What are the core technical issues?**

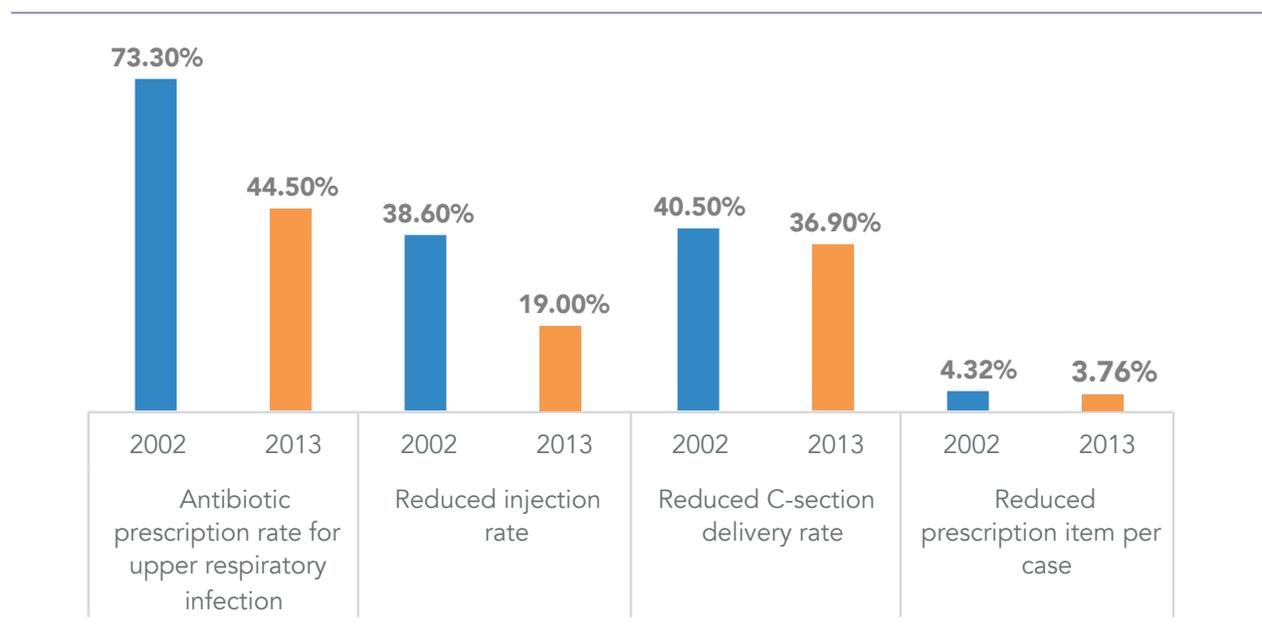
Between 2000 and 2017, public spending on health per capita increased by 3.7 percent annually, on average, globally. Almost half of this increase was facilitated by economic growth, through increased revenue collection and borrowing. Because of the structure of the economy, the main source of compulsory revenues for the health system in LMICs will be the state budget. Historically, levels of informality have declined with sustained economic growth, and supported revenue mobilization through income and wealth taxes. However, similar trends have not been observed in recent decades due to outsourcing of intermediate inputs in global value chains and weakening of the unionization of labor.<sup>199</sup> Direct taxes will not generate sizable revenues given the very narrow base.<sup>200</sup> Therefore, how revenue is raised is important. In considering options, the health sector should be situated in the broader macroeconomic context and cross-sectoral trade-offs should be considered.

Innovative financing methods have been explored by several countries, such as taxes on mobile phone use or sugary drinks. Additional government revenue may benefit the health sector irrespective of earmarking. The net effect on the health sector will not be additional if Ministries of Finance reduce general revenue allocations to compensate for higher earmarked revenues for health. Therefore, health authorities should remain focused on the total levels of public spending for health. In the same vein, advocating for shares of public financing for health, as a percentage of the state budget or GDP, has not been an effective strategy for expanding fiscal space. These numbers can be used as benchmarks to demonstrate low commitments for health

or of low levels of health spending relative to size of the economy. However, reforms focused on expanding coverage and financial risk protection are more likely to result in sustained prioritization of health from a fiscal space perspective.<sup>201</sup>

Health sector inefficiency is a bottleneck to effectively advocating for increasing budgetary allocations. The WHO has estimated that between twenty to forty percent of resources in the health sector are wasted globally due to a range of factors. These factors include underuse of generic medicines, unnecessary diagnostic tests, underutilization of preventive health care, and overutilization of hospital care.<sup>202</sup> Yip and Hafez identify initiatives implemented by countries to improve the efficiency of their health systems, including purchasing reforms, such as changes in provider payment mechanisms in China, merging multiple risk pools and reducing unnecessary healthcare in Korea, and harmonizing the benefits package in Chile.<sup>203</sup> The scale of savings has been significant. Between 2002 and 2013, an estimated 14 billion USD has been saved through efficiency-enhancing initiatives in HIRA in Korea, including reductions in prescription error, integrated health resource management, and reductions in overutilization of surgical care (Figure 19).

**FIGURE 19 • Trends in improvements in quality and efficiency in the Korean Health System**



Source: Korea National Health Insurance Service

## 4.6 LEARNING FROM GLOBAL EXPERIENCE IN PURCHASING

We have highlighted experiences from other countries that have implemented purchasing reforms to address the bottlenecks identified in Armenia. Below, we summarize the main lessons for governance of purchasing, defining goods and services to purchase, selecting providers, implementing payment mechanisms, and monitoring provider performance.

Regarding the **governance of purchasing**, strategic purchasing requires clear objectives, coordination among key actors, transparent decision and earning rights, and health information systems to support decision-making. Armenia has hitherto faced challenges in reflecting purchasing objectives in policy documents, ensuring clear separation of roles between the SHA, MoH, and private insurers, and drawing on the ArMed system to inform purchasing decisions. Hence, critical lessons for the governance of purchasing include the following:

- As the transition to strategic purchasing is often incremental, countries should have mechanisms to review and update their objectives as the challenges in the health system evolve.
- Institutional arrangements should be established through legal documents and should be appropriately designed to prevent the capture of the decision-making space by influential actors.
- For small countries, there are no strong arguments in favor of more than one purchasing agency. Centralizing purchasing capacity within one single entity will prevent fragmentation of the small pool, allow the country to build a critical mass of technical expertise, and spread the fixed cost of operating the purchasing agency over the whole population.
- Collecting, analyzing, and using data to inform purchasing is what makes purchasing strategic. Purchasing agencies should use the very rich datasets generated by their digitalized payment systems to identify opportunities to improve service content, change prescribing practices, and manage the health system inventory.

Regarding the **goods and services that are purchased**, strategic purchasing requires a comprehensive understanding of decisions by actors in the health system and their implications for optimal resource allocation, as some of these decisions may be influenced through contracting, the payment mix, and benefits package design. In this regard, Armenia faces key challenges, including the need for a systematic process for reviewing the benefits package to reflect changing health needs, developing the capacity to cost the service package, and developing and implementing regulations for quality that can inform contracts with service providers. Essential lessons from global experience for optimizing the coverage and quality of healthcare goods and services that are purchased include the following:

- The process for reviewing benefits should draw on the evidence of effectiveness, cost-effectiveness, disease burden, and other objective criteria. A clear benefits package is also a mechanism for controlling expenditure growth in the health sector.
- The focus of actuarial costing should shift to the use of pricing in establishing provider payment rates that encourage desired behaviors. Costing exercises should be used as a productive entry point for policy dialogue rather than solely for highlighting the difference between actual and optimal resource levels.
- Traditionally, gatekeeping is put in place when there is overutilization of specialized care for ambulatory-care-sensitive conditions. Gatekeeping reforms are often sophisticated, with mixed results, and the difficulty of introducing these changes must be carefully weighed against the potential benefits.
- Compliance with clinical guidelines to improve the quality of care can be increased through training of clinicians, developing a system for updating and disseminating clinical guidelines, monitoring of provider compliance, and implementing a reward or sanction system.

Regarding the **selection of providers**, since the 1990s, health sectors in developing countries have changed in line with broader societal shifts in favor of liberalism and privatization. However, the public sector also continues to provide preventive healthcare and curative care for acute illnesses. Armenia faces key challenges in terms of defining regulations for selective contracting that do not exacerbate gaps in access to care in segmented health markets while improving incentives for high quality service provision. Below are lessons on ensuring the selection of competent providers of healthcare through strategic purchasing:

- The purchasing agency can signal what is valuable from the perspective of the society by rewarding high-performing facilities, sanctioning those creating hazards, and ensuring coherence in service delivery.
- The routine collection and use of information on performance in both the public and private sector across services within the benefits package is a precondition for selective contracting.
- The exclusion of providers below required standards promotes a better quality of healthcare. It requires clear decision-making rules, including legitimate authority, independent review, and the right of providers to appeal.

- In contexts where there are spatial monopolies and provider exclusion may introduce access barriers, countries may resort to encouraging potential new entrants into the market, facilitating changes in management of public sector facilities, and benchmarking of provider performance to provide incentive for better healthcare.

Regarding **provider payment and monitoring**, the purchaser often has incomplete information about provider performance, the clinical outcomes of service delivery, and the role of external factors. Hence, strategic purchasing requires designing the contract that aligns the provider with the objectives of the principal and monitoring compliance within reasonable costs.

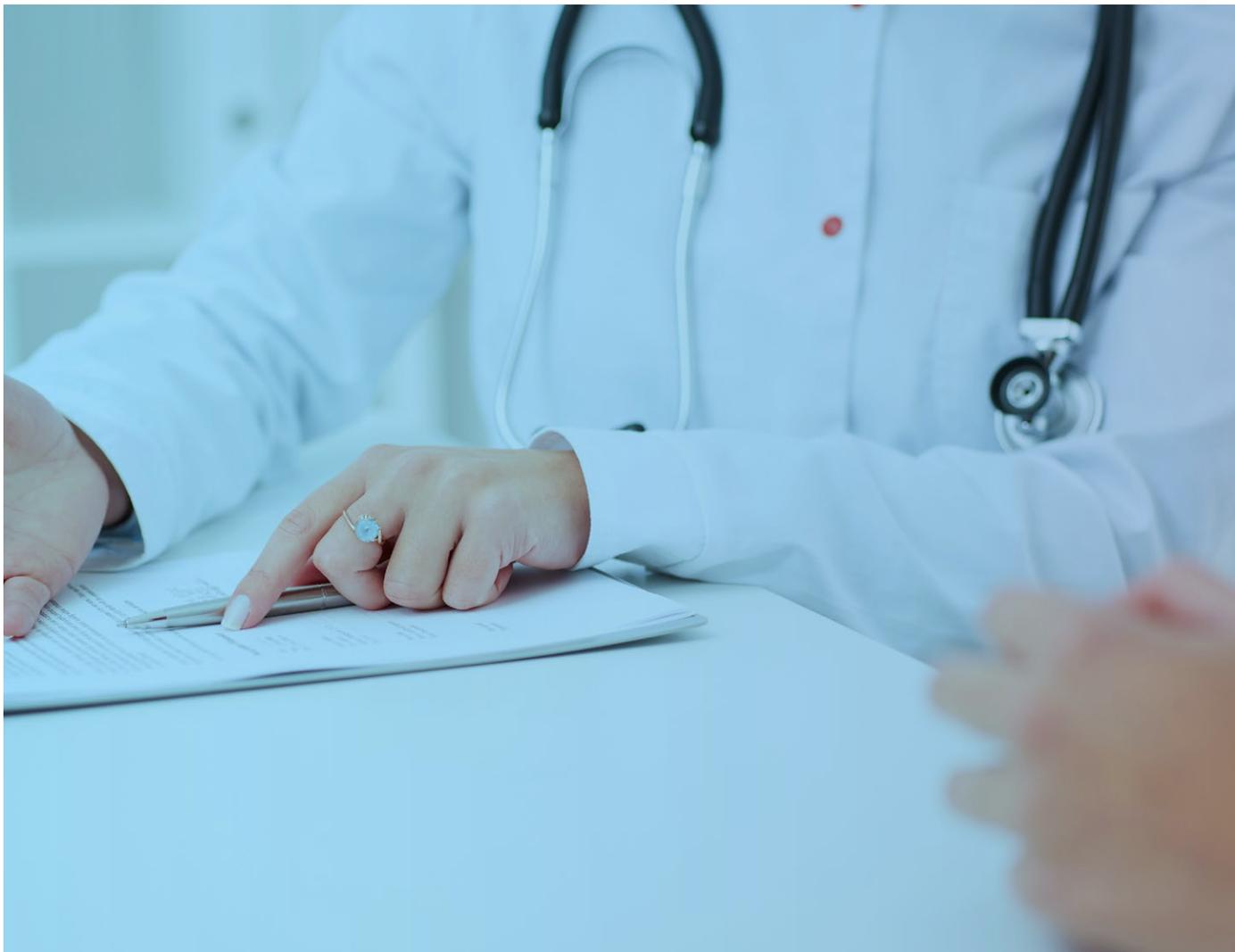
In Armenia, reporting via ArMed primarily focuses on prevention of fraud and monitoring coverage levels. However, payment and monitoring mechanisms do not incentivize high-quality service delivery. Critical lessons on provider payment and monitoring from global experience include the following:

- The main technical challenge is identifying the right mix of payment mechanisms as individual methods have positive and negative effects.
- Starting with a simple payment model, piloting new proposals, and adding complexity over time will allow the supporting systems to develop the capacity to handle more sophisticated mechanisms.
- To incentivize high-quality healthcare for NCDs, OECD countries have adopted add-on payments that reward improved provider coordination and population-based payments that allow groups of primary and specialist providers to retain all or part of their savings if they meet quality criteria.
- Monitoring and refining payment mechanisms are conditional on data collection, management, and analysis by the purchaser. In many countries, routine data is still underused for updating the payment formula. Monitoring, benchmarking, and publishing provider performance can provide non-monetary incentives to improve service delivery.

Regarding the **context**, the success of purchasing reforms is often dependent on decisions that may be beyond the remit of the purchase. Three factors that are relevant to the Armenian context are provider autonomy, risk pooling, and the sufficiency of financial resources in the health system, which influence purchasing power and service delivery readiness. Below are lessons on policies that are compatible with attaining UHC:

- Purchasing reforms can only improve service delivery if providers can respond to incentives and regulations by changing their behavior or restructuring their operations.

- Higher-level hospitals will need more autonomy than smaller facilities that provide primary care. Facility managers may need training in personnel management, procurement, administration, accounting, or reporting.
- It is easier to influence providers if resources are pooled, managed by a limited number of purchasers, and send non-conflicting signals to providers. Where multiple pools exist, interactions across schemes should be monitored. Achieving equity with multiple funds requires complex risk equalization mechanisms.
- Effective mechanisms for raising revenues must include both subsidization and compulsion, as population coverage is limited in voluntary schemes due to adverse selection, and eliminating subsidies excludes poor and vulnerable groups that cannot afford health insurance.
- Health authorities should remain focused on the total levels of public spending on health. General revenue allocations can be reduced to compensate for earmarking. Also, advocating for shares of public financing for health has not been an effective strategy for expanding fiscal space.





## CHAPTER 5: TOWARDS STRATEGIC PURCHASING IN ARMENIA

To achieve UHC, Armenia needs to ensure access to high-quality health care, to delay the onset of illness through the adoption of healthy behaviors, promote early diagnosis, facilitate compliance with treatment, and avoid expensive complications. However, there are relatively low levels of utilization of primary care due to financial barriers that result from the cost of outpatient medicines and diagnostic services as well as the perception that care is of poor quality. As a result, the evidence-based role of the primary care physician in coordinating healthcare use among multiple providers particularly for NCDs with multiple morbidities is eroded. This also has negative implications for the efficiency of service delivery, due to the resultant high levels of specialist and emergency care use. The challenges in access to and quality of care in Armenia are exacerbated by the low level and fragmentation of public health financing, as well as the gaps in implementing regulations on the standards of healthcare.

Purchasing arrangements contribute to the challenges in accessing high-quality health care in Armenia. Overlapping institutional roles, political capture, and difficulties in engaging stakeholders have prevented effective governance of public health financing allocations. Moreover, while the first BBP addressed the prevalent healthcare needs, revisions have not reflected the changing burden of disease and are driven by political interests. In addition, challenges with costing services and setting appropriate tariffs have contributed to informal payments for health care, increases in OOP payments, and financial barriers to access. Also, the ArMed e-health system has supported monitoring of fraud and service outputs by the SHA, but has not been leveraged to monitor prescription practices, referral behavior, and the content of care. Furthermore, provider payment and selection procedures do not reward high-quality service delivery. Notwithstanding, performance-based financing rewards provision of selected essential health services. Purchasing reforms combined with higher levels of public financing for health are imperative to advancing the UHC reform agenda in Armenia.

Faced with a rising incidence of COVID-19 cases and the need to mobilize surge capacity for case management in the health system, Armenia has leveraged purchasing interventions (Box 24). The scope of services covered through contracts with providers was expanded to include COVID-19 tests, case management, and telemedicine. Payment incentives were introduced to mobilize intensive care beds at the hospital level and relevant indicators on provider performance were added to the ArMed e-health system. However, the pandemic is likely to result in contraction of the Armenian economy and this may place limitations on fiscal space. Given the central role of strong health systems in the COVID-19 response, including the detection and management of COVID-19 cases, and in ensuring the continuity of essential services, the implementation of feasible health reforms that ensure value for money will continue to be urgent and salient.

#### **BOX 24 • PURCHASING FOR THE COVID-19 RESPONSE IN ARMENIA**

##### **Purchasing arrangements have been an important aspect of the COVID-19 health system response.**

In Germany, flat bonus payments are being used to incentivize the conversion of hospital beds to intensive care beds, while in Nigeria, contracts for provision of care for COVID-19 cases are conditioned on accreditation by a committee under the MoH.

Similarly, in Armenia, the MoH has leveraged purchasing to facilitate access to healthcare for COVID-19. The **package of services** covered by the state has expanded to include all COVID-19-related care, including testing, telemedicine, and case management. The **clinical pathway for COVID-19 care** has been described, including detection of suspected cases by primary care physicians; care for cases that are mild or asymptomatic at the primary health care level; and referral to inpatient care for severe cases, older patients, symptomatic pregnant women, and patients with comorbidities. Primary care physicians are required to make two calls per day to patients to determine the need for a change in management and services are monitored through the ArMed e-health systems.

**The selection of providers and suppliers** reflects consideration for service delivery needs. The MoH has specified the service requirements for COVID-19 treatment and designated nine medical centers with a total of 1,700 beds for case management, all of which are public-owned. Children under 18 years and pregnant women are transferred to designated health facilities, four of which are private. The MoH has developed technical specifications for equipment needed for COVID-19. Following a call for volunteer nurses and medical students, the MoH is facilitating re-training to ensure competence in managing COVID-19 cases.

The MoH has implemented changes in **provider payment methods** to incentivize conversion of hospital beds to intensive care beds, protect the health of vulnerable groups, and mobilize surge human resource for health capacity. Hospitals, which are routinely paid per case, are reimbursed on a per diem basis for each hospital bed involved in COVID-19 care provision. Specialized centers that care for COVID-19 cases among children and pregnant women receive special tariffs. Physicians that are mobilized to provide care receive bonuses.

Hence, we conclude this report with recommendations to strengthen strategic purchasing to improve access to high-quality healthcare in Armenia. We also consider complementary reforms that will be needed to strengthen provider autonomy, improve service delivery readiness, ensure stable financial flows, and increase purchasing power. In proposing these reforms, we identify actions that are feasible in the short-term, within two years, to lay the foundation for strategic purchasing, given the ongoing COVID-19 pandemic, attendant political priorities, and budgetary constraints. The proposed reforms may provide a foundation for actions that can be undertaken in the medium-to-long term to fundamentally reform the governance and implementation of purchasing in Armenia.

## 5.1 SHORT-TERM REFORMS TO LAY A FOUNDATION FOR ENHANCED STRATEGIC PURCHASING

**Recommendation 1: The Government should redefine the legal status for the SHA, ensuring that it is independent from the MoH, with clear decision rights and external oversight to promote accountability for results. The role of private insurers should be restricted to the coverage of health services outside the BBP.**

Given the involvement of the MoH in service delivery and the history of capture of decision-making in the SHA by self-interested health policymakers in the past, an independent legal status for the SHA is consistent with the global good practice of separating purchasing and provision, while creating conditions for objective decision-making on the allocation of public health financing. There is high-level support within the MoH for this change in status. The SHA's new status should enable the agency recruit and retain skilled staff by paying salaries that are competitive relative to the private sector. The inefficiencies that have accompanied the administration of the social package by TPAs, and the relatively small population over which risk can be pooled in Armenia, also indicate that multiple public or private insurers are not the preferred model for pooling and purchasing in this context. However, private insurers can and should be encouraged to take on a complementary role for covering services not included in the benefits package.

The concerns that have arisen in the past about oversight of the SHA remain valid and necessitate appropriate internal management and external oversight of the agency if given a legal mandate that allows for independence. This will further serve to limit the propensity for the SHA to be subordinated to the MoH in the future. Therefore, we propose that the SHA be managed by an internal management board, the head of which will be the Director. We also propose that an external advisory body be constituted, with representatives from patient associations, provider associations, the MoH, and the MoF. The external advisory body will oversee an open and transparent process of hiring the internal management board, the positions of which will be defined by law and have pre-specified qualifications indicated in by-laws. The internal management board will be accountable to the external advisory body.

We recommend that the external advisory body be chaired by the Minister of Health and that the Director of the SHA participate in board meetings with voice and no vote. A law should define the stakeholder composition of the external advisory body and the members of the respective organizations should nominate their representatives to the board through a fair and transparent process. The law should define the body's structure, conditions of eligibility of members, mechanisms to prevent conflicts of interest, decision rights, and responsibilities. The SHA should be subject to annual internal and external audits, and publish, for public review, a yearly report detailing strategic goals and metrics, coverage, budget execution, financial statements, and audit reports. A performance score card, summarizing achievements on the selected goals and metrics, will be published annually in the public domain to facilitate accountability of the SHA to the public, and demonstrate gains in terms of efficiency and quality of purchasing reforms. We also recommend that members of the external advisory body fill a public declaration of interest, updated at least annually, to promote transparency and accountability.

These recommendations have been informed by our assessment of the main challenges in the governance arrangements for purchasing in Armenia. However, to broker a consensus on the changes needed in the governance structure of the SHA, the Prime Minister may institute a high-level working group, involving the key Ministries involved in managing health financing in Armenia, such as the MoF and MoH, and other stakeholders such as provider associations, to discuss the required governance changes, given their significance for efficient allocations of public health financing.

**Recommendation 2: The MoH and SHA should implement an annual strategy for quality-based purchasing, through defining indicators for priority health conditions, periodic monitoring of provider performance on said indicators, publication of comparative provider performance, and rewarding improvements in the quality and integration of healthcare.**

The basis of quality-based purchasing should be defined in legal documents that govern the SHA and purchasing in Armenia. Revisions should specify that assessments of quality of health services provision should be published on the websites of the MoH and SHA and that reimbursements in line with the quality of healthcare will be developed and implemented. The limits of bonuses or penalties linked to quality of health care should also be defined explicitly, potentially within 5 to 10 percent of total reimbursement of each healthcare provider annually. The documents should outline a mechanism for appeal by providers of bonuses and penalties applied, the basis for deciding on appeals, and the time over which appeals can be considered.

Annual quality-based purchasing strategies should be developed. In consultation with SHA, provider associations and patient representatives, the MoH should host annual consultations on quality monitoring and purchasing. These discussions should review and select indicators of quality of health care to be monitored for primary, specialist, and emergency services, the frequency of monitoring, the scoring system for indicators, and the bonuses or penalties for

performance on quality of healthcare. These indicators should include metrics on integration of care for NCDs across healthcare providers, which are essential for appropriate management. The proposal from the working group discussions should be reviewed by the external advisory board of the SHA, modified as needed, and a formal recommendation be made to the Minister of Health for adoption through a ministerial order. The quality-based purchasing strategy should be disclosed on the websites of the MoH and SHA before the end of the first quarter of each calendar year.

In line with the required indicators for healthcare quality, the SHA will collaborate with the ArMed e-health operator to ensure the appropriate modules are installed and operational to facilitate monitoring. Providers will be required to report on these indicators on a quarterly basis and the SHA will be responsible for analyzing reports, validating the quality of data, calculating facility scores, and submitting them to the external advisory board for review and approval. Following approval, performance scores will be published on the websites of the MoH and SHA. After the time specified for appeals, the applicable bonuses or penalties will be applied in the first month of the following quarter.

**Recommendation 3: The MoH and SHA should pilot and periodically review an operations dashboard to facilitate the use of evidence in stakeholder negotiations over purchasing decisions.**

Strategic purchasing decisions are facilitated by accurate information on how providers and users respond to changes, including in provider payment mechanisms, the content and tariffs in the benefits package, and facility and health worker selection criteria. In this regard, the ArMed system collects information on service provision at primary and other levels. However, key modules remain partially implemented and the database is not integrated with information on the burden of diseases collected via the National Institute of Health and National Center for Disease Control. The SHA should have the ability to regularly change data forms for service delivery monitoring under ArMed to include or exclude indicators for quality, access, and efficiency. However, valid concerns about the privacy of data may limit profiles that are able to access and analyze this data.

Hence, we recommend that the MoH and SHA define and implement the institutional arrangements for evidence-informed decisions on purchasing. In this respect, we commend the efforts by the MoH to implement legislation that mandates submission of administrative, financial, and clinical data from all licensed providers, and seek to clarify who can access, own, and use the database. These regulations should address concerns about data privacy, while ensuring that the SHA and MoH are able to iteratively change forms for monitoring provider and user behavior. We also advise that the MoH require the national e-health operator to implement for the SHA an operations dashboard that analyzes and visualizes the selected indicators in real-time to provide feedback on purchasing decisions. The dashboard can be revised on an annual basis, following approvals of revisions by the external advisory body. This information will be a useful input into annual negotiations between the SHA and healthcare

providers on contracting for improved service delivery performance. Finally, we recommend that the MoH invest in the digital infrastructure to enable the interoperability of the ArMed system with other databases in the health sector.

## 5.2 MEDIUM- TO LONG-TERM REFORMS TO EXPAND THE SCOPE OF STRATEGIC PURCHASING

**Recommendation 4:** The Governmental decision on the UHC reforms should be informed by the potential effectiveness of these reforms in reducing out-of-pocket payments, improving the quality of care, and expanding the coverage of essential services for NCD prevention and control.

The high-level political dialogue over health reforms in Armenia has been dominated by ideological debates on the institutional arrangements for health financing, particularly the number of payers, and spending targets for health services. The continued leadership of the Minister of Health is required to reframe the reform in terms of the ultimate objectives of improving financial risk protection, coverage of services, and the quality of care. While political considerations and ideology will influence the final configuration of reforms, alternative proposals for purchasing, revenue mobilization, pooling, and service delivery should also be evaluated against these objectives and the potential for improving health system performance. It would also be essential to develop and approve an official strategy for population health that identifies the main challenges and proposed policy solutions, including purchasing reforms, to address these challenges in the medium-to-long term.

**Recommendation 5:** The MoH and SHA should design and implement selective contracting of competent healthcare providers, financial incentives for market entry of new players, or changes in the management of health facilities depending on the degree of segmentation in the service delivery market and facility ownership.

Regarding the selection of providers, the conditions in Decree 49-N should be reviewed following a consultation led by the SHA with provider associations and the MoH, to add relevant measures of quality of healthcare. Quality-based selection should be considered by including criteria related to past performance on indicators of quality of healthcare and an updated description of the required inputs for services. We recommend that the SHA take as a starting point for these consultations, the quality indicators used by OECD countries and adapt these measures to the Armenian context. The revised decree should allow for variation in the scope of services that are contracted for among providers at the same service level who differ on service readiness and for tailoring of the contract scope depending on sub-national population health needs. Performance on quality should inform contracting arrangements, with differentiation based on spatial monopolies in service delivery.

In Yerevan, with a high supply of healthcare providers, and significant overlaps in facility catchment areas, it is possible to exclude incompetent providers without significant negative impact on access to healthcare. However, this is not the case in many of the Marzes with segmented service delivery markets. We recommend that for Yerevan, following a one-year grace period to allow providers to restructure their operations in line with contractual requirements, the SHA implement selective contracting that excludes providers that have underperformed on the pre-specified criteria. The process for selective contracting should be specified in a Ministerial order. By the end of January, the SHA will be responsible for publishing an annual performance report for all contracted providers in the preceding calendar year, that indicates their fulfillment of the standards specified for contracting.

There should be a fixed period for appeal, defined in the Ministerial order, with a clear grievance redress mechanism that enables the external advisory board to receive formal complaints by providers, review the basis for these complaints, and send an official response. Contracts for that year would then be signed exclusively with providers that meet performance targets. The challenge of spatial monopolies in implementing strategic purchasing, prevents selective contracting as described above. Outside Yerevan, we recommend that the MoH and SHA consider financial incentives for potential new entrants into markets served by underperforming providers, such as additional tax breaks; requiring or encouraging changes in management for health facilities owned by the MoH and Marzes; and public disclosure of provider performance relative to benchmarks.

**Recommendation 6: Given the quality and efficiency gaps in decentralized procurement of medical supplies, the MoH should scale up centralized procurement and framework contracts, while building capacity for procurement coordination, planning, and execution at the facility level in the long-term.**

The MoH should undertake an assessment of the most common items procured by primary health care facilities in the country to identify opportunities to either undertake centralize procurement or introduce framework contracting with standardized technical specifications for a pre-specified list of commodities. This reform in the medium-term will serve to increase the quality of essential supplies and equipment, drawing on capacity within the MoH to develop appropriate technical specifications. Framework contracts can also draw on the capacity of the MoH to negotiate competitive tariffs, under which smaller repeat purchasing orders for standard items may be issued over a defined period, reducing waste at the facility level.

Scaling up of centralized procurement and framework contracting in this way may require legal and regulatory amendments. In the longer term, the procurement team within the MoH can develop a self-paced course and certification on the coordination, planning, and execution of procurement in collaboration with a teaching institution, such as the Yerevan State University. This course can be rolled out by requiring the procurement teams in all health facilities that are financed through the state budget to take the course and pass the certification exam.

### 5.3 MEDIUM- TO LONG-TERM REFORMS TO STRENGTHEN THE PRECONDITIONS FOR STRATEGIC PURCHASING

**Recommendation 7:** To alleviate financial barriers to accessing health care, Armenia needs to mobilize pre-paid and pooled health financing to fund an expanded benefits package, revised through a transparent, inclusive, and systematic legal process, that aims to cover essential health services and outpatient medicines for prevalent diseases for the entire population.

The potential effectiveness of goal- and evidence-driven purchasing in Armenia is limited by the narrow scope of the benefits package and the purchasing power of the SHA. While a subset of the population, including the poor, socially vulnerable, and some public sector workers, have access to a generous package that covers expensive diagnostic care, there is a significant proportion of the population that does not have access to essential healthcare for prevalent NCDs. As emergency healthcare is covered through the state budget, these allocative decisions have incentivized late presentation to health facilities, with increases in public and private health spending. Given resource constraints, Armenia cannot fund all care for the entire population. However, there is room to redefine a BBP that is uniform across the population, with tariffs that cover the full cost of care and with service content that reflects essential health care addressing prevalent healthcare needs. Defining a systematic process for revisions in the BBP within legal documents can serve to guard against political capture by powerful interest groups in the future, at the expense of better access and efficiency of health spending.

Therefore, we recommend that a systematic, transparent, and inclusive process, backed by law, should be defined by the Government to periodically revise the content of the BBP, which should be updated accordingly with changes in resource constraints and supply-side readiness. The legal documents should specify the criteria to be considered, the timeline and steps, the requirement for public consultation, and the limits in the overall budgetary implications of revisions to the BBP. By-laws can then specify in detail the process of reviewing the package and updating tariffs for services, to adjust for inflation and cost structure changes. The definition of the services within the package should, where possible, specify quality standards for these services. For costly and complex procedures, tariffs can vary with the volume of services, as in cost-and-volume contracts, to facilitate access while containing expenditure growth. We recommend that the process of revising the services guaranteed by the state be informed by annual assessments of selected indicators, including the burden of disease, effectiveness of the intervention, cost-effectiveness, potential impact on the budget, implications for equity, and readiness of providers to supply the intervention.

The responsibility for undertaking these assessments to inform revisions in the package should be delegated officially to a capable technical institution, with the requisite skills in health

economics, service delivery, and epidemiology, such as the School of Public Health in the American University of Armenia or the Yerevan State Medical University. Where this capacity does not exist, the Government should finance training and coaching of selected researchers to take on these functions. Following these assessments, the MoH should host annual public consultations that involve the MoF, the SHA, provider associations, and patient representatives to discuss proposed changes in the package following the above assessments. A capable technical institution, as above, can be tasked with undertaking a review of tariffs for services. The recently approved methodology for costing healthcare can form the initial basis for revisions to tariffs. The updated package of services and tariffs should be approved annually by Ministerial order and published on the website of the MoH and SHA by the end of the first quarter.

While resource constraints overall must be considered, public health financing in Armenia is relatively low for a middle-income country and, consequently, OOP financing is one of the highest in the world. To fund a benefits package that covers essential health care, it would be essential to increase public financing that is pre-paid and pooled to strengthen purchasing power of the designated agency. The decision on the financing room for expansion of coverage will be made at the highest levels of government but can be informed by relevant assessments, at the direction of the MoH. These will include an analysis of the allocative efficiency of the proposed benefits package to define if spending patterns yield the highest returns in terms of population health; costing of the proposed package to define the potential budgetary impact; projections of health sector revenues from alternative sources to identify the funding gap for health services; assessments of the sources and potential mitigation of financial risk of the agency; and models of the implications of revenue raising options of key indicators. The responsibility for undertaking these analyses should be assigned in by-laws by the MoH to defined parties, which may include the SHA and research institutions.

**Recommendation 8: To increase service delivery readiness for healthcare, the MoH should enforce appropriate regulatory standards for infrastructure, human resource for health, and clinical interactions, including provider licensing, service delivery network planning, and the development of clinical pathways for prevalent diseases.**

Strengthening the regulation of standards of care is a pre-requisite to addressing the gaps in quality of service delivery and quality-based purchasing. For facilities, we propose that a working group, involving the MoH, SHA, providers, and the licensing agency, review and propose new standards for health facilities at the primary, secondary, and tertiary level, including supplies and infrastructure, human resource for health supply and skill-mix, financial resources and management systems, quality management systems, infection control, and reporting. Compliance with these standards should be tied to access to public financial resources, particularly in communities that have more than one health facility at the specified level of care.

The MoH should also introduce a mandatory system for licensing of skilled health professionals as a pre-requisite for clinical practice and can outsource the management of this system to a reputable private agency to address prior concerns of efficiency. To ensure that providers maintain their competency for clinical practice, the MoH should mandate a department that will be responsible for developing an official list of recommended courses for CPD that are required for annual relicensing. All health facilities that receive public funding for service delivery should be mandated to fill in the human resource for health module in the ArMed system on a biannual basis, with provision for indicating licensing status.

Given the role of the private providers in service delivery, as well as ongoing regional infrastructure projects, it is important to develop a medium-to-long term plan to align the expansion of health services with population health needs. The MoH should commission the development of a master plan that will provide clear guidance on capital investments in the health sector, including approval of market entry by private providers. The plan will forecast scenarios for service delivery needs at the primary, secondary, and tertiary level, drawing on data on the disease burden, service use patterns, and the preferences of the community. The plan should also delineate the roles of community, primary, secondary, and tertiary care and the types of services that should be provided at each level.

Past attempts at developing guidelines for clinical care have focused on quantity rather than quality of guidelines and have not systematically linked these regulations to monitoring and financing of health services. We recommend that a body within the SHA, NIH, or MoH be formed, and with guidance from medical universities, lead the development of clinical pathways for the ten most common causes of death and disability, with a focus on person-centered care, across service delivery levels. These pathways should be created and systematically revised to reflect the current evidence and international best practices, identify the roles of providers at each level of care, and specify the criteria for discharge and referral. Monitoring of these pathways should be conducted by the MoH and SHA through the ArMed system. All facilities that receive public financing should be required by legislation to hold monthly clinical review meetings to discuss management of patients under these clinical pathways, monitor adherence to the protocol, and identify opportunities for improvement of service delivery.

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