



ARMENIA

Human Capital Review



© 2022 International Bank for
Reconstruction and Development
/ The World Bank

1818 H Street NW,
Washington DC 20433

Telephone: 202-473-1000

Internet: www.worldbank.org

Rights and Permissions

The material in this work is subject to copyright. Because The World Bank encourages dissemination of its knowledge, this work may be reproduced, in whole or in part, for noncommercial purposes as long as full attribution to this work is given.

Any queries on rights and licenses, including subsidiary rights, should be addressed to World Bank Publications, The World Bank Group, 1818 H Street NW, Washington, DC 20433, USA;
fax: 202-522-2625;
e-mail: pubrights@worldbank.org.

This work is a product of the staff of The World Bank with external contributions. The findings, interpretations, and conclusions expressed in this work do not necessarily reflect the views of the World Bank, its Board of Executive Directors, or the governments they represent.

This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of World Bank staff and do not necessarily reflect the views of the European Union.

The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Armenia

Human Capital Review

Contents:

ACKNOWLEDGMENTS	v
LIST OF ACRONYMS	vi
EXECUTIVE SUMMARY	1
1. Introduction	5
2. The state of Armenia's human capital	12
Childhood and youth	13
Adulthood	16
Older age	17
3. Building human capital: overview of the education, health, and social protection sectors	18
Overview of the education sector	18
Overview of the health sector	22
Overview of the social protection sector	26
4. Improving the delivery of effective and equitable human development services	30
5. Learning from the COVID-19 response to build more resilient delivery systems	39
6. Main reform avenues	44
REFERENCES	50



List of Figures:

Figure 1:	GDP per capita and poverty rates in Armenia	5
Figure 2:	Regional poverty rates, 2020	6
Figure 3:	Unemployment and inactivity in Armenian youth are among the highest in the region	7
Figure 4:	Rapid ageing is exacerbated by high outmigration rates	7
Figure 5:	Human capital is essential for growth	8
Figure 6:	Early investments in human capital deliver the highest returns	9
Figure 7:	The Human Capital Index in Armenia and in ECA	12
Figure 8:	GER for primary and secondary schools, 2010-2019, %	14
Figure 9:	Upper secondary school test scores, 2019	14
Figure 10:	Percentage of low learners in Grade 9, 2019	15
Figure 11:	GER for VET, 2010-2019, %	15
Figure 12:	Incidence of NCDs in Armenia and Europe and Central Asia	16
Figure 13:	Government education expenditure as share of GDP, 2017	21
Figure 14:	OOP expenditure, public expenditure on health in Armenia and comparator countries	25
Figure 15:	Main social protection programs in Armenia	26
Figure 16:	Social protection spending remains below the Europe and Central Asia average	29
Figure 17:	Health service delivery constraints	33

List of Tables:

Table 1:	Armenia HCI 2012-2020	13
Table 2:	Breakdown of public expenditure on education in Armenia in 2020, % of total	21
Table 3:	Health sector reform overview	24
Table 4:	Distribution of funds by health service providers (percentage)	26
Table 5:	Overview of key Armenian Social Protection Program benefit levels	28

Acknowledgments

This human capital review has been prepared by a World Bank team led by Juul Pinxten, Jamele Rigolini and Ahmet Levent Yener, composed of Renata Freitas Lemos, Işıl Oral Savonitto, Nairuhi Jrbashyan, Anush Shahverdyan, Artemis Ter Sargsyan, Marianna Koshkakarayan, Mirey Ovadiya, Lucian Bucur Pop, Vahan Danielyan with substantial inputs, contributions, and feedback from Sarah Coll-Black, Maddalena Honorati, Arvind Nair, Miguel Eduardo Sanchez, Anna Koziel, Tigran Shmis, Adanna Deborah Ugochi Chukwuma, Patrizia Poggi, and Serge Randriamiharisoa.

The team would like to thank representatives of the European Commission and EU Delegation to Armenia for useful feedback and inputs, in particular Silja Kasmann, David Avakian, Zuzana Sorocinova, and Tatevik Davtyan. The team appreciates the validation of findings and comments received from the Asian Development Bank, Teach for Armenia and AYB Education Foundation. Finally, the team would also like to thank the Government of Armenia for sharing feedback and views on the findings and recommendations.

The note was prepared under the guidance of Sebastian A. Molineus (Country Director for the South Caucasus), Fadia M. Saadah (Regional Director for Human Development, Europe and Central Asia Region), Carolin Geginat (Country Manager for Armenia), Tania Dmytraczenko (Practice Manager, Health Nutrition and Population, Europe and Central Asia Region), Cem Mete (Practice Manager, Social Protection and Jobs Global Practice, Europe and Central Asia Region), and Rita K. Almeida (Practice Manager, Education, Europe and Central Asia Region).

The note was made possible by generous funding from the Europe 2020 Trust Fund of the European Commission's Directorate General for Neighbourhood and Enlargement Negotiations (DG NEAR).



List of acronyms

ALMP	Active Labor Market Programs
ANQA	National Center for Professional Education Quality Assurance Foundation
BBP	Basic Benefits Package
CIS	Commonwealth of Independent States
ECA	Europe and Central Asia
ECD	Early childhood development
ECEC	Early childhood education and care
EMIS	Education management information system
ETF	European Training Foundation
EU	European Union
FLSEB	Family Living Standards Enhancement Benefits
GDP	Gross domestic product
GER	Gross enrollment ratios
HCI	Human capital index
HEIs	Higher educational institutions
HTA	Health Technology Assessment
ICT	Information and communications technology
IT	Information technology
LIC	Lower-income countries
MIC	Middle-income countries
MLSA	Ministry of Labor and Social Affairs
MoESCS	Ministry of Education, Science, Culture and Sports
MoF	Ministry of Finance
MoH	Ministry of Health
MoTAI	Ministry of Territorial Administration and Infrastructure
MTEF	Medium-Term Expenditure Framework
NCDC	National Centre for Disease Control and Prevention
NCDs	non-communicable diseases
NCET	National Center for Educational Technologies
NEET	Not in employment, education nor training
NIH	National Institute of Health
OECD	Organization for Economic Co-operation and Development
OOP	out-of-pocket
PFM	Public Financial Management
PHC	Primary Health Care
PPE	Personal protective equipment
QEA	Quarterly Emergency Assistance Program
SHA	State Health Agency
TIMSS	Trends in International Mathematics and Science Study
UHC	Universal Health Coverage
UIS	Unified Information System
UMIC	Upper-middle income countries
USS	Unified Social Services
VAS	Vulnerability Assessment System
VET	Vocational education and training
WHO	World Health Organization

Executive summary

Before COVID-19, Armenia had been facing a slowdown in its path of sustained economic growth and poverty reduction. Armenia is an open, land-locked upper-middle-income country. It is situated at the strategic cross-roads between Western Asia and Eastern Europe, and in 2021 had a population of 3 million people, with a GDP per capita equivalent to US\$14,600 (in PPP terms). In the two decades prior to COVID-19 the country grew by an average of 6.5 percent every year, spurred by a series of prudent macroeconomic policies, heightened private consumption, and an improved investment climate. Poverty and inequality also fell, with the poverty rate – measured against the international \$5.50 poverty line – halving since the early 2000s. However, most of the poverty reduction gains were achieved prior to the financial crisis between 2001 and 2008. In 2019, the poverty rate was at almost the same level as in 2008 (44 percent compared to 45.5 percent).

Low productivity, an aging population and outward migration are affecting long-term prosperity. Although the country is not aging as rapidly as others in the region, by 2040 one in four Armenians will be older than 60. Boosting productivity is essential for an aging country to grow, because a shrinking pool of workers needs to provide (and care) for a growing pool of elderly persons. Currently a significant proportion of the population works in low-skilled, low-productivity activities in the informal sector, and this affects innovation, wages, and economic growth. Without improving productivity, it will be challenging to support an increasingly elderly population, which already receives a significant share of social protection expenditures through pensions (at 63 percent). Addressing the productivity challenge will require a stronger emphasis on equitable and inclusive policies to provide quality education, health, and social protection services for all.

Doing so will enable children and youth from all backgrounds to reach their full productive potential, helping to counteract the shrinking of the workforce.

Poorly performing labor markets and low employment rates are also affecting future growth and prosperity prospects. Labor market performance has stalled, or even declined. For example, in 2004, 63 percent of working age adults participated in the labor force, but by 2019 (pre-COVID-19) the figure had declined to 59 percent. Unemployment is close to 20 percent, with more than three quarters of the registered jobseekers being long-term unemployed (World Bank, 2022e). Armenia also has a very high level of inactivity amongst the youth (28 percent) and only 38 percent of working age women were employed. Rural areas are particularly affected by the lack of good employment opportunities. There is also a significant mismatch between the skills delivered by the education system and the skills demanded by firms.

Strong human capital is not only essential for greater productivity and long-term growth, but also helps build resilience to crises and shocks, including climate-related ones. Skilled and healthier workers tend to find better quality jobs and are able to operate in more complex (and more productive) environments, which will be essential to remain competitive in global markets and support an effective Green Transition to help the country reduce the relatively high carbon intensity of production. Skilled and healthier workers can also work and remain productive longer, helping to address the aging challenge. People with better human capital also tend to suffer less from crises and shocks, including climate-related ones, and recover more quickly, as they can better adapt and respond to changing environments. Investing in people and their human capital is thus an

effective strategy to promote prosperity and build resilience to future crises.

The objective of this Human Capital Review is to support ongoing and future reforms by assessing human capital outcomes and related delivery challenges. This Human Capital Review builds upon the strategic vision of previous analyses that assessed key human capital challenges (World Bank, 2020a), and provides a systemic overview and performance assessment of the human development sectors – education, health, and social protection – with the objective of supporting better human capital formation.

Armenia's human capital challenges

Armenia has made important progress towards education and health outcomes, but significant challenges remain. Children born today in Armenia will, on average, only reach 58 percent of their productive potential, relative to a situation with full health and quality education.¹ Moreover, human capital is also characterized by significant inequalities across the territory and socioeconomic groups. Access to early childhood education is growing but remains uneven, with children living in poor and rural households facing particular barriers to enrolling in preschool. Further along the learning process, school enrollment rates at all levels have improved markedly since the 1990s but have been stagnating or even on the decline in the past decade. Among enrolled students, learning outcomes have improved in recent years, but they remain below the Europe and Central Asia (ECA) region averages. With high shares of youth unemployment (37 percent, in 2020) and inactivity (28 percent), employment after graduation is also not a certainty. Just half of vocational education and training (VET) and university graduates find work after completing their studies. In the health sector, while many outcomes such as longevity and maternal/child mortality have improved, new threats are emerging: non-communicable diseases (NCDs) – driven by aging and exposure to behavioral and metabolic risks – including

high blood pressure, tobacco, unhealthy diets, high body mass index, and high blood sugar are now responsible for 93 percent of deaths. In addition, many poor and vulnerable households face financial challenges to accessing health services: out-of-pocket expenditure for citizens is among the largest in the region (around 80 percent of health expenditure), leaving many poor and vulnerable households facing the dire choice of falling further into poverty or forsaking treatment.

Human capital outcomes have likely worsened during the COVID-19 pandemic, emphasizing the importance of building resilient delivery systems and investing in remedial programs.

Between January 2020 and November 2022 there have been five COVID-19 waves totaling over 445,000 cases and 8,700 deaths (WHO, 2022). The pandemic exacerbated challenges in delivering human capital services and highlighted the importance of building resilient and robust delivery systems. In total, schools were partially or completely closed for 12 weeks in 2021, and essential health care was also disrupted as reflected, for instance, by reduced child vaccination rates, which fell by nearly a third compared to pre-COVID levels. These disruptions to service delivery have disproportionately affected the poor and vulnerable, who were suffering from worse human capital outcomes to begin with and were less able to adapt to a changing environment (for instance because of the lack of adequate learning environments at home). The effects of the pandemic on the human capital of the poor and vulnerable emphasize the importance of building resilient delivery systems and investing in remedial programs.

Reform avenues

To overcome gaps in human capital, the human development sectors will need more – but also better – spending. Public education expenditure has steadily increased in nominal terms but, at 2.7 percent of GDP in 2020, remains substantially lower than the European Union (EU) average (4.7 percent) as well as the upper-middle income countries (UMIC)

¹ See section 2 and <https://www.worldbank.org/en/publication/human-capital> for more detail.

and ECA averages (both 3.9 percent). Similarly, while Armenia's total spending on health – at 11 percent of GDP – is high, the share of public health financing is among the lowest in the world, leaving most of the spending burden to households and affecting the ability of the poor and vulnerable to seek treatment. And while social protection spending amounted to 6.9 percent of GDP in 2019, 85 percent is allocated to pensions, leaving little room for social assistance, labor market programs or social care services. Just spending more, however, will not be sufficient to substantially improve outcomes: it will also be important to spend better by improving efficiency and effectiveness. In the education sector, for instance, while it will be essential to invest to expand access to early childhood education and improve teacher remuneration, reforms will also be needed to improve the quality of teaching across all levels, which will require pursuing further curriculum and teacher training/qualification reforms, and also deepening monitoring and evaluation practices to identify delivery challenges and support lagging schools. In the health sector, revisiting the basic benefits package could improve both the equity and the effectiveness of spending by reducing the burden on households; but greater effectiveness could also be achieved by reducing overutilization of hospitals to deliver care and putting greater weight on primary care and preventive services. For social protection, reorienting resources towards protecting the most vulnerable and improving employability, revising, and consolidating the multiple small programs according to policy goals, and better defining roles and responsibilities between central level and municipal social workers would help to improve delivery and achieve greater impacts.

Directing more resources to early years interventions and preventive measures could deliver a substantial efficiency boost. Reversing ill health or remedying poor skills later in life is more difficult, sometimes impossible, and certainly more costly. Accelerating investment in quality early childhood development to address malnutrition and early stimulation would help all infants and children to remain on a positive developmental path, and is an investment with high potential returns. In a world where the

health toll of NCDs is increasing, shifting more resources into strengthening primary health-care services and focusing on prevention and early detection, rather than expensive in-hospital care, could help to address mortality and morbidity across all age groups. Addressing the rising tide of NCDs would also help people to stay healthier and work longer, and thus help to sustain a larger workforce.

Boosting inclusion through a greater focus on the poor and vulnerable and on lagging regions would bring better human capital for all. Access to and quality of education remain challenging for the poor, and in rural areas; social protection fails to cover many poor households, because of low coverage of targeted social assistance and social insurance schemes being strictly linked to employment. And high out-of-pocket health expenditure and catastrophic health spending are disproportionately affecting the poor and vulnerable. Reducing out-of-pocket health expenditure by revisiting the basic health benefits package, expanding social assistance coverage of the poor, and adopting comprehensive approaches to avoid poor children dropping out of secondary schools would go a long way towards delivering greater human capital for all, ensuring that people realize their full productive potential. Emphasis should not only be on reaching poor individuals with better services, however, but also on better support – both financial and technical – for poor and remote regions. Pre-school services, for instance, are far less prevalent in rural areas, partly because they are financed out of local budgets so poorer communities cannot provide better and cheaper services.

Investing in cross-sectoral collaboration and coordination will be essential for addressing important multidimensional human capital challenges. Critical human capital areas cut across human development sectors; addressing these challenges effectively will require strong coordination mechanisms. For instance, countries that have successfully advanced on the early childhood development agenda have also invested massively in cross-sectoral coordination. Strengthening linkages between social protection (in particular, social assis-

tance and social care services), health care and schools could help to identify vulnerable children and support them to acquire more and better human capital. Similarly, stronger links between social assistance and active labor market programs (ALMPs) would facilitate the activation of social assistance beneficiaries. In all three sectors there have been promising efforts to address cross-sectoral issues, but coordination could be improved further. For example, while some early childhood development programs span across sectors, the country still lags in addressing child nutrition and cognitive, social and emotional development, and it has also fallen short in providing a strong legal framework for effective implementation.

Investing in staff delivering human development services and capacity building will be key to provide better quality services.

Qualified and motivated staff are essential for delivering quality services, but poor working environments and low remuneration currently reduce the attractiveness of working in human development sectors and lower performance. Strengthening the quality and management of human resources will be key to improving the quality of service delivery. All human development sectors need better standards in terms of qualifications, promotions, or performance assessments, as well as competitive remuneration. Especially at the sub-national level, gaps in human resources for health service provision, inadequate capital investment funding, and procurement challenges reduce the quality-of-service delivery in the health sector. For education, continued efforts are needed to improve teacher qualifications. In the social protection sector, strengthening the integration and coordination between the Unified Social Services (USS) and its territorial offices would improve the effectiveness of service delivery. Similarly, strengthening the staff's ability to adopt a holistic, intersectoral approach to case management would help beneficiaries to overcome their vulnerabilities and, at least for some, escape poverty.

Further adoption of digital technologies could improve the effectiveness of service delivery.

COVID-19 helped to accelerate developments in the use of data and digital technologies,

and the momentum should be kept alive. For instance, for education, monitoring of student learning progress and performance should be deepened to identify vulnerable schools or students and overcome equity gaps in learning. The e-health system could be further developed to manage referrals and improve public health monitoring, as well as boost prevention through communication aimed at changing behaviors. For social protection, robust interoperability between different information systems – coupled with proper staff training – could ease the delivery and monitoring of program implementation. Consolidating some steps along the social protection delivery chain, including identification, eligibility determination and payments, could also deliver major efficiency gains and help to reach the population in need, including during shocks and crises.

Strengthening human development systems based on the experience of the COVID-19 response would improve resilience to future crises and shocks, including climate-related ones.

Preparing for crises and shocks, including economic, social, and climate-related ones, is essential for effective response, and valuable lessons from the COVID-19 response should be mainstreamed into delivery systems. In the social protection system, significant barriers arose to providing swift and effective support because of challenges in identifying the target population due to outdated information technology (IT) infrastructure and lack of interconnectivity between information systems within the Ministry of Labor and Social Affairs and other line ministries. In the health sector, information systems to exchange data between health agencies already existed but were enhanced to facilitate new applications such as remote monitoring of patients when in-person visits were not possible. Similarly, for the education sector, modalities for distance learning were built upon existing platforms, although perhaps the most important lesson is the need to maintain face-to-face learning if possible, and to help vulnerable students recover from the learning losses they incurred.

1. Introduction

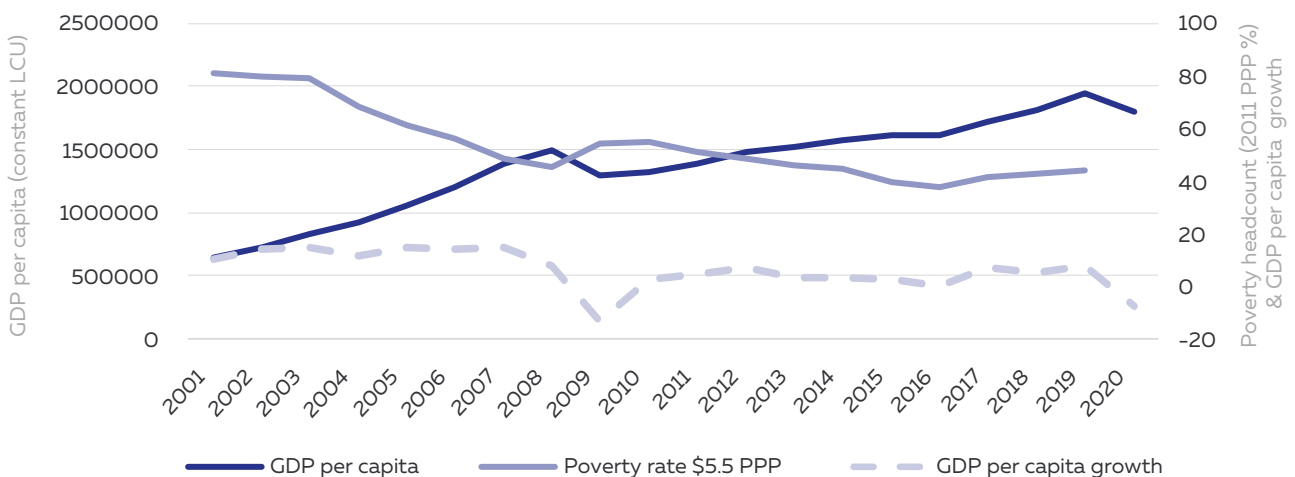
In the two decades prior to COVID-19, Armenia was on a path of sustained economic growth and poverty reduction. Armenia is an open, land-locked upper-middle-income country. It is situated at the strategic crossroads between Western Asia and Eastern Europe, and in 2021 had a population of 3 million people, with a GDP per capita equivalent to US\$14,600 (in PPP terms). A period track of reforms bore fruit in the years before the onset of the COVID-19 pandemic and, later, the armed conflict with Azerbaijan and the war in Ukraine. In the two decades prior to COVID-19 the country grew by an average of 6.5 percent every year, spurred by a series of prudent macroeconomic policies, heightened private consumption, and an improved investment climate. Poverty and inequality also fell significantly, with the poverty rate halving since the early 2000s.

Poverty remains high, however, and growth and poverty reduction have slowed down or even stalled after the 2008 financial crisis. Despite substantial declines poverty remains high, at 44 percent when measured against the international \$5.50 poverty line. Growth and poverty reduction have also fallen with

respect to the early 2000s. While before the financial crisis (2000–2008) GDP growth averaged 11.2 percent, it decreased to 4.5 percent after the financial crisis (2010–2019). Similarly, most of the poverty reduction gains have been achieved prior to the financial crisis: during 2001–2008 poverty (measured against the international \$5.50 poverty line) fell by more than 35 percentage points, while in 2019 poverty was almost at the same level than in 2008, before the crisis hit (44 percent compared to 45.5 percent), with poverty even rising in the years before COVID-19.

As Armenia looks to get the economy back on track, poverty, weak labor markets, migration and an ageing population risk affecting future growth and development prospects. Although Armenia is not ageing as rapidly as other countries in the region, by 2040 one in four Armenians will be older than 60. Boosting productivity is essential for an ageing country to grow, because a shrinking pool of workers need to provide (and care) for a growing pool of elderly people. However, much of the population works in low-skilled, low-productivity activities in the informal sector, affecting inno-

Figure 1: GDP per capita and poverty rates in Armenia



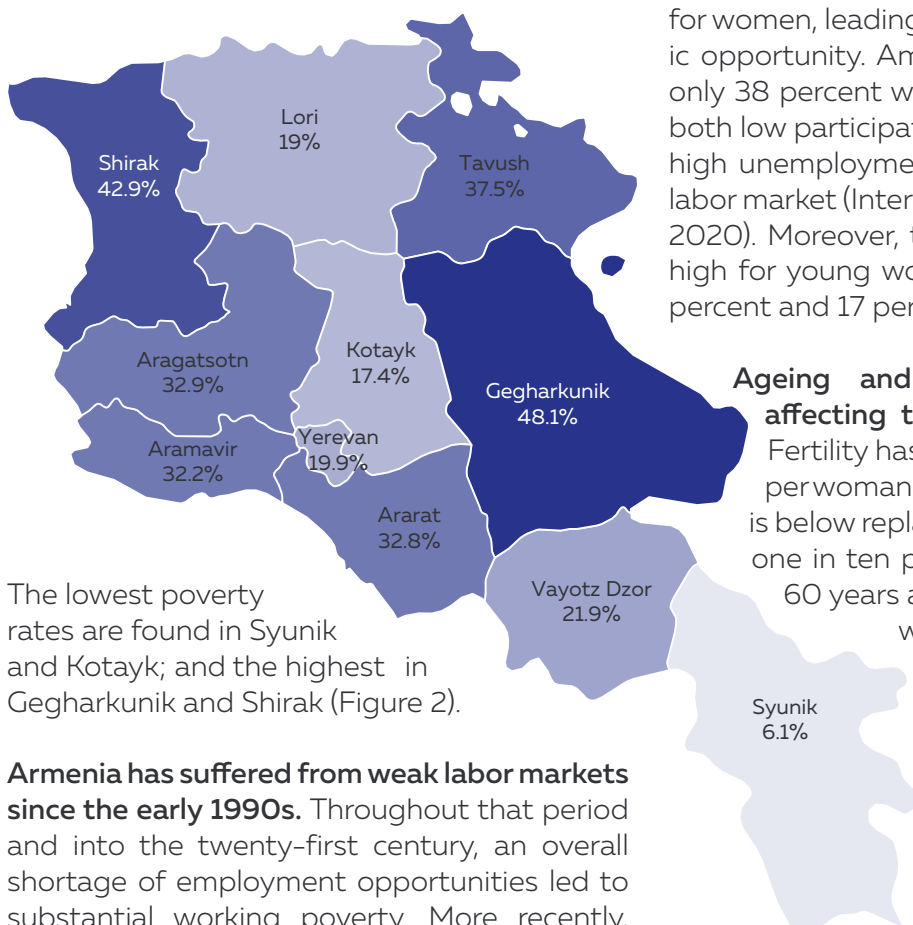
Source: World Bank (2021a).

vation, wages and economic growth. Without improving productivity, it will be challenging to support a growing pool of elderly people, who already receive the majority of public spending on social protection, and incur significant health spending, while still having the second highest poverty rate.

Poverty is centered in small urban areas and highest amongst children. Children face the highest poverty rates of all age groups (51 percent), and this has significant implications for needed investments in human capital throughout their lives (UN, 2021 and World Bank, 2020a). Despite high spending on pensions, the poverty rate for those above retirement age is also high, at 40 percent. Furthermore, the national poverty rate is marked by high disparities between urban centers outside the capital city of Yerevan (30 percent higher than the national average) and rural areas (10 percent lower).

Figure 2: Regional poverty rates, 2020

Source: ILCS 2020.



The lowest poverty rates are found in Syunik and Kotayk; and the highest in Gegharkunik and Shirak (Figure 2).

Armenia has suffered from weak labor markets since the early 1990s. Throughout that period and into the twenty-first century, an overall shortage of employment opportunities led to substantial working poverty. More recently, despite substantial growth, labor force par-

ticipation remains low, and the country still suffers from high unemployment (19 percent in 2018; International Labor Organization, 2020). Whilst there is underutilization of labor, there is also unmet demand for skilled workers in a fast-evolving occupational landscape. Armenia was ranked 90th out of 140 countries for ease of finding skilled employees, indicating that the country has been falling short in providing its current labor force with the knowledge and skills required by the labor markets (World Bank, 2020a).

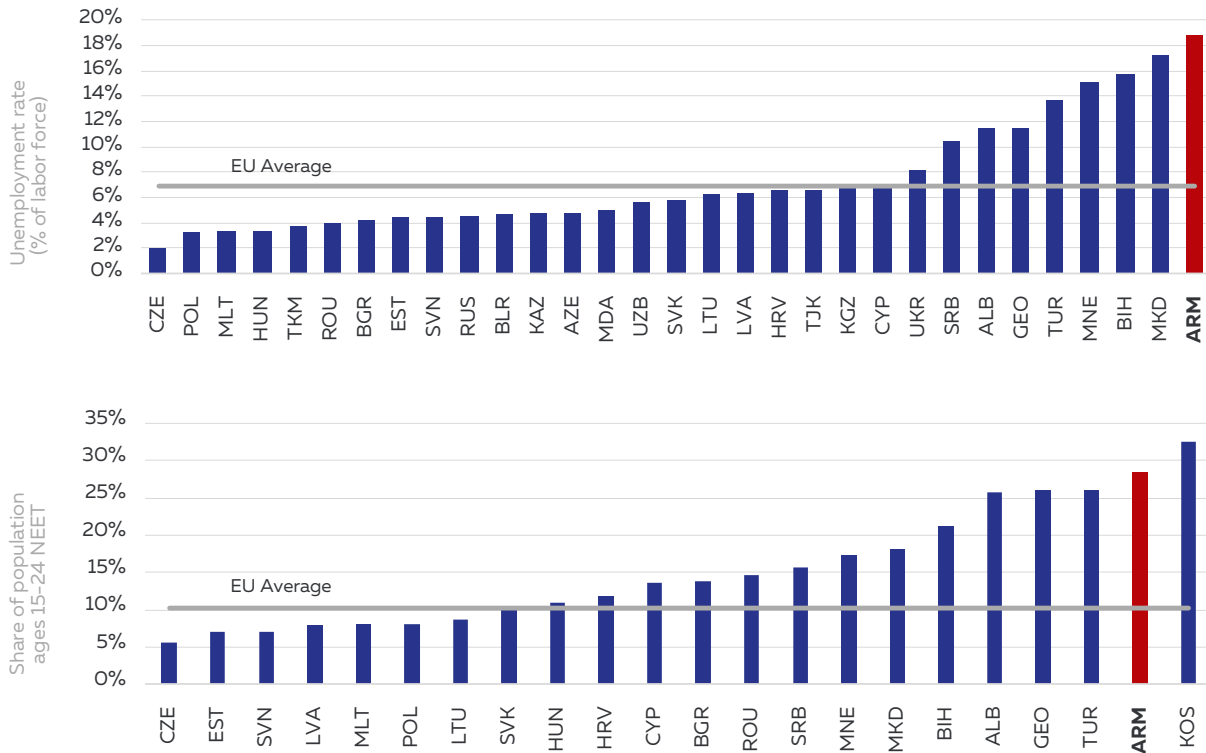
Labor market prospects are of particular concern for the country's youth and women.

Armenia has one of ECA's highest proportion of inactive youth (Figure 3). Inactivity and unemployment during youth reverberate throughout life, and have long-term scarring effects through lost opportunities to gain experience (Nichols et al., 2013). The overall youth unemployment rate was 37 percent in 2020, but, in addition, 28 percent are not in employment, education nor training (NEET). Unemployment and inactivity are also worse for women, leading to a major missed economic opportunity. Among working aged women, only 38 percent were employed; this is due to both low participation rates in general but also high unemployment for those who are in the labor market (International Labor Organization, 2020). Moreover, the NEET rate was twice as high for young women as for young men (34 percent and 17 percent respectively).

Ageing and out-migration are also affecting the size of the labor force.

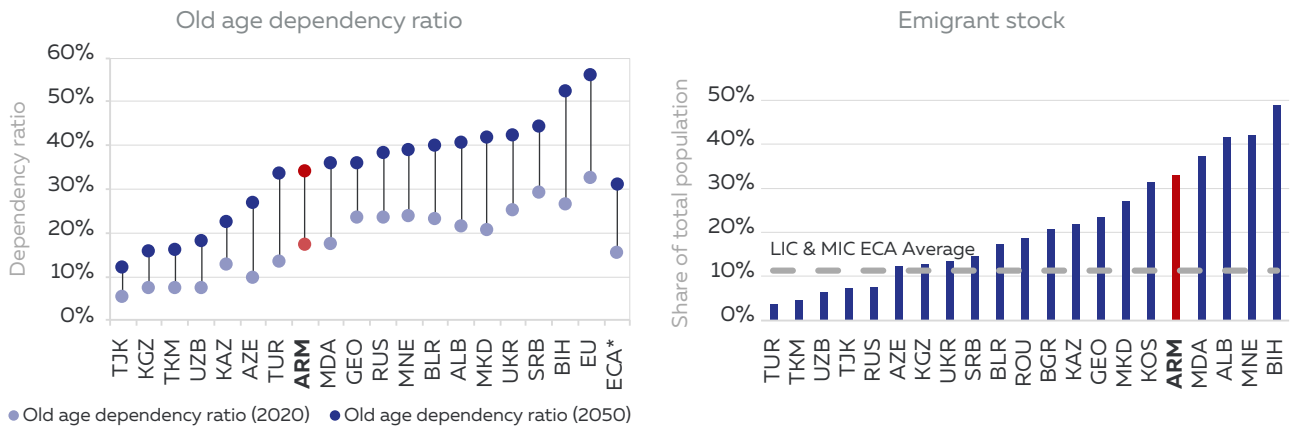
Fertility has declined from 2.38 children per woman in 1990 to 1.76 in 2019, which is below replacement level. While in 1990, one in ten people in Armenia was aged 60 years and above, by 2040 the rate will have quadrupled to one in four Armenians (Fraser et al, 2021). Moreover, out-migration rates are among the highest in the region (Figure 4); given that most migrants are of working age, high out-migration rates are exacerbating the ageing challenge.

Figure 3: Unemployment and inactivity in Armenian youth are among the highest in the region



Source: World Bank (2021a).

Figure 4: Rapid ageing is exacerbated by high outmigration rates



Source: UN Population Projections (2020) and KNOMAD database. Note: Averages are population weighted. Dependency ratio: Population with ages 65+/ages 15-64. ECA*: LIC and MIC ECA (excl. Russia).

A productive workforce endowed with quality human capital will be a critical factor for achieving more sustainable and inclusive growth. Human capital is the knowledge, skills and health that people accumulate over their lives and that help them to realize their productive potential. Better skilled and healthier workers tend to find higher quality jobs and are better able to operate in more complex (and more productive) environments, which will be essential

to remain competitive in global markets. Better skilled and healthier workers are also able to work longer and remain productive, helping to address the ageing and migration challenges. And boosting human capital will also be essential to support an effective Green Transition and help the country reduce the carbon intensity of production, which remains above world and ECA averages.

Human capital also helps build resilience to crises and shocks, including climate-related ones. The region is facing a series of major crises that are affecting its ability to grow and prosper. The 2008 financial crisis, COVID-19, a series of regional conflicts and now the war in Ukraine are all leaving scars that are affecting long-term prosperity. Looking ahead, it can also be expected that shocks emanating from climate change will increase. Armenia is experiencing above average increases in temperature with hotter summers, and temperature is projected to increase by 4.5°C by 2100. Average rainfall is projected to decrease, and precipitation variability to increase, generating more frequent droughts and floods. People with better human capital tend, however, to suffer less from crises and shocks and recover more quickly, as they can better adapt and respond to changing environments. Investing in people and their human capital, in addition to social protection, is therefore an effective strategy to build resilience to shocks and crises.

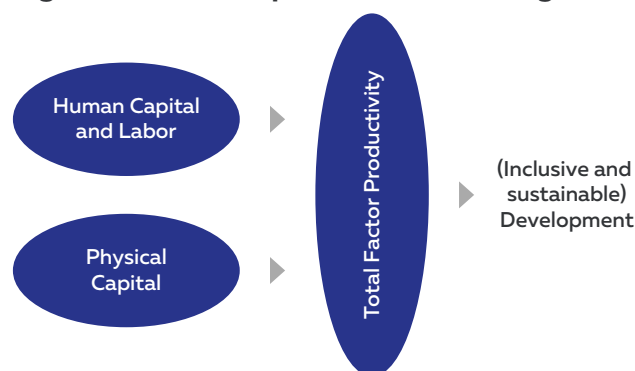
The objective of this Human Capital Review is to support ongoing and future reforms by assessing human capital outcomes and related delivery challenges. This Human Capital Review builds upon the strategic vision of previous analyses that assessed key Human Capital challenges,² and provides a systemic overview and performance assessment of the human development sectors – education, health, and social protection – with the objective of supporting better human capital formation.

This review proceeds as follows. The next session discusses the importance of human capital for sustainable and inclusive development. Section 2 discusses the state of human capital whilst Section 3 provides an overview of each sector’s structure, primary governance arrangements and spending levels. Section 4 displays Armenia’s experience and response to the COVID-19 pandemic. Section 5 proposes avenues toward effective and equitable delivery of health, education, and social protection programs and services. Section 6 presents conclusions and options for reform.

The importance of human capital for sustainable and inclusive development

Human capital investments – individuals’ education, training, and health – play an essential role in promoting development and growth (Becker, 1992). Production is the product of three interacting forces: the quantity and quality of labor, which is affected by human capital; physical capital; and total factor productivity – that is, the ability to use and combine capital and labor effectively through, among others, good and effective governance, and the provision of quality social services (Figure 5). Human capital is therefore a key factor supporting long-term growth and prosperity.

Figure 5: Human capital is essential for growth



The extent to which human capital is equitably distributed across the population also affects the sustainability and inclusiveness of development. If only a few have the skills to use new technologies, for instance, not only will the majority face lower incomes and wellbeing, but the country may face constraints to boosting growth through the adoption of these technologies. Therefore, worrying about equity and inclusion and how human capital is distributed across the population is not only a matter of ethics but is also smart economics.

Microeconomic studies find a significant and robust association between people’s human capital, and their incomes and success in the labor market. Because of major measurement and methodological challenges, the macroeconomic literature on the effects of human capital on development remains inconclusive (Flabbi &

² World Bank, 2020a.

Gatti, 2018; Jones, 2014). But microeconomic studies consistently find a solid relationship between various elements of human capital on the one hand, and people’s incomes and success in the labor market on the other.

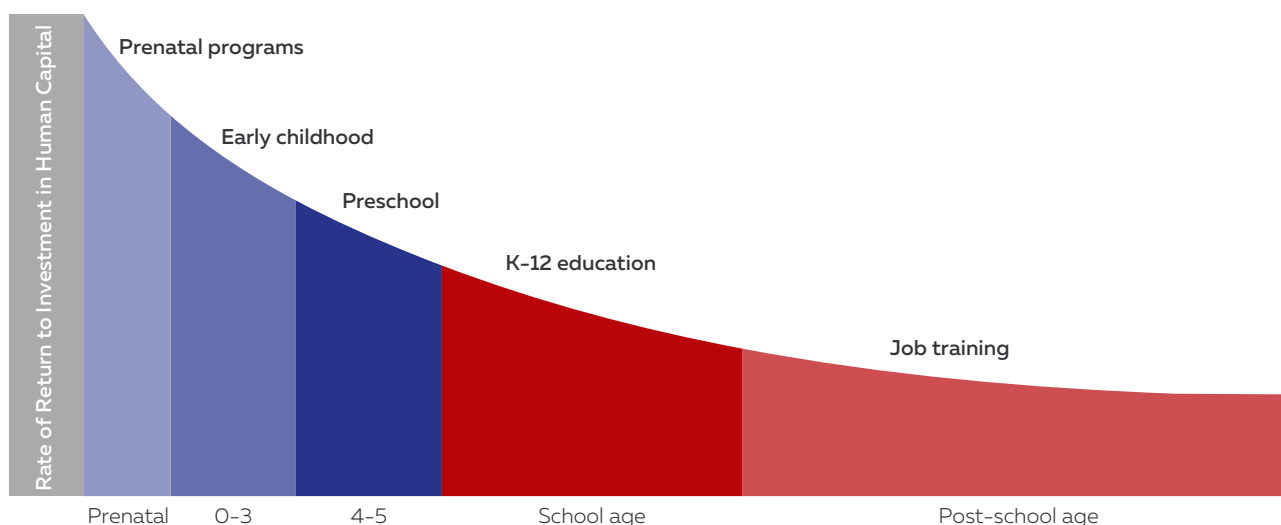
Investing early in human capital delivers the highest returns. Most brain development happens in the womb and in the first 1,000 days. In addition, a given investment in human capital today not only affects future payoffs but also positively influences subsequent accumulation of human capital. Therefore investing early in human capital delivers the highest returns (Figure 6), and ensuring proper early childhood development (ECD) is becoming a policy priority. On the health side, the cost of low birth weight and underweight of the members of the current workforce has been estimated to lead to a productivity loss between 2 percent and 11 percent (Martínez & Fernández, 2008); and Galasso and Wagstaff (2019) find that implementing a package of 10 nutrition interventions in low- and middle-income countries to cope with stunting and malnutrition delivers, on average, a benefit-cost ratio of 15:1. The returns of early childhood stimulation and education programs can be equally high. In Jamaica, for instance, Gertler et al. (2014) found that an early stimulation program led to 25 percent higher incomes 20 years later. Combining both health and education interventions delivers even higher returns. The Carolina Abecedarian Project (ABC) and

the Carolina Approach to Responsive Education (CARE) program, for instance, offered comprehensive developmental resources to disadvantaged African American children from birth to age five, including nutrition, access to health care and early learning, and a recent analysis found a long-run rate of return of 13 percent per year (García et al., 2020).

Proper design and quality of ECD services remain crucial to deliver high impacts. The benefits of ECD programs are disproportionately concentrated among children from poor and vulnerable households, as they may not receive adequate nutrition and stimulation at home. It is important, therefore, to ensure that poor and vulnerable households receive priority access. Moreover, quality of implementation is key. For instance, poorly implemented early childhood education programs (such as programs that may employ poorly trained staff or use out of date teaching methods) deliver little impact, or even negative impact: that is, children may be better off staying at home (Berlinski & Schady, 2016; Elango et al., 2016).

Later in life, education is a powerful booster of poverty eradication, good health, and success in the labor market. Across the developed and developing world, the labor market return on education is, on average, 9 percent per year of schooling (Psacharopoulos & Patrinos, 2018). Moreover, women experience higher average returns to schooling, showing that girls’ educa-

Figure 6: Early investments in human capital deliver the highest returns



Source: <https://heckmanequation.org>

tion remains a priority. Education also has positive effects beyond income, including impacts on crime, health, and good citizenship (Brunello et al., 2013; Lance, 2011).

However, the quality of the education provided matters significantly, especially for children from disadvantaged backgrounds. It is not only important to go to school, but also to learn skills that are in demand in the labor market. Literacy, for instance, is extremely important: one standard deviation more on the literacy scale increases the probability of being employed by 0.8 percentage points and is associated with a 6 percent increase in wages (OECD, 2016). In the EU, however, one in five students aged 15 is functionally illiterate (meaning that they may have problems understanding and processing a text), and the average is much higher in lower-middle-income countries (OECD, 2019). The quality of higher education is also extremely important: in fact, the quality of some universities may be so poor that their students would have been earning more if they had not attended them and would have started working right away (González-Velosa et al., 2015).

Good health also affects income and wellbeing. A healthy workforce is more productive than one weighed down by chronic disease that leads to absenteeism from work, presenteeism, and potentially premature mortality. Overweight and obesity not only increase the risk of NCDs but are also associated with lower wages (Brunello et al., 2009; Gilleskie & Hoffman, 2014). And again, malnutrition during childhood has long-term effects on brain development and cognitive potential later in life: Hoddinott et al. (2013) find that the prevention of one fifth of stunting would increase income by 11 percent.

Good health outcomes during childhood, youth and adult years are also essential for healthy ageing, which allows people to live better and work longer. The population is ageing across the region. While Armenia is not ageing as rapidly as countries in the EU, by 2040 one in four Armenians will be older than 60. Promoting healthy ageing is therefore not only a priority from a public health perspective,

but also the best way to ensure that the elderly population will be able to remain productive beyond the current retirement age.

The importance of service delivery for human capital

Achieving good education and health outcomes requires effective delivery of human development services to the poor and vulnerable population. While no system is perfect, compounded delivery challenges degrade the timeliness and quality of the services offered and the quality of human capital. Inferior quality of delivery particularly affects the poor and vulnerable populations, who have few means to complement the services received through individual investments, particularly in the absence of strong social protection systems.

Effective education systems hinge on prepared learners, effective teaching, and effective school structures underpinning the teaching-learning processes. To increase learning quality and improve equity, governments need to foster access to early childhood education and care (ECEC), invest in the quality of teaching through teacher skills and incentives, and invest in technology and organizational change to improve interaction between teachers and learners. Three educational inputs are of particular importance, regardless of the specificities of the education system: (i) students' preparedness at the beginning of their education trajectories; (ii) teachers; and (iii) school directors (World Bank 2018b).

Effective health systems meet the health needs of the population and protect it against health threats. These systems can improve the health status of individuals, families, and communities; protect them against the financial consequences of ill health; and protect the population against health threats, be they caused by communicable or non-communicable diseases or by preventable injuries. These systems mobilize resources from pre-paid and pooled sources, strategically allocate financing to strengthen service delivery, and ensure providers supply quality health care equitably,

aligned with needs rather than the ability to pay for care.

Social protection plays a key role in helping households protect and build human capital.

This occurs both through efficient social care services to protect the poor and vulnerable, and through an array of social programs that support human capital accumulation. When provided in response to economic shocks or natural disasters, social protection can also protect consumption and mitigate the need for households to engage in negative coping strategies that may affect their wellbeing and degrade their human capital. Social protection and employment programs also promote the creation of more and better jobs and help the vulnerable population, women, youth and marginalized groups access jobs, thereby ensuring that investments in human capital are fully utilized. Services include helping people find jobs through profiling and intermediation services, and assisting people to enhance their skills to access better jobs through training programs

Effective and equitable systems are underpinned by timely and adequate information bases, results-based management practices and effective governance systems.

Across the human development system, effectiveness hinges on strong information systems; monitoring and evaluation practices that help to track progress and guide interventions; and interaction, organization, and collaboration between all stakeholders, from users and their families to public and private actors.

2. The state of Armenia’s human capital

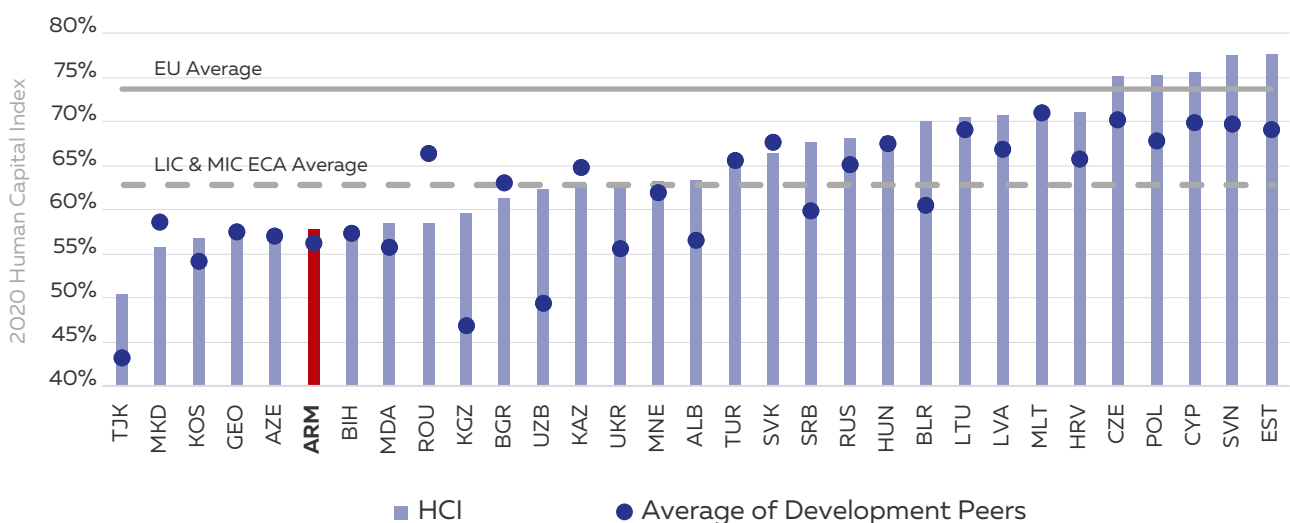
This section reviews Armenia’s human capital outcomes. It begins by looking at overall human capital levels using the World Bank’s Human Capital Index, followed by an overview of outcomes at different stages in life.

Overall human capital levels are in line with development peers but remains well below the regional average. Armenia’s human capital index (HCI), as measured in 2019, shows that children born in Armenia today will only be 58 percent as productive as they could have been if they had received the full set of health and education services. The figure is below the EU average of 0.74, and the average of lower-income countries (LIC) and middle-income countries (MIC) in ECA (0.62) (Figure 7).

Outcomes used to construct the Human Capital Index have not changed markedly over the past eight years. The Human Capital Index combines health outcomes such as child survival, stunting, and adult survival rates with education outcomes such as expected years of school and learning outcomes. Among these,

outcomes in stunting and learning-adjusted years of schooling (amidst declining enrollment rates) are of most concern. Stunting outcomes improved between 2012 and 2020, though progress is slowing. Expected years of schooling at age 4, are just 11.3 out of 18 years, and when adjusting for what children learn in school, that figure declines significantly, to 8 years (Table 1). Armenian upper secondary students are absorbing just two-thirds of the knowledge provided at school, as shown by low test scores that diverge between urban, rural poor, and wealthier households. Though not reflected in the HCI, there have, however, been some improvements in learning outcomes: Armenia scored a 17-point and 22-point increase in achievement in mathematics and science subjects respectively in the 2019 Trends in International Mathematics and Science Study (TIMSS), compared to the results seen in 2015. There is, however, room to improve as in comparison to other countries, Armenian students score below the scale center point of 500 in both subjects (TIMSS, 2019).

Figure 7: The Human Capital Index in Armenia and in ECA



Source: World Bank (2021a).

Table 1: Armenia HCI 2012-2020

	2012			2017			2020		
	Male	Female	Overall	Male	Female	Overall	Male	Female	Overall
HCI	0.56	0.61	0.58	0.55	0.59	0.57	0.56	0.6	0.58
Survival to Age 5	0.98	0.99	0.98	0.99	0.99	0.99	0.99	0.99	0.99
Expected Years of School	11.5	12.2	11.8	10.9	11.3	11.1	11.1	11.5	11.3
Harmonized Test Scores				439	448	443	439	448	443
Learning-adjusted Years of School							7.8	8.3	8.0
Adult Survival Rate	0.82	0.92	0.87	0.83	0.93	0.88	0.83	0.94	0.89
Not Stunted Rate	0.78	0.8	0.79	0.89	0.92	0.90	0.89	0.92	0.91

Source: World Bank (2020a), World Bank (2020b), Patrinos and Angrist (2018) for harmonized test scores.

There have been improvements in indicators for longevity, infant and maternal mortality, and communicable diseases. There has been a rise in life expectancy at birth from 68 to 75 years since 1990 (World Bank, 2021a). The infant mortality rate fell from 37.1 to 9.1 deaths per 1,000 live births between 1990 and 2019. Over the same period, rates among children under-five years of age also fell, from 41.9 to 11.8 deaths per 1,000 live births (IHME, 2019). These gains have been driven, in part, by increases in maternal and child health service coverage, and also a lowering in the communicable diseases burden.

Access to early childhood education increased but most children are still not enrolled in pre-school. The enrollment of children in preschool institutions (out of the population aged 0-5 years) was 32.6 percent, in urban areas 38 percent and in rural areas 22.6 percent (World Bank, 2019). While preschool enrollment rates have improved by 43 percentage points between 2010 and 2019, the availability of pre-school institutions in rural areas is limited, one of the reasons for the wide urban-rural disparity seen above. Children from wealthier families also have more opportunities than those from poor families, with an enrollment rate 1.5 times higher (37 and 25 percent respectively – SCA, 2020).

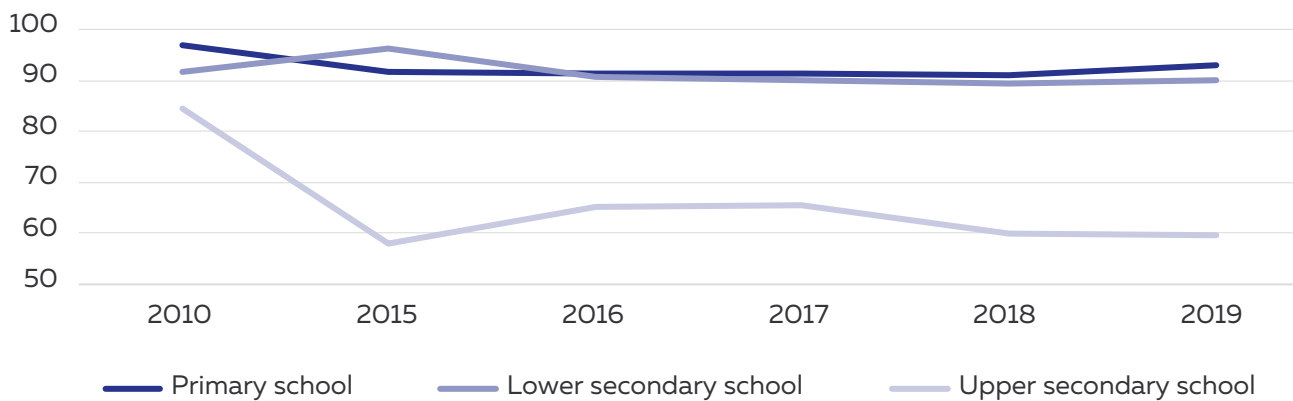
Childhood and youth

Children in Armenia are at low risk from preventable diseases. In 2019, Armenia had a measles incidence rate of 2.38 per 1,000,000 people, well below the average in Europe of 25.14, mirroring the low incidence rates for vaccine-preventable diseases and the highest immunization rate in children (WHO, 2019). Since 2007, no local cases of measles and rubella have been registered in Armenia. Furthermore, whilst still high, stunting has been halved, driven in part by an increase in breastfeeding. However, less attention was paid to obesity prevention, as reflected in the prevalence of overweight children under 5 of 14 percent in 2016, a 3-percentage point increase compared to the rate seen in 2005. This risk is raised for children living in poor households, rural areas, or for children whose mothers only have basic education (ADHS, 2016).

For almost all levels of formal schooling in Armenia, enrollment rates have declined compared to levels in 2010. This trend is echoed by high dropout rates, which have quadrupled for lower secondary school since 2010. Enrollment and dropout rates are discussed for each level of education in turn. Gender disaggregation reveals gender parity for schooling levels up to vocational educational and training (VET) levels, where some differences are found.

Primary and upper secondary gross enrollment ratios (GER) have declined, and lower secondary enrollment rates are stagnating (Figure 8). In 2010, the GER in primary education was 97 percent, but it had fallen to 93 percent by 2019 – partly related to the transition to the 12-year education system. In 2019, the ECA average was 97.6 percent in 2019, and the UMIC average 103.2 percent. An improvement in primary

Figure 8: GER for primary and secondary schools, 2010–2019, %



Source: NSS 2020, 2016 & 2011.

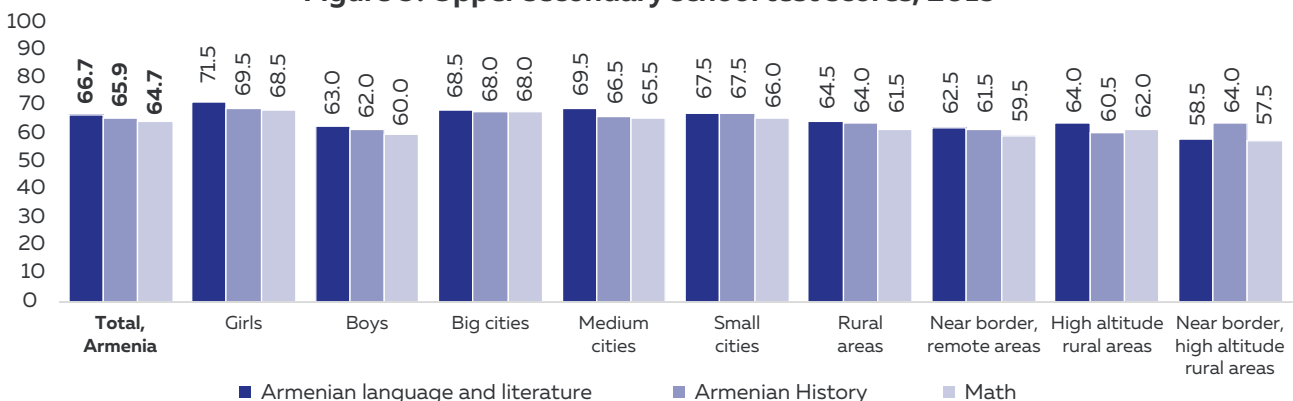
school enrollment only appears between 2018 and 2019. The out-of-school rate for children of primary school age was 8.9 percent in 2019, and showed some increase compared to the 2015 rate of 7.5 percent (World Bank, 2021a & UNESCO, 2021). The GER for lower secondary school was 90 percent in 2019 (NSS, 2020), lower than it had been in 2010 and below the ECA average – 102.9 percent and the UMIC average – 99.7 percent (World Bank, 2021a). There has also been a substantial fall in enrollment in upper secondary school, part of which reflects the choice of not pursuing further education, but also preference for vocational education and training.

Learning outcomes have improved but remain relatively low. The average scores for all subjects were 60–65 percent of the maximum test score (Figure 9). In 2015, harmonized test scores using the TIMSS standard for secondary school in Armenia were 443 on a scale where 625 represents advanced attainment and 300 represents minimum attainment (World

Bank, 2020b). More recently, there has been an improvement in attainment with the overall test scores rising from 443 in 2015 to 482 in 2019. This improvement is marked through 17-point and 22-point increases in achievement in mathematics and science subjects compared to the results seen in 2015. Armenian students score below the scale center point for all countries of 500 in both subjects (TIMSS, 2019).

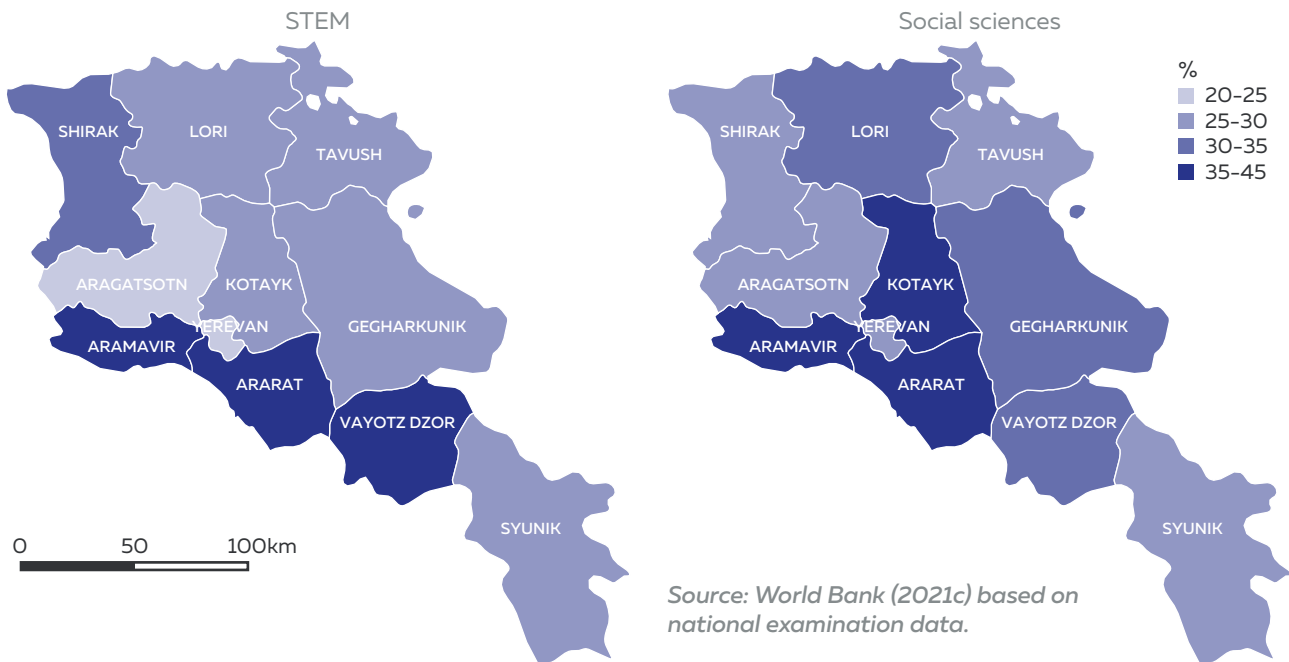
There are also substantial inequalities in learning outcomes. Students in rural, border, remote and high-altitude areas perform worse than students in urban schools, and boys perform worse than girls in all subjects. Disaggregated HCI by socioeconomic status (SES-HCI) shows high variance in harmonized test scores. Students from the richest 20 percent of households in Armenia score 483 while those from the poorest 20 percent score 417, a gap of 67 points on the scale that ranges from 300 to 625. This gap is larger than the typical gap across the 50 countries (55 points). Measuring the incidence of low learners³ across regions,

Figure 9: Upper secondary school test scores, 2019



Source: ATC (2020).

Figure 10: Percentage of low learners in Grade 9, 2019



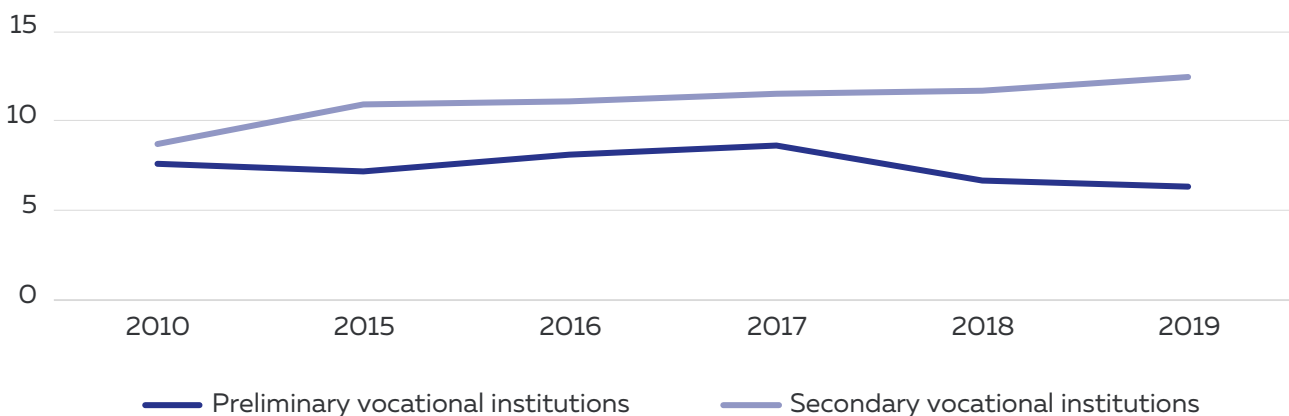
the highest shares are found in Armavir, Kotayk, Ararat and Vayotz Dzor (Figure 10) (ibid).

Increasingly, students are opting for VET instead of higher education. Enrollment rates in secondary level VET have increased over the last decade though demand for preliminary VET has fallen (Figure 11). In the 2019–2020 academic year, the GER in primary vocational education was 6.3 percent (3.3 percent for females and 8.9 percent for males). In secondary vocational education the GER rate was 12.5 percent, with women enrolling at slightly higher rates. The increased demand for VET is related to strong government efforts to develop the system, which has led to attending

VET becoming much more affordable for students, as tuition fees are covered almost in full. Increased demand, however, may not reflect the quality of education received, as just over half of VET graduates are employed whilst just 30 percent hold highly skilled jobs (ETF, 2020). Despite increased enrollment in secondary VET, the vocational education system remains under-developed and under-funded and needs modernization and synchronization with the contemporary needs of the labor market.

Armenians have also enrolled more in higher education institutions although, again, there are substantial inequalities in access. About 65,000 students were enrolled in bachelor-level

Figure 11: GER for VET, 2010–2019, %



Source: NSS 2020, 2016 and 2011.

³ Students who are in the lowest quartile of the national distribution of scores per year and subject.

studies in higher educational institutions (HEIs) in 2019. In 2019, the GER in HEIs was 50.4 per cent, with a gender parity index of 1.27. Since 2015, the enrollment rate has increased by 3.6 percentage points. The master-level GER in HEIs in 2019 was much lower, at 14.6 per cent, and this level attracts more women than men, with a gender parity index of 2.24. However, many youth from poor families continue to be unable to access higher education (19 per cent GER for the poorest quintile compared to 54 per cent for the wealthiest), due to the lack of funds to pay for tuition, the lack of knowledge and skills for admission to universities acquired by the poor during secondary education, as well as the growing opportunity cost against entering the labor market and earning money. Just 61 per cent of graduates are employed, and though HEI graduates earn 30 per cent more than VET graduates (ETF, 2020), costs are higher and accessibility lower. Going to university means living in or commuting to Yerevan, where 85 per cent of HEI students are enrolled and where 45 of the countries' universities are located.

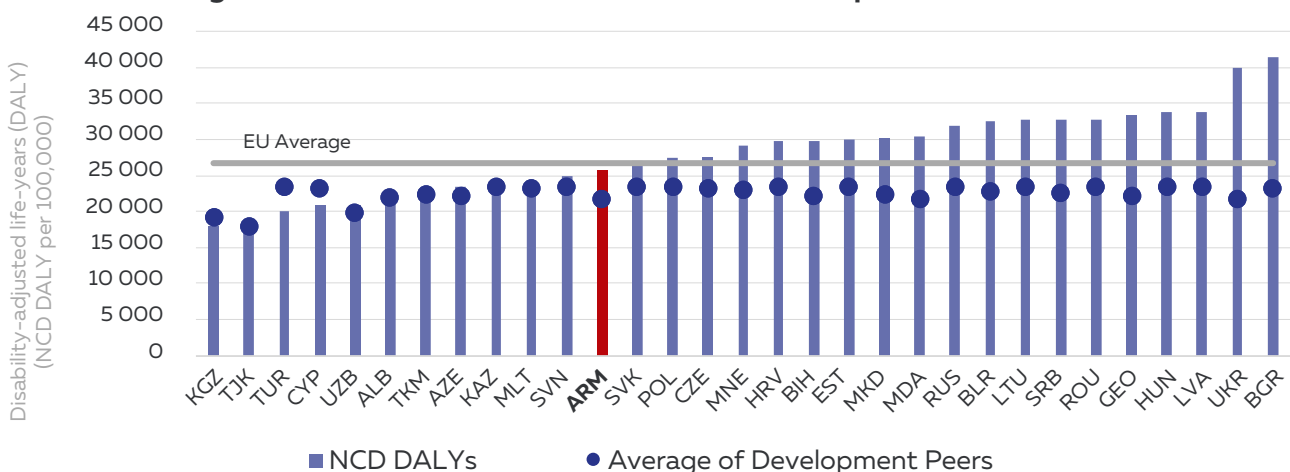
is a vast improvement over the levels seen in the 1990s (58). Though the coverage of antenatal care is high, there is a lack of adherence of pregnant women to good nutrition practices. Available data show poor nutritional and dietary practices, and high prevalence of micronutrient deficiency among pregnant women: data on anemia from various sources vary widely from 12 per cent to 60 per cent; and about 60 per cent of pregnant women did not take iron and 50 per cent did not take folic acid supplements (UNICEF, 2018).

For those of working age and older, a rise in NCD prevalence lowers life expectancy, quality of life, labor productivity and the ability to work longer. NCDs are responsible for 93 per cent of deaths in Armenia (Andreasyan, et al 2019).⁴ The NCD level is just below the EU average and slightly above that of Armenia's development peers (Figure 12). This burden of disease is driven by ageing, gaps in access to quality of care, and exposure to behavioral and metabolic risks, including high blood pressure, tobacco, unhealthy diets, high body mass index, and high blood sugar (IHME, 2019). Rates are also much higher for men than for women. The death rate among the working population is also high at 27.5 per cent (MoH, 2018). Much of this is driven by diabetes: premature mortality due to diabetes is the highest in the region (560.4 per 100,000) as compared with Georgia (429.9 per 100,000) and Azerbaijan (465.6 per 100,000) (IMHE, 2020).

Adulthood

There have been substantial improvements in maternal health outcomes, though more efforts are needed to converge to regional averages. The maternal mortality rate was 26 deaths per 100,000 live births in 2017, which

Figure 12: Incidence of NCDs in Armenia and Europe and Central Asia



Source: World Bank (2021a).

⁴ In 2019, the top five causes of death were ischemic heart disease, stroke, lung cancer, diabetes, and chronic obstructive pulmonary diseases in the elderly.

Older age

Armenians are growing older than they did 30 years ago, but prosperity in old age is not guaranteed. Economic development and improvements in health care have contributed to a rise in life expectancy at birth from 68 to 75 years since the 1990s. Accordingly, the country is ageing: while in 1990 one in ten people in Armenia was aged 60 years and above, in 2040 one in four Armenians will be older than 60 (Fraser, N 2021). Whilst ageing is not as dramatic as in the EU, by 2050 every three working age person in Armenia will be supporting one elderly person. At the same time, 40 percent of those already in old age are below the national upper poverty line and given the high prevalence of NCDs many face challenges to work. With aging, there is a higher probability of multimorbidity – that is more than one NCD – and disabilities resulting from longstanding and complicated illnesses. Hence, aging, coupled with persistent poverty and NCD incidence as well as declining fertility rates and outmigration, will put significant pressure on the labor force and the social security system to protect the elderly.

3. Building human capital: overview of the education, health, and social protection sectors

Human capital is key for supporting long-term growth and prosperity at country and individual level, and its formation depends to a large extent on effective human development systems. Development of human capital depends to a large extent on balanced, effective, coherent, and equitable human development delivery systems. This section provides an overview of the human development sectors in Armenia.

In Armenia, health, education and social protection sector financing and policy making are primarily responsibilities of the central government. Overall oversight is provided through the Ministry of Finance (MoF) whilst the main institutions governing delivery of social services are the Ministry of Health; the Ministry of Education, Science, Culture and Sports (MoESCS); the Ministry of Territorial Administration and Infrastructure (MoTAI); and the Ministry of Labor and Social Affairs (MLSA).

Overview of the education sector

The education system is implemented by central and local government institutions. The general education sector is administered by the central government, and an authorized state institution for the management of secondary education, the Municipality of Yerevan and regional governments and community leaders in the regions. Overall oversight is provided through the Ministry of Education, Science, Culture and Sports (MoESCS). MoESCS receives and distributes funding to all high schools under its supervision and through the regional governments and the Municipality of Yerevan, it channels the funding to the other schools.

The central government develops national policy and defines educational standards,

while regional governments and the Municipality of Yerevan manage most implementation aspects. Central government leads and organizes monitoring of education, establishes educational institutions, regulates the procedures for selecting school principals, and finances state schools, among others. Regional governments and the Municipality of Yerevan manage most implementation, such as ensuring execution of state educational policy in the regions, implementing educational and training programs in accordance with state educational standards, coordinating and supervising registration of school-age children, ensuring their inclusion in educational institutions, and ensuring the construction, operation, and maintenance of educational facilities.

Apart from preschool education, until 2018 there was limited opportunity for schools to adapt central government guidelines to local contexts. The competencies of local government were limited to technical and organizational issues, although preschool provision and funding were under the responsibility of local governments. Budgets for schools were distributed through regional governments, with little room for bottom-up adjustments. This limited the independence of schools and community participation in school management. After 2018, however, reforms were introduced to expand school councils and community participation in school management, as well as to ensure transparency in the selection of principals.

The central government is supporting pre-schools integrated into primary schools. In 2019, there were 906 preschool education institutions, and 82,000 children enrolled in the system, of which 123 were integrated into primary schools that receive central government funding. At central level, the parliament drafts national preschool education legislation, and

the government develops national policy and educational standards, and monitors provision. The budgets allocated to preschool institutions by communities are based on the number of children attending, the hours of operation and the ages of the children enrolled.

Preschools are being integrated in schools through the state School Readiness Program for 5-6 year-old children. By 2019, 123 preschools had been integrated into schools, with 3,560 children enrolled, mainly in the regions, to provide preschool education for one year. This has contributed to higher enrollment and better performance in primary school, and expanded opportunities for mothers to enter formal employment.

Recognizing the importance of ECD for human capital development, Armenia has also developed a legal and policy framework for ECD services. The framework comprises cross-cutting elements and initiatives pertaining to nutrition, child health, education, and social protection and social services. The National Program on the Protection of Children's Rights for 2004-2015 was endorsed in 2003; it is a multisectoral ECD policy covering the education, health, and social protection sectors. This National Program has been the overarching umbrella to guarantee access to essential ECD services through national laws and regulations. However, the updated program for 2017-21 no longer covered child nutrition or the cognitive stimulation and social and emotional development of children under the age of five.

Comprehensive reforms have been made to secondary education during the past two decades. The main reforms included promoting inclusive education; establishment of a separate three-year upper secondary system; a transition to 12 years of compulsory secondary education; development of standards and of a national monitoring system of learning outcomes; introduction of mandatory continuous training for teachers; improvement of school management systems; integration of preschool education services in schools; and seismic protection of school buildings.

The government has been working on further

reforms and revising further regulations. The revised regulations are intended to increase quality, effectiveness, and efficiency at all levels. Draft laws in all sub-sectors of education are currently being discussed and revised but have not yet been finalized and adopted. Thus, the main recent policy document on education is the Government Program 2021-2026, adopted in August 2021. In July 2022, a draft education sector development strategy covering the whole spectrum of preschool education, primary and secondary schools, vocational education, higher education and life-long learning was endorsed by the government, and it is expected to be adopted by the parliament by the end of 2022. When enacted, the new Law on Higher Education and Research would strengthen the link between education and science, as well as increase the research component in higher education and enhance scientific excellence through financing mechanisms that ensure effective use of funds. The 2021-2026 Program also envisages the reconstruction of 21 percent of public schools and ensuring that they are equipped with updated teaching facilities, including ICT equipment, modern science and engineering laboratories and up-to-date e-learning tools and platforms. The COVID-19 pandemic, as well as the war in Ukraine, have delayed implementation. Nevertheless, in 2021 and 2022 the parliament did adopt some amendments to the Law on Education, the Law on Preliminary (Craftsmanship) and Middle Vocational Education, the Law on Higher and Postgraduate Education, and the Law on Secondary Education.

The minimum salary for teachers with full-time employment has also been increased. The level of remuneration is greater for teachers who manage to improve their qualifications through training courses, which are being organized to bring their qualifications up to the new standards. To this end, a voluntary certification system was piloted in 2021, which will be expanded. However, only 61 percent of teachers have full-time workloads in schools and can benefit from the reform. At the same time, student to teacher ratios are low, with 2018 levels of 6 for preschool and 8 for school education – being well below Commonwealth of Independent States (CIS) and Organisation for Economic

Co-operation and Development (OECD) levels (UNESCO, 2021).

An education management information system (EMIS) has also been developed. The EMIS is designed to collect and report data on general education systems, and includes tools to aggregate data, calculate key indicators and integrate with population data. In 2021, the MoESCS defined the procedures for maintaining the EMIS and for introducing a state administrative register in the field of education. The EMIS includes all secondary schools and is currently being extended to include preschool institutions, VET and HEIs. The system can make the process of obtaining and analyzing information more efficient, and ensures that programs, strategies, and policies are developed using clear and reliable digital data.

Reforms also aimed at increasing the quality of VET and higher education. Armenia has joined the Bologna Process for higher education (2005) and the Turin Process for VET (2010) to integrate education standards and improve competitiveness. VET reforms were intended to update educational content, increase management effectiveness, and strengthen logistics. Following the Turin Process requirements, state educational standards for specialties and qualifications of VET were developed, and curricula were revised. Continuous training of teachers was organized. Efforts were also made to strengthen links between the VET system and employers. In higher education this led to the introduction of a qualification system in line with the European credit transfer system, the establishment of a national system for professional education quality assessment and assurance in line with European standards, the adoption of a national framework of education qualifications in line with the European qualification framework, the creation and introduction of a system for student, academic and graduate mobility, and the expansion of student participation in HEI academic oversight and management.

There are a few programs to support participation of poor and vulnerable students in higher education. To increase enrollment of those from low-income families in higher education, the

MoESCS runs programs for students registered in the Family Benefit (FLSEB) system and those with vulnerability scores higher than the threshold value for receiving state family benefits.

Accreditation of HEIs and their academic programs is carried out by the National Center for Professional Education Quality Assurance Foundation (ANQA). Institutional accreditation is regular and mandatory for both private and public HEIs, and a prerequisite for academic program accreditation, which is carried out on a voluntary basis, except for medical academic programs. Institutional accreditation is awarded for four or six years, and conditional institutional accreditation for two years. In 2015–2021, ANQA conducted accreditation processes for 45 HEIs and VET colleges, of which just one university was denied accreditation.

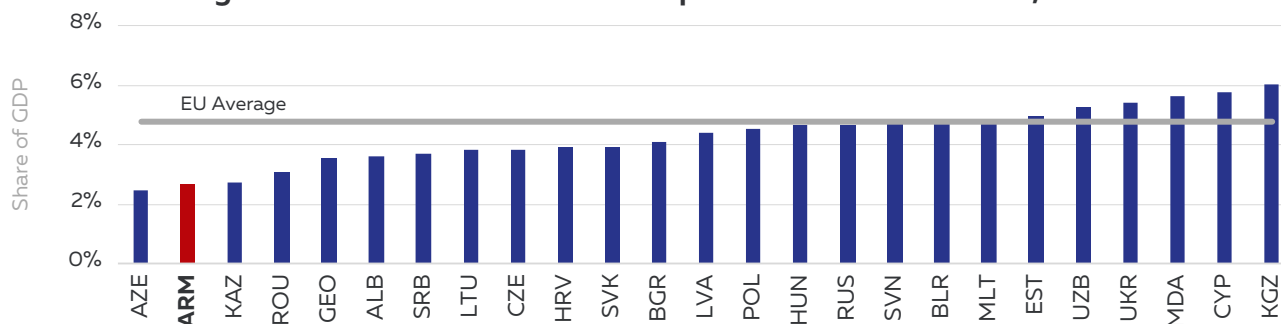
Spending

As a percentage of GDP, public spending in education is low and has remained stable over the years. During 2014–2019 public spending in education was steadily in the range of 2.7–2.9 percent, and in 2020 it was 2.7 percent of GDP or 8.8 percent of central government expenditure. The level of spending is well below the EU average of 4.7 percent and below the UMIC and ECA average, both being 3.9 percent of GDP (Figure 13) (World Bank, 2021a). Under the latest strategy, the government aims to raise spending on the education sector to reach 4 percent of GDP and 15 percent of central government expenditure by 2030.

Most education expenditure is directed towards general education programs. As of 2021, about 23.6 percent of public expenditures on education were directed to pre-school and primary general education, 40 percent to secondary general education, 7.2 percent to VET, and 9.3 percent to higher education. The remaining amount is allocated to a variety of additional education-related expenditures.

Current expenditure dominates education spending. Educational expenditures are predominantly (90.8 percent) directed to cur-

Figure 13: Government education expenditure as share of GDP, 2017



Source: World Bank 2021a. The EU average is population weighted.

Table 2: Breakdown of public expenditure on education in Armenia in 2020, % of total

	Total public expenditure	Primary education	Lower secondary education	Upper secondary education	Tertiary education
Current expenditure	90.8	86.4	89.4	89.6	96.8
<i>Of which:</i>					
Teaching staff compensation	53.1	51.6	54.2	57.1	54.0
Non-teaching staff compensation	30.3	23.8	25.0	26.3	39.4
Other current expenditures	7.4	11.0	10.2	6.2	3.4
Capital expenditure	9.2	13.6	10.6	10.4	3.2

Source: Authors' elaboration.

rent expenditure, most of which is allocated to teaching staff compensation (Table 2). But given the low overall spending amount, teachers' remuneration remains low despite the large share of spending devoted to it.

The funding of schools is based on a per-capita funding formula. For years, school financing was based on enrollment. The per capita financing considered geographical and other disparities, such as big and small schools; urban and rural, and those in mountainous and highly mountainous locations. In 2021, the government revised the school financing formula. The new formula considers the annual average number of classes, average number of teachers per class, teacher salaries, special circumstances, such as extra fees to teachers in highly mountainous locations, textbook and feeding fees. The new scheme is based on considering the number of classes as opposed to the number of students in the school. The government aims to establish effective, open, performance- and outcome-based governance

and financing systems. The formula envisages differentiated funding for primary, lower secondary and upper secondary schools. It is not clear if this adjustment is enough to overcome the challenges in rural or remote areas, as overall funding in the system is limited. The overwhelming majority, 98 percent of students in primary vocational education, study for free. Annual public expenditure per student in upper secondary school is 1.4 times lower than expenditure per state-funded student at the preliminary and middle VET institutions, as the latter includes additional components aimed at acquisition of practical skills.

Higher education financing is predominantly private, though the government uses scholarships to even out inequities in access. There are 27 public and 25 private universities in Armenia, with more than 85 percent of universities being in Yerevan. Admission to university requires living in the capital city which creates extra financial burdens for poor families. This notion is reflected in enrollment rates in the top quin-

tile being more than twice those of the poorest quintile. The state funds the education of 17 percent of bachelor students and 26 percent of master-level students in public HEIs. Provision of the state scholarship is linked to the student's academic performance and the social vulnerability characteristics of the student's family. The state provides partial or full reimbursement of 50-100 percent of higher education tuition fees for these students each year, based on their vulnerability scores. In 2019, 14.5 percent of students in HEIs received scholarships (NSS, 2020), and AMD 8,312 million was allocated to reimburse tuition fees, making up 74 percent of total public expenditure on higher education (MoF, 2020). The government is also increasing the science budget, which reached AMD 15.9 billion in 2021.

Overview of the health sector

The MoH governs the Armenian health care system. It drafts health legislation, policies, programs, and strategies, and submits them to the government for approval, and approves specific regulations, such as service delivery standards, protocols, and guidelines. MoH purchases budget-funded medical services covered under the Basic Benefits Package (BBP),⁵ through State Health Agency (SHA) contracts with about 500 public and private health care providers. It directly manages about 16 health-care facilities and institutions, some of which are multi-profile or specialized medical centers (Chukwuma et al, 2020a).

The SHA was established as an independent public body charged with purchasing all publicly funded medical services in Armenia. In 2011 the MoH started directly signing contracts with providers; since then, the SHA has only prepared contracts with providers, processed the reporting and disbursement of funds from the budget, and conducted audits. All major purchasing decisions, including the authorization of the contracts with providers, are made by the MoH. In addition, six third-party administrators now process claims for health services for the beneficiaries of the social package for selected government employees, introducing

inefficiencies from duplicative administrative costs and low claims ratios.

Several agencies manage enforcement and control of activities with implications for public health. The State Health Inspectorate is a specialized subdivision of the MoH, and is tasked with overseeing the quality of curative services, pharmaceuticals and workplace safety. However, most public health functions are managed by the National Centre for Disease Control and Prevention (NCDC), a state nonprofit organization under the MoH and the country's primary public health institution. The NCDC has retained the essential public health functions of epidemiological surveillance and communicable disease control but also plans to focus more on control of NCDs, health promotion and disease prevention. The National Institute of Health (NIH), another large public health institution that incorporates the Information Analytic Centre, implements a significant proportion of public health activities, including development of regulations on tobacco control; and drafting policy documents on NCD prevention, micronutrient deficiencies, harmful use of alcohol and physical inactivity. It is responsible for data collection and transformation of data into relevant information on health trends and provider performance to inform decision-making. Both the NCDC and the NIH are called upon to develop public health policies, strategies and legislation.

The health departments of regional administrations and sub-national governments manage most public health facilities in Armenia, including regional hospitals, urban polyclinics, and rural primary health care (PHC). They appoint facility managers, approve facility budgets, monitor their execution, and make key management decisions on personnel management, procurement, and revision of service lists. Most dental clinics in Armenia, and some of the largest multi-profile hospitals in Yerevan, are private. The rest of the health service delivery system, especially in the regions, is publicly owned and managed. In 2017, about three-quarters of all human resources were employed by publicly owned health facilities, which also contained more than two-thirds of the country's hospital bed capacity.

⁵ The BBP comprises three packages: for all the population, for socially vulnerable groups, and for civil servants and other special groups under the social package.

Important health financing reforms began in the late 1990s, aimed at improving the efficiency of public health spending. In 1997, Armenia introduced the first Basic Benefit Package, with a set of publicly funded services, by government decree. The package covers some outpatient drugs, inpatient care, and specialized services for vulnerable sub-populations and the public sector, in two separate packages. 70 percent of the population has basic coverage for outpatient consultations and emergency care but must pay out of pocket for other care. As part of the reform, line item-based budgeting and the direct financing of maintenance costs were replaced with per capita funding and supplementary performance-based financing (PBF) for PHC providers, case-based financing for hospital care, and fee-for-service for certain types of outpatient and inpatient services. Under the per capita mechanism, PHC facilities receive a fixed annual amount for each enrolled patient with adjustments that have implications for equitable access to care. Hospital services are paid on a fee-per-case basis, where an average price is set for each completed surgical or nonsurgical hospital treatment case. In 2011, copayments were introduced for certain categories of public services, in order to cover the gap between the actual cost of the service and the public remuneration rate. The scope and rate of copayments are periodically revised (WHO, 2020b). Nevertheless, the relatively low levels of reimbursement for services in state-funded packages contributes to formal and informal out-of-pocket payments.

The MoH contracts public and private health facilities to provide BBP services under the same legal framework. In 2019, 469 health facilities were contracted, of which 403 were public and 66 were private. About 54 percent of all contracted facilities were PHC providers. Almost all inpatient facilities licensed by the MoH were contracted to provide budget-funded services under the BBP. Health care providers that are not contracted by the MoH and not funded from the public budget were mainly private outpatient diagnostic centers and dental offices. Patients eligible for more generous coverage under the BBP need referrals from PHC providers for hospital treatment,

except in cases of urgent care. In addition, the MoF monitors the budget execution process and publishes detailed quarterly and annual reports. These reports include information on financial and nonfinancial indicators by budget programs and activities, revenue and expenditure by economic and functional classification, national and local budgets, grants, budget deficits, and extrabudgetary funds. All other ministries and public agencies submit quarterly budget execution reports to the MoF (Chukwuma et al, 2020b).

Excess hospital service capacity was reduced by investing in PHC reform and optimizing the hospital network. This has been achieved through the introduction of family medicine, rehabilitation of primary care infrastructure, provision of medical equipment and training of health care and administrative staff. More than 170 PHC clinics, mainly in rural areas, were constructed and about 1,655 doctors and 1,770 nurses were trained to provide family medicine services in Armenia.

Hospital network optimization occurred through investments in infrastructure and services, merging facilities strategically, and building capacity for quality health services. The previous, public-funded, “Semashko-style” centralized health care system provided universal access to a wide range of services, with a heavy emphasis on secondary and tertiary care, and oversized bed capacity and spaces. After decentralization, Armenia managed to reduce the total number of hospital beds by almost 61.3 percent, and the number of hospitals was cut by about 30 percent. A privatization program in Yerevan affected, however, the consolidation of services. By 2015, the capital had 73.4 beds per 10,000, still above the average of 51 beds per 10,000 in EU countries (Chukwuma et al, 2020b). Furthermore, service delivery continues to be centered on hospital and curative care, a model that is both ineffective and inefficient. For example, an estimated 63 percent of hospital visits are not preceded by a referral from primary care.

While significant reform efforts since the 1990s have significantly improved access to care and health system efficiency, Armenia needs to

address the persistent barriers to health care use and improvements in service delivery. For example, the Universal Health Coverage (UHC) health coverage index monitors national progress towards ensuring access to health care, measured as a mean across 14 health services, including for NCDs. On this measure, in 2017, Armenia’s score was 69 (out of 100), below the ECA average of 75. For reproductive, maternal, and child health services, Armenia scored 67, with performance falling to 55 for services for NCDs (WHO, 2020b). These gaps reflect opportunities to strengthen health system performance, and thus human capital development.

An ongoing reform discussion is focused on addressing the outstanding challenges of financial barriers to care, passive purchasing, and hospital-centric services. The MoH has prepared a proposal focused on the introduction of a uniform benefits package for state-funded benefits and progressively merging the fragmented risk pools for the formal sector, the poor, and vulnerable groups. To allow for learning and adaptation, and account for limitations in fiscal space, there is an initial agreement between the MoH and MoF to phase in implementation of these reforms over time. Initial stages may involve the establishment of the National Insurance Fund. It is envisaged that this agency will act as a strategic purchaser, be an independent, accountable legal entity, and be able to undertake selective contracting of providers to supply the services in the benefits package. Other complementary reforms

envisaged include primary care improvements, quality assurance at the hospital level, and building capacity for service pricing and benefits revision. Policy discussions are also ongoing to identify sources of revenue for the reform. The National Insurance Fund would relieve the MoH of its dual role as both provider and purchaser of publicly funded medical services; it could also exercise stronger negotiating power with providers, helping to strengthen Public Financial Management (PFM) arrangements in the health sector through improved planning, budgeting, and external financial control and oversight. These reforms will be supported by strengthening ArMed, the electronic health information system, enabling its interoperability with other databases (for tracking the disease burden and financial management), and leveraging this data in a secure way for decision-making.

While the multisectoral 2021-2026 Government Program identifies reforms that map to the proposed Program results, Armenia still lacks a comprehensive health strategy (Table 3). Nevertheless, the MoH has developed topic-specific strategies to guide reforms in service delivery, health financing, and governance. For example, in 2022, the MoH developed a strategy that is intended to improve the quality of health services. The goal of the strategy is to create a single program of action for all medical organizations. Approval of the strategy will facilitate the implementation of the planned activities.

Table 3: Health sector reform overview

Service delivery	Health financing	Governance
Modernizing and improving the quality of PHC	Increasing public spending for health to reduce out-of-pocket spending by 40 percentage points, under the health insurance program	Establishment of institutional mechanisms for quality management
Expanding access to preventive care for NCDs, including screening and healthy lifestyle programs	Strengthening arrangements for the purchasing of health services, through the comprehensive health insurance program	Ensuring an integrated and fully functional electronic health system
Continuing the hospital modernization agenda, including of regional and mental health hospitals		Strengthening mechanisms for licensing and accreditation of providers and facilities

Source: GoA, Government Program 2021-2026.

Spending

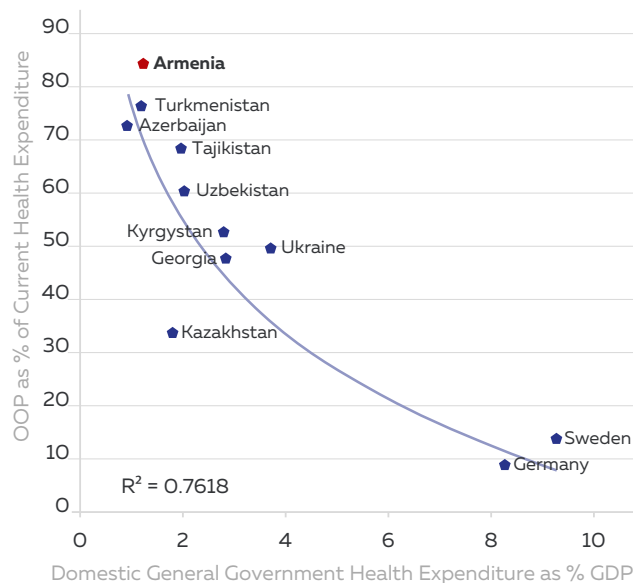
While Armenia’s total spending on health is high, at 11 percent of GDP and \$524 per capita, public health financing as a percentage of total health expenditure is among the lowest in the world (World Bank, 2021a). The government uses general taxation to finance services under the BBP. Between 2015 and 2019, total health expenditure in Armenia increased from AMD 510.3 billion to AMD 746.2 billion. However, the total share of health expenditure in the public sector declined from 16.7 percent in 2015 to 13.2 percent in 2019 (NIH, 2020). In contrast, the public sector contributed 57 percent of health expenditure in UMICs and 63 percent in the WHO European region in 2017.

Most of the spending on health comes from Armenians themselves. Private health expenditures in Armenia, consisting mainly of out-of-pocket (OOP) spending, makes up 86 percent of current health spending, much higher than the UMIC and the WHO European region averages (World Bank, 2021a). Over 35 percent of OOP spending is outpatient medicines (excluded or partially covered in the benefits package, even the more generous social package) and the other big driver is hospital care, excluded for about 70 percent of the population. This is correlated to low public expenditure on health, which makes up less than 1.5 percent of GDP, one of the lowest figures in ECA (Figure 14).

Hospitals absorb much of the public funding made available to finance health service delivery. According to budget data in 2020, 45 percent of the public health budget is allocated to hospitals, whereas only 28 percent is consumed by outpatient services (GoA, 2020). This creates an ineffective hospital-centric health system. In most OECD countries, national health spending on hospital care is below 40 percent (Lavado et al, 2018).

Tracing the incidence of funds by health care providers over time reveals a downward trend in primary care at the expense of increased health expenses from hospitals. The volume of funding from different financing flows⁶ for all

Figure 14: OOP expenditure, public expenditure on health in Armenia and comparable countries



Source: WHO (2021) Global Health Expenditure Database. Data for 2018.

health service providers has increased during the past few years largely due to the increase in direct household spending, which is particularly noticeable in “Hospitals,” followed by “Resellers and other suppliers of medical products” and “Ambulatory health care providers” (GoA, 2020) (Table 4).

Both public and private spending on reducing NCD incidence have increased significantly, but spending to reduce malnutrition remains relatively low, and public spending does not always prioritize drivers of the disease burden. Disaggregating changes in expenditure between 2018 and 2019 by diseases and patients’ age groups, the largest expenditures in the group of children aged 5 and older was on NCDs; an increase of 26 percent compared to the AMD 259 billion spent in 2018. Spending on malnutrition increased by 25 percent but from a much lower level of AMD 24.7 billion (GoA, 2020). Public spending on health care varies across conditions, from 99 percent for diabetes, to 11 percent for hypertension and 1 percent for oral diseases. The low spending levels for hypertension, a key contributor to the disease burden, highlights opportunities to better allocate resources.

⁶ The sources of revenue for financing schemes include public, private and rest of the world (transfers from government domestic revenue, transfers distributed by government from foreign origins, voluntary prepayments, other domestic revenues, direct foreign transfers, and unspecified revenues of the health care financing schemes).

Table 4: Distribution of funds by health service providers (percentage)

Health service provider	2016	2017	2018	2019
Hospitals	38.4	38.1	38.3	38.6
Ambulatory health care providers ⁷	17.7	20.3	20.4	20.5
Ancillary services providers (e.g., laboratory diagnostic services)	6.3	6.5	6.6	6.6
Resellers and other suppliers of medical products	34.1	32.8	32.8	32.7
Immunization providers ⁸	1.0	1.1	0.7	0.6
Health care system administration and financing providers	1.5	0.4	0.5	0.4
Total	100	100	100	100

Source: GoA (2020).

Overview of the social protection sector

The Ministry of Labor and Social Affairs (MLSA) is the key institution for policymaking in social protection. The system includes pensions, a set of cash transfers programs and labor market programs and other services provided via the USS⁹ through its territorial centers, supported

by communities and NGOs and framed within a mature legislative framework (Figure 15). The MLSA also coordinates with health and education system implementing agencies on programs such as school feeding, medical and education fee waivers.

Figure 15: Main social protection programs in Armenia

Social insurance (contributory)	Social assistance (non-contributory)	Social services	Active labor market policies/programs
<p><i>Long-term</i></p> <p>Pensions</p> <ul style="list-style-type: none"> • Old-age pensions • Long-term service pensions • Pensions prescribed by the law • Other pensions • Survivors' pensions • Disability pensions • Other special schemes • Mandatory pensions <p><i>Short-term</i></p> <p>Other social insurance</p> <ul style="list-style-type: none"> • Childcare benefit • Sickness/injury leave benefit • Maternity benefit • Health insurance support for civil servants 	<p>Cash transfers</p> <ul style="list-style-type: none"> • Family Living Standards Enhancement Benefits (FLSEB) • Maternity benefit for non-working women • Childbirth lump sum benefit • Old-age social pension • Disability benefit • Survivors' benefits • Funeral grant • Financial support to schoolchildren in orphanages <p>Food, in-kind, and near-cash transfers</p> <ul style="list-style-type: none"> • School feeding • Subsidized baby food and related products • Targeted health, education, and housing/utility subsidies 	<ul style="list-style-type: none"> • Social care services for children, youth, persons with disabilities, and the elderly 	<ul style="list-style-type: none"> • ALMPs, including public works programs • Employment services

⁷ Implies primary health care.

⁸ Implies immunization service providers (such as NCDC/MOH, and GAVI, the vaccine alliance).

⁹ Established on April 1st, 2021, as a merger of the Social Security Service, State Employment Agency, Medical Examination Committee and Social Assistance Service.

The need to build, protect, and deploy human capital features prominently in the Government's strategies. All aspects of human development that drive economic growth and prosperity, reflecting the ability of populations to adapt, innovate, and perform competitively in the labor market, have been in one or another way reflected in all key strategic documents in Armenia. The delivery of social protection plays a key role therein. Human capital service delivery is recognized as being mutually reinforcing and has been considered in the 2014-2025 National Development Strategy, the 2022-2024 Medium Term Expenditure Framework as well as previous action plans toward protecting children and persons living with disabilities. The MLSA has also been preparing a new Social Protection sectoral (umbrella) strategy and Employment Strategy focused on activation and employability.

Since 2010, the MLSA has initiated fundamental reforms in the social protection system, integrating social protection delivery systems and conducting integrated needs assessments. From 2012 onward, the government moved toward a functional integration of social protection program delivery from four existing agencies (responsible for pensions, social assistance, and employment and disability certification) to place them under one roof implemented through the USS and the 49 territorial centers it manages. While the USS were launched in early 2021, the model is still in an incipient phase and includes a Unified Information System (UIS) and social case management procedures aiming to improve the ease of access of beneficiaries, while minimizing the clients' cost of accessing services and benefits. For disability, there have also been efforts to transition to a functional disability assessment to guide the social protection support, moving beyond cash transfers and complementing these with other services, including assistive devices and skills training opportunities.

Municipalities with a population of 5,000 and more use social workers to identify and support vulnerable individuals and households. These community social workers are staff members of local administrations which respond to the Ministry of Territorial Administration and

Infrastructure. The scope of activities assigned to community social workers include identifying and supporting vulnerable individuals and families, providing social services to the extent possible in line with those defined by the Law on Social Assistance of 2014 (or referring to territorial or other entities providing social services), and working towards local social development plans.

In 2019, the government introduced program-based budgeting (PBB) to better align programming with national development goals. Previously, spending allocation was determined based on overall government reform programs, the Medium-Term Expenditure Framework (MTEF), historical allocations, fiscal space, and existing coverage. In parallel, contingency and risk financing are limited – though some provisions allow benefits to be provided in times of shock and economic uncertainty. With the PBB, evidence-based financing is to be complemented with detailed cost / benefit analyses which can inform how spending could be adjusted to raise overall impact and efficiency of the system. Given the initiative was introduced just before COVID-19, it is yet to fully materialize though it has potential to improve the flexibility and coherence of the social protection system in Armenia.

The country's major cash transfer program, FLSEB, used to be delivered by regional governments, but was recently put under the purview of MLSA. This followed amendments to the Law on Social Assistance in early 2020. The program is now delivered alongside other centrally executed programs and implementation is facilitated under the new USS-led integrated delivery scheme. It is expected that the USS will help improve access to social protection through a more comprehensive assessment of the social needs of the population. However, this reform substantially disconnected local level administered social assistance programs from the implementation of national programs. As with many recent reforms, careful monitoring and evaluation will be needed to assess the extent to which the USS will improve accessibility and effectiveness of the social protection system.

Table 5: Overview of key Armenian Social Protection Program benefit levels

Reference value	Average size of FLSEB	Old-age benefit	Average disability benefit	Average survivors' benefit	Childcare benefit	Average state pension
Minimum wage in 2019 = AMD 55,000	57.0%	46.4%	46.4%	46.4%	32.7%	73.3%
Upper poverty line in 2019 = AMD 53,043	59.1%	48.1%	48.1%	48.1%	33.9%	76.0%
Average poverty line in 2019 = AMD 44,048	71.2%	57.9%	57.9%	57.9%	40.9%	91.6%
Benefit/pension size in 2019 in AMD	31,350	25,500	25,500	25,500	18,000	40,334

Source: ARMSTAT, *Statistical Yearbook of Armenia, 2020 & Social Situation of Armenia, 2019*; authors' calculations.

Note: The poverty line is per adult equivalent. In 2020, the minimum wage was increased to AMD 68,000; social benefits were increased to AMD 26,500, maintaining the ratio to the minimum wage at about 33 percent.

Social protection plays a significant role in reducing poverty. Through direct transfers, the government reduces poverty by 9.4 percentage points – from 37.4 to 28 percent in 2020 (World Bank, 2022f). The major component driving this impact are pensions (through near universal coverage) and the poverty-targeted cash transfer FLSEB. The FLSEB is substantially cost effectiveness in reducing poverty due to its use of means testing and adequate benefit levels. In 2018, nearly two-thirds of beneficiaries were found in the poorest consumption quintile – indicating the program is progressive (ARM-STAT, 2019). The benefit levels of FLSEB were also among the highest in the social protection system at 57 percent of the 2019 minimum wage (Table 5). However, the program only comprises 6 percent of total SP spending in 2019.

ALMPs are being developed to support the unemployed and facilitate re-entry into the labor market. The MLSA and MoESCS have joint responsibility to develop policy, implement ALMPs, and align programs with education and employment systems. These programs are designed to support formal employment, and focus on vulnerable or non-vulnerable households working in the informal sector. Armenia has been increasing its level of financing in public employment services in recent years, but the level of spending remains very low (0.03 percent of GDP in 2020), and so ALMPs reach very few of the registered unemployed (9 percent). Moreover, ALMP often underspend, with little flexibility for reprogramming as a large share of funding is allocated to rural self-em-

ployment, which correspond to the profiles of many of the registered unemployed (World Bank, 2022e).

Unemployment insurance was removed from the social protection system in 2013; it was replaced by a cash support system provided to unemployed job seekers on a case-by-case basis. Accordingly, currently there is little support available to protect from income loss during unemployment, though the government plans to reintroduce unemployment insurance in 2023.

By design, all the elderly receive some form of support from the pension system. Coverage of pensions between contributory and non-contributory programs is nearly universal. For those who do not qualify for state pensions (which are provided based on contributions for 25 years), a basic old-age benefit is provided when reaching the age of 65. The amount provided per month is not indexed to inflation and adjustments are being made from time to time on an ad-hoc basis: the latest increase in 2022 brought the minimum pension up to AMD 30,500 per month.

Spending

Social protection spending is higher than public education and health spending, but mostly covers pensions and remains low by regional standards. In 2019, it made up 6.9

percent of GDP; or nearly a third of Armenia’s budget and the largest category of central government spending. Most of this goes to pensions, at about 85 percent of total social protection spending, leaving little room for social assistance, labor market programs or social care services. As shown in Figure 16, the Government of Armenia covers a few minimum benefits guarantees, including basic pensions and other rights-based universal benefits, and co-finances the contributions of participants in the fully funded mandatory pension system.¹⁰ While spending has been on rise in Armenia, levels on social protection outlays are still amongst the lowest in the region (Figure 16).

Most programs are non-contributory, fragmented, and under-financed. In Armenia there are 26 contributory social insurance programs while 78 programs are provided without requirements to contribute. Most contributory and non-contributory transfers and services are designed to address social risks faced by the population, targeting children,¹¹ persons with disabilities, the elderly, and poor and/or other vulnerable groups. In 2019 a significant share of the social protection budget (63 percent) was allocated to contributory pensions, while the poverty-targeted FLSEB (family benefits) program amounted to just 6.9 percent, and social pensions (old-age, disability, and survivors) made up around 4.6 percent. Most of the other social assistance programs have small coverage, pointing to fragmentation and the need for consolidation.

Figure 16: Social protection spending remains below the ECA average



Source: World Bank (2021a).

¹⁰ The rate of mandatory funded contribution is 10 percent of basic income (gross wage and income received from other civil contracts), which is co-financed by the government.

¹¹ Especially those aged 3–18; children aged 0–3 are also covered but by fewer programs.

4. Improving the delivery of effective and equitable human development services

The ongoing reform momentum needs to be sustained further to deliver significant improvements in human development outcomes. For example, the education sector has enacted a promising education strategy to boost the quality and effectiveness of education services, but delivery challenges remain. In the social protection sector, the beginning of integration of social protection programs and referral systems through the USS centers is an effective step forward, but progress appears to have stagnated. Similarly, reform initiatives to increase access and quality of health and education service delivery, such as those toward UHC and early childhood education, have the potential to substantially improve outcomes but have not yet been fully implemented.

Education

Delivery challenges in education lead to low learning outcomes. Issues include low enrollment at most school levels, low – though growing – access to preschool in rural areas, inefficient management and low public spending and resulting low motivation and qualification of teachers. Addressing these challenges requires not only a revision of the legal framework and sectoral and sub-sectoral synergic reforms, but also a significant increase in funding of the education sector to enable effective implementation of the new education strategy.

There are stark inequities in enrollment in preschool education, with some areas still lacking any access. Despite improvements, availability of preschool institutions is limited in rural areas, leading to the enrollment rate being 1.6 times lower there than in urban areas. Meanwhile, children from wealthier families have more opportunities than those from poor families,

with an enrollment rate 1.5 times higher than for children from poor families (37 and 25 percent respectively – NSS, 2020). This then affects learning outcomes, as children living in poor households on average score 66 points less in harmonized test scores. Such disadvantages in early human capital endowments translate to lifelong inequity in outcomes in health, education, and labor markets; this in turn will continue to weigh down labor market opportunities (World Bank, 2020a). Boosting early childhood education and preschool access so the poor and vulnerable start fairly and early could help to address long-term inequities in human development outcomes.

There is no cross-sectoral ECD policy framework to help coordinate and prioritize the financing of ECD interventions. The Strategic Action Plan on the Protection of the Rights of the Child (2017-21) does not cover child nutrition or the cognitive stimulation and social and emotional development of children under the age of five. Because of the lack of a comprehensive ECD policy framework, it is unclear where certain key ECD services fit and there is a risk that important interventions slip between the cracks. This is a particular risk for promoting cognitive, social, and emotional development of children below the age of five, since this important dimension of ECD does not appear to be fully covered by any current legal, policy or strategy document.

Preschool education implementation and funding is to a large extent the responsibility of local governments, which leads to inequities. Although more preschool institutions have been integrated into primary schools, about 84 percent of preschools are community-financed, and the limited budgets of poor and vulnerable communities affect their ability to deliver quality services. Also, education programs, curricula

and standards in preschool need to be harmonized with the overall education standards and further modernized. Preschool teachers have similar qualifications to schoolteachers but have lower wages and no incentive schemes to improve their professional skills to prepare children for school. Preschool financing, including teacher remuneration and curricula, need to be reformed to increase the quality of services provided.

Continued reforms and investments are needed in general education on teacher training, curricula and assessment systems, and equipment/teaching material. Only 77 percent of teachers in primary school are professionally trained – one of the lowest rates in ECA. Enhancing the qualifications of teachers through training courses, and bringing their qualifications, teaching and learning practices up to certain standards is paramount to ensuring sustainable solutions. Upper secondary schools also need improved equipment and teaching materials, such as laboratory equipment, computers, internet connections, high-quality textbooks, and manuals for teachers. Equipping schools with proper teaching materials can also help deliver better services. The government also plans to renovate 21 percent of public schools. Given that most schools built in 2012–2015 did not conform with building codes and standards, the resilience to earthquakes of existing schools should also be considered as part of a larger disaster preparedness plan.

Lack of autonomy affects schools' incentives to deliver quality teaching and their ability to adapt to local needs. Budgets for schools are distributed through regional governments, with little room for adjustments driven from bottom up. This governance system with immediate control of upper-level bodies limits school independence and community participation in school management. Recent reforms are intended to expand school councils and community participation in school management, as well as ensuring transparency in the selection of principals, but they should be accompanied by appropriate financing, capacity development support and monitoring.

Substantial retirements in the near future may provide an opportunity to improve the quality of teachers. Nearly half of the teachers will retire within the next decade.¹² Armenia has one of the highest proportions of older teachers in ECA. The average age of all general education teachers is 46.8, and around 20 percent of teachers are above the age of 60, with only 11 percent under the age of 30. Renewing the teaching workforce is a challenge that will require careful planning, but also an opportunity to improve the quality of teachers. The government intends to create alternative pathways into teaching through new certification programs and incentives for university graduates and professionals to switch to the teaching profession. Currently, the only pathway into teaching is getting a pedagogical degree from state-run universities, vocational schools, and some private institutions. The low remuneration levels also pose a challenge to attracting qualified candidates. Even though Armenia also has the highest share of education expenditure going toward teacher compensation in the region, teacher salaries are below the average wages for all professions.¹³ Despite a recent increase, the minimum salary of teachers with full-time employment reaches only 58 percent of per capita GDP, and only 61 percent of teachers have full-time equivalent workloads in schools to benefit from this reform. Vacancies in teaching positions are most pronounced in rural areas, and for STEM teachers.

In order to increase motivation of teachers and attract top students in teaching profession, MoESCS could consider increasing teacher pay, as the teaching specialization generally requires lower scores than other specializations. Many students who do not intend to become teachers are selected for it anyway due to their examination scores. For the future of the teaching profession, modernizing and reforming pedagogical universities is essential to attract students with good knowledge and prepare high-quality teachers. The planned revisions to the legal framework are expected to allow individuals who already hold bachelor's degrees to enroll in programs and qualify them to teach in schools. These programs can be designed in virtual and/or hybrid models to

¹² MoESCS (2022a). State Development Program for Education of the Republic of Armenia for 2030. Yerevan, Armenia: Ministry of Education, Science, Culture and Sports.

¹³ World Bank, 2021, Armenia Teacher Profile and Policies, Washington, DC.

attract working professionals. The government could allocate more financing to attract students and teachers and help even out inequality of learning opportunities in rural areas. The government missing positions could be filled in by the tools of distance learning, based on the experiences of the COVID-19 pandemic. This approach could help but cannot be seen as a complete or sustainable solution.

Youth from poor families are more likely to drop out of education than those from wealthier families. This shows that accessing education can be costly for some households: whether directly (the need to finance transportation, room, and board, particularly for university) or indirectly (the opportunity cost of attending schools where there are not enough teachers or relevant curricula to nourish the skills needed to thrive after school). Also, as entry to university is based solely on examinations, the poor and vulnerable, or students from lagging regions, may be disadvantaged – an issue that scholarships cannot fully address. Developing targeted social programs, as well making university admission more inclusive, may help poor students continue their education at all levels.

Upper secondary schools would benefit from improved curricula and teaching practices to help the poor access higher education. Gross enrollment in upper secondary school among the poor is 9.5 percent lower than among the non-poor. Development and implementation of curricula and standards to better support the poor and vulnerable and prepare them for higher education could help to promote a more inclusive education system.

Despite some progress, VET continues to face structural constraints and quality challenges. Structural limitations include low funding levels, the need to develop a national qualification framework and credit system, a lack of private sector involvement to strengthen the link between skills formation and quality employment, a lack of work-based learning, and outdated equipment. In response, the government has developed new curricula better aligned with labor market needs, such as on core competencies of entrepreneurship and basic business

development, and plans to improve monitoring of student and teacher performance and introduce qualification standards in the VET system. Unfortunately, implementation progress was slow before the pandemic and has slowed further in the last several years, due in part to continued instability. The government could give a fresh start to the modernization efforts. Implementing new models of VET institutional management based on public-private partnership may increase the system's overall efficiency and its effectiveness.

A more strategic use of the EMIS could facilitate better teaching and a more inclusive education system. Although Armenia has successfully developed a comprehensive EMIS with quality data, the system could be more effectively used to monitor school and student performance, and address emerging challenges. The EMIS should also contain data relevant to early childhood education, and be closely connected with the Health Management Information System, so that early support for the health and wellbeing of children and students is well coordinated across sectors.

Health

Despite successful organizational and structural reforms, Armenia still faces constraints in health service delivery. Constraints comprise design, affordability, access and quality issues (Figure 17).

A new national strategy should help better align priorities with budgeting. The strategy created a single program of action for all medical organizations, which is expected to contribute to stronger alignment of the government's health policies and priorities with the budgeting process, including by ensuring appropriate outcome indicators. Successful implementation of the strategy is key to linking the short- and long-term goals of the health system. Implementation should also facilitate coherence between health programs and the Medium-Term Expenditure Framework (MTEF).

Figure 17: Health service delivery constraints

<p>Design</p> <ul style="list-style-type: none"> • Implementation of national strategy in line with Medium- Term Expenditure Framework • Hospital-centric service delivery organization • Limited investment in human resources development 	<p>Affordability</p> <ul style="list-style-type: none"> • High out-of-pocket expenditure • Low reimbursement rates for publicly funded services • Lack of a Health Technology Assessment (HTA) system • Limited coverage for essential care in benefits package
<p>Access</p> <ul style="list-style-type: none"> • Low facility capacity in rural areas • Inequitable distribution of health workers • Limited adoption of digital technologies 	<p>Quality</p> <ul style="list-style-type: none"> • Undersupply of skilled health workers • Absence of national standards for job descriptions, promotions, or performance assessment • Inadequate remuneration for health workers • Lack of approved clinical guidelines and limited quality monitoring

While a gatekeeping function has been introduced at PHC level, it is not enforced in practice, with two thirds of people in need of health services bypassing primary care. The family medicine concept did not work fully in all areas, as the structure of urban polyclinics prevented its realization in practice. Resolving this would require overall increases in public expenditure, better allocation of spending and, more importantly, a redesign of health system functioning, including better organization, human resource management and integration of health service delivery. Re-orienting services around primary care is consistent with best practice for managing NCDs and would boost effectiveness. This would include a vital role for PHC in NCD detection and management, including adequate equipment and staffing for service provision, improved gatekeeping, referral mechanisms to regulate access to other providers, and financing arrangements that incentivize these mechanisms.

Unforeseen health expenditures may push vulnerable households into poverty. The government does provide some support to FLSEB beneficiaries and those living with disabilities receiving assistance to cover health expenditure. However, this has proven insufficient, and high OOP can lead some poor or vulnerable

households either further into poverty, or to forgo access to services. Even relatively small expenditure on health services for the poorest households can be enough to push them into poverty. High OOPs are mainly driven by limited benefits scope, high and unregulated pharmaceutical prices and overreliance on hospital treatment and inefficient diagnostics. In ECA, Armenia has the third highest estimate of impoverishing health expenditures after Georgia and Tajikistan: 2.4 percent of the population becomes poor due solely to private health financing needs (World Bank, 2021a). Increasing public health sector funding to improve financial protection is essential. The share of the government budget allocated to health should increase steadily over the long term, to enable the government to meet its commitment to providing universal health coverage.

A major issue is the high costs of pharmaceuticals and medicinal supplies. Out of total health spending by households for 2019, about 39 percent was spent on medicines and medical supplies, and the remaining 61 percent on medical services (GoA, 2020). Private, individual expenditure on pharmaceuticals has increased significantly – due in part to increased value-added tax on pharmaceuticals – and amounted to \$23 per capita in 2010

(MoH, 2010), \$42 in 2015 and more than \$172 in 2019. At the same time, the public pharmaceutical expenditure share is extremely low, at less than 3 percent of the health budget (NSS, 2020). According to 2019 data, it was about \$1.92 per capita per year, decreasing from \$2.94 since 2016 (NIH, 2020). This is not enough to cover the needs of even a restricted population eligible for medicine free of charge or with discounts. If disaggregated by income level and quintile group, monthly per capita expenditure for purchasing medicine for the non-poor is 2.6 times higher than the similar costs for the poor, and 6.2 times more per capita than that spent every month by the extremely poor (NSS, 2020). Increasing the affordability of medicines and expanding the coverage of drug benefits under the BBP should be a government priority. Including outpatient medicines in the health benefits package free of charge for vulnerable groups may also prevent future costly medical interventions in inpatient care. Armenia may also benefit from developing innovative purchasing instruments, such as managed entry agreements and reference pricing to decrease the cost of medicine and medicinal supplies.

Low reimbursement rates for publicly funded services, especially hospital care, leads to low financial risk protection and gaps in the quality and affordability of medical care. In 2019, the BBP price lists for certain categories of beneficiaries were revised to improve reimbursement rates and reduce incentives for providers to collect informal co-payments (Chukwuma et al. 2020b). Armenia needs reforms toward the establishment of a Health Technology Assessment (HTA) system to inform BBP cost. The focus of actuarial costing should shift to the use of pricing to establish provider payment rates that encourage desired behaviors, in contrast to reimbursing services below the cost of delivery, incentivizing undersupply of these services by providers and demand for informal payments.

The current BBP design, including services and groups provided for, contributes to the high OOP payments. Initially the BBP was informed by a HTA that assessed the burden of disease, the budgetary impact of guaranteeing access to interventions through the state, and the

relative cost-effectiveness of alternative services. Furthermore, since 2001, the parliament has delegated responsibility for authorizing changes to the BBP to the MoH. There has been no progress in regulating the package review process, including the criteria to be considered, relative importance, and stakeholder involvement procedures. Hence, BBP changes have been driven by political considerations. The government has periodically reviewed the BBP by expanding or reducing the range of services and population groups covered by the benefits. However, over time, budgeting and political considerations have increasingly influenced the BBP rather than disease burden and health service priorities (Fraser et al, 2021). Increasing relative public funding for high-impact curative and preventive interventions is essential, given available resources, to ensure more health gains. There is also a need to specify the criteria for considering alternative health interventions, the frequency of BBP's revisions, and the steps including an obligatory requirement for consultations with key stakeholders, provider associations and patients.

The MoH fulfills both purchasing and provision functions without much attention to quality and efficiency. The purchasing function has been limited to contracting, claims processing and monitoring of spending patterns, with less attention paid to quality assurance and data-driven decision-making. No institution is responsible for ensuring that clinical guidelines are available, compliance is monitored, and findings on compliance are incorporated into purchasing decisions. For example, following a diagnosis of hypertension, only 39 percent of service users are advised to control weight and 17.8 percent to cease smoking. 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 of care at PHC level is poor. Payments to providers are poorly adjusted for the quality-of-service provision and provider contracting is not conditional to service standards. Although Armenia introduced a results-based financing mechanism to motivate PHC providers for better performance, purchasing decisions remain largely passive and contribute to challenges in ensuring access to high

quality health care in Armenia (Chukwuma et al, 2020a). Strategic purchasing requires clear objectives, coordination among key actors, transparent decision rights, and use of health information systems to support decision-making. To address this, the government should establish an independent purchasing body with clear decision rights and external oversight to promote accountability for results. Selective contracting of providers is essential to improve health care quality and financial discipline. Establishing an independent purchasing body would also provide stronger negotiating power with providers, helping to strengthen PFM arrangements in the health sector through improved planning, budgeting, and external financial control and oversight.

Greater focus on primary care, including prevention, could also improve health outcomes.

Over 90 percent of mortality in Armenia is driven by high tobacco and alcohol intake, unhealthy diets and physical inactivity, as well as poor nutritional practices and behaviors that resulted in poor maternal and child health. Increased public allocation to PHC and public health activities would reduce the preventable morbidity and mortality that arise from NCDs and need to be addressed at PHC level to avoid further health complications. In addition to increased health financing, Armenia needs to conduct activities to improve public health, implementing whole-of-society approach to motivate lifestyle changes by promoting health education, and expanding the scope of health literacy and public awareness. Interagency coordination and collaborative efforts need to be strengthened as well to enforce tobacco law into practice and increase taxes on unhealthy products.

The shortage of key professionals, such as family doctors and anesthesiologists, at the sub-national level limits facilities' ability to supply high-quality health services. According to a public financial management assessment, interviews with regional health facility managers revealed that 3–10 percent of all positions of positions among medical staff are vacant (Chukwuma, 2020b). This finding is consistent with MoH data. In addition, annual staff turnover averages 5–8 percent, due to emigration

and other reasons. The undersupply of skilled health workers, gaps in human resources for health regulation, inadequate capital investment funding, and procurement challenges negatively affect the quality of services delivered. Armenia needs to enact policies to address professional workforce shortages by motivating health personnel to practice in rural areas, as lower compensation outside Yerevan exacerbates spatial inequities in health care access and quality. For example, every year the MoH provides some publicly subsidized post-graduate medical education opportunities for medical professionals who are willing to work in the regions after graduation. In 2019, it continued the practice of temporarily assigning medical specialists from Yerevan-based facilities to regional health care providers to fill vacant positions.

The absence of national standards for job descriptions, promotions, or performance assessment in the public health sector leads to lost opportunities to conduct quality assurance of health human resources.

The inadequacy of budget funding for capital investments, including maintenance costs for infrastructure and equipment, particularly in the regions, and the lack of capacity to develop appropriate technical specifications for medicines and other supplies also negatively affect service delivery quality (Chukwuma et al, 2020). To improve service delivery, transparency and accountability, Armenia needs to revise legislation to enable the government to introduce unified regulations for health workforce performance and remuneration in the public sector health facilities in the regions.

Information systems and data sharing practices in the health sector could be better utilized.

Multiple systems are in place for data reporting, collecting, and monitoring (either computerized (offline) or paper-based), but the pandemic showed that action is needed to integrate systems, improve efficiency and data availability, quality, and use. Data could be more systematically used to monitor quality of care, regulate drug prescribing behavior, refine contract design, and inform revisions to the benefits package.

Social Protection

Despite being coordinated by a single ministry, the social protection system remains fragmented. Reasonable legal provisions, institutional arrangements, and other frameworks ensure coordination, integration, and complementarity across social protection programs within the ministry. Duplications may however occur, particularly in non-cash service delivery programs such as care or rehabilitation services. There is little coherence among the different social protection schemes and programs of the health care and education sectors. Service delivery is also fragmented, as evidenced by the existence of multiple programs with similar objectives, multiple needs assessments of the same beneficiaries, and the targeting of the same population groups, often with limited geographical scope and leading to high administrative and delivery costs. Most programs are non-contributory and under-financed. The programs other than the poverty-targeted FLSEB (family benefits) program and social pensions (old-age, disability, and survivors) have small coverage, pointing to the need for consolidation. The development of the USS, the upcoming Social Protection Strategy, the Employment Strategy and the new Law on Social Assistance are poised to address many of these issues.

While programs are intended to cover vulnerabilities across the lifecycle, substantial gaps remain. Overall, around 40 percent of the population in Armenia is covered by at least one social protection benefit, yet discrepancies across age groups are substantial: while near-universal coverage of older people is achieved, coverage is much lower among children and people of working age – 38.8 percent and 24.0 percent respectively (UN, 2021). Childcare benefits are out of reach for 35 percent of children under the age of two, though this gap may be closed with the introduction of new benefits for this group from 2022/23, whilst only a third of the poorest households receive poverty-targeted social assistance benefits. A lifecycle analysis of the social protection programs (UNICEF and World Bank, 2020) showed that there are programs in place to address most of the social

risks faced by the population (loss of income due to childbirth, maternity, retirement, disability and loss of household breadwinner, poverty, health problems, non-competitiveness in the labor market, and others). However, whilst programmatic responses may exist, they are not all adequate. Programs targeting the most vulnerable are limited in coverage, sometimes do not correspond to needs, and barely cover some groups such as refugees, the homeless, and children aged 0-3 (especially ages 2 and 3). Coverage of most social care programs and services is also extremely limited. Implementing performance-based budgeting to adjust programming, with attention toward effective coverage and adequacy of social protection programs for vulnerable groups in the population across regions and welfare levels is essential to deal with these gaps.

Though social protection plays a strong role in reducing poverty, the low coverage limits its impact. The ongoing reform of the Vulnerability Assessment System (VAS) is expected to put more emphasis on the income-test component and raise efficiency. Effectiveness, however, may remain limited, as the FLSEB program covers just a third of the poor. Given the program's strong focus on poor households, expanding it could enhance poverty reduction and, with linkages to health and education services, could help abridge inequities in access and outcomes. Effectiveness is also affected by human resource challenges. According to a detailed assessment of infrastructural and human capacity of the agencies and services within its system,¹⁴ the administrative spending is exceptionally low and thus insufficient to retain skilled staff and support continuous staff capacity building. Ensuring that frontline delivery staff are well paid is essential for this program to be successful.

Social care services should play a stronger role in promoting human capital accumulation. Childcare services exist but cover only 0.2 percent of estimated needs, though coverage expansion is underway to address this (UNICEF & World Bank, 2020). Day care is in place for children aged 3 to 4, but a range of gaps abound: there is no mandate for foster care for orphans under the age of 3 whilst social protection pro-

¹⁴ Conducted by the World Bank supported SPAP-II program toward establishing M&E systems within the MLSA. The assessment was designed to evaluate the costs of social services provision, including staff salaries, maintenance of buildings, skills development, and IT capacity.

grams for children between the ages of 3–6 are limited to the FLSEB, free medical care, and temporary 24-hour care in emergency cases. As set out earlier in this review, ECD services are far from universal, with just a fifth of children under the age of five attending kindergarten in 2017 (ILCS, 2017). Promoting access to ECD and extending social care services to protecting children, whether they are living with their families or not, can help prevent loss of essential health and education development.

There is near-universal coverage of pensions for the elderly, but adequacy is low. Old age pensions are nearly universal in coverage but have low adequacy. Replacement rates of the basic pension benefit are well below half of ILO conventions, and in per capita GDP terms are about 5 percentage points lower than the old age pension system in neighboring Georgia. The social security system is overly reliant on formal employment in the provision of benefits and is also subject to considerable uncertainty as to the benefits of the pension system in the future (UN, 2021). Significant funding goes to these programs, although their design is quite rigid, with benefits linked to formal employment and defined purely through years of service, without considering contribution rates or contributory capacity. (UNICEF & World Bank, 2020).

Those in old age may receive pensions but will generally not access social care services. A 2016–2018 MLSA-led evaluation of social protection in Armenia found that the most complained aspect of the system was the low availability of social care services. Whilst they exist, they have been faced with significant issues in terms of access, the quality of services provided, and management of support provided. In contrast to basic income security for older people, provision of social care services is a continuing challenge. Care services for the elderly are categorical and cover only 9 percent of actual need, based on the estimated number of elderly people living alone.

Existing ALMPs do not effectively address the massive unemployment challenge, as quality remains poor and coverage and funding is limited. ALMPs only reach and support 9

percent of those officially registered as unemployed, and spending is low, indicating issues with design and responsiveness to the needs of the unemployed. In addition, the largest share of funding for ALMPs goes to rural self-employment support, which does not correspond to the profile of the largest shares of registered unemployed, many of whom live in urban areas (World Bank, 2022e). ALMPs only reach and support 9 percent of those officially registered as unemployed (ibid). Given that the ALMPs' goals are to promote formal employment and increase beneficiaries' labor market competitiveness, the programs are only partially successful. In 2017, about 64 percent of beneficiaries obtained formal, sustainable jobs, defined by the MLSA as formal work contracts for more than a year. The outcomes of many of these programs were not systematically evaluated, and their overall financing has been decreasing (UNICEF and World Bank, 2020). Work practice programs, however, appear to lead to twice as many people re-entering the labor market within 6 months as non-ALMP beneficiaries. Systematic monitoring and evaluation of ALMP programs, which is essential to improve their effectiveness, is also lacking.

Improved ALMP efficacy could come from an informed redesign and expansion, and evidence-based adjustments to respond better to the needs of the unemployed. Further expansions, if designed based on findings from evaluations and according to international best practices, could help to reduce the high level of inactivity (World Bank, 2022e). Furthermore, there is some potential to leverage the FLSEB program, by introducing earned-income disregards and link the exit-strategy from the program to ALMPs, in order to avoid disincentives to exit the program and enter the formal labor market (World Bank, 2014a). Accordingly, the upcoming Employment Strategy should fully incorporate ALMP within the framework.

There is no systematic protection against unemployment or workplace accidents. As the country is ageing, provision of pensions and insurance against work injury, disability and other risks will become increasingly important. There is, however, no workplace injury insurance scheme in place, hence accidents at work

can drive workers into poverty due to loss of income and because of the inadequate funding of universal health coverage (UN, 2021). Bringing such measures back into the social protection system could reduce a slew of risks related to employment.

Coordination across sectors

Important challenges to human capital formation demand a whole-of-society approach. To be addressed effectively, challenges such as early childhood development, jobs and ageing demand a cross-sectoral, strongly coordinated approach. Providing effective ECD services, for instance, requires effective monitoring of developmental outcomes at the child level, and tailored and coordinated support from education, health and social protection services. These critical human capital areas cut across human development sectors and involve both government and non-governmental entities and institutions at various levels. The Government of Armenia, in anticipation of the need for high-level political coordination, established an inter-agency steering committee – led by the Deputy Prime Minister – to identify, initiate, and monitor strategic investments for human capital development. This steering committee can facilitate the participation of civil society and the private sector and build local ownership for the human capital development agenda (World Bank, 2020a). However, given the complexity of cross-sectoral work, it will be important that implementation of cross-sectoral approaches receives adequate attention and is closely monitored.

5. Learning from the COVID-19 response to build more resilient delivery systems

Armenia has experienced moderate COVID-19 infection rates per capita, and school closures were more limited than in many peer countries in the region. Between 2020 and 2021, there have been five waves of COVID-19 with a total of 420,000 cases and 8,987 deaths (NSS, 2022). The government swiftly implemented a range of policies to help prevent the spread of the virus, though as of March 2022 just 42 percent of the population had been fully vaccinated – to some extent due to lack of trust in vaccines (World Bank, 2022b). The pandemic also led to a fast drop in labor force participation, from 60 percent to just over 55 percent between 2019 and 2020 (World Bank, 2022e). In total, schools were partially or completely closed for 12 weeks in 2021 – about 28 percent of the active learning process was disrupted by complete closure, and 9 percent by partial closure of schools. Essential health care was also significantly disrupted as reflected, for instance, by reduced child vaccination rates – which fell by nearly a third compared to pre-COVID levels.

Important lessons and initiatives from the pandemic response can be mainstreamed to strengthen service delivery in education, health, and social protection. Among others, developments in the e-health system will likely continue to play an important role well beyond the pandemic, allowing for better referral processes and informing health sector resource allocations. Developments in online learning can also help bridge some learning gaps, although they should not be seen as a substitute for face-to-face learning and as a panacea for governance and service delivery issues in the education sector. For social protection, lack of integration of services (especially between national and local levels) and competing priorities for limited resources affected

the effectiveness of the response. This shows the importance of promoting coordinated approaches to crises and building delivery and monitoring tools that support an effective intersectoral response.

Education

To stem learning losses from school closures, the government was quick to implement distance learning. School closures were not as severe as for other countries in the region (UNESCO, 2021). Nonetheless, to ensure the continuity of education at the general secondary and high school levels through distance learning and the use of online ICT tools, the National Center for Educational Technologies (NCET) launched a Distance learning and ICT page on the Armenian Educational Environment platform on March 16, 2020. The ability to shift quickly was made possible by testing innovative approaches, starting in 2007. To build digital literacy, teacher training processes were adjusted. Following the closure of schools on March 13, 2020, capacity and needs assessment processes identified obstacles to the organization of distance learning, including the lack of knowledge and skills of teachers for distance teaching. To cope with these challenges, MoESCS provided training on e-learning systems, and teachers with distance learning skills also conducted courses for colleagues. Within the framework of the E-school Armenia project, 18 mentor schools have been selected, whose teachers conducted e-lessons from September 2021 for children with a lack of subject specialists. According to preliminary data, the 18 schools involved in the mentoring network helped close the gap of subject teachers in about 101 schools. A distance education

platform was also launched in March 2022 and is being maintained by the National Center of Education Technologies.

The effectiveness of distance learning depended, however, on access to quality internet connections and computer literacy. Even though cellular internet connections are available in all regions and communities of Armenia, as of May–June 2020, 69 percent of teachers and 71 percent of students reported that the quality of internet connection was insufficient for distance learning. Similar numbers of teachers, but only 35 percent of students, reported not having the right equipment for remote training or learning (MoESCS, 2021). There are also differences in household-level internet access across urban, rural, wealthier, and poorer households that have shaped student and teacher access to the remote learning and training opportunities provided. Connection challenges were particularly strong for poor and vulnerable households. According to a sample survey of extremely poor and vulnerable families in seven regions of Armenia, carried out by the World Vision Armenia in June 2020 (WVI, 2020) and covering 1,175 families, children in 13.8 percent of these families did not participate in distance learning. The main reasons for non-participation in these families were the absence of technical equipment and Internet connection. In 28.6 percent of families with children with disabilities, their children did not participate in distance learning.

To address these issues, special tariffs for cellular internet connections were offered to teachers and students through private-public partnerships. A national call to help low-income students led to a donation of 5,000 digital devices to those in need in March–May 2020. The MoESCS, the private sector, development partners, charity organizations and society also organized a massive distribution of technical equipment. Students and technical specialists collected on a voluntary and organized basis equipment donated by the population and various organizations, and sent them to schools in remote regions and settlements of the country, where students and teachers needed it.

Whilst remote learning may have been partially effective for most levels of schooling, preschool education institutions had less options. During the pandemic there were no centralized platforms, instructions, or training for preschool educational institutions, which are mainly community based. This affected the continuity of preschool education during the pandemic. Thus, strategies are needed to ensure the resilience of preschool education, especially given the importance of early childhood development.

Face-to-face learning remains, however, the most effective teaching method, and digital technologies will not be able to remedy for the lack of teachers in rural areas. Currently, the MoESCS continues operating all e-learning platforms and implementing special programs for rural schools. Nevertheless, online learning is a poor substitute for face-to-face learning, and the lack of teachers in rural areas will continue affecting the quality of teaching. Every year 600–700 vacancies for teachers are not filled, or are filled with considerable difficulty.

There is also a need to close the learning gaps caused by the pandemic. To resolve the learning losses caused by the pandemic, additional and complementary courses, as well as increased school hours, could be considered for a few terms.

Health

In response to the pandemic, the MoH adapted purchasing arrangements to respond to rising incidence of COVID-19 cases and the need to mobilize surge capacity for case management in the health system. Specifically, the scope of services covered through contracts with providers was expanded to include COVID-19 tests, case management, and telemedicine. Appropriate payment incentives were introduced to mobilize intensive care beds at hospital level, and new provider performance indicators were introduced in the e-health system. Given the vital role of strong health systems to detect and manage COVID-19 cases, and ensure continuity of essential services through the pan-

demic, feasible reforms in health financing and service delivery are even more urgent and salient (Chukwuma, 2020a).

The response also made use of digital health services. Selected patient-centered models of care were applied through video-observed treatment, home care by family member monitoring, and so on (WHO, 2020b). However, it is likely that these measures were only partially effective as they would exclude populations that did not have stable internet access. In addition, the use of digital systems such as ArMed e-health helped the response. The pandemic forced the government to enhance its existing tools and add more analytical functions to the ArMed e-health system to support COVID-19 case management information, treatment outcomes and COVID-19 vaccination activities.

The response was supported by the international community. Many development partners either reallocated their funds to support the MoH, or allocated additional funding to respond to the emerging needs for medical equipment and supplies, including lung ventilators, oxygen concentrators, portable x-ray and ultrasound equipment, vehicles, test kits, personal protective equipment (PPE), and so on. The MoH also requested the WHO to send emergency medical teams to assist local teams with COVID management, and train medical staff. Crucially, WHO supported the MoH with clinical guideline development, staff training and risk communication activities.

The COVID-19 pandemic led to significant disruption in essential healthcare. World Bank project data indicate that childhood vaccination rates fell by October 2020.¹⁵ Hospital care utilization also declined, from 14.7 admissions per 100 population per year in 2019, to 13.3 in 2020 driven by the dual challenge of COVID-19 and armed conflict. Ambulatory care/PHC visits were also affected by the pandemic and the armed conflict with Azerbaijan. More generally, a notable decline in the utilization rate was observed in 2020 at 3.4 yearly visits per capita compared with 4.1 in 2019, following large increases because of previous reforms, to levels last seen in 2006. The national screening program was affected, leading to a decrease in

the number of tests performed in 2020 compared to the pre-COVID era. This was found specifically for diabetes and cervical cancer early detection, where rates declined by 43 and 59 percent, respectively, in parallel with falls in antenatal care utilization (GoA, 2021b & 2018).

As a result of disruptions in all essential services, child mortality in Armenia could increase by 24 percent and maternal mortality by 39 percent over the next year. According to modeling estimates using the Lives Saved Tool, the high service disruptions in Armenia have the potential to leave 48,100 children without oral antibiotics for pneumonia, 50,700 children without DPT vaccinations, 10,100 women without access to facility-based deliveries, and 88,700 fewer women receiving family planning services. Maintaining essential health services during the pandemic is critical to prevent these severe outcomes and protect the gains made over past years.

Following the first wave of COVID-19, the government adjusted health systems and was better able to manage the subsequent waves. Despite significantly higher rates of infection during the second wave of the pandemic, Armenia was better prepared and organized in responding to it. Due to unprecedented efforts to adjust health systems during the first wave, Armenia was able to expand its health system capacity in a way that enabled care for more patients. During the second and third waves of the pandemic, the country's health system was able to respond appropriately without risking collapse and interruption of health services based on its experience managing the first and second waves, making the response more robust.

Social protection

The impact of COVID-19 on the economy far exceeded that of the 2008-09 global financial crisis. Economic and mobility restrictions led to a shuttering in activity in service, transport and other industries, coupled with reduced demand domestically from consumers, investors and tourists (UN Women, 2021). These translated

¹⁵ The Ministry of Health and the World Bank. Disease Control and Prevention Program. Data on the project performance are provided by the Health Project Implementation Unit through the ArMed system.

into reduced participation in the labor market, which declined from 60 percent to just over 55 percent between 2019 and 2020 (World Bank, 2022e). ILO estimated that just over 10 percent of working hours were lost across ECA in early 2020 with relative poverty rates for informal workers in the WHO European Region rising by 50 percent, from 34 percent before the crisis (UN, 2021). In addition to shocks to incomes, the pandemic's impact in Armenia may also have widened gender disparities in terms of economic opportunities, agency for women and endowments leading to higher rates of informal and unpaid family work and risks for gender-based violence (World Bank, 2022f).

The government rapidly deployed social protection programs to help cushion the impact of income losses due to COVID-19 related restrictions. Quickly after the start of the pandemic, over 24 targeted programs were designed anew whilst the FLSEB was also utilized. Between 2020 and 2021, the government prepared a response plan equivalent to more than 2 percent of GDP to be allocated to social assistance, business support and economic recovery programs, a moderate amount compared to Georgia (4.7 percent) (World Bank, 2022g).

Despite planning for a fast response, the actual allocation of the support package was much lower than planned, limiting its impact. Only 0.8 percent of GDP was allocated between 2020 and 2021 (World Bank, 2022g). Benefits included a range of lumpsum social assistance payments, utility bill subsidies and a wage subsidy program for employers. A reason for this was that response programs were developed rapidly, with policy makers seeking to ensure specific population groups were covered. This led to widely varying benefit levels, outreach, and application requirements. A UNICEF and World Bank phone survey found that, as of May 2021, only 39 percent of respondents had received any support from the government since the start of the pandemic; about 3 percentage points less people received support in rural areas than in urban areas (UNICEF & World Bank, 2021).

Response programs failed to cover many working informally, and lack of integration between beneficiary registries also affected the response. A major challenge of social protection programs in responding to COVID-19 was supporting those working informally; often not participating in formal social security schemes and often not registered in social registries that did not include sufficient coverage of poor, vulnerable and aspiring middle-class segments of the population before the pandemic: five programs designed to support poor and vulnerable populations were unable to reach many of the informally employed, or excluded households if they did not have children. Other issues identified included lack of interoperability between beneficiary operations management systems under different line ministries, leading to incomplete listing of potential beneficiaries.

Opportunities to leverage on existing delivery systems were missed. The crisis affected households well beyond poor and vulnerable ones, and attempts were made to reach a broad share of the population, including those without prior access to social protection. Some programs utilized online registration systems, though these were dependent on having prior registration in the VAS. The FLSEB program was, however, the only pre-existing program that was amended in response to the pandemic; benefits were raised whilst additional subsidies for utility bills were also provided. The Quarterly Emergency Assistance Program (QEA), that helps non-poor families in the VAS prior to COVID-19, could have, for instance, also enacted a rapid registration process to assess additional vulnerable households not in the VAS – but it was not drawn on (World Bank, 2022c).

Prior to COVID-19, the social protection system was not shock responsive, nor risk informed, as governance structures and resources were not adaptive enough to respond to a widespread shock (World Bank & UNICEF, 2020). The response to the pandemic was hampered by the lack of flexibility of delivery systems and adequate protocols to adapt social protection programs to a new reality. Building more resilient and shock-responsive delivery systems would

help better respond to future crises. This may include better ensuring programs can adapt to changing needs, with triggers and protocols for entry and exit; improved interoperability of beneficiary operations management systems, linked to the VAS, development of rapid beneficiary registration and assessment methods, the re-introduction of a national unemployment benefit, insurance programs and flexible ALMP linked to social protection programs.

It is important to further invest in the shock-responsiveness of the social protection system, as shocks – including climate-related ones – will continue affecting households. Armenia is in one of the most seismically active regions in the world and has, due to climate change, seen an increase in extreme weather events in the past decades. About half of the country is at risk of flooding and mudslides whilst research conducted between 2012–2015 showed that 80 percent of school buildings do not follow building standards and codes, putting children at high risk in earthquakes (UNICEF & World Bank, 2020). Poor and vulnerable households in rural areas, but also urban areas, are often more exposed to such shocks as they may be living in disaster-prone areas and often in low quality housing. As such, ensuring social protection programs can protect against such adverse impacts as well as idiosyncratic shocks, allowing households to continue investing in their assets' livelihoods and rapidly remedying the effect of such shocks through direct support provided in cash or in-kind, is key to the protection of their incomes and investments in human capital.

6. Main reform avenues

To overcome gaps in human capital, the human development sectors will need more – but also better – spending. Public education expenditure has steadily increased in nominal terms but, at 2.7 percent of GDP in 2020, remains substantially lower than the EU average (4.7 percent) as well as the UMIC and ECA averages (both 3.9 percent). Similarly, while Armenia’s total spending on health – at 11 percent of GDP – is high, the share of public health financing is among the lowest in the world, leaving most of the spending burden to households and affecting the ability of the poor and vulnerable to seek treatment. And while social protection spending amounted to 6.9 percent of GDP in 2019, 85 percent is allocated to pensions, leaving little room for social assistance, labor market programs or social care services. Just spending more, however, will not be sufficient to substantially improve outcomes: it will also be important to spend better by improving efficiency and effectiveness. In the education sector, for instance, while it will be essential to invest to expand access to early childhood education and improve teacher remuneration, reforms will also be needed to improve the quality of teaching across all levels, which will require pursuing further curriculum and teacher training/qualification reforms, and also deepening monitoring and evaluation practices to identify delivery challenges and support lagging schools. In the health sector, revisiting the basic benefits package could improve both equity and effectiveness of spending by reducing the burden on households; but greater effectiveness could also be achieved by reducing overutilization of hospitals to deliver care and putting greater weight on primary care, and to respond to aging, integrating health and social care. For social protection, reorienting resources towards protecting the most vulnerable and improving employability, revising, and consolidating the multiple small programs according to policy goals, and better defining

roles and responsibilities between central level and municipal social workers would help to improve delivery and achieve greater impacts.

Directing more resources to early years interventions and preventive measures could deliver a substantial efficiency boost. Reversing ill health or remedying poor skills later in life is more difficult, sometimes impossible, and certainly more costly. Accelerating investment in quality early childhood development to address malnutrition and early stimulation would help all infants and children to remain on a positive developmental path and is an investment with high potential returns. In a world where the health toll of NCDs is expanding, shifting more resources into strengthening primary health-care services and focusing on prevention and early detection, rather than expensive in-hospital care, could help to address mortality and morbidity across all age groups. Addressing the rising tide of NCDs would also help people to stay healthier and work longer, and thus help to sustain a larger workforce.

Boosting inclusion through greater focus on the poor and vulnerable and on lagging regions would bring better human capital for all. Access to and quality of education remain challenging for the poor, and in rural areas; social protection fails to cover many poor households, because of low coverage of targeted social assistance and social insurance schemes being strictly linked to employment. And high out-of-pocket health expenditure and catastrophic health spending are disproportionately affecting the poor and vulnerable. Reducing out-of-pocket health expenditure by revisiting the basic health benefits package, expanding social assistance coverage of the poor, and adopting comprehensive approaches to avoid poor children dropping out of secondary schools would go a long way towards delivering greater human capital for all, and

ensuring that people realize their full productive potential. Emphasis should not only be on reaching poor individuals with better services, however, but also on better support – both financial and technical – for poor and remote regions. Preschool services, for instance, are far less prevalent in rural areas, partly because they are financed out of local budgets so poorer communities cannot provide better and cheaper services.

Investing in cross-sectoral collaboration and coordination will be essential for addressing important multidimensional human capital challenges. Critical human capital areas cut across human development sectors; addressing these challenges effectively will require strong coordination mechanisms. For instance, countries that have successfully advanced on the early childhood development agenda have also invested massively in cross-sectoral coordination. Strengthening linkages between social protection (in particular, social assistance and social care services), health care and schools could help to identify vulnerable children and support them to acquire more and better human capital. Similarly, stronger links between social assistance and ALMPs would facilitate the activation of social assistance beneficiaries. In all three sectors there have been promising efforts to address cross-sectoral issues, but coordination could be improved further. For example, while there are early childhood development programs that span across sectors, the country still lags in addressing child nutrition, cognitive, social and emotional development and it has also fallen short in providing a strong legal framework for effective implementation.

Investing in staff delivering HD services and capacity building will be key to provide better quality services. Qualified and motivated staff are essential for delivering quality services, but poor working environments and low remuneration currently reduce the attractiveness of working in human development sectors and lower performance. Strengthening the quality and management of human resources will be key to improving the quality-of-service delivery. All human development sectors need better standards in terms of qualifications, promotions, or performance assessments, as well

as competitive remuneration. Especially at the sub-national level, gaps in human resources for health service provision, inadequate capital investment funding, and procurement challenges reduce the quality-of-service delivery in the health sector. For education, continued efforts are needed to improve teacher qualifications. In the social protection sector, strengthening the integration and coordination between the USS and its territorial offices would improve the effectiveness of service delivery. Similarly, strengthening the staff's ability to adopt a holistic, intersectoral approach to case management would help beneficiaries to overcome their vulnerabilities and, at least for some, escape poverty.

Further adoption of digital technologies could improve the effectiveness of service delivery. COVID-19 helped to accelerate developments in the use of data and digital technologies, and the momentum should be kept alive. For instance, for education, monitoring of student learning progress and performance should be deepened to identify vulnerable schools or students and overcome equity gaps in learning. The e-health system could be further developed to manage referrals and improve public health monitoring, as well as boost prevention through communication aimed at changing behaviors. For social protection, robust interoperability between different information systems – coupled with proper staff training – could ease the delivery and monitoring of program implementation. Consolidating some steps along the social protection delivery chain, including identification, eligibility determination and payments could also deliver major efficiency gains and help to reach the population in need, including during shocks and crises.

Strengthening human development systems based on the experience of the COVID-19 response would improve resilience to future crises and shocks, including climate-related ones. Preparing for crises and shocks, including economic, social, and climate-related ones, is essential for effective response, and valuable lessons from the COVID-19 response should be mainstreamed into delivery systems. In the social protection system, significant barriers arose to providing swift and effective support

because of challenges in identifying the target population due to outdated information technology (IT) infrastructure and lack of interconnectivity between information systems within the Ministry of Labor and Social Affairs and other line ministries. In the health sector, information systems to exchange data between health agencies already existed but were enhanced to facilitate new applications such as remote monitoring of patients when in-person visits were not possible. Similarly, for the edu-

cation sector modalities for distance learning were built upon existing platforms, although perhaps the most important lesson is the need to maintain face-to-face learning if possible, and to help vulnerable students recover from the learning losses they incurred.

Sector-specific recommendations

EDUCATION

Quality and inclusion	Short term	Medium/long term
Education quality and learning outcomes	<p>Development and implementation of curricula and standards to bring students into compliance with the requirements of the higher levels of the educational system and labor market.</p> <p>Eliminating learning losses caused by the pandemic with additional complementary courses and increased school hours.</p>	<p>Continuous review (and revision) of the legal framework and sectoral and sub-sectoral synergic reforms (when needed).</p> <p>Ensuring synergies and harmonization of standards in secondary, vocational, and higher education.</p> <p>Reducing learning poverty (especially among regions and income groups) by increasing access to e-learning.</p>
Low enrollment and disparity in enrollment opportunities	<p>Improving and promoting information, mechanisms and tools aimed at orientation of students and graduates of lower-secondary school graduates to help them decide their additional educational goals.</p>	<p>Linking and harmonizing the upcoming reforms in upper secondary education with the anticipated reforms in VET to enhance opportunities to continue secondary education in VET in the regions.</p>
Inclusive education for students in vulnerable households	<p>Redesigning social interventions – including conditional transfers – to help poor students to continue their education at all levels.</p>	<p>Making the university admission system more inclusive.</p>
Qualification and motivation of service providers/teachers	<p>Updating teacher training and reforming pre-service/in-service training.</p> <p>Increasing remuneration of teachers and establishing linkages between the salaries and their professional development.</p>	<p>Modernizing and reforming pedagogical universities to attract students with a prominent level of knowledge and prepare high-quality teachers.</p>
Improving IT and e-learning literacy of teachers and students and enhancing IT and digital learning tools	<p>Improving e-learning tools to ensure accessibility and resilience of education for all, especially for those in remote and rural areas.</p>	<p>Continuing using and improvement of digital and e-learning platforms and tools as complementary sources and learning tools to support the improvement of education quality.</p> <p>Using Education Management Information System (EMIS) data to support evidence-based decision making on quality, access, infrastructure, leadership, collaboration, and continuing professional development, pedagogy, and assessment.</p>
Spending and efficiency	Short term	Medium/long term
Improving financing mechanisms	<p>Development of alternative cost-effective models for financing preschools.</p>	<p>Implementing new models for VET institution management based on public-private partnership to increase the system's overall efficiency and effectiveness.</p>
Crisis preparedness	Short term	Medium/long term
Improving the resilience and preparedness of the education system	<p>Improving e-learning tools to ensure accessibility and resilience of education for all, especially for those in remote and rural areas.</p>	<p>Increasing the resilience to earthquakes of existing schools as part of a larger disaster preparedness plan.</p>

HEALTH

Quality	Short term	Medium/long term
<i>Boosting primary care, public health services, and integrated health and social care</i>	<p>Establishing legal and regulatory steps, quality indicators, monitoring procedures, mechanisms for stakeholder engagement and accountability, and procedures for introducing bonuses or penalties to improve performance of PHC and maternal care.</p> <p>Investing in rural PHC infrastructure, human resources for health, equipment, and supplies.</p>	<p>Scaling up the quality of the PHC model and implementing it nationwide to shift the inefficient hospital-based system towards ambulatory care, and disease prevention rather than treatment.</p> <p>Implementing community-based integrated care that links health and social services to address the overlapping needs of an aging population.</p> <p>Introducing healthy lifestyle centers, a community-based model that promotes a whole-of-society approach to motivating lifestyle changes via health education, incentivizing physical activity and better diets, and supporting the navigation of related socioeconomic challenges.</p> <p>Improving interagency coordination and collaborative efforts to enforce tobacco law in practice and increase taxes on unhealthy products, including alcohol, tobacco, and sugar-sweetened beverages.</p>
<i>Human resource management</i>	<p>Motivating and incentivizing health personnel to practice in rural areas to eliminate spatial inequities in access to and quality of health care.</p> <p>Reintroducing and implementing health worker licensing to strengthen quality assurance.</p>	<p>Decreasing the inequities in service provision and increasing personnel availability in regions/marzes and rural areas specifically, including via strengthening benefits and revising salaries.</p>
Inclusion	Short term	Medium/long term
<i>Ensuring the provision of adequate health services across the country's territory and socioeconomic groups</i>	<p>Redesigning the Basic Benefit Package (BBP) within the existing health budget to yield short-term improvements (ensure allocative efficiency) informed by assessing the burden of disease, the budgetary impact of guaranteeing access to state-funded services, and the relative cost-effectiveness of alternative services.</p> <p>Systematically reviewing low reimbursement prices for publicly funded services, to improve financial risk protection and access to care.</p>	<p>Increasing public allocations to health in the long term to redesign the BBP and improve financial protection.</p> <p>Incorporating the HTA as a model for pricing and designing of services and medicines.</p>
Spending and efficiency	Short term	Medium/long term
<i>Establishing a single, strategic purchaser</i>	<p>Deciding on the reform path, including the creation of a new independent purchasing agency to pool financial resources; exercising stronger negotiating power with providers; and strengthening PFM arrangements in the health sector through improved planning, budgeting, and external financial control and oversight.</p>	
<i>Enacting a robust health strategy</i>	<p>Identifying service delivery priorities, including access, quality, and efficiency, in a government-approved health strategy as a first step toward addressing constraints to service delivery.</p>	
<i>Reorienting the healthcare system towards primary care</i>	<p>Ensuring adequate equipment and staffing for service provision, improved gatekeeping, and referral mechanisms to regulate access to other providers, and financing arrangements that incentivize these mechanisms.</p>	<p>Developing a health system national master plan that offers a roadmap for service delivery expansion, centered on primary care, with linkages to social services, and reflecting projected health needs.</p>

<i>Improving the strategic purchasing functions of the health system</i>	Building capacity for strategic purchasing, including a potential twinning arrangement with a Social Health Insurance Fund that is further advanced in financial management, data-driven decision making, health technology assessments, selective contracting, and payment innovation.	Introducing selective contracting of providers to improve the quality of health care and financial discipline. Further strengthening the fund to exercise stronger negotiating power with providers, contributing to strengthening PFM arrangements in the health sector through improved planning, budgeting, and external financial control and oversight. Establishing coordination among key actors, transparent decision rights, and the use of health information systems to support decision-making and provider payment mechanisms.
<i>Improving efficiency by enhancing monitoring, connectivity, and digitalization</i>	Boosting e-health system and adding more analytic functions (models) for case management, information exchange, disease incidence/prevalence, treatment outcomes, and other activities, and ensuring interoperability with key databases including for the disease burden and financial management. Boosting the establishment and use of online information platforms for webinars and training, making the newest guidelines on case management available to medical personnel.	Enhancing the country's digital tools for improved monitoring through data collection, disease surveillance, and management of beneficiary records. Improving data sharing practices in the health sector and using data more systematically to monitor the quality of care, regulate drug prescribing behavior, refine contract design, and inform revisions to the benefits package.

Crisis preparedness	Short term	Medium/long term
<i>Improving the resilience and preparedness of the health system</i>	Expanding the scope of existing preparedness plans and appropriate legal and policy framework to cover additional threats. Enhancing existing digital tools (e-health, virtual platforms and telemedicine) to assure uninterrupted health service provision not only during but also outside the COVID-19 pandemic to cover other threats.	Establishing necessary infrastructure and training adequate human resources to deal with future crises. Creating additional emergency funding mechanisms to respond to biological incidents, as well as to cover motivational mechanisms (incentives) for health personnel for service provision during work overload.

SOCIAL PROTECTION AND JOBS

Quality	Short term	Medium/long term
<i>Promoting and strengthening Unified Social Services (USS)</i>	Continuing developing the USS centers to provide better access to the social services, ensuring the population is aware of programs they are eligible for. Improving the management, remuneration and capacity of human resources implementing integrated social service delivery through the USS – strengthening the link and collaboration between community (municipal) social workers and USS social workers – whilst fostering accessibility and referral to other services. Improving conditions and motivation of service delivery personnel.	Continuing to develop the Unified Information System in line with labor market, pension and social assistance reforms/ programs. Continuing to strengthen the institutional capacities of the USS while implementing social case management. Strengthening administrative systems to improve oversight, monitoring and reduce fraud and corruption.

Inclusion	Short term	Medium/long term
<i>Protecting vulnerable groups across regions</i>	Continuing to implement performance-based budgeting to adjust programming, with attention toward effective coverage and adequacy of social protection programs for vulnerable groups in the population across regions and welfare levels. Establishing linkages to health and education services to help bridge inequities in access and outcomes. Expanding Family Living Standards Enhancement Benefits (FLSEB) among poor households and adjusting the vulnerability assessment methodology to improve the incidence of spending on the poorest households.	Developing access and pathways for informal workers to contribute to and benefit from social security schemes. Monitoring FLSEB to adjust coverage and support beneficiaries with complementary social services.

Spending and efficiency	Short term	Medium/long term
<p><i>Promoting jobs and skills development</i></p>	<p>Funding of well-designed and enhanced Active Labor Market Programs (ALMP) and unemployment insurance to support labor productivity and jobs, and promote employment of youth not in employment, education nor training (NEET), non-working women, and able-bodied social assistance beneficiaries.</p> <p>Amending labor and employment legislation to promote equal access to jobs and protection of labor rights for different groups.</p>	<p>Ensuring ALMPs are designed and re-designed to support target groups and objectives aligned with the Employment Strategy and changing local labor market conditions.</p> <p>ALMP scope and funding determined flexibly and re-assessed regularly based on regional needs and performance, and incorporated into the MTEF.</p>
Crisis preparedness	Short term	Medium/long term
<p><i>Building shock responsiveness into regular social protection planning and delivery systems</i></p>	<p>Including lessons learned from COVID-19 response in the next social protection strategy toward a robust shock-responsive social protection system.</p>	<p>With full coverage of a unified information system, improving the responsiveness of social protection programs responding to both economic and climate-related shocks.</p>

List of References

- ADB (Asian Development Bank). 2021. "Armenian eHealth Strategy and Action Plan for 2021-2023."
- Andreasyan, D., Bazarchyan, A., Sargsyan, Sh., Torosyan, A., Mirzoyan, M., Bidzyan, L. (2019). "Armenia Health System Performance Assessment."
- ARMSTAT (Statistical Committee of Armenia). 2019). "Social Snapshot and Poverty in Armenia." https://www.armstat.am/file/article/poverty_2020_e_4.pdf
- . 2020. "The Labor Market in Armenia." https://www.armstat.am/file/article/trud_2020_1.pdf
- ATC (Appraisal and Testing Center). 2020). "Statistical Analysis of 12th Grade State Graduate Testing Results (2018-2019 Academic Year)". Evaluation and Testing Center, 2020. http://www.atc.am/files/verlucutyunner/2019/Avartakan_12_2019.pdf
- Avartakan. 2020. "Statistical Analysis of 12th Grade State Graduate Testing Results (2018-2019 Academic Year). Evaluation and Testing Center." http://www.atc.am/files/verlucutyunner/2019/Avartakan_12_2019.pdf.
- Becker, G. S. 1992. "The Economic Way of Looking at Life" (Gary Becker Nobel Prize Lecture).
- Berlinski, S., & Schady, N. 2016. "The Early Years: Child Well-Being and the Role of Public Policy." In *The Early Years: Child Well-Being and the Role of Public Policy*. Palgrave Macmillan. <https://doi.org/10.1057/9781137536495>
- Blasko, Z. Da Costa, P. Schnepf, S.V. 2021. "Learning Loss and Educational Inequalities" in Europe: Mapping the Potential Consequences of the COVID-19 Crisis. Institute of Labor Economics.
- Brunello, G., Fabbri, D., & Fort, M. 2013. "The causal effect of education on body mass: Evidence from Europe" in *Journal of Labor Economics*, 31(1). <https://doi.org/10.1086/667236>
- Brunello, G., Michaud, P. C., & Sanz-de-Galdeano, A. 2009. "The rise of obesity in Europe: An economic perspective" in *Economic Policy*. <https://doi.org/10.1111/j.1468-0327.2009.00226.x>
- Campolieti, M., & Krashinsky, H. 2006. "Disabled workers and wage losses: Some evidence from workers with occupational injuries" in *Industrial and Labor Relations Review*. <https://doi.org/10.1177/001979390606000107>
- Chukwuma A., Meessen, B., Lylozian, H., Gong, E., Ghazaryan, E. 2020a. *Strategic Purchasing for Better Health in Armenia*. World Bank, Washington, DC. <https://openknowledge.worldbank.org/handle/10986/34491>
- Chukwuma, A., Gurazada, S., Jain, M., Tsaturyan, S., Khcheyan, M. 2020b. *FinHealth Armenia: Reforming Public Financial Management to Improve Health Service Delivery*. World Bank, Washington, D.C. <https://openknowledge.worldbank.org/handle/10986/34747>
- Clark, A. et al. 2020. "Global, Regional, and National Estimates of the Population at Increased Risk of Severe COVID-19 due to Underlying Health Conditions in 2020:

- A Modelling Study" in *The Lancet Global Health*, 8.8.
- Elango, S., García, J. L., Heckman, J. J., & Hojman, A. 2016. "Early Childhood Education" in R. Moffitt (Ed.), *Economics of Means-Tested Transfer Programs in the United States*. University of Chicago Press.
- ETF (European Training Foundation). 2020. "Policies for Human Capital Development Armenia". European Training Foundation. Farrington, J. Kontsevaya, A. Fediyav, D. Grafton, D. Khachatryan, H. Schmitt, A. Rinaldi, C. Kulikov, A.
- Flabbi, L., & Gatti, R. 2018. "A Primer on Human Capital"; World Bank Policy Research Working Papers, Issue 8309.
- Fraser, N; Chukwuma, A; Koshkakarayan, M; Yengibaryan, L; Hou, X; Wilkinson, T. 2021. *Reforming the Basic Benefits Package in Armenia: Modeling Insights from the Health Interventions Prioritization Tool*. Washington, D. C
- Galasso, E., & Wagstaff, A. 2019. "The aggregate income losses from childhood stunting and the returns to a nutrition intervention aimed at reducing stunting" in *Economics and Human Biology*, 34. <https://doi.org/10.1016/j.ehb.2019.01.010>
- García, J. L., Heckman, J. J., Leaf, D. E., & Prados, M. J. 2020. "Quantifying the life-cycle benefits of an influential early-childhood program" in *Journal of Political Economy*, 128(7), 2502–2541. <https://doi.org/10.1086/705718>
- Gertler, P., Heckman, J., Pinto, R., Zanolini, A., Vermeersch, C., Walker, S., Chang, S. M., & Grantham-McGregor, S. 2014. "Labor market returns to an early childhood stimulation intervention in Jamaica" in *Science*, 344(6187), 998–1001. <https://doi.org/10.1126/science.1251178>
- Gilleskie, D., & Hoffman, D. 2014. "Health Capital and Human Capital as Explanations for Health-Related Wage Disparities" in *Journal of Human Capital*. <https://doi.org/10.1086/677855>
- Global Financing Facility. 2020. "Preserve Essential Health Services During the COVID 19 Pandemic: Armenia". World Bank, Washington. D.C
- GOA (Government of Armenia). 2014. *Armenia Development Strategy 2014–2025*. <https://www.gov.am/am/prsp/>.
- 2018. "Health System Performance Assessment". Government of Armenia. <http://nih.am/assets/pdf/atvk/1b-ba53467ef0edf211c317cc59c0ac2b.pdf>
- 2020. "Armenia National Health Accounts report". <http://nih.am/assets/pdf/atvk/e13bec645c8c10b-f49243e62cbcc04a1.pdf>
- 2021a. "Government Program 2021–2026". Government of Armenia. <https://www.gov.am/files/docs/4586.pdf>
- 2021b. "Health System Performance Assessment",
- González-Velosa, C., Rucci, G., Sarzosa, M., & Urzua, S. 2015. *Returns to Higher Education in Chile and Colombia (IDB Working Papers Series, Issue IDB-WP-587)*.
- Hoddinott, J., Behrman, J. R., Maluccio, J. A., Melgar, P., Quisumbing, A. R., Ramirez-Zea, M., Stein, A. D., Yount, K. M., & Martorell, R. 2013. "Adult consequences of growth failure in early childhood" in *American Journal of Clinical Nutrition*. <https://doi.org/10.3945/ajcn.113.064584>
- IHMEA (Institute for Health Metrics and Evaluation website). 2019. <http://www.healthdata.org/armenia>
- IHME.A (2020). <http://www.healthdata.org/armenia>

- ILO (International Labor Organization). 2020. Rapid assessment of the employment impact and policy responses of the COVID-19 pandemic on Armenia. Employment Country Reports Series. ILO Decent Work Team and Country Office for Eastern Europe and Central Asia. www.ilo.org/publns.
- John Hopkins University, 2021. Coronavirus resource center. <https://coronavirus.jhu.edu/>
- Jones, B. F. 2014. "The human capital stock: A generalized approach" in American Economic Review. <https://doi.org/10.1257/aer.104.11.3752>
- Lance, L. 2011. "Nonproduction Benefits of Education, Crime, Health, and Good Citizenship" in Handbook of the Economics of Education (Vol. 4). <https://doi.org/10.1016/B978-0-444-53444-6.00002-X>
- Lavado, Rouselle F.; Hayrapetyan, Susanna; Kharazyan, Samvel. 2018. Expansion of the Benefits Package: The Experience of Armenia. Universal Health Coverage Studies Series; No. 27. World Bank. <https://openknowledge.worldbank.org/handle/10986/29178>
- Martínez, R., & Fernández, A. 2008. "The cost of hunger: Social and economic impact of child undernutrition in Central America and the Dominican Republic" Project Document.
- MoESCS (Ministry of Education, Science, Culture and Sports). 2020. "Education Survey". <https://escs.am/am/news/6659>.
- MoF (Ministry of Finance). 2020. "Annual Report on the 2020 State Budget Performance".
- MoH (Ministry of Health). 2010. "Armenia Pharmaceutical Country Profile". Ministry of Health and World Health Organization. <http://digicollection.org/hss/documents/s19094en/s19094en.pdf>
- National Statistical Service [Armenia], Ministry of Health [Armenia], and ICF. 2017. Armenia Demographic and Health Survey 2015-16. Rockville, Maryland, USA: National Statistical Service, Ministry of Health, and ICF. ADHS (2016). Armenia Demographic and Health Survey.
- Nichols, A., Mitchell, J., & Lindner, S. 2013. "Consequences of Long-Term Unemployment". Urban Institute
- NIH (National Institute of Health). 2020. National Institute of Health report. <http://nih.am/assets/pdf/atvk/e13bec645c8c10bf49243e62cbcc04a1.pdf>
- NSS (National Statistical Service). 2020. "Finance Statistics of Armenia". National Statistical Committee. https://www.armstat.am/file/article/finansner_2020_1.pdf
- 2018. Armenia National Statistical Service data. <https://microdata.worldbank.org/index.php/catalog/3617>
- 2019. "Social Snapshot and Poverty in Armenia, 2018. Statistical Committee of Armenia", 2019.
- 2020. "Social Situation in Armenia in 2019". Statistical Committee of Armenia, 2020.
- 2022. "Social Situation in Armenia in 2021. Statistical Committee of Armenia, 2021.
- OECD (Organisation for Economic Co-operation and Development). 2016. Skills Matter: Further Results from the Survey of Adult Skills. <https://doi.org/10.1787/9789264258051-en>
- 2019. PISA 2018 Results (Volume I): What Students Know and Can Do, PISA, OECD Publishing, Paris, <https://doi.org/10.1787/5f07c754-en> PISA 2018 Results (Volume I): What Students Know and Can Do.

- Psacharopoulos, G., & Patrinos, H. A. 2018. "Returns to investment in education: a decennial review of the global literature" in *Education Economics*, 26(5), 445–458. <https://doi.org/10.1080/09645292.2018.1484426>
- Sargsyan, S., Movsesyan, Y., Melkumova, M., & Babloyan, A. 2016. "Child and Adolescent Health in Armenia: Experiences and Learned Lessons" in *The Journal of Pediatrics*, 177, S21–S34. <https://doi.org/10.1016/j.jpeds.2016.04.038>
- TIMSS (Trends in Mathematics and Science Study). 2019. *International Results in Mathematics and Science*. <https://www.iea.nl/sites/default/files/2020-12/TIMSS%202019-International-Results-in-Mathematics-and-Science.pdf>
- UN Women. 2021. *Assessment of the Social Protection Floor in Armenia*. UN Women, Development Pathways, ILO. https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---sro-moscow/documents/publication/wcms_831453.pdf
- UNDP (United Nations Development Programme). 2020. *Human Development Report 2020. The Next Frontier. Human Development and the Anthropocene*. <http://hdr.undp.org/en/indicators/69706>
- UNESCO (United Nations Educational Scientific and Cultural Organization). 2021. *The UNESCO Institute for Statistics, Education Dataset indicators*, <http://data.uis.unesco.org/>
- UNICEF (United Nations Children's Fund). 2019. *Children survive and thrive*. <https://www.unicef.org/armenia/en/what-we-do/children-survive-and-thrive>
- 2021a. "COVID-19: Schools for more than 168 million children globally have been completely closed for almost a full year, says UNICEF". <https://www.unicef.org/press-releases/schools-more-168-million-children-globally-have-been-completely-closed>
- 2021b. "Ensuring Equal Access to Education in Future Crises: Findings of the New Remote Learning Readiness Index". UNICEF, NY, 2021. <https://data.unicef.org/resources/remote-learning-readiness-index/>.
- UNICEF & World Bank. 2020. *Core Diagnostic of the Social Protection System in Armenia*.
- 2021. *COVID-19 High Frequency Monitoring Dashboard*. World Bank. Washington, DC
- Upharma. 2019. "Armenia Teaser. Pharmaceutical Country Report". Upharma Consulting Healthcare. <https://www.upharma-c.com/en/news/218-armenia-pharmaceutical-country-report-2019>
- WEF (World Economic Forum). 2019. *The Global Competitiveness Report 2019*. World Economic Forum. http://reports.weforum.org/global-competitiveness-report-2019/?doing_wp_cron=1570623935.4483180046081542968750.
- WHO. 2019. *World Health Organization*. 2019. *Surveillance Monitoring*. https://doi.org/entity/immunization/monitoring-surveillance/burden/vpd/surveillance_type/active/measles_monthlydata/en/index.html
- 2020a. "World Health Organization. COVID-19 weekly surveillance report". <https://www.euro.who.int/en/health-topics/health-emergencies/coronavirus-covid-19/weekly-surveillance-report>
- 2020b. *World Health Organization. Global Health Observatory data repository. Index of service coverage Data by country*. <https://apps.who.int/gho/data/view.main.INDEXOFESSENTIALSERVICECOVERAGE>
- 2020c. "World Health Organization. (2020). *Rapid assessment of service delivery for NCDs during the COVID-19 pandemic*". <https://www.who.int/publica->

- [tions/m/item/rapid-assessment-of-service-delivery-for-ncds-during-the-covid-19-pandemic](#)
- 2021. Global Health Expenditure Database. Data for 2018.
- 2022. WHO COVID-19 Homepage. <https://covid19.who.int/region/euro/country/am>
- World Bank. 2014a. World Bank Activation for Poverty Reduction note – Realizing the Potential of Armenia’s Social Safety Nets. World Bank. Washington, D.C
- 2014b. “Armenia Workforce Development”. SABER Country report.
- 2014c. Household Skills Measurement Survey with Full Literacy Assessment. World Bank. Washington, D.C
- 2018. “Armenian Pharmaceutical Sector 2017”. Draft Report. Washington, D.C. World Bank.
- 2019. Early Childhood Development Services in Armenia – Diagnostic Report. <https://thedocs.worldbank.org/en/doc/284421598372225063-0090022020/original/TFOA6080Early-ChildhoodDevelopmentServicesinArmeniaDiagnosticReport1.pdf>
- 2020a. Survive, Learn, Thrive: Strategic Human Capital Investments Toward a More Prosperous and Inclusive Armenia. Washington, D.C. World Bank.
- 2020b. “Armenia Human Capital Index”. Washington, D.C World Bank. https://databank.worldbank.org/data/download/hci/HCI_1pager_ARM.pdf?cid=GGH_e_hcpexternal_en_ext
- 2021a. World Development Indicators. Washington, D.C World Bank. <http://data.worldbank.org/data-catalog/world-development-indicators>
- 2021b. “Macroeconomic Effects of Financing Universal Health Coverage in Armenia”. Washington, D.C.
- 2021c. “Analysis of Learning in Armenia”. Unpublished internal note.
- 2022a. Global Economic Prospects – June 2022. World Bank. Washington, D. C <https://www.worldbank.org/en/publication/global-economic-prospects>
- 2022b. “Armenia Monthly Economic Update – March 2022”.
- 2022c. “Armenia Resilience note. Forthcoming”. World Bank. Washington, D.C
- 2022d. “Armenia Monthly Economic Update – August 2022”.
- 2022e. “Analysis of Active Labor Market Measures in Armenia”.
- 2022f. “Assessing the effects of the fiscal system on gender disparities in Armenia”.
- <https://openknowledge.worldbank.org/bitstream/handle/10986/35688/Macroeconomic-Effects-of-Financing-Universal-Health-Coverage-in-Armenia.pdf?sequence=1&isAllowed=y>
- World Bank & MoH. 2022. Disease Control and Prevention Program. Program data provided via the ArMed system.
- WVI (World Vision International). 2020. Impact assessment of the COVID-19 outbreak on wellbeing of children and families in Armenia. World Vision Armenia. <https://www.wvi.org/publications/report/armenia/covid-19-assessment>



© 2022 International Bank for Reconstruction and
Development / The World Bank
1818 H Street NW, Washington DC 20433
Telephone: 202-473-1000
Internet: www.worldbank.org



This project is funded by the European Union