



# AZERBAIJAN

## Human Capital Review



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# Azerbaijan

## Human Capital Review

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## List of acronyms

<b>ALMP</b>	Active labor market program
<b>ECA</b>	Europe and Central Asia
<b>ECD</b>	Early childhood development
<b>ECE</b>	Early childhood education
<b>EMIS</b>	Education Management Information System
<b>EU</b>	European Union
<b>GDP</b>	Gross domestic product
<b>ICT</b>	Information and communications technology
<b>ILO</b>	International Labour Organization
<b>MLSP</b>	Ministry of Labor and Social Protection of the Population
<b>NCD</b>	Non-communicable disease
<b>NEET</b>	Not in employment, education or training
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PHC</b>	Primary health care
<b>PISA</b>	Programme for International Student Assessment
<b>STEAM</b>	Science, technology, engineering, the arts and mathematics
<b>TSA</b>	Targeted Social Assistance
<b>UHC</b>	Universal health coverage
<b>UN</b>	United Nations
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNICEF</b>	United Nations Children's Fund
<b>US\$</b>	United States dollar
<b>VET</b>	Vocational education and training
<b>WHO</b>	World Health Organization

# Executive summary

**Strong human capital foundations are essential for boosting productivity and addressing challenges associated with aging populations, economic diversification, and recurrent shocks and crises.** Human capital comprises the knowledge, skills, and health that people accumulate over their lives and that enable them to realize their productive potential. Human capital plays an essential role in promoting individuals' welfare over their lifespans, driving economic development at country level, and fostering cohesive societies. Skilled and healthier workers tend to find better quality jobs and can operate in more complex environments, supporting productivity growth and economic diversification. Skilled and healthier workers are also able to work and remain productive longer, helping to address emerging aging challenges. Stronger and better human capital will also be essential to boost people's resilience to crises and shocks – including climate-related ones.

**Human capital challenges in Azerbaijan are, however, undermining long-term prosperity.** In relation to Azerbaijan's income level, children and youth suffer from relatively poor health and weak learning achievements, setting them up on a lower productivity path. High incidence of non-communicable diseases (NCDs) also limits the older population's contributions to productivity and growth. Human capital has been further set back by COVID-19, which affected access to education, health, and social protection, and which may leave long-term scars on the current and future workforce.

**The objective of this Human Capital Review is to support the Government of Azerbaijan's implementation of its Vision 2030<sup>1</sup> and the Socio-Economic Development Strategy 2022-2026 (Strategy 2022-2026)<sup>2</sup> by assessing human capital outcomes and related delivery challenges.** Strengthening human capital towards a sustainable, and inclusive growth

model, and a dynamic and inclusive society is a central objective of the Vision 2030. The Vision 2030 and the Strategy 2022-2026 focus on building a more competitive human capital base, starting early in life, and on fostering innovation. This Human Capital Review builds upon previous analyses that assessed key human capital challenges<sup>3</sup> by providing an update, systemic overview and performance assessment of the human development sectors – education, health, and social protection – with the objective of supporting better human capital formation.

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## Human capital in Azerbaijan

**Azerbaijan has substantially improved human capital outcomes, but they remain below those of regional and aspirational peers.** Azerbaijan is one of the top global human capital improvers, measured by changes in the World Bank's Human Capital Index (HCI) between 2010 and 2020. Despite significant progress, however, the country's human capital levels in terms of health and skills remain below regional and aspirational peers, as Azerbaijan underperforms relative to other countries in Europe and Central Asia (ECA). The potential pool of human capital is undermined by insufficient investment in children and youth, and in reducing health threats.

**More efforts are needed to secure a good start in life for children.** Early investments are cost-effective, as access to quality early childhood development (ECD) is a strong predictor of future health and success in the labor market. In Azerbaijan, however, access to early childhood education (ECE) is among the lowest in ECA. Enrollment is likely to increase, with several recent ECE initiatives intended to increase the share of children in preschool education and to

<sup>1</sup> <https://president.az/en/articles/view/50474>

<sup>2</sup> <https://president.az/az/articles/view/56725>

<sup>3</sup> World Bank 2020a.

expand school-parent and school-community relations, but more needs to be done. Although infant and child mortality rates have fallen to 9.8 and 11.1 per 1,000 children respectively,<sup>4</sup> malnutrition remains a serious issue, with one in five children in Azerbaijan at risk of stunting, compared to one in ten in ECA.<sup>5</sup> Moreover, poor children are at significantly higher risk of stunting than non-poor ones,<sup>6</sup> and thus face high risks of lagging cognitive development, of suffering from poor mental and physical health, and even risks to their survival. At the same time, Azerbaijan is following global trends with high incidence of obesity or overweight among adolescents, increasing risks of ill health later in life.

**Access to education has increased but low quality reduces actual learning.** Years of schooling now average over 12 years, but over 4 of these years are lost due to poor quality education<sup>7</sup>. The World Bank's Learning Poverty Index<sup>8</sup> shows that in 2016 nearly one in four children aged 10 (23 percent) were unable to read and understand a simple text – a rate that is substantially higher than the average for ECA countries (11 percent).<sup>9</sup> The Programme for International Student Assessment (PISA) results also show that basic education is not preparing Azerbaijani children sufficiently either for further studies or for work, with boys performing poorer than girls.<sup>10</sup> Again, the socio-economically disadvantaged are lagging even further behind.

**The transition from childhood into youth is characterized by challenges.** For many children, childhood ends too quickly, as evidenced in Azerbaijan's relatively low performance in the End of Childhood Index Ranking (93rd place out of 186 countries in the 2021 Index).<sup>11</sup> This index includes measures related to ill-health and malnutrition, exclusion from education, child labor, child marriage, early pregnancy, and exposure to conflict or extreme violence.

**School-to-work transition also presents difficulties for many young people, especially girls.** Currently, the number of new labor market entrants is significantly higher than the number of jobs created, pointing to significant obstacles in the school-to-work transition. Although

unemployment rates are relatively low in absolute numbers and when compared to other countries, the youth (aged 15–24) unemployment rate is almost three times as high as the overall unemployment rate (12.7 percent and 4.9 percent respectively in 2018). Young women are more likely not to be in employment, education or training (NEET) than young men: in 2015, some 32 percent of 15–24-year-old girls and women were NEET, compared to only 11 percent of males in the same age group.<sup>12</sup> These gaps reflect a combination of limited job opportunities, skill gaps, and social norms around work and family formation: the vast majority of economically inactive women are believed to be keeping house or responsible for family care.<sup>13</sup> Adolescent girls also disproportionately suffer from unwanted pregnancies and high rates of abortion, in part caused by limited access to family planning. The high risk of adolescent pregnancy, more than twice as high as the average for ECA countries, poses risks to infant and mother health, and women's education and careers.

**Limited labor demand in productive sectors and skill gaps affect productive employment opportunities.** Azerbaijan is locked into a low productivity – low skill cycle. Low growth in potentially productive non-oil private sector activities result in low demand for skilled labor, underutilization of human capital, and low returns to education. At the same time, firms – especially larger and innovative firms that could drive transformation – identify inadequate skills, lack of experience with modern methods of production, and low levels of digital skills as key problems. Participation in vocational education and training (VET) is very low. Lack of interest in VET programs reflects poor quality and lack of relevant training options, owing to lack of investment in the past. Higher education institutions (HEIs) are limited in terms of breadth of curricula and educational content. Limited collaboration with the private sector also prevents education and training systems from equipping students with the skills needed for labor markets, whether mid-level or higher-level skills.

**The stock of potential human capital is weakened as women are disproportionately**

<sup>4</sup> The State Statistical Committee of the Republic of Azerbaijan: Population <https://stat.gov.az/source/demography/?lang=en>

<sup>5</sup> WDI data.

<sup>6</sup> World Bank 2020a.

<sup>7</sup> World Bank 2022a.

<sup>8</sup> Learning poverty is defined as being unable to read and understand a short, age-

appropriate text by age 10.

<sup>9</sup> World Bank 2019a.

<sup>10</sup> OECD 2019.

<sup>11</sup> Save the Children 2021.

<sup>12</sup> ETF 2020.

<sup>13</sup> Estimates based on data from State Statistical Committee.



**excluded from productive job opportunities and older workers leave the labor force relatively early.** Adult women are significantly more likely to be in vulnerable employment and earn lower wages than men, leaving the productive capacity of half of the population significantly underutilized. Older workers, even those with higher levels of education, currently drop out of the labor force relatively early, with only a third of the population aged 55–59 still employed. The share of the population older than 60 will double from the current 12 percent to 25 percent in 2050 and harnessing the productive potential of this group will become increasingly important.

**Non-communicable diseases (NCDs) are taking an increasing toll on mortality and morbidity, and now account for most healthy years lost due to ill health, disability, or early death.** Conditions such as ischemic heart disease, strokes, diabetes, and cancer, have increased significantly, affecting people's healthy and productive years of living. Yet many of these diseases could be prevented – or their effects mitigated – with lifestyle changes that address smoking, consumption of alcohol and sugary beverages, overweight and obesity, malnutrition, and lack of physical activity, among other risk factors. High out-of-pocket payments (OOP) also raise the risks of excluding poor households from access to health services (including prevention, early detection, and treatment of NCDs), and increases their economic vulnerability to health shocks.

**The COVID-19 pandemic strongly affected human capital formation and shows the need to develop more shock-responsive human development systems.** Azerbaijan experienced lower infection and mortality rates than other countries in the region. However, strict lockdown policies, together with insufficiently developed primary health care (PHC) provision and limited preparedness, reduced access to essential health services. Similarly, school closures lasted more than a school year and substantially affected children's learning outcomes, especially among the poor and vulnerable. A swift transition to classes delivered digitally and through television only partially offset the effects of school closures due to poor learning

environments at home, households experiencing internet connectivity problems and lack of devices, and teachers' low preparedness for digital training. Children from socio-economically disadvantaged households, as well as children with disabilities, likely faced more serious barriers and will need tailored learning recovery programs to avoid the formation of long-term scars that will affect their labor market performance throughout their working lives. The crisis also did not spare parents and the working-age population: labor market conditions deteriorated significantly, especially for male youth, and informal workers lacking access to social assistance support were particularly affected.<sup>14</sup> The pandemic revealed a need to develop more shock-responsive human development systems to better respond, not only to future health crises, but also to frequent shocks and crises of other natures, including economic, social, and climate-related ones.

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## Deepening the reform agenda to strengthen human capital

**To achieve the objectives of the Strategy 2022–2026 and boost long-term productivity, this review recommends an intensified focus on human development investments and reforms.** The aftermath of COVID-19, together with global political and economic turmoil, are making it more important to deepen reforms towards more efficient and effective spending. Human capital development depends on an effective, coherent, and equitable human development delivery system, including education, health, and social protection services, underpinned by strong cross-sectoral coordination and collaboration. Azerbaijan's Vision 2030 and Strategy 2022–2026 are intended to create a dynamic, and inclusive society with competitive human capital. However, despite recent improvements, Azerbaijan's human development systems face important challenges:

<sup>14</sup> UNDP 2021.

- While spending has increased in education, the level of expenditures in health and social protection remains low compared with ECA peers;
- Equity remains a significant problem, as many of the poor are not covered by social protection; high out-of-pocket health expenses continue to reduce access for vulnerable groups; and learning outcomes remain closely associated with family socio-economic background. There are also significant regional disparities in human capital outcomes;
- A comprehensive cross sectoral approach is lacking, as service delivery is often fragmented across sectors, and collaboration and coordination between service providers need strengthening;
- Resources are not sufficiently focused on cost-effective early and preventive interventions, whether through early childhood education and care, PHC services, or targeted social assistance to protect the poor and vulnerable from shocks;
- Workforce capacity, as well as physical infrastructure, require strengthening across sectors to increase the quality and availability of services;
- Information systems are being developed to foster coordination and results-based management practices but remain fragmented across institutions, and e-government services are limited;
- The COVID-19 pandemic revealed that access and quality of services was constrained by low levels of emergency planning as well as limited technological readiness.

**Based on these findings, the report highlights a series of reform areas that are transversal across human development sectors.** Some of the reform areas are (and have been) covered under existing strategies and plans, as well as the new Vision 2030 and the Strategy 2022–2026; still, a holistic human development approach is required to accelerate the reforms. The country also needs to translate the national vision into a detailed action plan with targeted projects and activities to meet the strategic objectives, coupled with effective monitoring systems and tools to track progress, and a “whole of government” approach to human development:

- **Increasing the level and efficiency of spending in the human development sectors could help Azerbaijan to achieve reform objectives and boost human capital levels.** If effectively implemented, human capital investments can provide long-term returns through higher productivity. Reforms to improve efficiency could take several directions. In education, for instance, better monitoring and quality assurance mechanisms could improve the quality and relevance of teaching; in health, efficiency gains could be achieved by putting a greater focus on primary health care systems; and in social protection, improving targeting and the effectiveness of employment services could deliver better tailored services to those who need them.
- **Greater focus on including the poor and vulnerable and on lagging regions would deliver better human capital for all.** There are, again, several possible avenues to improve inclusion. In the education sector, ECD services could be expanded further across more districts, building on the ongoing school readiness program, with a strong focus on equitable access. In health, the strengthening of PHC centers in their critical role as providers of decentralized basic health care for children (such as vaccinations and nutrition interventions), adults (including early detection and prevention of NCDs, and promotion of healthy lifestyles) and elderly

people (such as long-term care) could support better health for the poor and vulnerable. In social protection it would be important to expand the offices of the Agency for Sustainable and Operational Social Security (DOST) outside of Baku to help disadvantaged populations access adequate services. Coverage of vulnerable populations could also be improved by reviewing targeting measures and eligibility criteria and developing outreach measures tailored to vulnerable groups. In that regard, the Targeted Social Assistance (TSA) system can be used as a platform for reaching the poorest and to promote their uptake of other services to help reduce inequalities in use of human development services and in human development outcomes. To address the challenges related to the low labor force participation and poor employment conditions for vulnerable groups – particularly women and youth – employment services and active labor market programs (ALMPs) could also include interventions targeted to specific groups, sectors, and regions that support participation and skill upgrading.

- **Directing more resources to early intervention and preventive measures could deliver a substantial boost to human capital.** Reversing ill health or remedying poor skills later in life is difficult, sometimes impossible, and certainly costly. Hence, accelerating investments in quality early childhood education and care to address malnutrition is essential to help infants and children remain on a positive developmental path. Strengthening skills development systems, their inclusiveness, and their strategic relevance for current and future labor markets would also reduce productivity losses associated with unemployment, inactivity, and skill gaps. As the health toll of NCDs is increasing, shifting more resources into strengthening PHC services, focusing on prevention and early detection, and integrating care at all levels, can help to lower mortality and morbidity across all age groups, and decrease the burden of diseases. As many NCDs are caused or worsened by unhealthy lifestyles, interventions to change behavior toward healthier living could also prove highly cost-effective. Developing further active and healthy aging policies to help people remain active and productive over their working lives will be essential to leverage the existing pool of human capital, support a growing number of elderly persons and ensure the long-term sustainability and adequacy of the pension system. Active aging policies include health, education and social protection measures that help people remain healthy, reskill over their working lives, and allow working arrangements to be tailored to the needs of the elderly.
- **Investing in cross-sectoral collaboration and coordination will be essential to address important cross-sectoral human capital challenges.** Critical human capital areas – such as ECD, nutrition, disability, skills development, employment, social assistance, occupational health, environmental health, and aging – cut across human development sectors and involve both government and non-governmental entities and institutions at different levels. Addressing these challenges effectively and exploring synergies will require strong mechanisms for coordination as well as collaboration between different institutions. To function effectively, cross-sectoral approaches need clear institutional arrangements defining roles, financing mechanisms, referral protocols, incentives and accountability for cross-collaboration; strong interconnectivity of information systems for targeting and monitoring; and staff capacity building.
- **Workforce development and capacity building would support reform momentum towards higher quality services.** Human resources are the most important asset for increasing access and delivering better services. Poor working environments and low levels of remuneration reduce attractiveness of careers and lower performance incentives in human development sectors, however. Depending on the sector, reforms may involve investing in more staff (to reduce caseloads and increase access to and quality of services), strengthening merit-based hiring and ensuring that staff have the formal qualifications required for their job, increasing the capacity of staff by revising and strengthening curricula in medical and teacher educa-

tion, and providing access to continuous in-service professional development. Across social services, social assistance and labor market programs, more intense use of case management techniques and more sophisticated profiling and targeting methodologies and counselling services will require significant upgrading of skills. This also involves strengthening specific technical capacity to develop and work with analytical models, such as forecasting future skill needs, or calibrating different scenarios for pension systems' financial sustainability.

- **A gradual introduction of digital technologies into service delivery will also help to improve effectiveness.** Digital technologies have the potential to improve access, service delivery efficiency and effectiveness, and real-time monitoring and evaluation. The COVID-19 pandemic showed the importance of increasing the capacity and quality of real-time data and strengthening interconnectivity within and between sectors in monitoring and targeting. Improving digital infrastructure with interoperable programs and activities, and strengthening workforce technical capacity, would favor the use of data across human development sectors for more effective policy making. Azerbaijan could also build upon advances made during the COVID-19 pandemic towards digital health solutions to integrate these into a centralized e-health platform and offer a range of e-health tools. Integrated digital platforms would also help to expand and improve the coverage and coordination of services. As recognized in the Strategy 2022-2026, expanding e-government services will also require the development of competencies to use services in the population (digital literacy) and specialized information and communications technology (ICT) competencies to develop and maintain services.
- **A thorough assessment of Azerbaijan's human development systems' resilience to shocks (such as pandemics, economic crises, climate-related shocks and regional conflicts) – and learning from good practices from other countries – could help deliver more resilient services.** Examples include modifying the legal framework to help programs rapidly expand during crises, for instance by institutionalizing the option to temporarily expand cash assistance benefits or adjust program parameters and targeting; further developing platforms to deliver services online; and strengthen the health information system, social registry, and other information systems to more rapidly identify people affected by crises and shocks.

# 1. Building human capital for long-term prosperity

**After a decade and a half of sustained economic development, Azerbaijan has experienced lower and more volatile growth in recent years.** Azerbaijan enjoyed significant economic growth between 2000 and 2013, at over 12 percent per year. However, a collapse in oil prices in 2014–2016 resulted in a drop in real GDP (of 3.1 percent in 2016), and sharply reduced government revenue. The economy was on a path to recovery when triple shocks hit in 2020: the COVID-19 pandemic, a collapse in energy demand and prices, and the 44-Day War with Armenia; these contributed to a drop in GDP by an estimated 4.3 percent in 2020.<sup>15</sup>

**Azerbaijan has made commendable and sustainable progress on poverty reduction, but some vulnerabilities remain.** The combined effect of targeted social protection programs and economic growth spilling over into high real wage increases and rising employment, particularly in services and construction, led to sharp reductions in poverty in the years before 2019. Extreme poverty, as defined by the international poverty line of US\$1.90 purchasing power parity (PPP) per person per day has been virtually wiped out, and only 7 percent of the population live on less than \$5.50 PPP, far

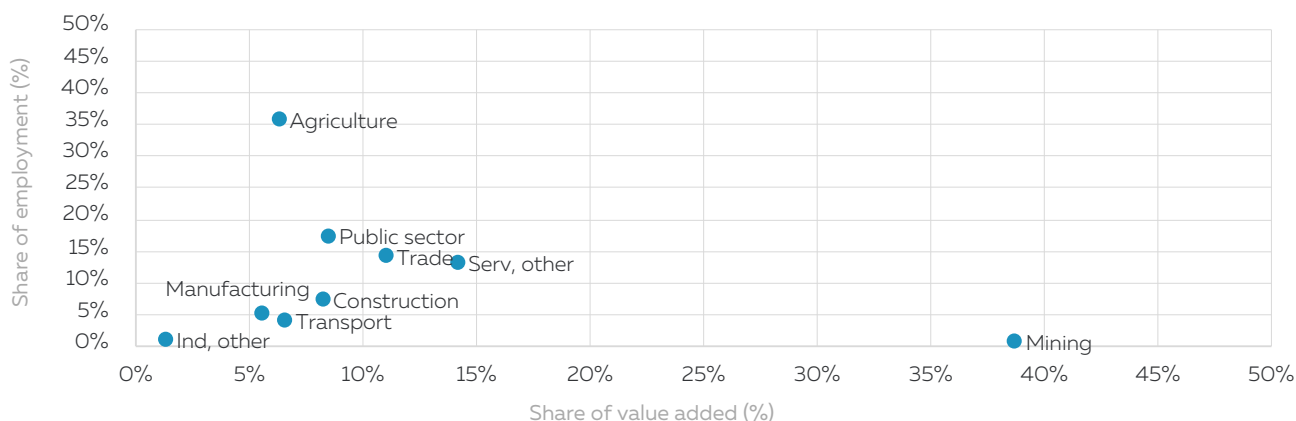
below the ECA average of 25 percent.<sup>16</sup> Using the national poverty line, poverty declined from around 30 percent of the population in 2005 to around 5 percent in 2015. Though poverty is low, in 2015, some 57 percent lived on more than \$5.50 PPP per day but on less than \$10 PPP. These households remain vulnerable to falling into poverty if exposed to shocks.<sup>17</sup>

**To achieve sustained progress towards improving welfare levels, the productivity of workers across economic sectors will have to increase.**

Increasing labor productivity is essential to support longer term welfare gains. However, Azerbaijan’s labor productivity, measured as GDP per employed worker, is the fifth lowest of the ECA developing countries (2020 data).<sup>18</sup> Mining accounts for only 1 percent of employment but nearly 40 percent of value added. Conversely, agriculture absorbs over a third of the employed population but accounts for only 7 percent of value added, and most jobs, in fact, are in sectors with low average productivity levels (Figure 1). Diversifying production into more productive non-oil sectors – and ensuring that the workforce has the capacity to take up employment in more productive work – is thus a priority.

**Figure 1: Employment is concentrated in low productivity sectors**

Share of value added vs employment



Source: Estimates based on data from the State Statistical Committee.

<sup>15</sup> GDP in constant 2017 international \$. Data from World Development Indicators (WDI), (<https://databank.worldbank.org/source/world-development-indicators>).

<sup>16</sup> Data from WDI.

<sup>17</sup> World Bank 2019b.

<sup>18</sup> Data from WDI.

**Access to good jobs is limited as most employment is in low productivity activities with low and precarious earnings.** Before COVID-19, the labor force participation rate was comparatively high (67 percent in 2018) and the unemployment rate low (4.8 percent), by global and ECA standards, with 59 percent of females and 66 percent of males aged 15 or above in employment. However, most workers were employed or self-employed in the informal sector, which generally means lower productivity, lower skills, lower earnings, and no social protection (such as contributory pensions and other types of social insurance needed to combat old age poverty).<sup>19,20</sup> The public sector still absorbs a large proportion of the workforce, especially higher educated workers, while those with lower educational attainment are confined to lower productivity occupations in agriculture and trade.<sup>21</sup>

**Lack of productive employment opportunities largely reflects insufficient progress on structural transformation of the economy.** Low growth in potentially productive non-oil sectors results in low demand for skilled labor, at least outside public administration, and low returns to education in the private sector. Low returns reduce incentives to invest in education – beyond the purpose of queuing for public sector jobs – and limits the availability of skills, which in turn creates additional constraints to potential high growth firms.

**Azerbaijan’s population is still relatively young, but it is projected to age quickly, which makes increasing the productivity of the workforce more urgent.** Population aging is driven by a decreasing fertility rate and increasing life expectancy. By 2050, more than one in five in the population will be over 60, compared with one in ten in 2020.<sup>22</sup> The negative impact of fertility and longevity trends are compounded by significant outmigration (the number of migrants abroad is equivalent to over 12 percent of the population). Demographic shifts will have implications for the public and private savings needed to support old age incomes and health care needs and costs. Moreover, the lower proportion of working-age people in the population will worsen the country’s produc-

tive capacity to sustain welfare levels, unless productivity levels increase sufficiently to compensate for less labor input.

**Despite the government’s rapid response to the COVID-19 pandemic, there is also a need to reverse the cumulative effects of COVID-19 on vulnerable populations.** The economic downturn and measures to contain the pandemic have affected vulnerable populations by reinforcing existing inequalities in access to opportunities and services, and increasing poverty and inequity.<sup>23</sup> The authorities implemented a crisis response package of economic and social support in 2020 which helped to mitigate some of the effects.<sup>24</sup> The package, valued at 4 percent of GDP, focused largely on support for the formal private sector (wage subsidies, support for small and medium-sized enterprises and tax relief among other measures), and comprehensive social assistance measures that included targeted social assistance and unemployment benefits, energy and education subsidies, and support for public health. Households have benefitted from these transfers, reflected in an increase in the volume of transfers by 14 percent, and an increase in their share of household income by 3 percentage points. Despite these efforts, the poverty rate increased by 1.4 percentage points between 2019 and 2020, and a rapid survey conducted by the United Nations indicated that income losses in the non-state workforce could amount to as much as 1.3 percent of GDP. As elsewhere, school closures and deferred health treatments will have resulted in significant learning and health losses.

**Looking ahead, it can be expected that shocks emanating from climate change will increase.** Overgrazing, uncontrolled logging and poor wildfire management have led to forest cover falling from 35 percent to 12 percent over the 20th century. Soil erosion and desertification already affect 42 percent of the country, driven by overextraction and a 50 percent glacial loss over the past decade. Azerbaijan is already the 18th most water stressed country worldwide and faces increased dependence on inflows from other countries. And average temperatures have already reached 2.4 degrees vis-à-

<sup>19</sup> World Bank 2019c.  
<sup>20</sup> World Bank 2015.  
<sup>21</sup> World Bank 2019c.  
<sup>22</sup> Data from UN 2019.  
<sup>23</sup> UNDP 2021.  
<sup>24</sup> UNDP 2021.

vis pre-industrial levels – more than twice the global average – and are projected to continue to rise faster than global averages.<sup>25</sup> Poor and vulnerable households in both rural and urban areas are often more exposed to climate shocks as they may be living in disaster-prone areas and often in low quality housing, and have limited access to health services. Combined health and social protection programs have the potential to protect households against the adverse effects of climate change. Allowing households to continue investing in their assets, livelihoods and rapidly remedying the effect of climate shocks is key to the protection of their incomes and investments in human capital.

**Human capital is at the core of any successful strategy to boost productivity and meet challenges associated with aging populations, economic diversification, a Green Transition, and recurrent shocks and crises.** Human capital – the knowledge, skills and health that people accumulate over their lives – plays an essential role in promoting individuals' welfare over their lifespans, driving economic development at country level, and fostering a cohesive society.<sup>26</sup> Human capital has so far played only a minor role in driving growth in Azerbaijan, however. It is estimated that the contribution of human capital to growth was almost zero in the past decade,<sup>27</sup> and that in 2018 human capital accounted for only 14 percent of Azerbaijan's total wealth, compared to 70 percent in OECD countries and 37 percent in ECA middle-income countries.<sup>28</sup> Stronger and better human capital will also be essential to boost people's resilience to crises and shocks – including climate-related ones – and to support economic diversification, part of which may be spurred by global decarbonization policies and a need to diversify out of a strong reliance on hydrocarbons.

**Despite several social reform packages in the recent years, Azerbaijan is still losing out on potential productivity gains.** Comparatively less healthy and educated children (see Section 2) means that the future workforce is already set on a lower productivity path. Limited relevance of skills relative to the needs of the

labor market, high incidence of NCDs and low activity of senior citizens reduces the contribution of the current workforce to productivity and growth. At the same time, fiscal pressures have increased in the wake of COVID-19, the oil shock, and global economic and political turbulence. To level up the contribution of human capital under these constraints, it will be important to prioritize spending in human development sectors and increase the efficiency and effectiveness of human development expenditure.

**The objective of this Human Capital Review (HCR) is to support the Government of Azerbaijan's implementation of its Vision 2030 and the Strategy 2022-2026 by assessing human capital outcomes and related delivery challenges.** This HCR builds upon the strategic vision of previous analyses that assessed key human capital challenges<sup>29</sup> 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. Strengthening human capital is a central objective in Azerbaijan's Vision 2030 and the Strategy 2022-2026 towards a strong, sustainable, and inclusive growth model. The Vision 2030 and the Strategy 2022-2026 focus on building a more competitive human capital base, starting early in life, and fostering innovation. They highlight the following priorities: modernizing the education system; expanding early and pre-school education; delivering high-quality education; developing digital skills from school age; building an ecosystem that stimulates creativity and innovation; assuring the longevity and healthy lifestyle of citizens; providing effective and decent employment for all groups of the population and, in particular, improving women's access to economic opportunities; and ensuring greater and fairer social security within an inclusive society. Azerbaijan thus has the strategic vision, resources, and targets to step up investment in human capital. This Human Capital Review is also aligned with the Employment Strategy 2019-2030 and its Action Plan, as well as the reform initiatives in the education and health sectors.

<sup>25</sup> World Bank 2023

<sup>26</sup> World Bank 2018a.

<sup>27</sup> World Bank 2022b (forthcoming).

<sup>28</sup> Lange et al. 2018.

<sup>29</sup> World Bank 2020a.

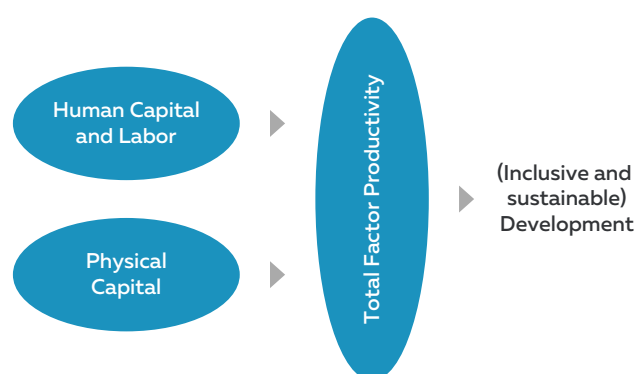
This report summarizes findings from analyses of the education and health sectors, pensions, active and passive labor market programs, and social assistance programs, but with a cross-sectoral and systemic view. It is important to note however that the situation is rapidly evolving. First, education, health and social protection sectors are currently undergoing significant reform, with changes to regulatory frameworks, institutional set-up, governance mechanisms and policy design. The results are not yet visible but a snapshot of the situation at one point in time risks becoming obsolete. Moreover, a lack of detailed data, both on outcomes (aggregate and disaggregated by different characteristics) and at systemic level has also affected this report's ability to assess efficiency and effectiveness.

**The report is organized as follows.** The remainder of the introduction presents the rationale for human capital investments and the role of human development systems. The second section looks at outcomes in human development, focusing on education, labor, and health outcomes over the life cycle. The third section describes the human development systems in Azerbaijan, and then section four provides an overview of their coverage and adequacy. The fifth section highlights current challenges with respect to increasing efficiency and effectiveness. The sixth section summarizes lessons learned from COVID-19. The final section concludes with transversal findings and policy suggestions.

## The importance of human capital for sustainable and inclusive development<sup>30</sup>

**Human capital investments – in individuals' education, training, and health – play an essential role in promoting development and growth.**<sup>31</sup> 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 – the ability to use and combine capital and labor effectively through, among other things, good and effective governance and the provision of

**Figure 2: Human capital is essential for growth**



quality public services (Figure 2). Human capital is, therefore, a key factor supporting long-term growth and prosperity.

**The extent to which human capital is equitably distributed across the population also affects the sustainability and inclusiveness of development.** Future welfare levels will hinge on ensuring that all can realize their productivity potential. It is therefore in society's interest to ensure that children from socio-economically vulnerable backgrounds have access to education and health care that will build their human capital from early on and can compensate for other disadvantages, such as lack of financial or social capital. The International Labour Organization (ILO) estimates, similarly, that the economic losses associated with excluding persons with disabilities from the labor force are large, ranging from between 3 percent and 7 percent of GDP.<sup>32</sup> Equity, inclusion, and the distribution of human capital across the population are a matter not only of ethics but also of smart economics.

**Micro-economic studies find a significant and robust association between people's human capital, and their incomes and success in the labor market.** At the macro-economic level there seems to be a strong association between the quality of learning and countries' economic performance,<sup>33</sup> although because of measurement and methodological challenges the causality of this association is difficult to assert.<sup>34</sup> Nevertheless, micro-economic studies seem to confirm such a causal relationship, as they consistently find a solid relationship between various elements of human capital and people's incomes and success in the labor market, as we discuss below.

<sup>30</sup> This section draws substantially on Flabbi and Gatti 2018.

<sup>31</sup> Becker 1992.

<sup>32</sup> Buckup 2009.

<sup>33</sup> Hanushek and Woessmann 2020.

<sup>34</sup> Flabbi and Gatti 2018; Jones 2014.

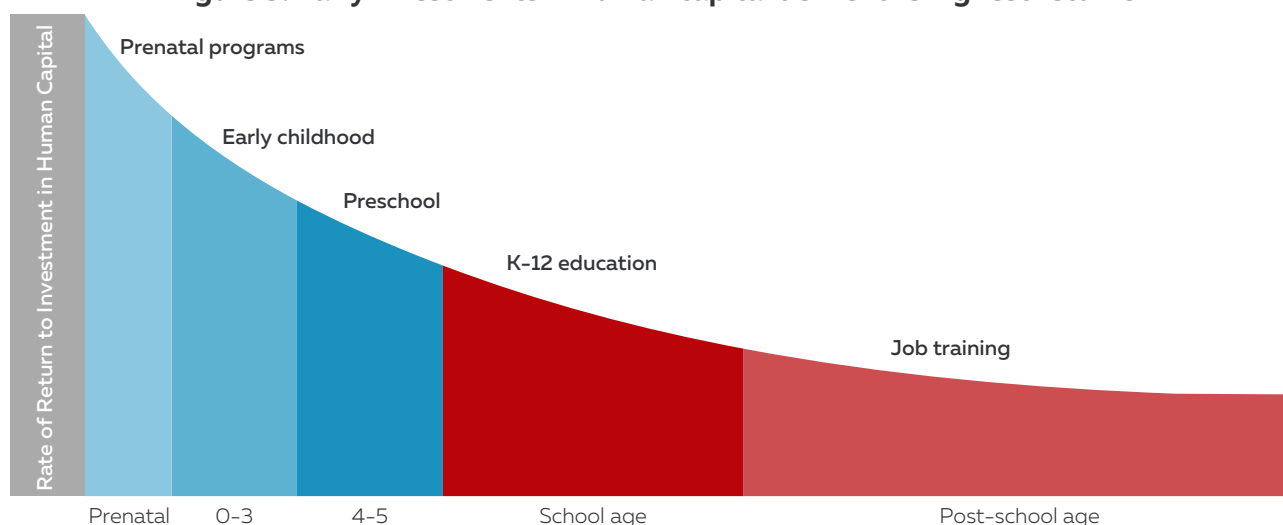


**Investing early in human capital delivers the highest returns.** Most brain development happens in the womb and in the first 1,000 days; moreover, a given investment in human capital today not only affects future payoffs but also positively influences subsequent accumulation of human capital: therefore, investing early in human capital delivers the highest returns (Figure 3). This is why ensuring good early childhood development (ECD) is becoming a policy priority. On the health side, the cost of low birth weight and underweight of members of the current workforce has been estimated to lead to a productivity loss of between 2 percent and 11 percent.<sup>35</sup> Galasso & 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, Gertler et al. (2014) found that an early stimulation program led to 25 percent higher incomes 20 years later. Combining health and education interventions delivers even higher returns. The Carolina Abecedarian Project and the Carolina Approach to Responsive Education programs, 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 recent analysis found a long-run rate of return of 13 percent *per year*.<sup>36</sup>

**Design and quality of ECD and social protection systems remain, however, crucial for delivering 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, as well as adequate social protection to help them surmount the many constraints that, both directly and indirectly, also affect their development. Moreover, quality of implementation is key. For instance, poorly implemented ECE programs (such as programs that employ poorly trained staff or use out-of-date teaching methods) deliver little impacts, or even negative impacts – that is, children may be better off staying at home.<sup>37</sup>

**Education is a powerful booster of poverty eradication, good health and success in the labor market later in life.** Across the developed and developing world the labor market return to education is, on average, 9 percent per year of schooling.<sup>38</sup> Moreover, women experience higher average returns to schooling, showing that girls’ education remains a priority. Education also delivers positive impacts beyond income, including impacts on crime, health, and good citizenship.<sup>39</sup> But the importance of ensuring access to solid education goes beyond individual gains: poor learning outcomes among the disadvantaged – those in the lower part of income distribution – affect countries’

**Figure 3: Early investments in human capital deliver the highest returns**



Source: <https://heckmanequation.org>

<sup>35</sup> Martínez and Fernández 2008

<sup>36</sup> García et al. 2020.

<sup>37</sup> Berlinski and Schady 2016; Elango et al. 2016.

<sup>38</sup> Psacharopoulos and Patrinos 2018.

<sup>39</sup> Brunello et al. 2013; Lance 2011.

productivity and even their ability to innovate.<sup>40</sup>

**Again, the quality of the education provided matters significantly, especially for children from disadvantaged backgrounds.** Schooling is not equivalent to learning: it is important not only 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.<sup>41</sup> In the European Union (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 low- and middle-income countries.<sup>42</sup> 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 had started working right away.<sup>43</sup>

**Good health also impacts incomes and well-being.** The labor market trajectories of workers with disabilities tend to be less successful than the trajectories of their peers without disabilities.<sup>44</sup> Overweight and obesity not only increase the risks of NCDs, but are also associated with lower wages.<sup>45</sup> And again, malnutrition during childhood has long-term impacts: Hoddinott et al. (2013) find that prevention of one fifth of stunting would increase income by 11 percent.

**Good health outcomes during childhood, youth and adulthood are also essential for healthy aging, which allows people to live better and work longer.** The population is aging across the region. Promoting healthy aging 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.

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## The role of education, health, and social protection systems in fostering human capital

**Effective education systems support 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 the interaction between teachers and learners. Quality aspects are critical: research demonstrates that children attending low-quality ECEC have more difficulties with language, socialization, and other developmental aspects. Unsurprisingly, quality is particularly important for children from poorer socio-economic backgrounds.<sup>46</sup> Teachers are the most important – and most costly – component of the learning system, in Azerbaijan as elsewhere, and providing them with the skills, motivation and resources for professional development is therefore a powerful tool for upgrading education systems.<sup>47</sup>

**Effective health systems meet the health needs of the population and protect 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 preventable injuries. Effective health systems also guarantee equitable access to people-centered care and foster participatory approaches.<sup>48</sup>

**Strong social protection systems protect individuals against poverty and vulnerability across the life cycle and foster higher welfare levels in the longer term.** Comprehensive and effective social protection systems protect people from falling into poverty and destitution, help people cope with adverse shocks, and smooth consumption over the lifetime. These policies help individuals improve their productivity, ensure that all families can invest in children's human capital, and protect the welfare of the elderly. They include a diverse set of tools including transfers and social services, employment and labor market programs, and pensions.

<sup>40</sup> Bell et al. 2019.

<sup>41</sup> OECD 2016.

<sup>42</sup> OECD 2019.

<sup>43</sup> González-Velosa et al. 2015.

<sup>44</sup> Campolieti and Krashinsky 2006.

<sup>45</sup> Brunello et al. 2009; Gilleskie and Hoffman 2014.

<sup>46</sup> OECD 2006.

<sup>47</sup> World Bank 2018b.

<sup>48</sup> WHO 2010.

**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 comprehensive, reliable and interoperable information systems – about beneficiaries, costs, use of services, outcomes of programs, and more – as well as on monitoring and evaluation practices that help to track progress and guide interventions, improve targeting and resource management, and detect and respond to long-term trends or short-term shocks.

**Human development is a cross-sectoral endeavor requiring overarching connections and coordination between sectors and systems.** Interaction, organization, and collaboration between all stakeholders, from users and their families to public and private actors, is necessary for both efficiency and effectiveness. Cross-sectoral collaboration within human development systems is critical in many key intervention areas, including ECD (health, education and social protection), case management (social protection, employment policies and health), and medical insurance (social protection and health). Narrow and isolated sectoral approaches reduce the scope for efficiency and effectiveness in service delivery.

## 2. Azerbaijan’s human capital outcomes

**This section reviews Azerbaijan’s human capital outcomes.** It begins by assessing how the country is assessed by the Human Capital Index, which quantifies the contribution of health and education to the productivity of the next generation of workers, followed by an overview of outcomes at different stages in life. It ends with a discussion of the impact of the COVID-19 pandemic on human capital.

**According to the Human Capital Index, children born today in Azerbaijan can expect to achieve 58 percent of their productivity potential, relative to a situation with full health and quality education.** Azerbaijan has made significant improvements in human capital formation. Azerbaijan’s Human Capital Index increased from 0.50 in 2010 to 0.58 in 2020, which puts Azerbaijan among the top global improvers in progress made on health

and education. However, Azerbaijan’s HCI remains around 5 percentage points lower than the average HCI in developing ECA countries, and 16 percentage points below the HCI levels registered in EU countries (Figure 4a). When considered against skills requirements for modern labor markets and lifestyle factors affecting adult health and mortality, Azerbaijan’s productivity potential drops further, to below half of what could be achieved with strong human development systems. Using an adjusted regional ECA-HCI, which includes measures for access to and quality of higher education and adult health indicators,<sup>49</sup> the index falls to 38 percent – among the lowest in the ECA region (Figure 4b). Because of better health outcomes and slightly better learning outcomes for girls and women relative to boys and men, the female HCI is higher than the male HCI (0.59 and 0.57 respectively).<sup>50</sup>

**Figure 4: Still some way to go to close human capital gaps**



Source: World Bank Human Capital Index and Demircuc-Kunt and Torre, 2020 (ECA-HCI).

<sup>49</sup> As a global index, the HCI does not necessarily capture key dimensions of human capital that are relevant for middle-income countries, where access to tertiary education is important for skills relevance and where NCDs are taking an increasing toll on life-long productivity contributions. The ECA-HCI incorporates the proportion of population aged 30–34 with tertiary degrees and a quality score for higher education, as well as incidence of obesity, heavy episodic drinkers, and current smokers. See Demircuc-Kunt and Torre, 2020.

<sup>50</sup> Estimates based on World Bank HCI Index database.

## Childhood and youth

**Azerbaijan has made substantial improvements in supporting infant and child health, but still lags regional peers and more advanced economies.** A girl born today can expect to live to 75 years and a boy to 71 years: increases by 5 and 7 years respectively since 2000.<sup>51</sup> In the past 20 years, infant mortality and under-five mortality rates have been cut by three quarters. These advances, while impressive, have not yet been sufficient to close the gap to more advanced economies or ECA peers, however, with national rates of infant and child mortality at 9.8 and 11.1 per 1,000 children respectively.<sup>52</sup>

**The high incidence of nutritional deficiencies in childhood carries serious risks of lagging cognitive development and lower mental and physical health in youth and adulthood.** The country's children have the highest risk of stunting<sup>53</sup> among ECA countries, with almost one child in five (18 percent) having low height for age. Children in Azerbaijan are at substantially higher risk of stunting than the average child in other lower- and middle-income ECA countries (9 percent).<sup>54</sup> Moreover, the gap between the poor and the rich is substantial – while 84 percent of children in the top quintile are not stunted, the percentage is only 67 among the lowest quintile.<sup>55</sup> Undernourished children are considerably more vulnerable to becoming seriously ill or even dying from common childhood ailments, and poor nutrition inhibits cognitive development in children. The high level of anemia among pregnant women, which has been shown to affect child nutrition and growth status, may be a contributing factor to such high levels of stunting.<sup>56</sup> In Azerbaijan, 35 percent of pregnant women have iron deficiency, higher than the lower- and middle-income ECA average (28 percent).<sup>57</sup> But conversely, Azerbaijan also has a higher share of children who are overweight – and thus at a higher risk of developing NCDs later in life – than other lower- and middle-income ECA countries (14 percent compared to 11 percent).<sup>58</sup>

**Access to early childhood education and care has increased, but most children are still not**

**enrolled in pre-school.** Reforms for ECE have included organizing preschool groups in general educational institutions, including developing the workforce (training teachers), and increasing the proportion of ECEC students receiving state funding from 24 percent in 2013 to 80 percent in 2019. Before the recent reforms, enrollment rates in pre-school education were among the lowest in ECA, at around 20 percent. In 2018, because of the implementation of the School Readiness Program, enrollment reached 35 percent, with a significant increase among 5-year-olds (from 24 percent in 2013 to 75 percent in 2018).<sup>59</sup> Several recent ECE initiatives are intended to increase the involvement of 3–4-year-olds in preschool education, and to expand school-parent, and school-community relations. ECE enrollment remains among the lowest in the ECA, however, and access to education for children with functional or physical disabilities is also low. The new Strategy 2022–2026 is intended to increase pre-school coverage to 50 percent for preschoolers aged 1 to 5 based on alternative training and funding models (community-based pre-school education, parent-public-private cooperation, and so on).

**Children aged 6–18 enjoy comparatively high levels of access to basic education but the drop-out rate increases in upper secondary education.** Education is compulsory for all children between the ages of 6 and 15. The net enrollment rates in primary and lower secondary education are high and close to those of comparators, at 92 percent for both (Figure 5). After completing basic education, enrollment drops significantly, to 69 percent for upper secondary, which is below ECA averages. In recent years, moreover, girls' enrollment in secondary education has been falling. The causes of the decline in the gender parity index (from 1.00 to 0.98 between 2018 and 2020) are not well understood.

**Participation in vocational education and training is very low, especially for girls.** In 2018, only 15 percent of students in upper secondary education were enrolled in VET programs, significantly lower than in, for example, Moldova and Belarus (about 40 percent) or Ukraine (30 percent). Three in four VET students were

<sup>51</sup> Estimates based on World Bank HCI Index database.

<sup>52</sup> The State Statistical Committee of the Republic of Azerbaijan: Population <https://stat.gov.az/source/demography/?lang=en>

<sup>53</sup> Percentage of children under age 5 whose height for age is more than two standard deviations below the median for the international reference population ages 0–59 months.

<sup>54</sup> Estimates based on WDI.

<sup>55</sup> World Bank 2020a.

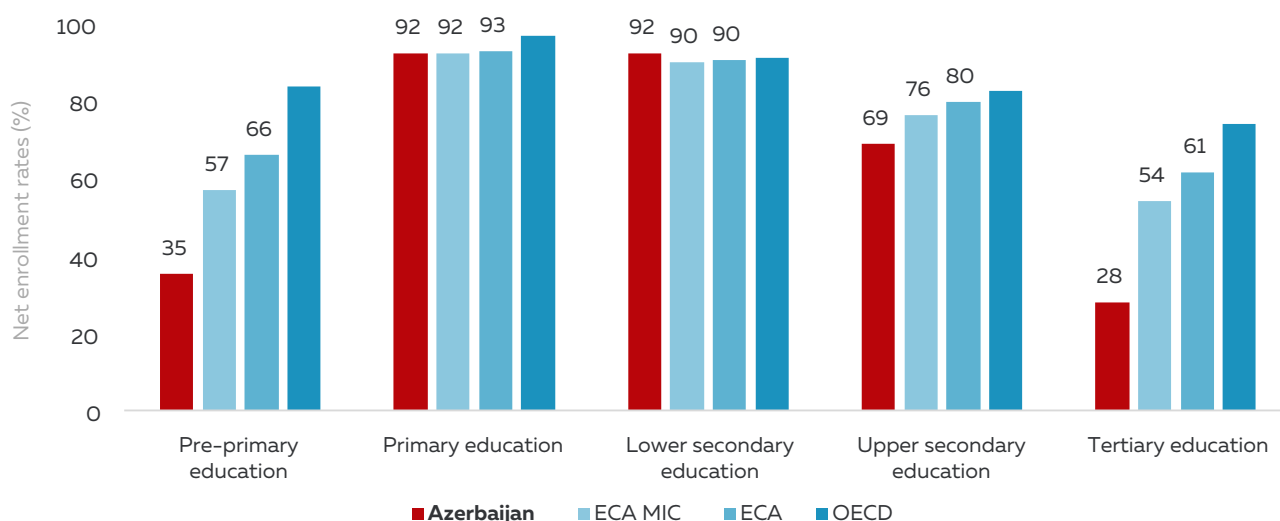
<sup>56</sup> Estimates based on WHO statistics.

<sup>57</sup> Estimates based on WDI.

<sup>58</sup> Estimates based on WDI.

<sup>59</sup> [www.unicef.org/azerbaijan/press-releases/azerbaijan-reports-increased-enrollment-pre-primary-education-while-global-figures](http://www.unicef.org/azerbaijan/press-releases/azerbaijan-reports-increased-enrollment-pre-primary-education-while-global-figures)

**Figure 5: Outside of basic education, enrollment levels remain low**



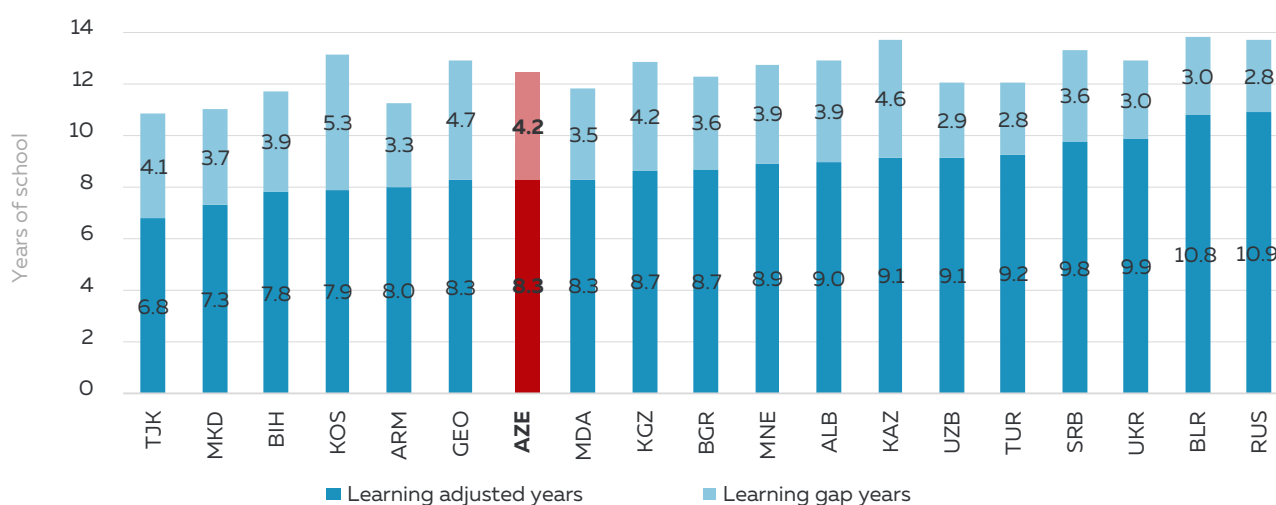
Source: World Bank, based on UNESCO UIS (2020).

male.<sup>60</sup> According to the Ministry of Science and Education in Azerbaijan, the enrollment rates for VET have increased by 17 percentage points in 2021 compared to 2019 levels, as there have been multiple efforts to address challenges in VET education. Additionally, a plan to move to per capita funding in VET and efforts to diversify VET delivery are being developed. Improving VET is an integral part of the Strategy 2022-2026, with a focus of expanding the coverage, quality and relevance of VET, through employer collaboration, improved funding and management, and workforce development.

**Azerbaijan has also made strong progress in increasing years in school as well as the quality**

**of the learning environment, but there are still significant quality gaps.** Between 2010 and 2020, the average expected years of schooling increased by 1.8 years, again by far the biggest improvement in the ECA region over this period. A child born today can expect to attend 12.4 years of school, close to the ECA average of 12.6. However, more than 4 years' worth of these schooling outcomes are lost due to poor quality of education. When the years of schooling are adjusted for learning outcomes, a child can expect to attend only 8.3 years of effective school instruction (Figure 6). The learning gap – the difference between years of actual schooling and effective schooling – has increased slightly since 2010, from 3.8 to 4.2 years.<sup>61</sup>

**Figure 6: The quality of learning needs to increase to close learning gaps**



Source: estimates based on World Bank HCI data. The learning gap is calculated as the difference between actual and learning-adjusted years of school.

<sup>60</sup> ETF 2020.

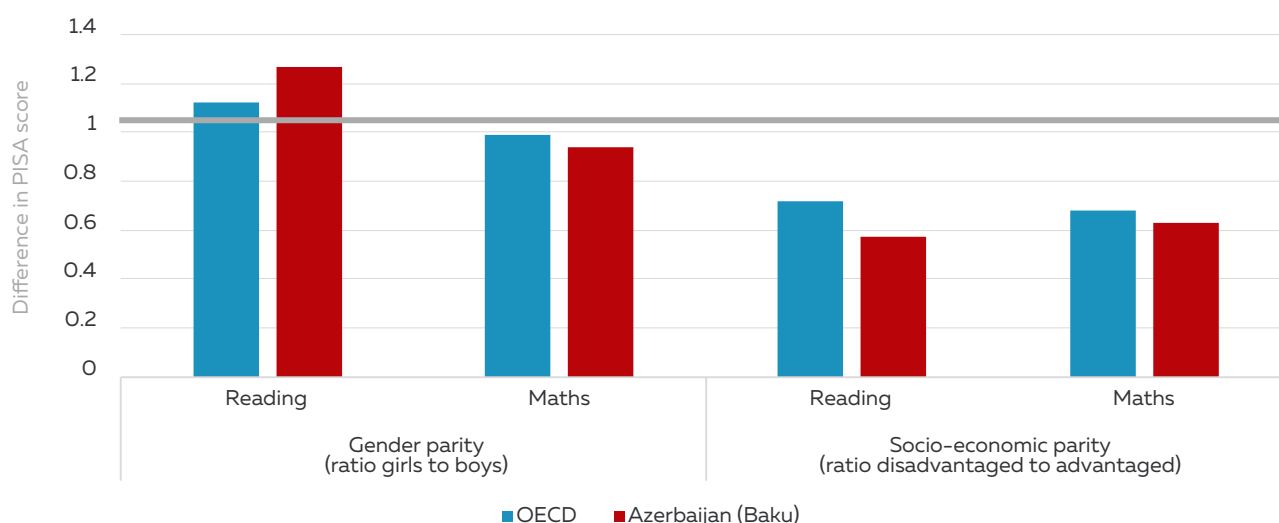
<sup>61</sup> Estimates based on World Bank HCI database.

**Learning outcomes at primary and secondary levels are weak compared to international benchmarks.** Although access to education has increased and is close to universal, the quality of education has not kept pace and improved learning outcomes. As a result, students struggle to acquire basic literacy and numeracy skills. As educational progress is cumulative – new knowledge acquisition is based on the previous knowledge base – many children’s educational outcomes are predestined to be weak. According to the World Bank’s learning poverty index,<sup>62</sup> nearly one in four children aged 10 (23 percent) were unable to read and understand a simple text in 2016, a significantly higher rate than the average ECA country (11 percent).<sup>63</sup> Learning poverty is significantly worse in Azerbaijan than the ECA average (ten percentage points higher). The 2018 PISA<sup>64</sup> results from Baku, the only region where it was conducted, revealed that Azerbaijani students at secondary level are insufficiently prepared for further studies or the world of work. More than half of 15-year-olds (60 percent) did not meet the basic level of performance in reading, meaning that they were functionally illiterate, a critical bottleneck to further learning in all subjects. Performance was also weak in other subjects, with most students also below basic levels in science (58 percent), and mathematics (51 percent). These low levels put Azerbaijan far behind the ECA average of about one third of students performing below basic level.

Moreover, learning outcomes depend significantly on socio-economic background and, to some extent, on gender. The difference in PISA performances between students in the highest and lowest socio-economic quintiles is high (Figure 7), and equivalent to a gap of more than one year in schooling. These differences can perpetuate existing inequalities in education and labor market outcomes over generations. Given the likely socio-economic differences between students in Baku and the rest of the country, Azerbaijan’s overall performance on learning equity would likely have been worse, had the entire country been included. Moreover, boys’ learning outcomes lag those of girls: girls have lower learning poverty levels than boys (21 percent and 25 percent respectively), and significantly outperform boys in reading to PISA-level.<sup>65</sup> Both girls and boys have improved their learning outcomes since 2010. Nonetheless, there are significant gender gap remains.

**Despite extensive reforms in the higher education sector, relatively few students continue onwards.** Reforms have focused on transitioning to a new financing mechanism for higher education, based on a per capita financing principle, establishing scholarship programs and loans, especially for vulnerable groups, modernizing the curricula in higher education programs, and increasing the relevance of skills development more generally. Tertiary enrollment rates have increased substantially, from 19 percent in 2008 to 28 percent in 2018. Yet,

**Figure 7: Important inequity in learning outcomes**



Source: Estimates based on OECD 2019.

<sup>62</sup> Learning Poverty means being unable to read and understand a short, age-appropriate text by age 10.  
<sup>63</sup> World Bank 2020 a.  
<sup>64</sup> OECD 2019.  
<sup>65</sup> OECD 2019.

access to tertiary education remains substantially below that of most peers and much below (about half of) ECA averages (Figure 5). Going forward, reforms will focus on increasing access (to a total annual enrollment of 75,000 students in 2026), equity and relevance of higher education, through, inter alia, competitive funding and stronger governance arrangements.

**The transition from childhood into youth is challenging.** For many children, childhood ends too quickly, as evidenced in Azerbaijan’s poor performance in the End of Childhood Index Ranking (93rd place out of 186 countries in the 2021 Index).<sup>66</sup> This index includes measures related to ill-health and malnutrition, exclusion from education, child labor, child marriage, early pregnancy, and exposure to conflict or extreme violence. Adolescent pregnancy is known to cause health risks for both children and mothers, and is a significant obstacle to girls and women in education and the labor market. Pregnancy and childbirth complications are the leading cause of death among girls and women aged 15–19 years globally, and adolescents’ babies face higher risks of low birthweight and severe neonatal conditions than other babies.<sup>67</sup> The average number of births per 1,000 girls and women aged 15–19 in Azerbaijan is more than twice the average for ECA countries.

**Azerbaijan faces a “double burden of malnutrition”.** Azerbaijan is following global trends in that incidence of obesity or overweight is high

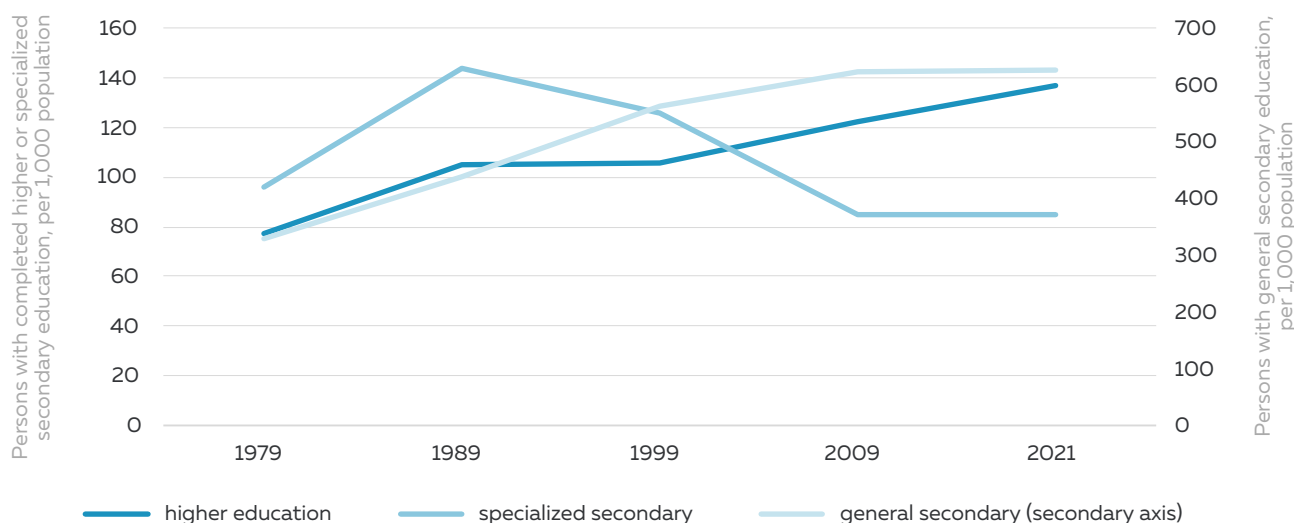
among adolescents: around 25 percent for girls and women aged 10–24, and 23 percent for the equivalent boys and men. Obesity in childhood and adolescence is a major determinant of adult obesity and of developing NCDs later in life and has also been linked to psychosocial difficulties. At the same time, other forms of malnutrition remain serious, with the share of youth aged 10–24 who are anemic at over 28 percent for females and 24 percent for males.<sup>68</sup>

**High fertility rates reflect social norms and risky behavior among youth.** Young people lack access to school-based compulsory comprehensive sexuality education in the country. Information gaps and limited access to contraceptives result in unwanted pregnancies and the use of abortion as a fertility regulation method amongst young girls. The abortion rate per 1,000 women aged 18–19 increased from 5.5 in 2010 to 10.8 in 2020.<sup>69</sup>

## Adulthood

**Educational attainment has increased in the adult population.** The proportion of the adult population who have completed at least secondary education has increased in recent decades, as has the share of the population completing secondary general education, while the proportion completing VET has fallen (Figure 8). The stock of human capital, as

**Figure 8: Educational attainment has increased in the adult population**



Source: World Bank estimates based on data from the State Statistical Committee.

<sup>66</sup> Ibid.

<sup>67</sup> Neal et al. 2016.

<sup>68</sup> Save the Children 2021.

<sup>69</sup> Data from State Statistical Committee of the Republic of Azerbaijan [www.stat.gov.az/source/healthcare/?lang=en](http://www.stat.gov.az/source/healthcare/?lang=en)



measured by the proportion acquiring higher education or secondary level diplomas, has thus increased. Digital literacy – an increasingly important skill for accessing labor markets and government services, and for exercising citizenship rights – is also quite high, with 80 percent of the population using the internet.

**Education and training systems are not, however, providing graduates with sufficient labor market-relevant skills.**

Unemployment rates are lower for those with higher education than for others (5.4 percent compared to 7.2 percent in 2020, although labor market trends during a COVID-19 year may be less representative of overall trends). However, firms find it difficult to identify suitably skilled workers, not because of a lack of applicants, but because of inadequate skills. Close to half of larger firms report access to skilled labor as being their most significant barrier, compared to 5 percent of smaller firms.<sup>70</sup> Foreign firms complain of a lack of skilled workers, lack of experience with practical and modern methods, and a low level of digital skills.<sup>71</sup> In an employer survey from 2015, similar skill gaps emerged and gaps were also more pervasive for innovative firms, which are critical for driving growth, productivity, and diversification. According to many firms, the education system does not provide workers with updated practical skills, or workplace skills.<sup>72</sup> This is consistent with estimates of the quality of tertiary education (based on university rankings), which place Azerbaijan low in the ECA region (fourth lowest of 27 countries).<sup>73</sup>

**Although employment is high overall, Azerbaijan’s youth face difficulties transitioning into work.**

Currently, the number of new labor market entrants is significantly higher than the number of jobs created, pointing to significant difficulties in the school-to-work transition. Although unemployment rates are relatively low in absolute numbers and compared to other countries, the youth (aged 15–24) unemployment rate is almost three times as high as the overall unemployment rate (12.7 percent and 4.9 percent respectively in 2018). Young women are more likely to be not in employment, education or training (NEET) than young men: in 2015, some 32 percent of 15–24-year-old girls and women were NEET, compared

to only 11 percent of males in the same age group.<sup>74</sup> These gaps reflect a combination of limited job opportunities, skill gaps, and social norms around work and family formation: the vast majority of economically inactive women are believed to be keeping house or in charge of family care.<sup>75</sup>

**Women work, but have more difficulties than men in accessing well-paying and more stable jobs.**

Compared to most ECA countries, Azerbaijan’s adult females are more likely to participate in the labor market (64 percent), and the gender gaps in labor force participation and unemployment rates are quite small by ECA standards (six and two percentage points respectively).<sup>76</sup> However, women are more likely than men to be in vulnerable employment<sup>77</sup> (62 percent and 46 percent respectively) and less likely to be wage employed (27 and 37 percent respectively). Although earnings gaps have been decreasing in the formal sector, there is still a sizable difference between men and women, and the gap is higher for higher wage sectors.<sup>78</sup> Narrowing this gap is part of the socio-economic development strategy for 2022–2026.

**Maternal health indicators have improved but remain among the more precarious in the ECA region.**

Maternal mortality rates have fallen significantly – from 37.6 per 100,000 live births in 2000 to 15.8 per 100,000 live births in 2020<sup>79</sup> – but they remain higher than the ECA regional average (13 per 100,000).<sup>80</sup> The risk of dying in maternal condition during a woman’s lifetime is 5.8 percent, compared to 3.9 percent for the ECA region.<sup>81</sup> Improvements in early identification at primary care level, timely referral and proper management could prevent an estimated 30 percent of maternal deaths. Some 35 percent of pregnant women suffer from anemia, which is linked to insufficient fetal development, premature birth, and low birth weight.

**Health conditions are worsened by a growing burden of NCDs, the leading cause of mortality and morbidity.**

In 2019, NCDs accounted for 89 percent of deaths, while communicable, maternal, perinatal, and nutritional conditions accounted for 7 percent, and injuries accounted

<sup>70</sup> World Bank Enterprise Survey 2019.

<sup>71</sup> ETF 2020.

<sup>72</sup> Rutkowski 2015.

<sup>73</sup> See estimates in Demirgüç-Kunt and Torre 2020.

<sup>74</sup> ETF 2020.

<sup>75</sup> Estimates based on data from State Statistical Committee.

<sup>76</sup> Data for 2020, estimates based on WDI.

<sup>77</sup> Vulnerable employment is defined as contributing family workers and own-account workers.

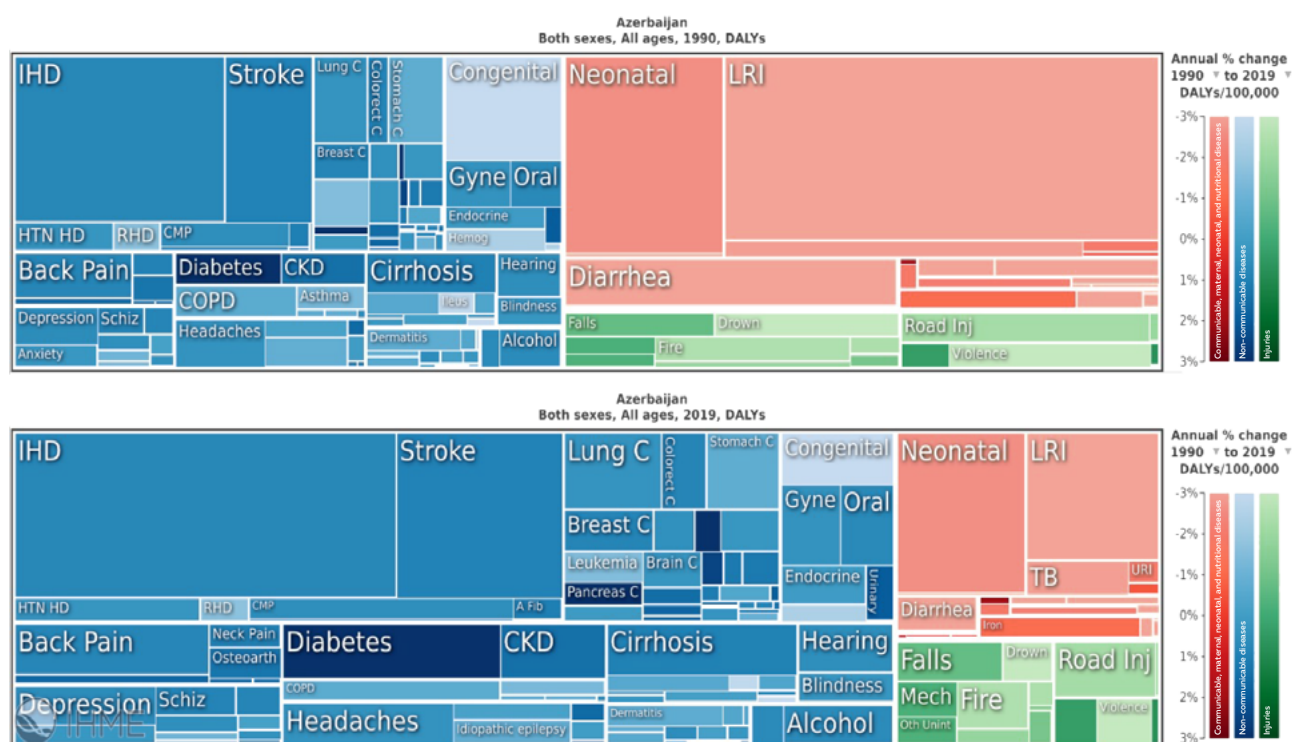
<sup>78</sup> Estimates based on data from State Statistical Committee. Data represent simple sector averages.

<sup>79</sup> Estimates based on data from State Statistical Committee, [www.stat.gov.az/source/demography/?lang=en](http://www.stat.gov.az/source/demography/?lang=en)

<sup>80</sup> Estimates based on WDI.

<sup>81</sup> Estimates based on WDI.

**Figure 9: The burden of disease has moved towards NCDs**



Source: Institute for Health Metrics and Evaluation, 2020. IHD = ischemic heart disease.

for 4 percent. The NCD share of disability-adjusted life years (DALYs) increased from 48 percent in 1990 to 77 percent in 2019.<sup>82</sup> In other words, NCDs now account for most years lost due to ill health, disability or early death. Conditions such as ischemic heart disease, stroke, diabetes, and cancer, have increased their share significantly. However, as seen in the COVID-19 outbreak, communicable diseases still present challenges (Figure 9).

**Unhealthy – but actionable – lifestyle choices such as smoking, unhealthy diets, and physical inactivity are significant factors behind high NCD rates.** Both first- and second-hand smoking cause cancer, heart disease, stroke, lung diseases, diabetes, and chronic obstructive pulmonary disease (COPD). Obesity affects almost all aspects of health and increases risks of diabetes, heart disease, and cancer. According to a 2017 Ministry of Health survey,<sup>83</sup> a third of the population aged over 15 smokes (compared to the 26 percent ECA average).<sup>84</sup> Men are much more likely than women to report smoking (49 percent smoke), and the share is as high among younger as among older men,

suggesting that this is not a waning trend related to older cohorts.<sup>85</sup> Women and children are mostly exposed to second-hand smoke. On the other hand, women are more likely than men to be overweight or obese. In total, almost 35 percent of the population was overweight, and 21 percent obese (compared to 18 percent obesity in ECA). Fewer than 10 percent of women engage in vigorous physical activity compared to 28 percent of men: this contributes to high rates of overweight, obesity and other risk factors.

## Older age

**The elderly population face various challenges to living productive and fulfilling lives.**

The proportion of persons aged 60 and older in the population is currently 11.6 percent but will increase to 25 percent by 2050. These shifts will put significant pressure on the pensions, health, and care service systems. Healthy additional life years at age 60, HALY,<sup>86</sup> have increased only marginally – by a few months –

<sup>82</sup> WHO definition: The overall burden of disease is assessed using the disability-adjusted life year (DALY), a time-based measure that combines years of life lost due to premature mortality (YLLs) and years of life lost due to time lived in states of less than full health, or years of healthy life lost due to disability (YLDs). One DALY represents the loss of the equivalent of one year of full health.

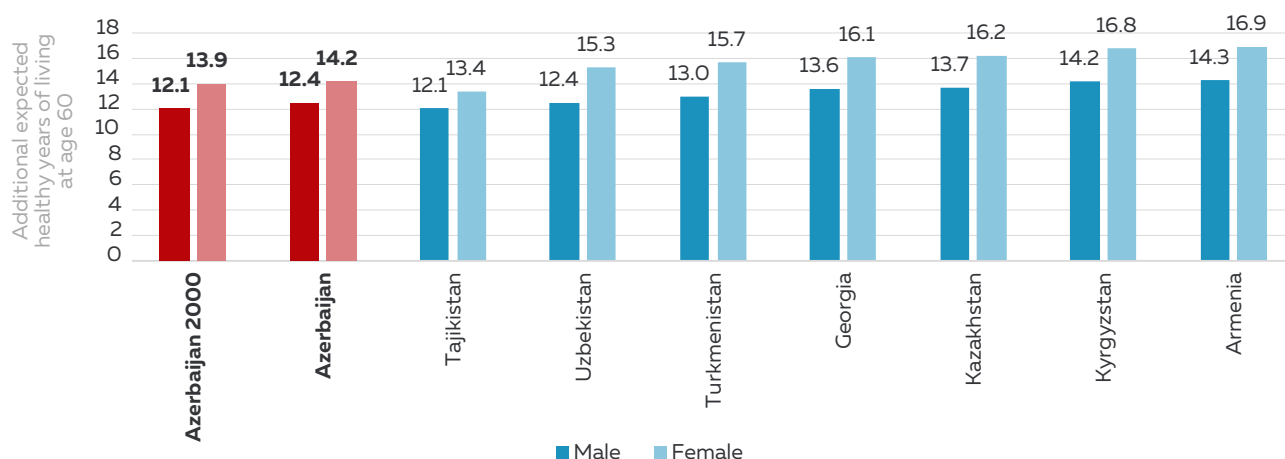
<sup>83</sup> Ministry of Health, [https://isim.az/upload/File/docs/STEPS\\_Azerbaijan\\_2017\\_eng.pdf](https://isim.az/upload/File/docs/STEPS_Azerbaijan_2017_eng.pdf)

<sup>84</sup> Comparators from Demirgüç-Kunt and Torre 2020.

<sup>85</sup> With the caveat that women may be less likely to admit to smoking in a survey.

<sup>86</sup> Average number of years that a person aged 60 can expect to live in "full health", taking into account years lived in less than full health due to disease and/or injury.

**Figure 10: Expected healthy years of living have increased only marginally over time**



Source: World Bank estimates based on WHO statistics.

in the past two decades, however, and a person aged 60 can generally expect to live in poorer health than is the case in Caucasian and Central Asian peers (Figure 10). Although women can expect more healthy years than men, the gap to other countries is slightly larger for Azerbaijan females than for males.

**Active and healthy aging – a goal in itself, but also a means of retaining the productivity of the aging workforce – is still an aspiration in Azerbaijan.** The United Nations Active Aging Index (AAI) measures the contribution of older adults to society and the extent to which they are enabled and encouraged to participate in the economy and live independently.<sup>87</sup> Azerbaijan scores 33 in the AAI, suggesting an untapped potential of two thirds. Set against comparators from the EU, employment rates fall quickly for more mature workers. While in EU countries, on average, 62 percent of the population aged 55–59 are employed, only 33 percent of this age group are employed in Azerbaijan, and the numbers drop further for older ages. Moreover, older workers drop out of the labor force despite relatively high levels of education, which otherwise would be expected to favor longer working lives, at least in middle-income countries. For both women and men, part of these gaps may be due to care responsibilities (grandchildren, spouses, or elderly parents) which are significant. Few older adults are at risk of poverty in Azerbaijan, but most have significant unmet health and dental care needs (58 percent compared to 18 percent in the EU), and women were particularly poorly

served with 65 percent reporting unmet needs, reflecting the lack of long-term care system in Azerbaijan.

## COVID-19’s impact on human capital

**COVID-19 has had both direct and indirect consequences on health outcomes.** As of April 2022, Azerbaijan had seen nearly 800,000 detected cases of COVID-19, and nearly 10,000 deaths attributed to COVID-19. With around 77,000 cases and 942 deaths per million people, Azerbaijan experienced lower contagion and mortality than Georgia and Armenia, which saw over 400,000/140,000 cases and 4,000/3,000 deaths per million people, respectively.<sup>88</sup> However, lockdowns affected health service delivery. First, demand for health visits fell, as people feared contagion. Second, PHC institutions and hospitals reduced both staffing levels and the services provided. Due to COVID-19 disruptions, 21 percent of infants did not receive their second dose of measles and diphtheria, tetanus, and pertussis vaccine in 2020 – the corresponding figure in 2019 was 4 percent. Routine check-up visits for patients with chronic diseases and planned procedures were postponed or rescheduled.<sup>89</sup> Economic stress, especially for more vulnerable populations, has in some cases increased food insecurity with potentially serious long-term consequences for child and adult nutrition as well as mental health. Delivering elderly care

<sup>87</sup> The index is based on indicators in four domains: employment, participation in society (productive social activities), independent healthy and secure living, and capacity and enabling environment for aging.

<sup>88</sup> [www.worldometers.info/coronavirus/country/azerbaijan/](http://www.worldometers.info/coronavirus/country/azerbaijan/), accessed April 2022.

<sup>89</sup> UN 2020.

was an additional challenge as, for instance, the lack of a telemedicine system caused disruptions to the delivery of timely health care services to older people.

**School closures have affected all children's learning outcomes, but especially those from more vulnerable backgrounds.** In Azerbaijan, full and partial physical school closures caused by COVID-19 lasted for a total of 49 weeks, with mostly full school closures between March and May 2021. Since then, schools have periodically closed in response to surges in contagion. During this time, schools moved to classes delivered digitally and on television. This transition increased learning challenges sharply, however: some estimates suggest that 30 percent of children would not have been able to access distance education.<sup>90</sup> A survey of households showed that most families experienced problems related to distance learning, in the form of internet connectivity, lack of devices, and financial challenges. Surveyed teachers and school managers in general agreed that boys and girls in economically disadvantaged households, as well as children with disabilities, have likely faced more serious barriers to learning during closures.<sup>91</sup>

**COVID-19 also resulted in a deterioration in labor market conditions, particularly for women and youth.** The unemployment rate rose from 4.8 percent in 2019 to 6.5 percent and 6.6 percent in 2020 and 2021 respectively (modeled ILO estimate), and more sharply for women than for men. In addition, a rapid assessment of the impact of COVID-19 in Azerbaijan (in April-May 2020) found that 42.6 percent of women and 34.2 percent of men had seen a decrease in the number of paid hours of work, especially in urban areas, where economic activities were more affected by lockdowns. More women than men were sent on leave without pay, possibly due to the higher share of women working in sectors that were shut down due to pandemic measures, such as education and services.<sup>92</sup> Preliminary evidence from the aforementioned rapid assessment survey shows that young men were the group most affected from COVID-19 regarding job loss, with 37.5 percent of men aged 18-34 years losing their jobs as a result of the pan-

demic.<sup>93</sup> Those hit by worsening labor market conditions early in their working lives risk long term "scarring" from unemployment or low pay, due to deteriorating human capital, including reduced work experience. Informal workers – who make up the majority of workers in Azerbaijan – generally lack access to public safety nets and, as such, will have been badly hit by the economic downturn and lockdowns, especially in urban areas.

<sup>90</sup> UN 2020.

<sup>91</sup> Reach Initiative 2021.

<sup>92</sup> UNFPA/UN Women 2020.

<sup>93</sup> UNFPA/UN Women 2020.

### 3. Building human capital: overview of the education, health care, and social protection systems

**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 balanced, effective, coherent, and equitable human development systems.** This section provides an overview of the human development sectors in Azerbaijan, including structure, coverage, adequacy, and recent reforms.

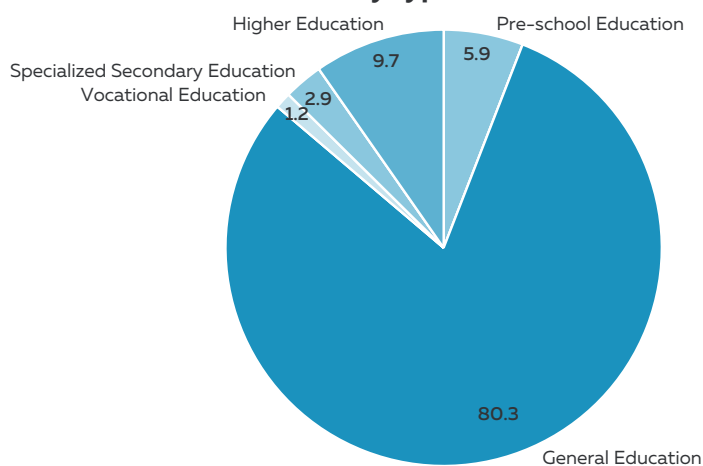
#### Education

**Azerbaijan’s formal education system is organized in several levels.** Education is compulsory for all children between the ages of 6 and 15. The system consists of pre-school education (ages 3–5); general education, covering primary education (grades 1 to 4), basic education (grades 5 to 9), and general secondary education (grades 10–11); VET, including initial special vocational education (one year of special vocational education combined with complete general secondary education), grades 1–2 of secondary special vocational education (2 years of study) and post-secondary non-ter-

tiary education in secondary special vocational education; and finally, tertiary education, which includes Bachelor’s degree programs (4 years of study), Master’s programs (2 years of study), and Doctor of Philosophy and Doctor of Science programs (3 years of study).<sup>94</sup>

**Close to two million students are enrolled in 6,305 educational institutions across the country.** Of the 1,990,035 students that attended both state and non-state educational institutions during the 2020–2021 school year, 5.9 percent attended pre-school education, 80.3 percent general secondary institutions (providing primary, basic and secondary education), 1.1 percent vocational institutions, 2.9 percent specialized secondary vocational educational institutions and 9.7 percent HEIs that provided tertiary education (Figure 11). An estimated 198,051 teachers<sup>95</sup> delivered education across all levels in 6,305 educational institutions, of which 26.8 percent were preschools, 69.7 percent were general secondary schools, 1.6 percent vocational institutions, 1 percent specialized vocational secondary institutions and 0.8 percent HEIs.<sup>96</sup>

**Figure 11: Distribution of students by type of educational institutions (2020–2021)**



Source: World Bank calculations based on the Statistical Office of Azerbaijan (2021).

<sup>94</sup> The mapping of Azerbaijan’s education structure to the International Standard Classification of Education (ISCED) shows that basic education (grades 5 to 9) is equivalent to lower secondary education in ISCED; general secondary education (grades 10–11) to general upper secondary education; initial special vocational education and grades 1–2 of secondary special vocational education are equivalent to vocational upper secondary education. For more information visit: <http://uis.unesco.org/en/isced-mappings>

<sup>95</sup> Data based on UNESCO UIS.

The education sector has seen significant reforms in the past two decades, covering early childhood education and preschool, general education, VET, and higher education. Reforms to increase the quality of basic education have included improvements to the school-based assessment system, teachers' professional development (TPD), and a modernization of curricula and infrastructure, including in VET. Azerbaijan has also strived to increase equity by focusing on increasing enrollment and access to quality education for children from vulnerable households.

**Based on a diagnostic evaluation of teachers' knowledge and skills, and drawing on international experience, the Ministry of Education has also engaged in teacher reforms.** These efforts have included increases in compensation, and the introduction of a system of module-credits and competitive training for general education teachers. A transparent and objective competition mechanism has also been introduced for recruiting teachers to help raise the attractiveness of the profession.

**The government has prioritized increasing knowledge and skills in the ICT sector and applying ICT in the education system by the end of 2025.** By appropriate use of ICT in its education systems at all levels and efforts to increase digital literacy, Azerbaijan may reduce learning poverty (especially between regions and income groups), increase access to e-learning, and equip the students and adults with the new skills required by the labor market. The new Strategy 2022-2026 aims to integrate new Science, Technology, Engineering, the Arts and Mathematics (STEAM) based programs in the national curriculum for guiding student inquiry, dialogue, and critical thinking.

**Azerbaijan has been successful in establishing a comprehensive Education Management Information System (EMIS) with quality data but has not been using it sufficiently effectively.** EMIS can be used for continuous analysis and evidence-based decision making on quality, access, infrastructure, leadership, collaboration, continuing professional development, pedagogy, and assessment.

## Health

**Azerbaijan's health care system is in transition away from a centrally planned model, and the health system is predominantly represented by public health facilities.** The financing and organization of the health system is still based on centralized planning of resources and personnel, primarily public ownership of health care facilities, and input-based allocation of funds. The Ministry of Health retains the policymaking role, is responsible for overall stewardship of the health system, and provides specific health care services through tertiary hospitals under its supervision. The State Agency on Mandatory Health Insurance (SAMHI) was established in 2016 to assume the overarching responsibility as purchaser of health care services and receives most of the financial resources. Most public health care facilities were transferred to the Administration of the Regional Medical Divisions (TABIB) which was tasked with managing these facilities and providing health-care services.<sup>97</sup> Reflecting low levels of public spending, public health care facilities generally offer lower standards of care than private facilities, with more outdated equipment and lower levels of staff qualifications. Hence, much of total health spending is private spending, and directed to private facilities.

**The healthcare system consists of PHC, secondary and tertiary care delivery network.** The network of PHC facilities includes adult and child polyclinics and antenatal clinics in cities and rural ambulatories, but they are not the first point of contact in the health sector, due to lack of capital stocks (such as specialists, equipment and tools, and laboratory capacities). PHC services remain underutilized in screening for and treatment of iron deficiency anemia, folic acid supplementation, and guidance on modifiable lifestyle risks such as malnutrition and obesity. Key diagnostic tests (such as urine analysis, blood tests and ultrasound) are not available in PHC facilities, and patients are routinely referred to inpatient health care facilities for essential diagnostic and treatment services including those related to sexual, reproductive, and maternal health. This leads to fragmented

<sup>96</sup> Statistical Office of Azerbaijan.

<sup>97</sup> TABIB became an independent from SAMHI in 2022 and it is controlled by a Steering Committee comprising members from the Ministry of Health, Ministry of Labor and Social Protection of Population, State Agency on Mandatory Health Insurance and Committee of Trade Union of Azerbaijani Health Workers.

services and undermines public trust in PHC centers. A recent World Bank study with the State Agency on Mandatory Health Insurance (SAMHI) stated that only 23 percent of outpatient visits occur at the primary care level in the country.<sup>98</sup> The training of primary care physicians in family medicine remains limited and inadequate to tackle the enormous burden of NCDs and requires substantial improvements. PHC physicians lack sufficient skills to treat and control existing chronic diseases, perform preventive check-ups, and provide health education (healthy lifestyle, smoking). Strengthening the PHC system will address bypass issue in the country and provide outpatient services at the PHC level. The new Strategy 2022-2026 is intended to enhance the capacity of family medicine and actively engage family practitioners in antenatal care.

**Most patients seek outpatient care at the central regional hospitals.** District and regional hospitals supply secondary care, and most rural hospitals are currently serving as long-term and nursing care providers. Before the pandemic, Azerbaijan had excess health infrastructure, particularly hospitals – with the lowest average bed occupancy rate in the CIS and the World Health Organization (WHO) European Region, and a high ratio of physicians to population compared to the OECD and upper-middle-income country averages.

**The pre-hospital Emergency Medical Services (EMS) system remains weak in the country.** The EMS system appears to be providing services far beyond the scope of internationally accepted EMS standards. For instance, most EMS system vehicles are outdated, and the quality of medical equipment in ambulances is low. There are also regional discrepancies. Most ambulances outside of Baku city, acquired in 2007, are obsolete and being maintained through an aggressive program of repair and refurbishment. To address the issue, recently, the government has purchased 100 Advanced Life Support equipped ambulances.<sup>99</sup> However, the newly purchased EMS vehicles are not enough to address the needs of the 10 million population, and the personnel of these EMS vehicles have so far not been trained to use them effectively and efficiently.

**In addition to physical capital stocks, the EMS system lacks highly trained physicians and crew.** Though physicians have a broad scope of practice in the EMS system, lack of equipment, drugs, and supplies prevent young physicians and nurses from being attracted to work in the EMS. Many current EMS system physicians and nurses are stuck in their career track and getting older, and it is getting increasingly difficult to attract physicians to work in the pre-hospital environment. In Baku city alone, there are 200 vacant positions for emergency physicians.

**The coverage of public preventive health services is low compared to peers, reflecting low spending, uneven service delivery across different health interventions, and weak delivery at PHC level.** Azerbaijan's Universal Health Care (UHC) Index score is 65, lower than both the average for the ECA region (75) and the average for middle-income countries (69).<sup>100</sup> On the one hand, with a national free-of-charge childhood immunization program, Azerbaijan has achieved high levels of immunization and vaccination: coverage rates of DTP1, DTP3, HepB3, Hib3, MCV1, MCV2, PCV3 and Polio3 are about 96-98 percent (however, vaccination rates fell during COVID-19, with 21 percent of children not receiving second doses of measles and DPT vaccines). Immunization and monitoring of child health are the responsibility of district PHC facilities, but some basic child health services are not delivered. In 2019, only 36 percent of children under age 5 with acute respiratory infection symptoms sought advice or treatment from a local PHC provider and 11 percent of children were treated for diarrhea with oral rehydration salts.<sup>101</sup> These levels are well below world averages of 68 percent and 44 percent respectively.<sup>102</sup> Rural areas are also less well served.

**Sexual, reproductive, and maternal health services are underdeveloped.** The abortion rate per 1,000 reached 4.9 percent in 2019, and access to contraceptives among adolescents is low, at 17.1 percent, leaving a significant unmet need.<sup>103</sup> There is no state program specifically targeting the sexual and reproductive health needs of adolescents. No adolescent-friendly services or specifically trained providers are available in the country. The unmet need for

<sup>98</sup> World Bank 2018c.

<sup>99</sup> Azerbaijan imports new ambulances: [www.azernews.az/nation/167557.html](http://www.azernews.az/nation/167557.html)

<sup>100</sup> Data from 2020. Estimates based on WDI. UHC corresponds to Sustainable Development Goal Target 3.8 and refers to a coverage index for essential health services (based on tracer interventions that include reproductive, maternal,

new-born and child health, infectious diseases, noncommunicable diseases and service capacity and access). It is presented on a scale of 0 to 100.

<sup>101</sup> UNICEF data: Azerbaijan <https://data.unicef.org/country/aze/>

<sup>102</sup> Ibid.

family planning is 22.7 percent for women in the general population, meaning demand is largely unsatisfied.<sup>104</sup>

**School bullying and family violence are drivers of mental health issues among adolescents in the country.** 36 percent of students, the majority boys, reported being bullied more than once a month, compared to 23 percent on average across OECD countries in 2019.<sup>105</sup> Most 13–17-year-old students experienced physical or psychological violence in school environments and at home environment perpetrated by parents, particularly fathers. In combination with stress related to COVID-19, adolescents' lack of knowledge about stress management and how to deal with social pressure exacerbates the issue in the country. If no action is taken, all these can lead to an inter-generation cycle of violence in the country.

**The health system is not equipped to provide health services to a growing population of elderly people.** Demand for long-term care (LTC) is expected to rise quickly, but there is currently lack of both chronic care and LTC services for elderly. Most services are provided through hospitals, which is a costly approach to servicing the standard health care needs of the elderly. Due to lack of established LTC services, the burden on care remains with the families, which in many instances leads to catastrophic household expenditure. Recently, some services for the elderly became available through the mandatory insurance scheme (such as cataract surgery and hip implants).

**The government has prioritized improving the ICT systems of government institutions and creating an end-to-end integrated e-health infrastructure by the end of 2025.** The rules and regulations, standards, and strategies related to the e-health system are expected to be developed and approved quickly. Once the foundations are built, the government plans to introduce health information systems such as electronic health data, electronic medical record systems, electronic registration, and e-prescription to provide high-quality health care services to citizens.

**In response to the high burden of out-of-**

**pocket payments (OOP), the Government of Azerbaijan has been implementing reforms since 2016 to advance universal access to health care, centered on the introduction of the Mandatory Health Insurance (MHI).** The MHI was successfully piloted in three districts in 2016, and since April 2021 it covers the whole population of the country, spanning all its cities and regions. The reforms involved: (i) shifting from input-based financing to case-based and per-capita financing; (ii) introducing a benefit package of medical services for the population; (iii) pooling all health finances into one purchasing agency; (iv) putting medical facilities under the management of TABIB; and (v) providing all individuals with a comprehensive benefits package fully financed by SAMHI through general government revenues. Recently, the government has started a series of reforms to optimize infrastructure and human resources and digitalize health facilities.

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## Social protection and labor

**Azerbaijan has developed a comprehensive social protection system, with both contributory and non-contributory programs and policies.** Contributory schemes include old age, disability, and survivor benefits, as well as benefits related to parenthood and sick leave. Non-contributory benefits include poverty-targeted social assistance, social allowances, family and child allowances, disability benefits, war veterans' benefits, presidential grants, and other smaller benefits programs. Azerbaijan also offers social services to children and adults with identified social needs, as well as passive and active labor market programs (Table 1). The country has also adopted electronic management through the Centralized Electronic Information System and the "e-sosial" internet portal, facilitating service delivery in the fields of employment and social protection.

**Social protection governance has undergone changes with the creation of new agencies for service delivery.** These include: the State Social Protection Fund, responsible for determining eligibility and arrange payments; the State Employment Agency (SEA), responsible

<sup>103</sup> State Statistical Committee of the Republic of Azerbaijan, see [www.stat.gov.az/source/healthcare/?lang=en](http://www.stat.gov.az/source/healthcare/?lang=en)

<sup>104</sup> UNFPA 2021.

<sup>105</sup> UNICEF 2019.



**Table 1: Overview of the social protection system in Azerbaijan**

Category		Benefits and programs
Social assistance	Cash transfers to support the poor, vulnerable, and persons with disabilities	<ul style="list-style-type: none"> <li>• Targeted Social Assistance</li> <li>• Disability benefits</li> <li>• War veterans' benefits</li> <li>• Social allowances</li> <li>• Family and child allowances</li> <li>• Presidential grants</li> <li>• Other smaller benefits programs</li> </ul>
Social services		<ul style="list-style-type: none"> <li>• Home-based services</li> <li>• Day care</li> <li>• Institutional care</li> <li>• Social counseling services</li> </ul>
Social insurance	Pensions	<ul style="list-style-type: none"> <li>• Old age pension</li> <li>• Disability pension</li> <li>• Survivor's pension</li> </ul>
Employment and ALMPS		<ul style="list-style-type: none"> <li>• Unemployment benefit</li> <li>• Self-employment program (SEP)</li> <li>• Vocational training</li> <li>• Professional orientation</li> <li>• Public works</li> <li>• Labor fairs and labor exchanges</li> </ul>

Source: Authors' elaboration.

for delivering public employment services and programs; and the State Medical-Social Expertise and Rehabilitation Agency, which oversees support for persons with disabilities. The Social Services Agency provides social services to persons (families) in need of social services, improving their social protection and well-being, as well as implementation of state policy and regulation related to adoption. For social services, the Ministry of Labor and Social Protection of the Population (MLSP) is the main actor providing (most) institutional care, while many day-care, rehabilitation, and other services – for children, the elderly and persons with disabilities – are outsourced to various NGOs<sup>106</sup> (the Ministry of Education is, however, responsible for children's residential institutions and boarding schools). At the local level, customer-oriented Centers for Sustainable and Operative Social Provision (DOST) have been established as a single-entry point to deliver a diverse set of 154 social protection services in 12 areas, including administration of pensions, disability benefits, targeted social assistance benefits and social services. Six centers have been established so far, covering 25 percent of the population. Of these, five are in Baku and one in Khirdalan city of Absheron district. Fur-

thermore, the first "Smart DOST" station under the "Smart Village" project was put into operation in Aghali village of Zangilan district. In total 17 regional DOST Centers and 55 regional branches will be established by the end of 2025. The SEA has considerably wider representation, with about 86 local offices in the country.

**The government significantly overhauled social and labor policies in 2019, increasing the coverage of the main social assistance program, increasing the minimum wage and pension, and taking steps to improve the delivery of social services.** Digitization to streamline services, data collection and information management formed an integral part of this reform. A Centralized Electronic Information System (CEIS) with an "e-social portal" was established, and assistance and pensions are now managed through this portal.<sup>107</sup>

**The pension system includes both contributory pensions and a non-contributory (social) pension.** Persons reaching the retirement age<sup>108</sup> and with a minimum level of contributions are eligible for old age pensions. Disability pensions are provided to insured persons with disabilities caused by illness or injury, with

<sup>106</sup> In 2019, some 73 NGOs received grants to implement 224 projects, supporting day-care services in 70 districts.  
<sup>107</sup> World Bank 2020a.

conditions related to previous employment. A survivor's pension is provided to survivors and dependents.

**Azerbaijan also offers a wide range of social assistance programs.** The three main programs are: (i) TSA; (ii) disability benefits; and (iii) war veteran's benefits. There are also several smaller benefits programs, including family and child allowances, social allowances (non-contributory) and others. The TSA is a last resort benefit and the largest program in terms of budget and beneficiaries. It is means tested and targeted to households whose average monthly income is below the per capita basic needs threshold, set at 160 manats (about \$95) in 2020, 170 manats in 2021, and 200 manats in 2022.

**Support for persons with disabilities is transitioning from a medical model of assessment to a functional approach.** This takes into account the ability of individuals to function and carry out everyday actions in their own environments, and the support and services needed to achieve this. The MLPSS is, inter alia, creating a register of persons with disabilities, with the objectives of using the data to analyze, forecast and monitor disabilities and persons with disabilities; improve the quality of public services in the field of disability; and monitor the performance by certain institutions of their obligations related to disability and persons with disabilities. A new rehabilitation system – including psychological, social, and vocational components – is also being developed.<sup>109</sup>

**Social services comprise home-based services, day care, institutional care, and social counselling services, but little is known about coverage and adequacy at this stage.** Social services are directed to orphans, persons with disabilities, the elderly, victims of abuse, homeless persons, and individuals with other social needs. They include home-based services, day-care services, and institutional care, as well as social counselling services.<sup>110</sup> The system for long-term care (LTC) services will need to expand significantly to meet growing needs due to aging. Currently, most LTC is provided through acute care and in-house by family members, without any additional resources and almost no oversight by health care professionals.

**Despite the increase in the number and budget of labor market programs in recent years, there is still room to expand the menu of employment services.** The SEA administers (contributory) unemployment benefits and a set of ALMPs, including employment services, a limited set of vocational training programs, and a self-employment promotion program. The two main ALMPs – the self-employment program and the vocational training program – were accessed by only around 4 percent and 10 percent of the registered unemployed respectively.<sup>111</sup>

**About 65 percent of Azerbaijan's population was covered by at least one social protection program in 2015 (the latest available data), but this reflects largely social insurance (pensions).**

The coverage rate is in line with the coverage in many ECA countries (62 percent on average, as captured by the World Bank SPEED database).<sup>112</sup> Coverage for social programs excluding social insurance is lower than peers, however. Social assistance programs cover 27 percent of the population, compared to 31 percent of the population in ECA, and the coverage of main labor market programs is only 0.3 percent, compared to around 2 percent in ECA. Almost half (48 percent) of the poorest 20 percent of the population receive some social assistance. This poverty focus of social assistance reflects the average situation in ECA (49 percent) but remains far below some of the new EU member states, such as Bulgaria and Romania (Figure 12). High informality means that only 31 percent of the employed are currently covered by (future) old age pensions. Finally, a mere fraction – 0.7 percent – of the unemployed registered with the SEA were eligible for unemployment insurance in 2019.<sup>113</sup>

**Program benefits have been raised significantly to increase adequacy.** Following a significant increase in the value of the TSA benefit – by 50 percent between 2015 and 2020 – the per capita TSA benefit (50 manats in 2020) is more than a quarter of the national poverty line, and close to a fifth of the minimum wage. These amounts were increased further in 2021. Reforms in 2019 boosted the minimum pension for the old age labor pension by over 70 percent to 200 manats, above the poverty line

<sup>108</sup> Currently set at 60 and 63 years for women and men respectively but this is being successively increased to 65 years for both genders.

<sup>109</sup> Based on discussions with MLSP.

<sup>110</sup> Mapping of social services is currently ongoing, which will shed light on coverage, efficiency, and effectiveness.

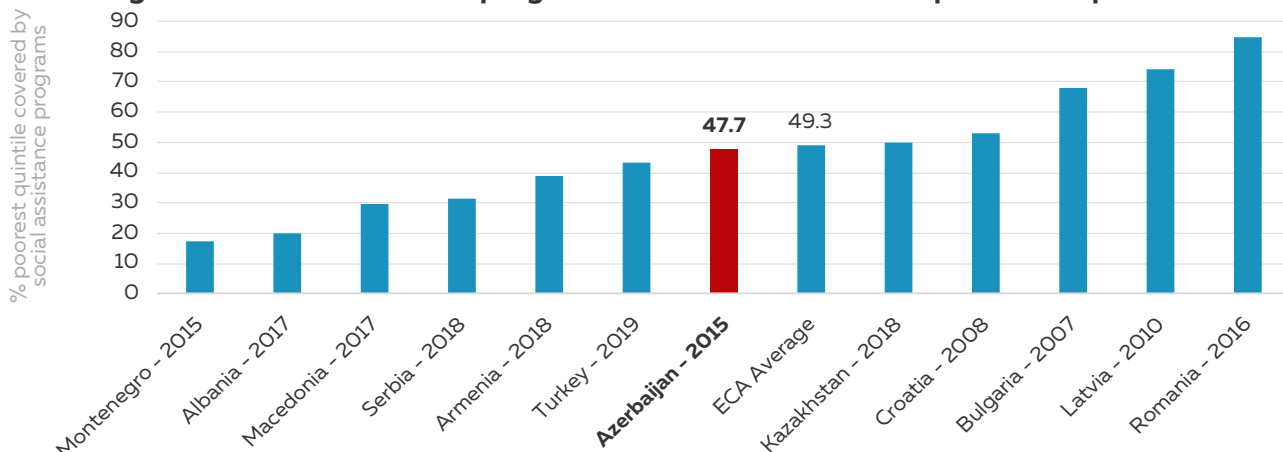
<sup>111</sup> The registered unemployed amounted to 30 percent of total unemployed persons

according to Labor Force Survey data. Information on beneficiaries from World Bank 2020b.

<sup>112</sup> Includes direct and indirect beneficiaries. Estimates only consider countries included in the World Bank SPEED Database.

<sup>113</sup> Estimates based on data from State Statistical Committee of Republic of Azerbaijan.

**Figure 12: Social assistance programs reach about half of the poorest 20 percent**



Source: Estimates based on World Bank SPEED Database.

and about 80 percent of the minimum wage in Azerbaijan. By contrast, social allowances have increased in coverage and size (almost doubling between 2018 and 2020) but may not be sufficient to adequately cover needs.<sup>114</sup>

**The comparatively young population and recent reforms are improving pension system sustainability over the medium term, but in the longer term deficits will begin to increase.** Currently, the MLSPP has limited capacity to forecast pension contingencies. Population growth, increases in the retirement age for the old age pension, and projected wage increases are all expected to increase pension system sustainability over the medium term. Replacement ratios for new old age pensioners will increase in the short run due to the sharp increase in the minimum pension, and then decline slightly over time due to inflation indexing. Deficits are expected to decrease until 2040. However, after that, as population aging sets in they will increase sharply and reach nearly 6 percent of GDP by 2080.

**The MLSPP ensures coordination of the preparation and application of vocational and qualification standards.** According to the National Qualifications Framework, national qualifications are determined according to the requirements of the labor market and vocational standards. In 2019-2021, 1,008 standards developed with active participation of employers in various sectors were approved and included in the Register of Professional and Qualification Standards through the "e-social" internet portal.

**The MLSPP has also invested significantly in its ICT system in recent years.** Under the 2021-2025 Information Technology (IT) Strategy, the MLSPP has established the Employment Relations and Employment Subsystems (EMAS) to digitalize the recruitment process of unemployed and jobseekers and to gather human resources information of all levels— all employers and employees, central and local authorities, legal entities and individuals – under one unified umbrella, and to support the implementation of state policy in this area. Opening this database to other relevant institutions might be a good example of sectoral collaboration for human development.

**With its Employment Strategy for 2019-2030, the government is seeking to improve skills and increase the effectiveness of labor market and related policies.** Higher competitiveness and more productive jobs will be achieved by raising skills development, improving the effectiveness of ALMPs, and developing a labor market information system to help develop productive jobs and competitiveness. The Strategy also foresees use of inclusive approaches to ensure equitable access to employment and strengthen social protection for the unemployed.

<sup>114</sup> UN 2020.

## 4. Efficiency and effectiveness of spending

**In the past decade, Azerbaijan has engaged in significant reforms to improve education outcomes and increase the coverage of health and social protection services.** Across sectors, the government has made significant regulatory changes intended to modernize services by upgrading equipment and skills, adopting digital approaches, increasing coverage and equity, and supporting cost-effective interventions. Retaining the momentum of these reforms will require more attention to closing inequities in access (between rural and urban areas, inter-regional, gender, and poor and non-poor), raising the quality of services provided with more effective resource management, and ensuring the financial sustainability of service provision now and in the future.

**More resources and more effective resource management would help to increase further the coverage, inclusiveness, and quality of human development services in Azerbaijan.** In the past, low levels of spending on human development sectors have held back much-needed investment in workforce development and infrastructure. In the education, health and social protection sectors, resource allocation has insufficiently focused on early and preventive interventions, to sustainably strengthen human capital. Higher efficiency in spending will also be essential to meet Azerbaijan’s needs and visions in the light of risks to long-term fiscal sustainability.

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### Effective and balanced resource management

#### Education

**Following significant upscaling and reforms, Azerbaijan’s rate of public education spending has increased.** For a long time, government

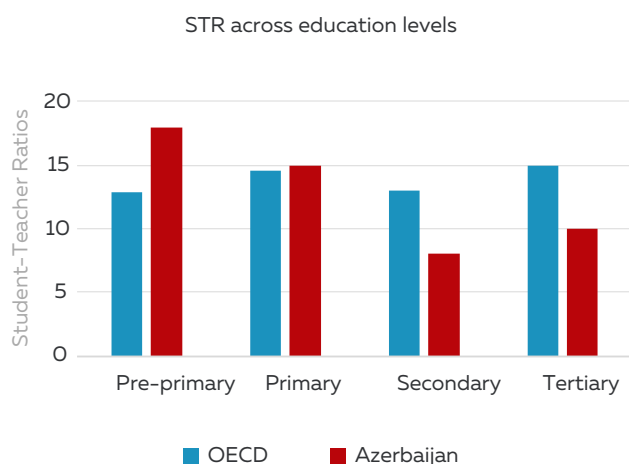
expenditure on education remained among the lowest in the ECA region. However, expenditure increased by 14 percent in 2019, mostly for general education and largely due to an increase in teacher’s salaries; and the 2020 budget also contained an increase in education expenditure of about 40 percent. According to 2022 data from the Azerbaijan Statistical Committee, Azerbaijan’s proportion of public education spending is now 4.5 percent of GDP, above the 4.2 percent level of middle-income countries in ECA. Education expenditure as a share of the total government expenditure, at 13.0 percent, is now in line with ECA averages.

**Education spending largely reflects staff compensation, with low amounts available for capital expenditure.** Reflecting reforms to improve the quality of teaching, the proportion spent on staff compensation increased sharply from 59 percent in 2017 to 70 percent in 2018, and it is now at similar levels to OECD and ECA countries. However, the remaining budget is absorbed by other current expenditure, leaving very few resources for capital expenditure (around 1 percent in 2019).

**Azerbaijan is rightly targeting teacher availability and teachers’ competence as critical aspects of improving education outcomes in basic education.** Teacher qualifications (including the quality of pre-service training) and teacher practices (investment in in-service training including teacher professional development, TPD), are very powerful tools for strengthening the learning process. As teachers’ compensation accounts for the lion’s share of education expenditure, enhancing the impact of this investment is a natural entry point for increasing efficiency and effectiveness. Recent analysis for Azerbaijan confirms that the quality of teachers (level of training, and learning methods) is indeed positively related to student performance.<sup>115</sup> Azerbaijan has recently introduced

<sup>115</sup> World Bank 2022b. (forthcoming).

**Figure 13: Student-teacher ratios are skewed to higher levels of education**



Source: Estimates based on OECD (2021).

systematic measures to increase the professionalism of teachers, including the introduction of a system of module credits, competitive training for general education teachers, as well as a transparent and objective competition mechanism for recruiting teachers.<sup>116</sup>

**Teacher resources are skewed towards higher levels of education, lowering the quality of education (and care) at pre-primary and basic education levels.** Student-teacher ratios (STRs) are comparatively high in pre-primary and primary levels of education. The STRs in pre-primary (18 students per teacher) and primary education (15) are twice as high as that of secondary education (8) and significantly higher than that in tertiary education (10). In OECD countries, the STR is not very different across levels of education, and, compared to Azerbaijan, STR is also lower at pre-primary and primary levels (Figure 13).<sup>117</sup> Ratios may shift naturally as younger age groups diminish and enrollment increases at higher levels of education, but the high STR in pre-primary education is not consistent with the planned expansion of quality services.

**Lack of interest in VET programs reflects poor quality, which in turn is due to lack of investment.** Although VET programs – due to their focus on practical training and equipment – are generally more costly per student, they account for less than 2 percent of total education spending in Azerbaijan.<sup>118</sup> Lack of updated infrastructure and technology and low quality of training, together with low labor market rel-

evance and weaker student capacity, account for VET programs' poor reputation.<sup>119</sup> The VET Roadmap, an ongoing initiative, focuses on optimization of the network of VET institutions, by reducing the number and improving quality, and improvement of their material and technical base.

**Limited collaboration with the private sector prevents education and training systems from equipping students with the skills needed for labor markets, whether mid-level or higher-level skills.** For lifelong adult learning systems, there is little-to-no collaboration with the private sector to identify trends in skills demand. Similarly, vocational training centers (VTCs) have hitherto not established collaboration with the private sector to realign training with labor market and skills demand, identify adequate training methods, and facilitate workplace training opportunities. In other countries, higher education institutions often serve as drivers of research and innovation, but in Azerbaijan, they lack strong linkages with industry and sufficient means and capacity to work with other actors in the economy to drive entrepreneurship and business development.

**The education system is highly centralized, reducing flexibility, adaptivity and accountability.** Because of, inter alia, the Law on Education, most of Azerbaijan's general education institutions have limited financial autonomy. Funding is provided by the Ministry of Education based on strict norms of funding per pupil, with limited considerations to special needs and different contexts. The centralized model limits school management capacity in planning, implementation and monitoring effectiveness and inclusiveness at local level.<sup>120</sup>

**The capacity of higher educational institutions to deliver high quality and relevant education remains relatively weak.** Higher education institutions (HEIs) are restricted in terms of curricula and educational content. Academic autonomy is important in skills development as it provides HEIs with flexibility to rapidly adapt curricula and staff to changing demand. While the financial autonomy of leading universities has increased, HEIs still have relatively low financial autonomy, as spending of public

<sup>116</sup> World Bank 2020a.  
<sup>117</sup> Estimates based on UNESCO UIS.  
<sup>118</sup> ETF 2020.  
<sup>119</sup> ETF 2020.  
<sup>120</sup> UNESCO 2020.

resources in HEIs is largely under the control of the Ministry of Finance. However, both academic and financial autonomy require building more capacity at HEIs on how to transform their financial, administrative, and pedagogical autonomy into better quality of educational services, making strengthening of external quality assurance mechanisms even more critical.

## Health

**Public spending on health has increased significantly over the past two decades as a share of GDP, but remains low compared to peer countries.** In 2019, government spending on health made up only 1.0 percent of GDP although due to reforms it almost doubled, to 1.9 percent of GDP, in 2020. Even so, Azerbaijan remains an outlier in government health spending compared to regional peers. On average, ECA countries' public health expenditure amounts to 9.4 percent of GDP (including high-income countries) or 5.3 percent (excluding those countries).<sup>121</sup>

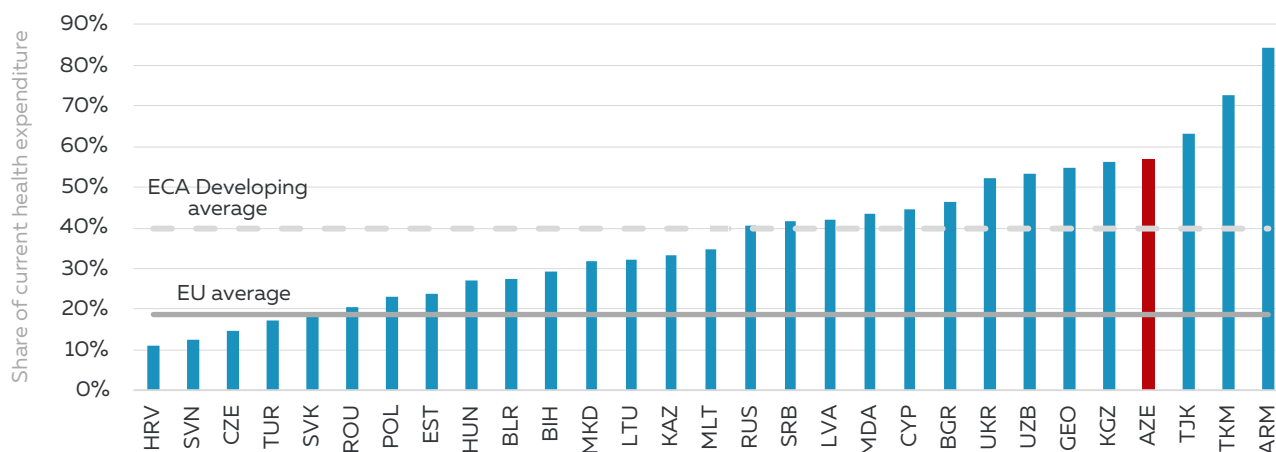
**While the Mandatory Health Insurance (MHI) program is being rolled out in the country, the health system is still primarily financed by out-of-pocket expenditure (OOP).** Significant health needs and low public spending drive up households' private spending on health. In 2018, OOP accounted for 73 percent of current health spending, one of the 10 highest shares of OOP globally. Reflecting the boost to public

health spending, the share of OOP in total current health spending fell to 57 percent in 2020. However, it remains far above the average rates for ECA (40 percent) and the EU (19 percent; Figure 14), and well above the WHO recommendation of 20 percent. This high OOP increases risks of exclusion of poor households from access to health services and generally increases households' economic vulnerability to health shocks.

**Azerbaijan does not fully benefit from Health Technology Assessments (HTAs) to formulate health policies that are safe, effective, patient-focused and cost-effective.** HTA can provide a systematic and multidisciplinary evaluation of health technologies and interventions covering both their direct and indirect consequences. While improving allocative efficiency of health resources could generate fiscal space for the sector, no HTA informs the development of the list of pharmaceuticals that are provided at no cost, or to decide which services will be included in the benefit package.<sup>122</sup> HTA may help Azerbaijan to deal with the OOP issue, as it includes a range of functions from horizon scanning to scoping, topic selection, technology assessment and appraisal, supporting decisions on coverage, to price negotiation, guideline development and setting quality standards.

**High informality poses high risks to the financial sustainability of the nationwide MHI**

**Figure 14: Out-of-pocket payments account for three fifths of total spending, above most peers**



Source: Estimates based on World Development Indicators and Government data. EU average is population weighted.

<sup>121</sup> Estimates based on WDI data.  
<sup>122</sup> Bonilla-Chacin et al. 2018.

**program.** Only a third of Azerbaijan’s labor workforce is formal and able to contribute to the MHI program through payroll taxes. Raising premiums from non-poor informal workers will be important to ensure fiscal sustainability, especially as the government will need to subsidize the poor and vulnerable through the general government budget.

**Over the last decade, the government has invested heavily in inpatient care, focusing on treatment rather than more cost-effective prevention measures.** Three quarters of total health spending is devoted to inpatient services. These levels stand in contrast to advanced countries such as Lithuania, Slovenia, Estonia, and Latvia where the proportion of health expenditure spend on inpatient services is significantly lower. At the same time, Azerbaijan has lower hospital discharge rates than many ECA region peers (6.3 per 100 people, compared to 16.7 for ECA). This resource allocation is inefficient as prevention (typically outpatient) is more cost-effective than curative care. The use of inpatient care is also comparatively inefficient in Azerbaijan: the average length of stay (ALOS) was 10.2 days in 2019 – more than 4 days longer than the EU average.<sup>123</sup> The relatively high ALOS could be a result of patients seeking care at later stages or for more critical care requiring longer treatment, but this could likely be averted by promoting the use of PHC and emphasizing preventive care. Health facility expenses also continue to be dominated by fixed costs (salaries and utilities), leaving very little fiscal space for service provision (that is, treatment, procurement of medical supplies and consumables).

**The ability of Azerbaijan’s health-care delivery system to respond to an epidemic/pandemic is also limited.** The high rate of COVID-19 cases and high tuberculosis rate in the country demonstrate that Azerbaijan’s preparedness for epidemics and pandemics is limited. According to the recent Global Health Security Index, Azerbaijan ranks 100th out of 195 countries based on its ability to handle actions such as exercising response plans, emergency response operations, and risk communication. The country scores 34.7 out of a possible 100, below the global average of 40.2 in 2021. The

indices for Azerbaijan’s ability to prevent and respond, and the capacity of its health system to prevent the spread of an epidemic/pandemic, are all below the world average score. More specifically, Azerbaijan scores particularly poorly in the areas of emergency preparedness and operations, laboratory systems and use of real-time data for surveillance, and health capacity in clinics, hospitals and PHCs.<sup>124</sup>

**The healthcare information system is under construction and is still fragmented, with insufficient integration between the key actors.** During the COVID-19 pandemic, several new digital tools and practices were successfully developed. And some components are in place in Azerbaijan: mobile-ID exists for user identification, several digital registers are in place, and health-care professionals have access to electronic medical records. However, the various registers and systems are fragmented, and data exchange and interoperability are limited. In addition, the country’s legislative framework on digital medical data and information exchange is incomplete. Surveillance of patients with infectious diseases, including COVID-19, is scattered and time-consuming, and lacks continuity of information flow.

## Social protection and labor

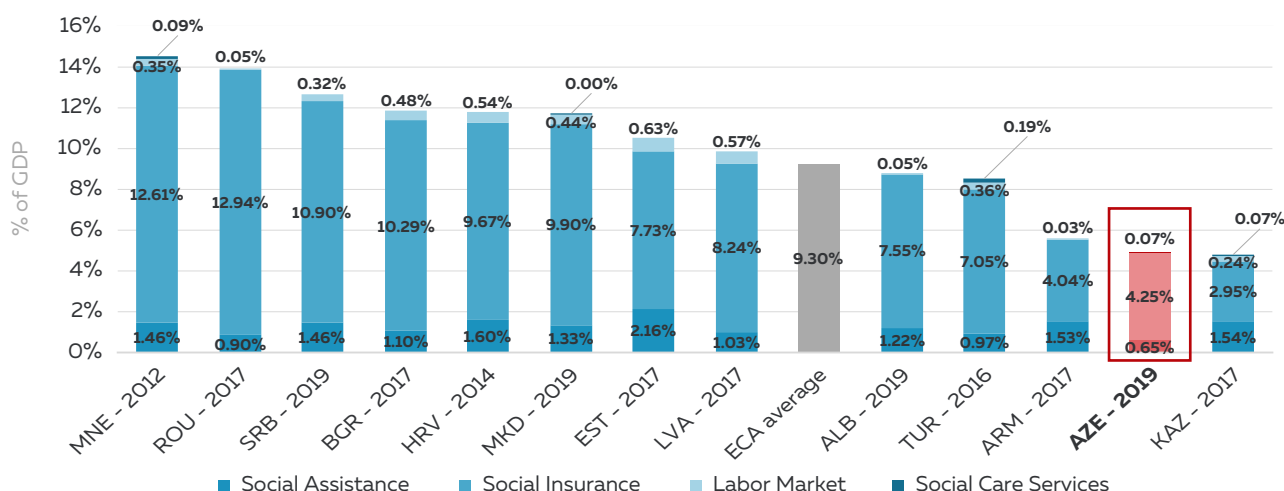
**Notwithstanding recent increases, social protection expenditure, especially outside pensions, is very low compared to peers, and inconsistent with Azerbaijan’s strategy to expand social protection.** The 2019 reforms were accompanied by a budgetary increase of some 3 percent in real terms compared to the previous year. At 5 percent of GDP, Azerbaijan’s spending on social protection is still very low, however, far below the ECA average of 9 percent of GDP.<sup>125</sup> The high proportion of social protection spending made up of social insurance expenditure (85 percent) is not unique to Azerbaijan; however, given overall low levels of spending, the resources left for non-pension programs are very low, and compare unfavorably with ECA peers (Figure 15). Expenditure on social assistance programs (0.65 percent of GDP) and labor market programs (0.07 percent of GDP) are among the lowest of ECA countries and around a third of the ECA averages (1.80

<sup>123</sup> Data are from WHO: European Health Information Gateway, at [https://gateway.euro.who.int/en/indicators/hfa\\_536-6020-acute-care-hospital-discharges-per-100/visualizations/#id=19631](https://gateway.euro.who.int/en/indicators/hfa_536-6020-acute-care-hospital-discharges-per-100/visualizations/#id=19631)

<sup>124</sup> Global Health Security Index: Azerbaijan, 2021. [www.ghsindex.org/country/azerbaijan/](http://www.ghsindex.org/country/azerbaijan/)

<sup>125</sup> Administrative data is available until 2014 in the World Bank SPEED database. Data for Azerbaijan between 2015–2019 is simulated using available data collected from the Statistical Committee of the Republic of Azerbaijan ([www.stat.gov.az/source/healthcare/?lang=en](http://www.stat.gov.az/source/healthcare/?lang=en)). For these years, spending is estimated as the number of beneficiaries multiplied by average monthly fixed benefit x 12 for monthly benefits. Spending is estimated as the number of beneficiaries multiplied by average total yearly benefit for one-time benefits. Labor market data for 2015 onwards are updated based on MIS data sourced from the World Bank’s Azerbaijan Employment Support Project. The simulation results are consistent with the budget indicators for 2020 and 2021 as given in the state budget of the Ministry of Finance.

**Figure 15: Social protection spending is low and dominated by social insurance**



Source: Estimates based on World Bank SPEED Database. Note: Azerbaijan data is based on SPEED previous years data collection until 2014. Simulated results are shown for Azerbaijan since 2015. Note that in SPEED, health insurance is included in social insurance numbers.

percent and 0.22 percent respectively).<sup>126</sup>

**Coverage of TSA needs to increase to provide better protection.** Despite the flexibilities introduced in recent years to the eligibility criteria for TSA, more efforts are needed to increase coverage. For example, TSA does not cover those who might work occasionally and/or who own land but do not have agricultural income. This is likely to affect, among others, women and the rural elderly. More information is needed to better understand potential exclusion errors (persons who should be included in the program but who do not access it).

**Ensuring effective assistance for persons with disabilities will require stronger cross-sectoral coordination and careful monitoring and evaluation of new approaches.** Disability policies and programs still suffer from fragmented delivery, with a lack of harmonized approaches across important sectors such as health, education, infrastructure, and social protection. Reform of the disability assessment process will require more investment in both the assessment processes and rehabilitation services. The transition of disability assessment from a medical to a social model would help increase access for the targeted population; however, the proposed reformed assessment approach continues to be based on medical criteria. Experience from other countries (Romania, and Moldova) suggests it is important to pilot new approaches and allocate sufficient time for

evaluation, eventual implementation and scaling up.

**The ongoing digitization and data collection efforts have increased the potential of the social protection system to deliver services more efficiently.** For example, for social assistance, digital application procedures and integrated control mechanisms removed the requirement of applicants to collect documents from different agencies, reduced processing times for eligibility assessments as well as payments, and reduced space for corruption. The building of a registry of persons with disabilities may likewise help to streamline services and enable cross-sectoral case management approaches.

**Employment services are underdeveloped due to underfunding and limited technical capacity.** The SEA staff caseload – the ratio of clients to employment counselling staff – is quite high: in 2019, there were 300 registered jobseekers for each SEA staff member, far higher than the average staff caseload for public employment services in European countries (around 100:1).<sup>127</sup> The SEA does not employ modern service delivery approaches – such as case management, profiling of clients, or interactions with employers – that would help increase job placements. This reflects lack of strategic workforce development approaches: hiring decisions that follow general hiring procedures for civil servants and do not consider the specific

<sup>126</sup> Expenditure on labor market programs increased exponentially between 2014 and 2019, entirely due to spending on a self-employment program initiated in 2017.

<sup>127</sup> MLSSP data and European Union. 2016.



SEA skills needed. The SEA does not provide any introductory training to its staff and has no recruitment channels for hiring specialists such as social workers or psychologists. An assessment conducted as part of the EU twinning project<sup>128</sup> also suggested that implementation and monitoring capacity are weak.

**The Self Employment Program (SEP) is the by far largest ALMP in Azerbaijan, with few resources left for other forms of training and/or employment incentives.** The program was scaled up nationally in 2016. It provides basic business training, support for preparing business plans, and in-kind assets. It was launched as a graduation pathway for TSA beneficiaries, and is intended to target vulnerable unemployed people including the socially marginalized and persons with disabilities. The program until recently was very much focused on promoting agricultural and rural self-employment. In the past two years, it has been diversifying towards other occupational tracks and sectors more aligned with local labor market needs. Ultimately, it is critical that the SEP be judged against its main objectives of generating business creation and growth, but such program outcomes are not yet available.

**Vocational training programs under the SEA are also poorly adapted to skills demand, with low outreach and limited and supply-driven offer with short duration.** An assessment of the three Vocational Training Centers (VTCs) conducted under MLSPP found that the choice of training modules is based largely on the supply of programs available at the school and is not responsive to labor market needs.<sup>129</sup> The VTCs are being reformed to upgrade curricula, and to address issues of outdated workshops and equipment, and limited resources to retrain instructors. Efforts are being made to upgrade the training curricula and modus operandi of the VTCs, and public-private partnerships with employers are being explored. Such reforms are very much needed to improve the employment outcomes of vocational training programs.

**Azerbaijan is currently improving its integrated labor market information system to include tracking of labor market indicators and labor market programs.** The system is not yet

mature enough to provide adequate information to students, jobseekers, education institutions, policy makers or other stakeholders, however, and the SEA has yet to develop sufficient capacity to monitor, evaluate, and make informed decisions when designing programs.

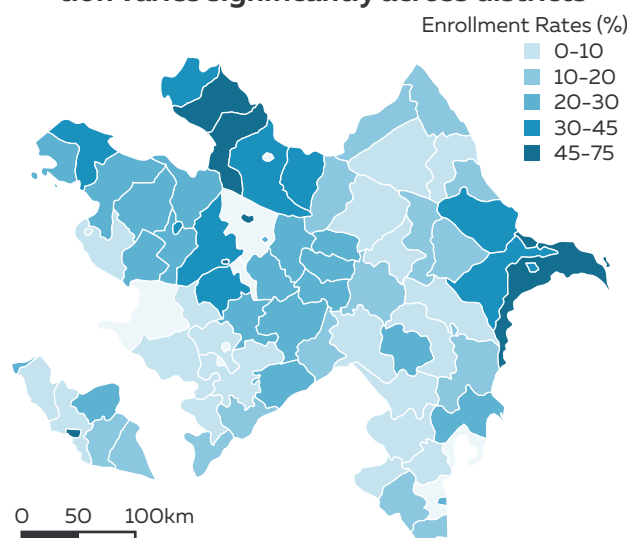
## Equity in service provision

**There are significant regional and socio-economic disparities in service delivery in Azerbaijan.** Lack of decentralized service delivery, high costs, and insufficient targeting and outreach efforts to overcome both demand and supply-side constraints reduce access to quality services. Across sectors, lack of monitoring and evaluation practices also precludes improvements in targeting and service delivery for vulnerable groups.

## Education

**Unequal access to early childhood education may affect vulnerable populations' education and labor market outcomes later in life.** Enrollment in ECE varies widely by district (Figure 16). The highest levels of attendance (above 45 percent) are registered around Baku and in districts in the northwest of the country, especially

**Figure 16: Access to early childhood education varies significantly across districts**



*Note: Proportion of children aged 3–5-year-old that attend early childhood education by district. 2019. Source: World Bank estimates based on The State Statistical Committee (2020).*

<sup>128</sup> Report by the EU Twinning Project, cited in World Bank 2020b. Twinning is an EU instrument for institutional cooperation between public administrations of the EU member states and beneficiary or partner countries. In the case of Azerbaijan, Lithuanian officials provided technical assistance to the SEA.

<sup>129</sup> This assessment was completed as part of project preparations for the World Bank's Azerbaijan Employment Support Project.

in cities and the Gakh region. The vast majority of districts have attendance rates below 30 percent, and attendance is very low (below 10 percent or 20 percent, depending on district) in eastern districts, Baku excepted, and in the southwest (Figure 16). Both demand-side factors (awareness among parents) and supply-side factors (accessibility, physical infrastructure and multisectoral collaboration) are likely to hold back the development and use of ECE services.

**Children from vulnerable backgrounds or with disabilities face more barriers to access quality education.** Most schools are not adapted for children with disabilities – yet, in a recent UNICEF survey, 59 percent of schools reported having some children with disabilities. Three in four schools reported not having any special provision for children with disabilities and fewer than one in five teachers reported having received training for inclusion of children with disabilities.<sup>130</sup> The large disparities in learning outcomes by socio-economic group discussed above also show the importance of access to quality education very early in life. Given that education is path-dependent, these inequities in early quality learning result in limited access to higher levels of education. Vulnerable children are overrepresented in VET programs, which remain marred by low-quality training, including mixed-level classes.

**Vulnerable students also have less access to tertiary education.** Students are admitted to HEIs based on central examinations. Tightly controlled admissions quotas limit the number of students who can receive tuition-free tertiary education.<sup>131</sup> Almost two thirds (64 percent) of higher education students paid for the cost of their education in 2016, and the other 36 percent were fully subsidized by the government. The cost of private tutoring, essential for preparing students for university entrance examinations, is very high: equivalent to an average of 30–50 percent of per capita income for households in the poorest three quintiles, and effectively preventing students from poorer families from attaining the high scores required to qualify for merit-based, tuition-free places. The returns to education are almost 50 percent lower for tuition-paying students than for

scholarship students. Tuition fees, meanwhile, are prohibitively high for low-income families. As a mitigation measure, the Education Student Loan Fund was launched in 2021, which enabled 2,900 students to receive loans in the first semester of the 2021/2022 academic year. Additionally, a 2019 Cabinet decision allowed those who graduated from specialized secondary education institutions to enter universities without the examination requirement, de facto increasing access to tertiary education.

## Health

**There are significant regional differences in access to quality health care services.** The relative emphasis on hospital care rather than PHC, as discussed above, goes against the provision of decentralized and accessible health services, especially in rural areas. Distribution of personnel and hospital beds is highly uneven across the country, with most health personnel and beds concentrated in Baku.<sup>132</sup> Health care facilities in rural areas lack equipment and essential basic services such as clean water and sanitation facilities. Rural PHC facilities are usually small health centers with only essential medical equipment and staffed by a medical assistant and a nurse. Service provision is limited to first aid, immunization, and simple medical procedures, such as injections or wound dressing. As a result, PHC facilities and services in rural areas are either not operating or are rarely used by the community.<sup>133</sup> Pre-hospital emergency medical services (EMS) are underequipped with outdated vehicles and medical equipment, particularly outside Baku. Access to reproductive health services, including contraceptives, is lower for those living in rural areas, from low-income families or with lower education levels.

**The current high share of OOP in health spending means that poorer households may face prohibitive costs to reduce health risks.** High OOP partly reflects outpatient medicine costs. Poorer households may thus be unable to pay for medicines essential for reducing the NCD burden. Lowering costs to increase access requires comprehensive approaches, including the regulation of drug prices, use of generic drugs, and improved procurement methods.

<sup>130</sup> UNICEF 2020.

<sup>131</sup> Garcia Moreno and Patrinos 2020.

<sup>132</sup> World Bank 2020c.

<sup>133</sup> WHO 2021.

**The expansion of the MHI will require careful design to ensure coverage of the poor and vulnerable as well as informal workers.** The MHI is designed to be a contributory system, but with premiums for vulnerable groups being subsidized by the state. Currently, it is not clear which mechanism the government will use to identify the poor and vulnerable individuals and ensure their access.

## Social protection and labor

**Much of the rural population is excluded from the social protection system,** reflecting the importance of formal activity for contributory (pension) systems and insufficient poverty targeting of social assistance. Public transfers have traditionally been a major source of income for households in Azerbaijan, but especially in Baku and other urban areas. In contrast, rural populations, which are more likely to work informally (and thus not be part of contributory systems such as pensions) and have limited access to service points, have been excluded.<sup>134</sup> Across Azerbaijan's administrative regions, access to social assistance is uneven and not systematically related to average income or poverty rates; in fact, the coverage in Baku City, the richest region, is above the national average.<sup>135</sup>

**The government has taken some measures to increase the coverage of TSA for vulnerable households.** TSA targeting is successful at not leaking benefits to the non-poor: close to 80 percent of beneficiaries were from the poorest quintile in 2015.<sup>136</sup> However, TSA targeting is not successful at including all the poor – fewer than 20 percent of the poorest quintile received TSA in 2015.<sup>137</sup> In 2020, TSA covered only about 6 percent of the population, which is likely to be considerably lower than the share of poor in the population. The government has made investments to improve the electronic application system for TSA. The Strategy 2022–2026 envisages upgrading and streamlining the TSA electronic platform, and optimizing TSA eligibility criteria.

**Factors such as the low overall coverage of social assistance, low coverage of the poorest by TSA, and uneven regional coverage despite high poverty targeting all point to problems**

**with outreach at local level.** Outreach is currently conducted through media outlets and community-level campaigns, and households that think they might be eligible are expected to apply to be considered.<sup>138</sup> Azerbaijan does not apply more proactive approaches, such as a survey-based system in which potential beneficiaries are pre-identified and asked to submit applications (as in Romania, for example). Whereas the intention of Agencies for Sustainable and Operative Social Provision (DOST) is to facilitate access (where applications can be made in situ with the help of social workers), four out of five centers are in Baku City, with the vast majority of the country unserved.

**For those of working age, there are too few reskilling and upskilling opportunities to meet the rapidly changing demand for skills.** Learning opportunities are scarce for adults in Azerbaijan, largely stemming from the lack of adequate adult training facilities and offers, especially outside bigger urban centers.<sup>139</sup> Only three training centers administered by MLSPP have among their primary objectives training and improving the employability of active job seekers (that is workers registered at the SEA with “unemployed” status) and existing workers, especially those at risk of losing their jobs. Employed and unemployed workers seeking post-secondary and professional training opportunities to develop or acquire new skills are unable to access relevant programs.

<sup>134</sup> World Bank 2015, as cited in World Bank 2019b.

<sup>135</sup> Estimates based on World Bank SPEED database using Azerbaijan Monitoring Survey of Social Welfare 2015.

<sup>136</sup> Ibid.

<sup>137</sup> World Bank 2020a.

<sup>138</sup> World Bank 2016.

<sup>139</sup> Garcia and Patrinos 2020.

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

**As part of the health sector COVID-19 response, throughout 2020 and the first half of 2021 the government has undertaken a series of public health and preventive measures that improved the quality of response and resilience of the health system.** These were intended to: (i) strengthen the capacity of medical facilities; (ii) procure medicines and medical equipment on an emergency basis; (iii) help prevent contagious diseases; (iv) provide additional payments for health care workers; and (v) facilitate the implementation of the mandatory health insurance nationwide to increase geographical and financial access to essential health care services for the population.<sup>140</sup> By November 2021, over 10 million vaccine doses had been administered, and up to 50 percent of the eligible population had been fully vaccinated. Health expenditure as a proportion of the state budget increased from 3.6 percent in 2019 to 6.4 percent in 2020 and 4.9 percent in 2021.

**E-health services (such as eTABIB, COVID tracking and eDoctor) were introduced to support access to public health services.** The rapid shift towards digital health care has been one of the rare positive effects of the COVID-19 crisis. This included various modalities for tracking and alerting persons at risk of contagion, a system providing permits for leaving home during lockdowns, and remote diagnostic and consultation services for COVID-19. However, outside COVID-19, digital health services were limited. The COVID-19 pandemic revealed low prioritization and often low capacity to engage in strategic communication for behavior change and social mobilization, not least regarding vaccinations. Although Azerbaijan already has several components of a nationwide health information system in place, utilization of digital technologies remains limited and fragmented.

**The pandemic revealed weaknesses in health delivery systems, especially regarding PHC compared to secondary services.** Given the very severe mobility restrictions, limited access to hospitals, and low capacity of PHC to provide basic services, NCD (and other) patients are likely to have experienced very limited access to essential routine care. The slack in resource use in hospitals helped to mobilize the needed surge in capacity but remains an ineffective way of providing basic health services.

**In the education sector, the COVID-19 outbreak also accelerated the embedding of digital technologies into the teaching process.** The pandemic pushed teachers across pre-schools, schools, colleges, and universities to swiftly shift to distance learning, mastering and using virtual platforms, enhancing digital skills, and developing blended learning to deliver lessons to students from pre-school to university. A nationwide online learning platform (the Virtual School Platform) as well as educational television broadcasting was introduced. Video lessons were developed on several professions by the State Agency for VET. Higher education institutions were given access to free online platforms to deliver courses and share knowledge. Assessment and admission procedures were also adapted.

**The transition to distance learning in schools left many children out, however, especially the most vulnerable.** As discussed in Section 2, learning outcomes were seriously affected by COVID-19. Connectivity was a critical limitation for many students. Some 18 percent of rural households did not have home internet access and 45 percent did not have computers. Among poor households, less than one in twenty had access to computers.<sup>141</sup> Special needs students, including those with disabil-

<sup>140</sup> ADB 2021.

<sup>141</sup> Here: households with average monthly wages of less than 200 manats (\$120). Data for 2020 and 2019 from State Statistical Committee.

ities, were deprived of essential learning support, and students in VET programs could not attend practical training, which is key in the curriculum. These problems were exacerbated by shortages of technical resources, lack of high-speed internet access in many areas, and the cut in internet access during the 44-day armed conflict between Azerbaijan and Armenia from 27 September to 9 November 2020 (several schools also closed completely during this outbreak).

**Low technological readiness in the education system also reduced efficiency.** Online teaching proved challenging, even at higher levels of education. Although teachers at general education level completed some ICT-related training before the pandemic, this was not sufficient to introduce distance education nationwide. Only 2 out of 52 higher education institutions had solid distance learning arrangements that included relevant software, trained faculty, and digital content. This affected not only learning but also assessment processes.

**In the field of social protection, Azerbaijan put in place emergency measures using existing instruments.** The government provided 4.5 million manats to expand the coverage of TSA, 200 million manats for social allowances, and 54 million manats to expand public works programs. Additional measures were also taken on utility waivers and in-kind transfers. Social insurance measures included unemployment insurance (20 million manats) and support for social insurance contributions. Two labor market measures were implemented: a wage subsidy (215 million manats) and layoff bans. Overall, as a response to the economic fallout of COVID-19, the government expanded support to provide job protection for 1.67 million people, pensions and allowances for two million people and TSA support for 350,000 people. In addition, 600,000 people received one-time unconditional cash transfers of 190 manats (\$110), and 90,000 were given public work jobs.<sup>142</sup> Also, the government expanded the scope of the State Employment Program.

**However, coverage and adequacy of cash transfers were too low to substantially protect livelihoods.** Azerbaijan scaled up TSA coverage

by 17 percent, compared to a global expansion of 250 percent, 38 percent in Kazakhstan, and 159 percent in Türkiye.<sup>143</sup> In a rapid assessment survey in 2020, the vast majority of respondents stated that they received no support from the government, local municipalities or non-profit organizations.<sup>144</sup> In addition, the one-time payment of 190 manats was too low to adequately protect livelihoods and was not well targeted.<sup>145</sup> Labor market measures targeted formally employed and excluded the informally employed and the vulnerable.

<sup>142</sup> World Bank 2020c and Azerbaijan Ministry of Labor and Social Protection of Population 2020. [www.sosial.gov.az/post\\_358802](http://www.sosial.gov.az/post_358802)

<sup>143</sup> Gentilini et al. 2021. World average is for countries whose data are available.

<sup>144</sup> UNFPA/UN Women, 2020.

<sup>145</sup> Guliyev 2021.

## 6. Conclusions and recommendations

To achieve the objectives of the Vision 2030 and the Strategy 2022-2026, and boost long-term productivity, Azerbaijan would benefit from deepening ongoing reforms in the human development sectors. The government has launched new policy initiatives, increased budget allocations to human development sectors, and is changing the governance structure in health and social protection. Although important gains have been made in human capital development, significant gaps remain. Moreover, COVID-19 has set back health and education outcomes and has exposed some weaknesses in the outreach and shock responsiveness of the system. Azerbaijan needs to continue and accelerate reforms to increase expenditure, and raise the coverage, quality and equity of services provided. While development strategies and plans are ambitious and comprehensive, a holistic human development approach is still missing.

This review highlights areas for continuation of reform initiatives that are transversal to human development sectors: these include improving quality of services, improving efficiency of spending, ensuring inclusive service provision, prioritizing early interventions and preventive measures, improving cross-sectoral collaboration and coordination, introducing digital technologies in service delivery, ensuring sustainability in human development through continuous workforce development, and, given the recurrence of substantial crises, strengthening the resilience of human development systems. This concluding section summarizes some transversal findings and outlines reform priorities for each sector. A sector-by-sector agenda of reforms that would support Azerbaijan's development strategy is discussed in Table 2 below.

- **Increasing the level and efficiency of spending in the human development sectors could help Azerbaijan to achieve reform objectives and boost human capital levels.** If effectively implemented, human capital investments can provide long-term returns through higher productivity. Reforms to improve efficiency could take several directions. In education, for instance, better monitoring and quality assurance mechanisms could improve the quality and relevance of teaching; in health, efficiency gains could be achieved by putting a greater focus on primary health care systems; and in social protection, improving targeting and the effectiveness of employment services could deliver better tailored services to those who need them.
- **Greater focus on including the poor and vulnerable and on lagging regions would deliver better human capital for all.** There are, again, several possible avenues to improve inclusion. In the field of education, building on the ongoing school readiness program, ECD services could be expanded further across more districts, with a strong focus on equity in access. In health, the strengthening of PHC centers in their critical role as providers of decentralized basic health care for children (such as vaccinations and nutrition), adults (such as early detection and prevention of NCDs, promotion of healthy lifestyle) and elderly (such as long-term care) could support better health for the poor and vulnerable. In social protection it would be important to expand the offices of the Agency for Sustainable and Operational Social Security (DOST) outside of Baku to help disadvantaged populations access adequate social protection services. Social protection coverage of vulnerable populations could also be improved by reviewing targeting measures and eligibility criteria, and developing outreach measures tailored to vulnerable groups. In this regard, the TSA system can be used as a plat-

form for reaching the poorest and promoting their uptake of other services to help reduce inequalities in use of human development services and in human development outcomes. To address the challenges related to the low labor force participation and poor employment conditions for vulnerable groups, particularly women and youth, employment services and ALMPs could also include targeted interventions to specific groups, sectors and regions in order to support participation and skill upgrading.

- **Directing more resources to early intervention and preventive measures could deliver a substantial boost to human capital.** Reversing ill health or remedying poor skills later in life is difficult, sometimes impossible, and certainly costly. Hence, accelerating investments in quality early childhood education and care to address malnutrition is essential to help infants and children remain on a positive developmental path. Strengthening skills development systems, their inclusiveness, and their strategic relevance for current and future labor markets would also reduce productivity losses associated with unemployment, inactivity, and skill gaps. As the health toll of NCDs is increasing, shifting more resources into strengthening PHC services, focusing on prevention and early detection, and integrating care at all levels, can help to lower mortality and morbidity across all age groups, and decrease the burden of diseases. As many NCDs are caused or worsened by unhealthy lifestyles, interventions to change behavior toward healthier living could also prove highly cost-effective. Developing further active and healthy aging policies to help people remain active and productive over their working lives will be essential to leverage the existing pool of human capital, support a growing number of elderly persons and ensure the long-term sustainability and adequacy of the pension system. Active aging policies include health, education and social protection measures that help people remain healthy, reskill over their working lives, and allow working arrangements to be tailored to the need of the elderly.
- **Investing in cross-sectoral collaboration and coordination will be essential to address important cross-sectoral human capital challenges.** Critical human capital areas – such as ECD, nutrition, disability, skills development, employment, social assistance, occupational health, environmental health, and aging – cut across human development sectors and involve both government and non-governmental entities and institutions at different levels. Addressing these challenges effectively and exploring synergies will require strong mechanisms for coordination as well as collaboration between different institutions. To function effectively, cross-sectoral approaches need clear institutional arrangements defining roles, financing mechanisms, referral protocols, incentives and accountability for cross-collaboration, strong interconnectivity of information systems for targeting and monitoring, and staff capacity building.
- **Workforce development and capacity building would support the reform momentum towards higher quality services.** Human resources are the most important asset for increasing access and delivering better services. Poor working environments and low levels of remuneration reduce attractiveness and lower performance incentives, however. Depending on the sector, reforms may involve investing in more staff (to lower caseloads and increase access to and quality of services), strengthening merit-based hiring and ensuring that staff have the formal qualifications required for their job, increasing the capacity of staff by revising and strengthening curricula in medical and teacher education, and providing access to continuous in-service professional development. Across social services, social assistance and labor market programs, more intense use of case management techniques and more sophisticated profiling and targeting methodologies and counselling services will require significant skills upgrading. This also involves strengthening specific technical capacity to develop and work with analytical models, such as forecasting future skill needs, or calibrating different scenarios for pension systems' financial sustainability.

- **A gradual introduction of digital technologies into service delivery will also help to improve effectiveness.** Digital technologies have the potential to improve access, service delivery efficiency and effectiveness, and real-time monitoring and evaluation. The COVID-19 pandemic showed the importance of increasing the capacity and quality of real-time data and strengthening interconnectivity within and between sectors in monitoring and targeting. Improving digital infrastructure with interoperable programs and activities, and strengthening workforce technical capacity, would favor the use of data across human development sectors for more effective policy making. Azerbaijan could also build upon advances made during the COVID-19 pandemic towards digital health solutions to integrate these into a centralized e-health platform and offer a range of e-health tools. Integrated digital platforms would also help to expand and improve the coverage and coordination of services. As recognized in the Strategy 2022-2026, expanding e-government services will also require the development of competencies to use services in the population (digital literacy) and specialized information and communications technology (ICT) competencies to develop and maintain services.
- **A thorough assessment of Azerbaijan's human development systems' resilience to shocks (such as pandemics, economic crises, climate-related shocks and regional conflicts) – and learning from good practices from other countries – could help deliver more resilient services.** Examples include modifying the legal framework to help programs rapidly expand during crises, for instance by institutionalizing the option to temporarily expand cash assistance benefits or adjust program parameters and targeting; further developing platforms to deliver services online; and strengthening the health information system, social registry, and other information systems to more rapidly identify people affected by crises and shocks.



**Table 2: Reform area and proposed activities (short and medium/long term)**

IMPROVING QUALITY		
<b>Education</b>	<b>Short term</b>	<b>Medium/long term</b>
<i>Improving monitoring and quality control mechanisms in ECE and general education</i>	Developing regular student assessments to evaluate school readiness and student performance	Ensuring continuous analysis and use of EMIS data to support evidence-based decision making on quality, access, infrastructure, leadership, collaboration, and continuing professional development, pedagogy, and assessment
<i>Improving the relevance of general education and VET programs</i>	Integrating new STEAM-based curriculums	Enhancing the quality of STEAM education through targeted training of teachers
<i>Strengthening quality assurance mechanisms in higher education, with greater focus on internationalization of higher education</i>	Implementing new Quality Assurance Framework Building the capacity of higher education institutions to develop international standard curriculum and services	Increasing the visibility of the Azerbaijan higher education system among advanced systems abroad and boosting international standard accreditation, as well as dual degree and exchange programs
<b>Health</b>	<b>Short term</b>	<b>Medium/long term</b>
<i>Strengthening the quality of service delivery</i>	Implementing and adhering to clinical protocols and standards, and quality monitoring indicators	Providing continuous education and training opportunities for health care professionals Monitoring the credentials of health professionals and health institutions and increasing quality of medical education, especially for family/PHC and EMS doctors and nurses Redesigning and modernizing the EMS system in the country to enable the health care delivery system to improve the outcomes of injuries and other time-sensitive illness
<i>Strengthening the EMS system</i>	Developing legal and regulatory framework regarding the EMS system to focus only on emergency and urgent cases, leaving less urgent cases to the PHC system Establishing a national coordinating mechanism to plan and manage the EMS system properly in their assigned zones Equipping computer-aided dispatch and communication systems into the EMS Providing training to EMS teams to increase their capacities to prevent amendable morbidity and mortality rate in the country	Assigning / constructing integrated emergency receiving areas in hospitals and equipping these areas with modern medical equipment and tools to improve the quality of care in the EMS system level and enable health care workers to provide timely delivery of health services Upgrading all the EMS system ambulances and vans and providing training to ambulance teams to increase their capacity to use it effectively and efficiently to improve resuscitation and prevent premature mortality
<i>Addressing mental health issues for all the population</i>	Creating safe spaces in middle and high schools for marginalized students Assigning independent school counselors to help students address their personal and interpersonal problems, and empower them with stress management skills to overcome anxiety and depression.	Enacting strict legislation to discourage parents from using violent discipline methods against children
<b>Social protection and jobs</b>	<b>Short term</b>	<b>Medium/long term</b>
<i>Improving the effectiveness of social workers and social agents</i>	Increasing the number and decreasing the workload of social workers and social agents Improving the qualifications but also the remuneration of social workers and social agents	Developing professional development and support system for social workers and social agents and training on improved case management practices
<i>Improving the relevance and scope of ALMPs</i>	Increasing lifelong learning opportunities for the employed and unemployed, strategically related to current and future skills demand Strengthening partnership with employers to expand the provision of work-based youth employment programs	Leveraging private-public partnerships to increase the quality of employment services and strengthen links between providers and firms

**IMPROVING EFFICIENCY OF SPENDING**

Education	Short term	Medium/long term
<i>Improving resource management at all levels</i>	Conducting Public Expenditure Review	Promoting more decentralized school management to increase autonomy, combined with capacity development for school management
<i>Developing effective funding mechanisms for VET</i>	Introducing mechanisms to support income generating activities of VET institutions	Introducing incentive policies for greater private sector participation (including PPP) and increased participation of youth and adults in VET
<i>Improving spending on higher education and research and development, while strengthening accountability mechanisms</i>	Investing in capacity building of professionals in R&D and higher education infrastructure, particularly in computer and science labs	Linking higher spending to selected outcomes and meeting defined quality standards
Health	Short term	Medium/long term
<i>Reorienting health care system towards primary care</i>	Refocusing treatment incentives towards primary and preventive care (including introduction of referral mechanisms) Developing a comprehensive health literacy program to build trust in PHC services Attracting physicians and nurses through a premium benefits package to work at PHC facilities and address the PHC system human resource shortage problem	Revising guidelines to expand scope of preventive and PHC services (such as antenatal care and tracking of chronic disease) Establishing protocols and guidelines and defining PHC's role as a gatekeeper to prevent excessive flow of patients to hospitals, reduce hospitalization rate and physicians' burnouts, as well as prevent abuse of health insurance Introducing horizontal referrals within PHC to avoid unnecessary referrals to the hospital
<i>Increasing the affordability of medicines and expanding the coverage of drug benefits</i>	Establishing a Health Technology Assessment system to inform price regulations, reimbursement, and costing	Incorporating the Health Technology Assessment (HTA) into the Universal Health Insurance system as a model for pricing/costing services and medicines Developing innovative purchasing instruments such as managed entry agreements and reference pricing
Social protection and Jobs	Short term	Medium/long term
<i>Improving the effectiveness of employment services</i>	Strengthening partnership with employers to expand provision of work-based youth employment programs. Accelerating the ongoing development of an advanced Labor Market Information System to increase efficiency and oversight	Using digital tools and platforms to expand and improve coverage, facilitate matching, and strengthen coordination for skills and labor markets
<i>Ensuring better targeting of the TSA beneficiaries</i>		Conducting regular reviews of the TSA system to monitor progress on expanding access to target population

**ENSURING INCLUSIVE SERVICE PROVISION**

Education	Short term	Medium/long term
<i>Improving equitable access to pre-primary education</i>	Establishing ECE opportunities in all regions Providing education opportunities for vulnerable and underrepresented groups, as well as students with special needs	Improving learning environment in less-developed regions with school infrastructure, development strategies and action plans
<i>Increasing access to VET and higher education for students from disadvantaged socioeconomic backgrounds</i>	Providing opportunities for vulnerable and underrepresented groups to have access to VET and higher education	Improving access to and reducing cost of higher education for students from poor and vulnerable backgrounds through reform of university entry examinations, scholarships, alternative funding of tuition fees and other means

<i>Ensuring equitable learning opportunities at all levels</i>	Developing tracking system for poorly performing students and individualized support system to eliminate learning loss in general education and VET Developing a new strategy for EMIS to collect and use data to measure actual learning (rather than schooling)	Using ICT in education systems at all levels to reduce learning poverty by increasing access to e-learning and equip students and adults with new skills in demand in the labor market
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Health	Short term	Medium/long term
<i>Ensuring provision of quality care across the territory and socioeconomic groups</i>	Strengthening PHCs in their critical role as pro-poor providers of decentralized basic health care for children (such as vaccinations and nutrition), adults (such as early detection and prevention of NCDs, and promotion of healthy lifestyle) and elderly (such as the LTC model). Conducting a needs assessment to identify the need for PHC facilities in rural areas based on population size	Ensuring adequate geographical distribution of health care professionals Integrating the use of telemedicine to offer consultations in remote areas Building/renovating PHC facilities in rural areas, and equipping them with capital stocks (such as specialists, equipment and tools, laboratory capacities)
<i>Protecting poor and vulnerable from catastrophic health expenditure and reducing costly inpatient care through prevention</i>	Including free-of-charge medicines in the health benefits package for vulnerable groups in outpatient settings to prevent future costly medical interventions in inpatient care	
Social Protection and jobs	Short term	Medium/long term
<i>Expanding the coverage of social protection services</i>	Improving decentralization and coordination of social protection services Improving links among DOST centers, State Social Protection Fund local offices and SEA local offices to enhance the social services, social assistance and employment link	Strengthening the capacity of DOST centers and extending services outside Baku Strengthening outreach mechanisms, including identifying vulnerable populations and potential beneficiaries and how to approach them, and reviewing the vulnerability eligibility criteria
<i>Increasing the physical and technical capacity of social protection services</i>	Using online platforms, leverage information systems, and monitoring and evaluation Strengthening case management techniques used in DOST centers and ministry field offices Piloting and evaluating new disability assessment criteria and operational processes before their gradual national scale up	Training staff on use of more sophisticated methodologies for household assessments, counselling, and referrals to relevant services Improving oversight of the services available and their effectiveness in meeting population needs, including persons with disabilities
<i>Improving the coverage of employment services</i>	Improving the access of vulnerable unemployed persons to ALMPs	Developing tools to better tailor employment services and programs to vulnerable groups Developing evaluation and tracking systems to assess the efficiency and quality of the programs delivered Strengthening links between social assistance and ALMPs to foster activation of social assistance beneficiaries

**PRIORITIZING EARLY INTERVENTIONS AND PREVENTIVE MEASURES**

Education	Short term	Medium/long term
<i>Mitigating learning losses due to COVID-19</i>	Increasing and improving distance learning support and outreach to recapture school dropouts and taking proactive remedial action for at-risk students Revisiting curricula to include educational topics missed during the COVID-19 era	

<i>Expanding ECE coverage</i>		Sustaining policy reforms and the school readiness program to foster universal access to early childhood education across population groups and regions, with an increasing focus on quality
<b>Health</b>	<b>Short term</b>	<b>Medium/long term</b>
<i>Strengthening PHC services and focusing on prevention and early detection, and integrating care at all levels.</i>	Introducing payment methods at PHC level for outputs instead of inputs to increase the productivity of providers and incentivize the providers to encourage potential patients to seek care early	Accelerating training of PHC staff in family medicine and preventive care Developing further active and healthy aging policies
<i>Improving child and adolescent health and well-being</i>	Developing incentive schemes and payment methods for outputs instead of inputs for tracking pregnant women, newborns, and young children	Strengthening provision for sexual and reproductive health and rights services overall
<i>Promoting healthy lifestyles, nutrition, and behavioral change programs</i>	Providing training to doctors at all levels to be advocates of healthy living	Educating the population to foster lifestyle changes towards healthy living
<b>Social protection and Jobs</b>	<b>Short term</b>	<b>Medium/long term</b>
<i>Ensuring the sustainability of the pension system</i>		Introducing a second pillar pension system to support sustainability and compatibility with the existing program

**IMPROVING CROSS-SECTORAL COLLABORATION AND COORDINATION**

<b>Education</b>	<b>Short term</b>	<b>Medium/long term</b>
<i>Harmonizing VET and Life-long Learning programs</i>	Establishing a coordination mechanism between Ministry of Education and Science and MLSPP including protocols and accountability mechanisms	Implementing complementary training programs
<b>Health</b>	<b>Short term</b>	<b>Medium/long term</b>
<i>Developing coordination mechanisms for environmental and occupational health</i>	Addressing legal and shortcomings in the e-health sector and building e-health sector GovTech enterprise framework	
<i>Promoting combined healthy lifestyle, nutrition, and behavioral change programs</i>	Increasing collaboration with relevant ministries, municipalities, and agencies dealing with economy, trade, environment, and agriculture to develop healthy nutrition policies for all population  Conducting an assessment on new and additional taxes and indirect controls on tobacco, alcoholic products, and sugary beverages to decrease consumption	Constructing walking and bike trails, pools, and playing fields to enable citizens to engage in more physical activities to manage and mitigate chronic health diseases, high blood pressure, and cholesterol level
<b>Social protection and jobs</b>	<b>Short term</b>	<b>Medium/long term</b>
<i>Consolidating and coordinating social care across ministries and levels of government</i>	Mapping social care services across ministries  Developing clear terms of reference for each service, as well as referral protocols	Developing an integrated case management system that enables the provision of individualized and coordinated support
<i>Developing an integrated disability system</i>	Training case workers, developing registry, and aligning assessment criteria with best practice  Piloting and evaluating new disability assessment criteria and operational processes before their gradual national scale up	Supporting cross-agency engagement to develop a comprehensive disability strategy for persons with disabilities to have access to all public services (for example, transportation)
<i>Matching labor demand and supply</i>	Accelerating the development of the Labor Market Information System  Conducting a labor demand analysis in designing vocational training and higher education programs	Setting up a coordination mechanism between the Ministry of Education and Science and MLSPP to identify the skill for future jobs

**ENSURING SUSTAINABILITY AND RESILIENCE TO SHOCKS**

<b>Education</b>	<b>Short term</b>	<b>Medium/long term</b>
<i>Expanding support for and use of online learning</i>	<p>Expanding internet and ICT support to vulnerable population and remote schools</p> <p>Developing further online teaching materials and support, boosting digital content, and integrating in the teaching process at all levels</p>	<p>Mainstreaming digital resource utilization in teaching and learning at all levels</p> <p>Training teachers in use of online materials and online teaching techniques</p>
<i>Addressing learning gaps caused by crises</i>	<p>Developing learning recovery programs that can be deployed when needed</p>	
<b>Health</b>	<b>Short term</b>	<b>Medium/long term</b>
<i>Improving efficiency by enhancing monitoring, connectivity and digitalization</i>	<p>Piloting digital health initiatives in regional hospitals to capture lessons for nationwide digitalization of the health system</p> <p>Conducting an assessment of the public health surveillance system’s needs to develop targeted policy interventions</p>	<p>Scaling up health system digitalization nationwide</p> <p>Using digital health generated data for monitoring of diseases, policy making and strategic purchasing of health care services</p>
<i>Improving the resilience and preparedness of the health system</i>	<p>Expanding the scope of pandemic preparedness plans and appropriate legal and policy framework to cover additional threats</p> <p>Enhancing existing digital tools (e-health, virtual platforms, telemedicine) to ensure uninterrupted health service provision for the COVID-19 pandemic and other health threats</p>	<p>Establishing necessary infrastructure and training adequate human resources to deal with future crisis</p> <p>Creating additional emergency funding mechanisms to respond to biological incidents</p> <p>Integrating the digital health solutions developed during the pandemic into a centralized e-health platform, and offering telemedicine, patient apps, e-registries, e-prescription and other e-health tools and applications to facilitate evidence-based decision-making to improve the quality, efficiency, responsiveness, and effectiveness of health care services</p>
<b>Social protection and jobs</b>	<b>Short term</b>	<b>Medium/long term</b>
<i>Improving the crisis responsiveness of existing social protection programs</i>	<p>Implementing legislation to allow social assistance to rapidly expand and modify eligibility and generosity during crises</p> <p>Conducting a crisis response assessment to understand potential gaps in support during crises</p>	<p>Designing emergency programs for middle class and formal sector workers to be financed and implemented during crises</p> <p>Improving the coverage of the Social Registry and its adoption by programs to accelerate enrolment during crises</p>

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