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INVESTING IN HUMAN CAPITAL IN SOUTH AFRICA

A Framework for a Coordinated Multi-Sectoral Approach

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Acknowledgements

This note aims to bring renewed attention to human capital development as a core driver of South Africa's economic growth and development agenda and to present a harmonized approach for investing in priority areas for human capital formation. The ultimate objective is for the note to serve as a guide for the Government of the Republic of South Africa and its partners for prioritizing policies and actions to support human capital formation in the country.

The note builds on the wide body of literature available in South Africa on education, skills, health and nutrition, and social protection and jobs. The note was prepared under the guidance and support of the Marie-Francoise Marie-Nelly (Country Director for Southern Africa, World Bank); Amit Dar (former Regional Director for Human Development, Eastern and Southern Africa Region, World Bank); Daniel Dulitzky (Regional Director for Human Development, Eastern and Southern Africa Region, World Bank); Asmeen Khan (Manager for Operations, South Africa, World Bank); Muna Salih Meky (Practice Manager for Education, Eastern and Southern Africa, World Bank); Paolo Belli (Practice Manager for Social Protection and Jobs, Eastern and Southern Africa, World Bank); and Francisca Ayodeji Akala (Practice Manager for Health, Nutrition and Population, Eastern and Southern Africa, World Bank). The team is grateful to Ronald Mutasa (World Bank), Samer Al-Samarrai (World Bank), Victoria Strokova (World Bank) and Servaas Van der Berg (University of Stellenbosch) for peer-reviewing and providing invaluable feedback on a draft note.

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Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ALMP	Active Labor Market Policy
ART	Antiretroviral Therapy
BEEI	Basic Education Employment Initiative
CET	Community Education and Training
CHW	Community Health Worker
CSG	Child Support Grant
DBE	Department of Basic Education
DHET	Department of Higher Education and Training
DHS	Demographic and Health Survey
DoH	Department of Health
ECD	Early Childhood Development
ECE	Early Childhood Education
GBV	Gender-Based Violence
GDP	Gross Domestic Product
GEC	General Education Certificate
GER	Gross Enrollment Ratio
GHS	General Household Survey
HCI	Human Capital Index
HIV	Human Immunodeficiency Virus
LMIC	Lower Middle-Income Country
NCD	Non-Communicable Disease
NEET	Not in Education, Employment or Training
NIDS-CRAM	National Income Dynamics Study – Coronavirus Rapid Mobile
NPO	Non-Profit Organization
NQF	National Qualifications Framework
NSFAS	National Student Financial Aid Scheme
OPG	Older Person's Grant
PEIR	Public Expenditure and Institutional Review
PIRLS	Progress in International Reading Literacy Study
PMN	Pathway Management Network
PPP	Purchasing Power Parity
PSET	Post-Secondary Education and Training
PYEI	Presidential Youth Employment Initiative
RMNCAH-N	Reproductive, Maternal, New-born, Child, and Adolescent Health and Nutrition
SADTU	South African Teachers Union
SASSA	South African Social Security Agency
SES	Socio-Economic Status
SETA	Sector Education and Training Authority
SME	Small to Medium Enterprise
SRH	Sexual and Reproductive Health
SRD	Social Relief of Distress
SSA	Sub-Saharan Africa
Stats SA	Statistics South Africa
STEM	Science, Technology, Engineering and Mathematics
TB	Tuberculosis
TIMSS	Trends in International Mathematics and Science Study
TVET	Technical and Vocational Education and Training
U5MR	Under-Five Mortality Rate
UIF	Unemployment Insurance Fund

UIF-TERS	Unemployment Insurance Fund Temporary Employer-Employee Relief Scheme
UMIC	Upper-Middle Income Country
UNICEF	United Nations Children's Fund
UN IGME	United Nations Inter-Agency Group for Child Mortality Estimation
UNFPA	United Nations Population Fund
WASH	Water, Sanitation and Hygiene
WBL	Workplace-based Learning
WHO	World Health Organization

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I. The South African Context

Macroeconomic context

South Africa has made considerable strides in improving the wellbeing of its citizens, but persistent economic challenges and structural barriers have stalled progress towards prosperity for all. The country's peaceful transition from apartheid towards a more inclusive democracy in 1994 is considered as one of the most remarkable political feats of the past century. However, the new democracy inherited a deeply fragmented society. The apartheid system disenfranchised the majority of non-white South Africans. This was done through a social engineering system of institutionalized racial oppression that excluded the majority from accessing basic services and economic opportunities. The post-apartheid reconstruction focused on improving access to education, health care, social protection services, housing, water, electricity, and sanitation for millions. Aided by sustained rapid economic growth in the years following the transition to democracy, the county experienced significant developmental progress including remarkable improvements in human capital outcomes. However, over the last decade and a half, economic growth has stalled, and the country's institutions have deteriorated. This in turn has contributed to a slower pace of improvement in social and economic development outcomes.

Although South Africa is classified as an upper-middle income country (UMIC)[1], the living reality of most of its citizens falls short of what is observed in peer economies. The country faces the triple burden of high levels of poverty, unemployment, and inequality, which are intrinsically linked with the social and economic exclusions that are legacies of the apartheid era. Using the international extreme poverty line of US$ 2.15 (2017 PPP) per day per capita, the poverty rate is estimated to be over 20 percent.[2] This level of extreme poverty is almost twice the average for countries with similar income levels. Race and geography are strong determinants of poverty, reflecting disparities from the apartheid era. Poverty is consistently higher among black Africans, the less educated, the unemployed, female-headed households, and larger families. Poverty is also the highest in the Eastern Cape, Limpopo, and KwaZulu-Natal provinces, which had larger proportions of homelands[3] under apartheid. In South Africa, poverty is also a multidimensional phenomenon, with poor people being excluded from basic services in education and health care and having limited access to jobs and economic opportunities, creating a vicious cycle of deprivation.

[1] The country is classified as UMIC with per capita gross domestic product (GDP) of US$ 6,994 in 2021 (World Bank, 2022a).
[2] Most recent value is from 2014.
[3] The homelands were areas established by the Apartheid Government, to which the majority of the Blacks population was moved to prevent them from living in the urban areas of South Africa.

Across many economic and social dimensions, South Africa emerges as one of the most unequal countries in the world. In 2018, the country's consumption Gini coefficient was 0.67, which was the highest in the world, significantly higher than the global median of 0.369 and the median for UMICs at 0.387 (World Bank, 2021a). Endemic inequalities across race and geography including across provinces are important contributors. But increasingly, inequality is being driven by labor market inequalities— employed versus unemployed and skilled versus unskilled. Unemployment is very high, having reached an unprecedented 35.3 percent in 2021 amid the COVID-19 pandemic, and only marginally declining to 32.6 percent in the second quarter of 2023. Unemployment is extremely high among youth between the ages of 15 to 34, at around 60.7 percent in the second quarter of 2023, with female youth facing an even starker reality (Oosthuizen, 2021; World Bank, 2022b). The high unemployment rate in the country is likely to be driven by a combination of factors, including macroeconomic challenges, a small entrepreneurial sector, skills gaps of the labor force, and more recently the impact of the COVID-19 pandemic.

The government has made a commendable effort to protect its citizens from the economic fallout of the COVID-19 pandemic, yet both unemployment and poverty rates have increased substantially. Emerging out of the pandemic-induced economic contraction in 2020, South Africa's economy started to recover in 2021, with GDP growth reaching 4.9 percent. The government implemented different schemes to mitigate the economic impact of the pandemic, including through the Unemployment Insurance Fund – Temporary Employment Relief Scheme (UIF-TERS) for formal sector workers and by providing support for consumption through the R350 Social Relief of Distress (SRD) Grant for informal sector workers. While there were some implementation gaps, these efforts played a critical role in helping South Africans withstand the impact of the pandemic. However, despite the gradual recovery in economic growth and expansive social protection efforts, commensurate improvement in employment has not yet been achieved. Concerns about the potential lasting impacts of the pandemic on human capital outcomes are also mounting.

Rising political uncertainty and frequent civil unrest rooted in the public's frustration with persistent economic and social challenges are also threatening economic growth and stability. Growing evidence of deeply entrenched corruption through 'state capture', fragmentation in political parties, decline in the provision of services,[4] and weakened institutions have eroded the public's trust in the government. The increased social discontent, combined with economic challenges has resulted in frequent civil unrest. The civil unrest which largely took place in KwaZulu-Natal in July 2021, for example, led to significant economic damage, due to disruptions to major roads, transport corridors, and supply chains, which in turn led to food, fuel, and medical supply shortages.

The ongoing energy crisis, which has culminated in frequent load shedding and blackouts is also impacting the economy, threatening businesses and livelihoods, and reducing the country's competitiveness. The country has made commendable progress towards achieving universal access to electricity with an estimated 85 percent population having access to electricity. However, the majority of the population continues to experience high levels of energy poverty - both due to the high cost of electricity and unreliable power supply. The country is heavily reliant on coal-fired power stations managed by the state-owned energy utility, Eskom. Aging and unreliable infrastructure, heavy debt, substantial payment arrears from municipalities, and worker strikes have impacted Eskom's performance leading to prolonged blackouts. The country's reliance on fossil fuel is also a critical challenge in its effort to transition to a greener and climate-resilient economy.

Climate change is a critical risk factor that is already impacting South Africa's economic and social development. Evidence indicates extreme weather events, such as the rising frequency and severity of storms and flooding in the country, are likely to increase food and water insecurity and the spread of disease (Chersich et al., 2018). The already high burden of disease in South Africa makes the population more vulnerable to the impacts of climate change and those who are socioeconomically disadvantaged are

[4] For example, during the recent energy crisis, frequent load shading and blackouts disrupted business and the lives of millions, leading to increased public frustration.

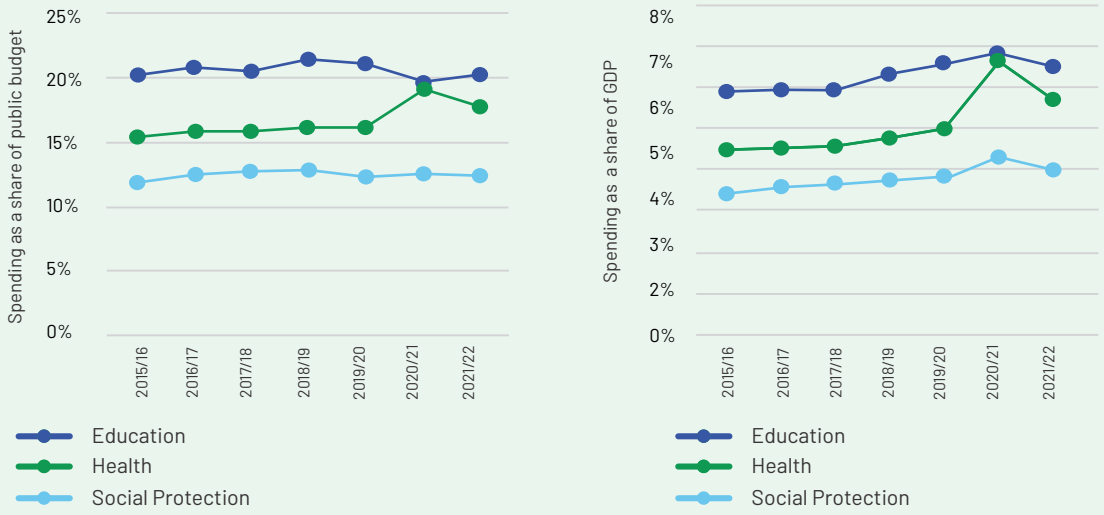
particularly vulnerable to climate-related shocks. Climate-related disasters are estimated to affect more than 500,000 people in the country each year (i.e., those who are injured, become homeless, or require food assistance). Drought, in particular, has affected nearly 22 million South Africans in the past decade (World Bank, 2022d). South Africa is one of the top 20 contributors to global carbon emissions and the eighth non-high-income country. This is to a large part driven by its heavy reliance on coal and related fossil fuels, which is contributing to higher morbidity rates due to a deterioration in air quality. It is also impacting the country's competitiveness on international markets as consumers are increasingly giving greater attention to the carbon footprint of the products they consume (World Bank, 2022d).

To shift South Africa's path towards prosperity for all and enable the country to emerge as a development success story, more needs to be done to foster inclusive and sustainable growth. Meaningful and inclusive economic growth cannot be realized or sustained without a skilled and healthy workforce. Building strong human capital foundations through better investments in education, health and social development remains an urgent priority for the country. The effort to promote inclusive and sustainable growth also needs to address the pervasive and persistent inequalities in the country. This will require addressing inequalities in human capital development, by providing equitable access to quality basic services, enabling all South African children and youth to reach their full human capital potential. It also requires providing fair economic opportunities, especially for those who continue to be marginalized, to ensure that investments in human capital development translates into better social and economic outcomes for all. Delivering these objectives will require clearer roles and responsibilities, better coordination, and accountability across all levels of Government, including the central and provincial governments.

South Africa's Human Capital Development in the Global Context

The Government of South Africa has shown a strong commitment to human capital development. Currently, the country spends a significant amount of its resources on the human development sectors. In 2021/22, government expenditure on education accounted for 20 percent of total public sector budget. The corresponding figure for social protection was 18 percent, significantly higher than the preceding years, due to the expansion of social protection programs in response to the pandemic. Expenditure in the health sector was about 12 percent of total public sector budget over the same period. Expressed as share of GDP, public spending on education, social protection and health amounted to 6.5 percent, 5.7 percent and 4 percent respectively (see Figure 1). In aggregate terms, the country's spending in human capital development sectors exceeds the spending levels observed in many UMICs. However, given the large and growing youth population, high burden of disease and historical inequities in the provision of basic services, sustaining and even increasing the level of spending remains essential, especially to improve spending on per-capita basis. In the education sector, for example, a recent study showed that between 2009 and 2018 real expenditure rose by 3 percent at the aggregate level, while it fell by 2.3 percent at the per-student level (Van der Berg et al., 2022). There is also significant variation in per-student spending across provinces, reinforcing persistent patterns of geographic inequalities.

Figure 1: Public expenditure on education, health, and social protection sectors



Source: Team's analysis of data on total consolidated expenditure, obtained from the National Treasury, 2022a and GDP data, obtained from National Treasury, 2022b.

Across human development sectors, there is significant room for efficiency gains, both in terms of allocation and ensuring value-for-money. For example, even though stunting in early childhood is largely irreversible, almost 80 percent of financing for early nutrition is currently used for the National School Nutrition Program targeting children who are 5 years and older. This leaves very little budget for supporting the nutrition of young children, who are not yet attending formal education, missing a window of opportunity to mitigate the developmental impacts of stunting early on (World Bank, 2023). Similarly in the education sector, a disproportionate share of the sector budget goes to higher education,[5] despite the sector serving a small share of the student population and mostly those from higher socio-economic status backgrounds. A significant share of the public sector budget is allocated to salaries. In the basic education sub-sector, for example, the share allocated to employee compensation (mainly teachers' salary and benefits), amounted to 76 percent of the total sector budget in 2021/22 and the trend is upwards. However, the high level of spending on teachers is not translating into better learning outcomes. The system continues to struggle with attracting high quality candidates into the teaching profession, with many teachers in the system having low levels of content knowledge and pedagogical skills. Accountability systems remain weak, failing to ensure teachers' presence in the classroom and motivate better performance.

Consequently, South Africa's human capital outcomes are below what could be expected for its income status. This is reflected in the country's human capital index (HCI). The HCI is a composite measure of key human capital outcomes across health (child survival, stunting, and adult survival rates) and the quantity and quality of schooling (expected years of school and harmonized test scores).[6] Between 2010 and 2020, South Africa's HCI remained approximately the same at 0.43, which implies that a child born in South Africa today will be only 43 percent as productive when she grows up as she could be if she enjoyed complete education and full health by the age of 18.[7] South Africa's HCI score is marginally higher than the average for the Sub-Saharan Africa (SSA) region (0.40) but significantly lower than the average for UMICs (0.56). Overall, girls and women have slightly better outcomes in most dimensions of the HCI, with the largest advantages being observed in stunting, learning, and survival to adulthood. However, it should be noted that women

[5] In 2021/22, excluding higher education, spending in the education sector as share of GDP was only 4.5 percent, compared to 6.8 percent with the inclusion of higher education.
[6] The HCI measures the amount of human capital that a child born today can expect to accumulate by age 18, measuring his/her productivity compared to a benchmark of complete education and full health. The components of the index are shown in Table 1.
[7] These estimates were made before the COVID-19 pandemic, and it is likely human capital prospects have deteriorated further in the past few years.

face significant barriers in fully using their human capital potential, as they continue to experience economic disadvantages including higher levels of unemployment and lower earnings when they work.

Table 1: South Africa's Human Capital Index, benchmarked against comparators

Indicator	South Africa 2020			Sub-Saharan 2020	Low Income	Lower Middle Income	Upper Middle Income	High Income
	T	M	F					
Probability of survival to age 5	0.97	0.96	0.97	0.93	0.93	0.96	0.98	0.99
Expected years of school	10.22	10.23	10.15	8.3	7.6	10.4	10.4	13.2
Harmonized Test Scores	343	328	359	374	356	392	411	487
Learning adjusted years of schooling	5.60	5.37	5.83	4.97	4.33	6.52	6.84	10.29
Survival rate from age 15-60	0.69	0.63	0.76	0.74	0.75	0.80	0.86	0.92
Fraction of children under 5 not stunted	0.73	0.70	0.75	0.69	0.65	0.75	0.87	0.80
Human Capital Index (HCI)	0.43	0.41	0.45	0.40	0.38	0.48	0.56	0.71

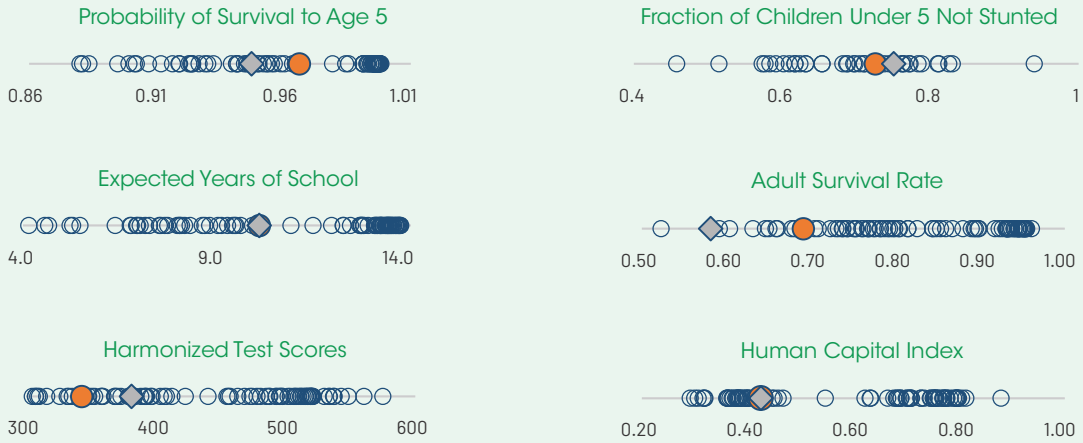
Source: World Bank, 2022c. Note: T: Total; M: Male; F: Female. Note: Learning adjusted years of schooling (LAYS) is an index equal to the product of two elements: the average expected years of schooling and a particular measure of learning relative to a benchmark.

Box 1: South Africa's Human Capital Score (HCI) and progress over time

South Africa does not perform well on most indicators of the HCI, even though there is improvement:

- *Three out of 100 children will die before the age of 5*. This is an improvement from 2010 when it was 5 out of 100 children. Despite the improvement since 2010, the probability of survival to age 5 is lower than in many countries with a similar income level.
- *Thirty-one percent of 15-year-olds will not survive until age 60*, significant improvement since 2010 when it was 42 percent. High HIV/AIDS and tuberculosis (TB) prevalence, violence, road traffic accidents, and the growing prevalence on non-communicable diseases (NCDs), all contribute to short life expectancy.
- *Twenty-seven percent of children below the age of five are stunted*, a slight increase from 25 percent in 2010. This means, over a quarter of children face lifetime risks of cognitive and physical limitations. Recent estimates from smaller surveys find that this may be an overestimate.
- *There is a large learning deficiency*. A child who starts school at age 4 can expect to complete 10.2 years of school by her 18th birthday. Students test scores are low, estimated at 343 in 2015 (381 in 2010) on a scale where 300 represents minimum attainment and 625 advanced. Factoring in what children learn, expected school attainment is only 5.6 years.
- *Learning poverty is high*. In 2016, 79 percent of 10-year-olds could not read and understand a simple text. This is slightly lower than the average for the Africa region (86.4 percent learning poverty) but dramatically higher than the average for countries with similar income levels (29.5 percent learning poverty for UMICs). More recent estimates are pointing to significant deterioration of the situation, with learning poverty estimated to have increased to 82 percent post-COVID-19.

Large circles and diamonds indicate scores for South Africa in 2020 and 2010 respectively.



Source: World Bank, 2020, Human Capital Project. World Bank, 2022e, South Africa Learning Poverty Brief

The COVID-19 pandemic has adversely impacted the wellbeing of South Africans and eroded gains made in human capital development, which will have implications for the future development of the country. The pandemic has added to the disease burden in the country, directly and indirectly impacting the health of millions of South Africans. It has also impacted all key socioeconomic outcomes, including contributing to increased levels of hunger and malnutrition, loss of learning, job loss, and deterioration of mental health, exacerbating existing inequalities. In particular, estimates show that child hunger in South Africa almost doubled during the pandemic from 8 percent in 2018 to 15 percent in 2020. The proportion of children who cannot read for meaning by age 10 has increased from 78 percent in 2016 to 81 percent in 2021. Between the second quarter of 2022 and the second quarter of 2023, unemployment rates had only marginally declined from 35.3 percent to 32.6 percent.

Table 2: Impact of COVID-19 on child hunger, learning poverty and unemployment

Select Indicators	Pre-Covid (Year)	Post-Covid (Year)
1. Child hunger	8% (2018)	15% (2020)
2. Learning poverty at age 10	78% (2016)	81% (2021)
3. Unemployment	29.1% (Q4 2019)	35.3% (Q4 2021) 33.9% (Q2 2022) 32.6% (Q2 2023)

Source: 1. Statistics South Africa 2020 and 2021; Van der Berg et al. 2020 and 2021; 2. Spaull 2023; 3. Statistics South Africa 2020, Statistics South Africa 2022; 4. Statistics South Africa 2023.

Notes: 1. The questions on child hunger in the GHS and NIDS-CRAM are not directly comparable. NIDS-CRAM asks whether a child in the household has gone hungry in the past seven days, compared to the past year for the GHS. Van der Berg et al. (2020) convert questions on child hunger in the past year to child hunger in the past week; 2. 2021 estimate assumes that learning losses in the Western Cape Province are experienced nationally.

To mitigate the social and economic impact of the pandemic, the Government has been proactive in its response across human development sectors, including by mobilizing support from the World Bank and other development partners with varying degree of success.[8] Moving forward, efforts across all sectors need to be directed not only to the recovery of systems, but also on accelerating human capital development and building resilience to withstand future shocks.

[8] For example, the World Bank is contributing to South Africa's response to the pandemic through the COVID-19 Emergency Response Project (P174259) which retroactively finances the procurement of COVID-19 vaccines by the government.

II.

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II. Assessment of Human Capital Outcomes Across the Life Cycle

Improving human capital outcomes in South Africa requires holistic investments in nutrition, health, education, skills development, employment, and social protection to meet the needs of individuals at different stages of life. To do so, an important first step is assessing the state of human capital development in the country to identify deficiencies and disparities and understand the determinants of the observed gaps. The findings of such an assessment can then form the basis to identify priority challenges and inform the design of the country's policy and programmatic response to address them. In line with this approach, this policy note presents an in-depth assessment of the status of human capital development in South Africa and identifies the priority challenges across the key social sectors involved in human capital development.

The policy note uses a life cycle framework to undertake an in-depth diagnostic of human capital development in the country. The life cycle approach places a strong emphasis on investing in human capital development holistically, involving all relevant sectors, and as a continuum - following the trajectory of an individual's life. It focuses on three critical stages of an individual's life—*(i) Early Childhood; (ii) School Age; and (iii) Youth to Adulthood* (see Figure 2). This approach recognizes that early childhood, starting with the prenatal stage, forms the foundation for lifelong health, all future learning, and overall wellbeing, while investments during the school years and beyond reinforce developments in the early years, leading to further human capital accumulation. Moreover, the approach considers the complementarity of investments made across human capital development sectors and during the different stages of the life cycle for synergistic effects.

Figure 2: A Life cycle framework to examine inequalities in human capital development

Source: Adapted from Human Development Project, World Bank

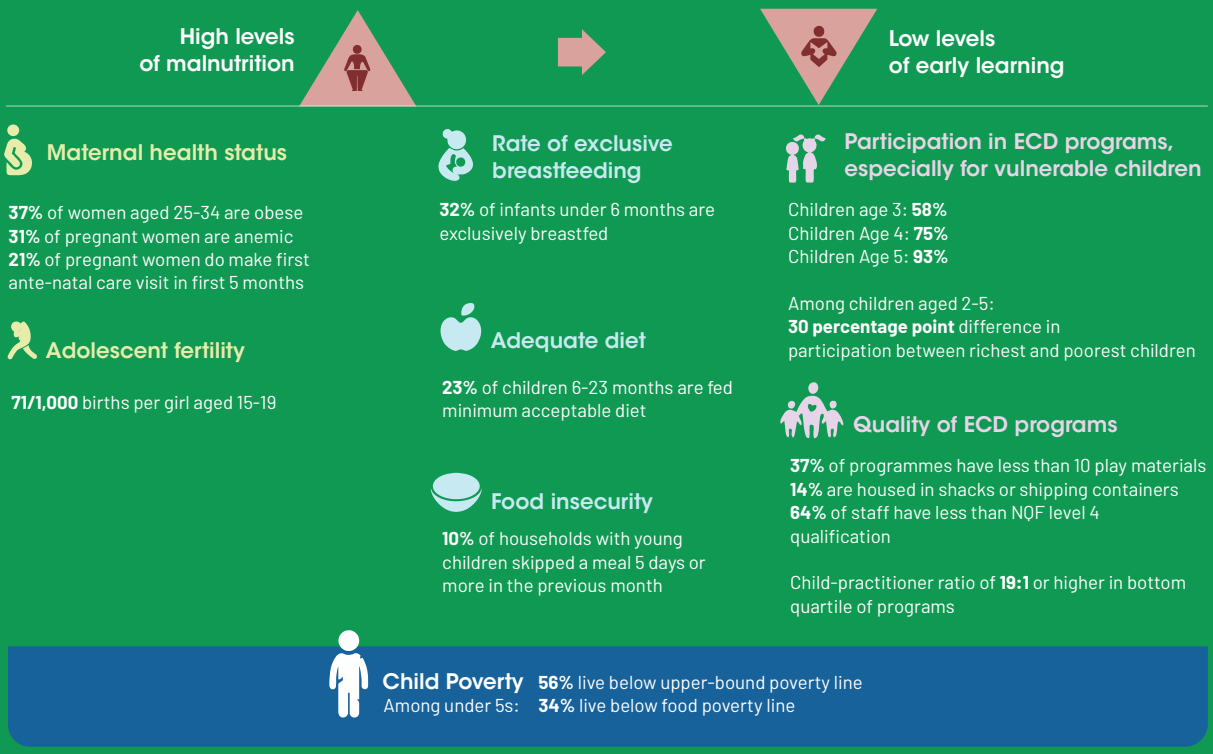
A.Early Childhood (From Pregnancy to Age 5)

Improving early childhood development (ECD) outcomes should be a priority for any country as it forms the foundation for its citizens to reach their full human capital potential. Global evidence shows that healthy development in the early years, specifically, the time from pregnancy to age 5, provides the basis for all future health, educational achievement, and thereby economic productivity in adulthood. Conversely, poor early childhood outcomes threaten human capital development during the school years and beyond, leading to loss of human capital potential and economic productivity for individuals, their communities, and their country (Grantham-McGregor, et al. 2007; Heckman and Masterov, 2007; Black, et al, 2017; and World Bank, 2018).

Despite its importance, ECD has been grossly underfunded in South Africa. Across three broad areas of intervention for this age group – nutrition for the early years, early learning (grade R and pre-grade R for children ages 0 to 4) and family support – largely comprised of the Child Support Grant (CSG), total spending on ECD was only R36.1 billion in 2021/22. This is equivalent to 1.7 percent of total public expenditure and 0.6 percent of GDP. From this allocation, more than 70 percent goes to the CSG, with a tiny proportion going to nutrition interventions.

There are several important and interlinked domains for ECD, including physical, cognitive, social and emotional, and linguistic development. Whether a child is healthy and well-nourished and receives early stimulation to support her learning strongly correlate with progress in several of these developmental domains and can thereby serve as good proxies for success on key ECD outcomes. Progress in improving early childhood health, nutrition and learning -related outcomes and the driving factors behind some of the critical gaps are discussed in detail below.

Figure 3: Interconnected factors driving poor early childhood outcomes



Source: Adapted from Human Development Project, World Bank

In terms of health outcomes for young children, the under 5 mortality rate (U5MR) and infant mortality rate has improved between 2010 and 2020. The U5MR was reduced from 52 deaths per 1,000 live births in 2010 to 32 deaths per 1,000 live births in 2020 (UN IGME, 2021). The infant mortality rate was also reduced from 34 deaths per 1,000 live births to 26 deaths per 1,000 live births over the same period, even though neonatal mortality only marginally declined from 12 deaths per 1,000 births to 11 deaths per 1,000 births. These advances point to commendable achievements made by the Government in the provision of essential health services. Despite these improvements, South Africa compares unfavourably with most UMICs. For example, the average U5MR among (UMICs) was 11 deaths per 1,000 live births in 2020, about a third of the U5MR observed in South Africa. Diseases such as respiratory and cardiovascular disorders specific to the perinatal period, influenza and pneumonia, intestinal infectious diseases, disorders related to the length of gestation, and foetal growth all contribute to childhood mortality.

Rates of stunting remain high in South Africa, affecting children from all socioeconomic backgrounds. Estimates from 2016 find that 27 percent of children under-five in South Africa were stunted (DoH, 2019) compared to 11 percent of children in UMICs. While this may be an overestimate, it is the only nationally representative stunting figure available.[9] The 27 percent stunting figure means that over a quarter of children in the country are experiencing impaired physical and cognitive development, most likely due to poor nutrition and frequent infection. Children from the poorest 20 percent of households are almost 3 times more likely to be stunted than those from the richest 20 percent of households (36 percent versus 13 percent), while more than 1 in 4 children from the middle 60 percent are also stunted. This points to the pervasiveness of the problem (World Bank, 2023). The physical and cognitive impact of stunting on children is largely irreversible and poses a serious threat to children's long term human capital development. In contrast, about 13 percent of children under the age of 5 years are overweight or obese, pointing to poor-

[9] For example, the World Bank is contributing to South Africa's response to the pandemic through the COVID-19 Emergency Response Project (P174259) which retroactively finances the procurement of COVID-19 vaccines by the government.

quality diets for many (DoH, 2019).

Despite the importance of adequate and nourishing meals for young children, nutrition interventions remain small, fragmented, and uncoordinated across multiple departments. In 2017, the Presidency released the *National Food and Nutrition Security Plan for South Africa: 2018-2023*, which is considered to be the country's first plan to align work on food and nutrition across several sectors. The plan included the formation of a multi-sectoral Food and Nutrition Security Council, which is yet to be established. Available information provides an indication that funding for nutrition interventions is currently insufficient. Details on trackable expenditure both within the examined budget lines, and elsewhere, devoted to the nutrition of young children are scarce. Further, reporting on key nutrition interventions and outcomes is often inconsistent or lacking, making it difficult to assess reach and impact. This underlines the need to strengthen reporting and data collection processes, to better track progress as well as inform responsive programing (World Bank, 2023).

Table 3: International comparison of selected early childhood and maternal outcomes

Key Indicators	South Africa	Regional comparators			Selected actual & aspiring UMICs			UMIC
		Kenya	Namibia	Nigeria	Peru	Sri Lanka	Vietnam	
(1) Under-5 mortality rate per 1000 live births (2016-2020)	32	42	40	117	13	7	21	11
(2) Under-5 prevalence of stunting (2013-2020)	27%	19%	18%	35%	11%	16%	22%	11%
(3) Maternal mortality (deaths per 100,000 live births) (2017)	119	342	195	917	88	36	43	41
(4) Adolescent fertility rate (births per 1000 women ages 15-19) (2019)	71	73	60	104	55	20	27	29
(5) Total fertility rate (births per woman) (2021)	2.4	3.3	3.3	5.2	2.2	2.0	1.9	1.6

Source: 1. UN Inter-agency Group for Child Mortality Estimation (2021); 2. UNICEF-WHO-The World Bank (2021); 3. WHO, et al. (2019); 4. World Bank Open data (2022); 5. World Bank Open data (2023)

Access to maternal and child health care services has improved, but there are significant quality gaps that lead to poor maternal and child health outcomes. Gaps in the quality of provisioning for the continuum of reproductive, maternal, new-born child, and adolescent health and nutrition (RMNCAH-N) services are key drivers of poor outcomes, even though there has been some improvement over time. While the maternal mortality ratio decreased from 160 deaths per 100,000 live births in 2000 to 119 deaths per 100,000 live births in 2017, it is three times as high as the average for UMICs (41 deaths per 100,000 live births) (WHO et al., 2019). Almost all pregnant women (94 percent) received antenatal care, even though, only about a half of them (47 percent) received the care in the first trimester (DoH, 2019). Moreover, close to all births (96 percent) took place in a health facility in 2016 compared to 83 percent in 1998 (DOH, 2019). However, the fact that maternal and child deaths are high, despite high level of access to RMNCAH-N, points to gaps in the quality of services. A recent study also showed increases in maternal deaths by 40 percent, still births by 10 percent

and perinatal mortality by 8 percent in 2020/21 compared to 2019/20. These increases are likely due to the direct and indirect effects of the COVID-19 pandemic on maternal health and provision of care (Pattinson et al., 2021).

The high prevalence of adolescent fertility also contributes to poor maternal and child health outcomes. The adolescent fertility rate stands at 71 births per 1,000 females ages 15 to 19 compared to 29 per 1,000 females of the same age group in UMICs. The rate was more than three times as high for adolescent girls from the poorest 20 percent of households (81 per 1,000) as for those from the richest 20 percent of households (25 per 1,000) (World Bank, 2023). Adolescent childbearing is linked with a greater risk of birth-related complications and higher maternal and neonatal mortality (UNFPA, 2014; UNFPA and UNICEF, 2021; WHO, 2016). Children of young mothers also have a higher likelihood of stunting and tend to have worse health, academic, economic, and social outcomes, which creates a vicious cycle of intergenerational deprivation (Anakpo and Kollamparambil, 2021; Fall et al., 2015). While the adolescent fertility rate remains high, the total fertility rate is not far off from the UMIC average.

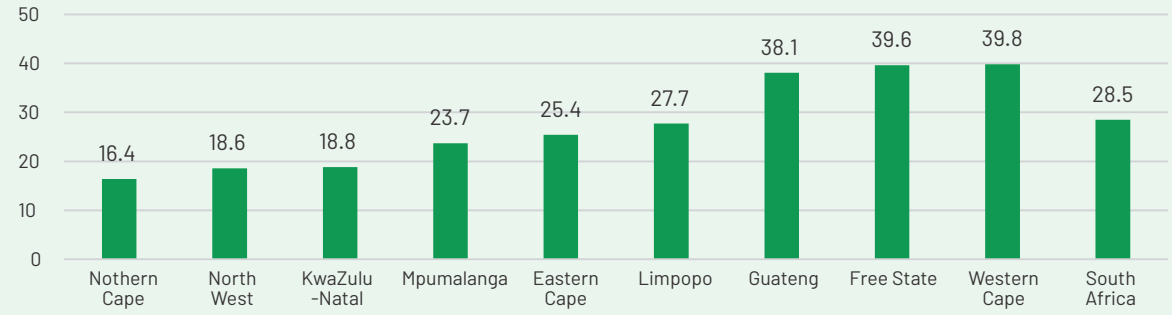
Access to cost-effective interventions, such as vaccinations, nutrition, and water, sanitation and hygiene (WASH) services remains a challenge. Only 61 percent of children aged 12-23 months received all basic vaccinations in 2016, compared to 63 percent in 1998. While vaccination coverage was relatively equitable, children from the poorest 40 percent of households were more likely to have diarrhoea and less likely to seek advice or treatment than the rest. Access to WASH services has improved, but significant gaps remain, with approximately 30 percent of children under the age of 6 living in households without access to piped water inside their home or on-site, and 22 percent live without access to safe toilets (Hall et al., 2017; Hall et al., 2019).

Low and inequitable access to quality early learning services[10] remains a critical obstacle. Enrollment in early learning programs among children ages 0-2 has shown improvement, increasing from 16.3 percent to 29.8 percent between 2009 and 2018 (Department of Basic Education, 2019). Over the same period, participation in early learning programs increased by 14-16 percentage points for children ages 3, 4 and 5, reaching 58 percent, 75 percent and 93 percent respectively (World Bank, 2023), with almost universal access to grade R (a free pre-primary class before most children enter grade 1) However, there are significant disparities in early learning enrollment by socio-economic background and proximity to early learning providers (Moses, 2021). There is a 30-percentage point difference in enrolment for children from the richest 20 percent of households compared to children from the poorest 20 percent of households. The estimated average distance to an early learning program is 2.7 km nationwide, but only 1.8 km in urban areas compared to 3.4 km in tribal authority areas, and a striking 8 km in farm areas. Unsurprisingly, enrollment rates are low where there are no early learning programs nearby. Participation in these programs also dipped during the repeated waves of the COVID-19 pandemic but has almost recovered to pre-pandemic levels more recently (Wills and Kika-Mistry, 2021).

There is also significant variation across provinces in access to early learning programs. The variation is particularly stark among younger children (ages 0 to 4). Figure 4 shows the percentage of children ages 0 to 4 enrolled in ECD programs including grade R, pre-school, nursery school, crèche, educare centers, drawing from data from the 2021 General Household Survey (GHS). While the national average for access to ECD among this age group is 28.5 percent, the figures is lower than 20 percent in provinces such as Northern Cape, North West and KwaZulu-Natal.

[10] In South Africa, ECD covers a number of modalities including crèche, pre-school, day mother, home-based play groups, and Grade R.

Figure 4: Percentage of children ages 0-4 years enrolled in ECD programs by province, 2021



Source: Statistics South Africa, General Household Survey, 2021. ECD programs including Grade R, Pre-school, nursery school, crèche, educare centres.

The Government provides subsidies to early learning providers to make it affordable for all and ensure a basic level of quality, but there are several implementation challenges. First, the subsidy amount is inadequate and declining in real terms. The amount of the subsidy is currently R17 per child per day, while preliminary costing work suggests the minimum operating cost of ECD centers is R35 per child per day. Further, the real value of the subsidy declined by 14 percent between 2015 and 2021. This means the amount is inadequate to cover the full operating cost, leaving providers to rely on parental fees to supplement their income. Second, given the limited budget for the program, provinces have resorted to rationing the subsidy (Ilifa Labantwana, 2020). Lastly, to access the subsidy, providers must first register. However, the registration processes are very complex and many early learning providers that serve children from poor households are unregistered and consequently do not have access to the subsidy. As a result of these challenges, only 17 percent of children who attend early learning programs are reported as paying zero fees. Majority of children ages 0 to 6 in early learning programs (74 percent) from the poorest households currently pay fees, and it is likely many poor children are completely excluded because of these cost barriers.[11]

Early learning outcomes are also poor in South Africa, pointing to deficiencies in cognitive and socioemotional development that children experience in the early years, with inequalities observed by household income quintile. Reliable data is not available to track and compare early childhood learning outcomes over time and against comparator countries. However, the available data shows significant gaps. For example, an assessment of children aged 50-59 months enrolled in early learning programs in 2021 showed that 55 percent were not on track in their learning[12] of which 28 percent were falling far behind (Giese et al., 2022). In addition, a greater proportion of children from lower income quintiles (62 percent) are not on track compared to children in higher income quintiles (42 percent). It is likely that children who do not have access to early learning programs are even further behind. This means the majority of children enter primary education with little preparation and are already at a disadvantage in their foundational learning.

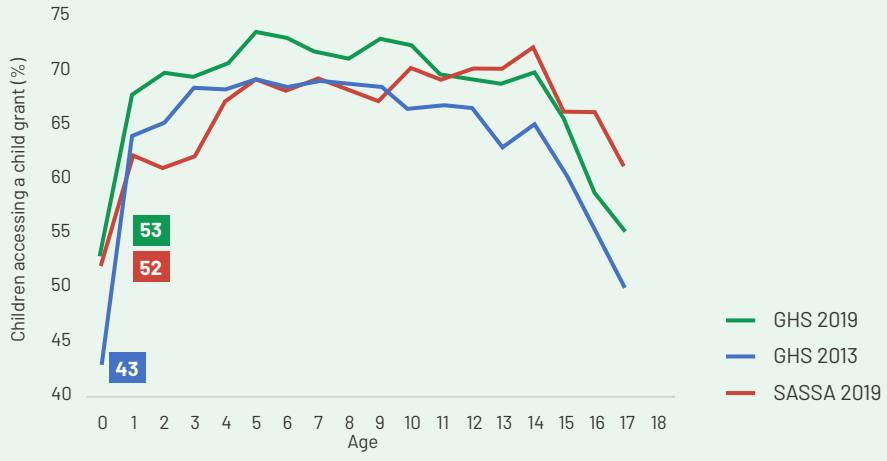
[11] Children from the poorest households pay on average R271-284 per month for ECD centre attendance, equivalent to around 33 percent of the lower-bound poverty line of R840 (World Bank, 2023).

[12] This score is comprised of five learning domains i.e., Gross Motor Development; Fine Motor Coordination and Visual Motor Integration; Emergent Numeracy and Mathematics; Emergent Literacy and Language; and Cognition and Executive Functioning.

There are quality gaps that have reduced the effectiveness of early learning programs in promoting foundational skills acquisition. Overall, the average child-to-staff ratio appears to be favorable at 15:1 nationally. However, the low capacity of early childhood development practitioners and teachers is an important driver of poor early learning outcomes. In the early learning sub-sector, only 36 percent of staff have at least a National Qualifications Framework (NQF) level 4 qualification – equivalent to successfully completing Grade 12 (World Bank, 2023). Many of these practitioners also face challenges related to poor wages (an average salary which is close to the minimum wage), precarious employment conditions, and limited training opportunities (Ilifa Labantwana 2021; BRIDGE et al., 2020). The majority of early learning programs have a shortage of teaching, learning and play materials, while some providers do not have adequate infrastructure that is safe and conducive for learning, which affects the quality of services and instruction provided.

Household poverty is strongly associated with key dimensions of poor early childhood outcomes. To mitigate the impact of poverty on child health, nutrition, and education outcomes, the Government is implementing social assistance programs to support poor households.[13] The Child Support Grant (CSG), which provides cash support directly to caregivers of children 0-18 years old is one of the most important programs in this regard. The CSG support, which poor households start receiving at the birth of the child (or as soon as the paperwork required to receive the grant is filed), is intended to improve early childhood education and health outcomes by reducing early malnutrition and hunger and helping families pay for early childhood development and education, schooling, and other services essential to child development. Coverage of the program has improved over time, especially for age 0 beneficiaries, in part driven by improvement in birth registrations within 30 days of birth between 2014 and 2019 (Statistics SA, 2021). Still, the coverage for 0–1-year-old children is below the coverage for older children (Figure 5) Also, contrary to the program's intent, the estimated coverage of the CSG is relatively lower for the most disadvantaged group. For example, among some of the poorest children (those whose family's household income is estimated between R799 to R1,799), the CSG coverage is about 74 percent, while it is about 87 percent for children whose family income is about R1,799 to R2,499 (World Bank, 2023). The CSG coverage for age 0 children also worsened during the COVID-19 pandemic, most likely due to the stringent lockdown and distancing rules during the pandemic making birth registration and acquisition of necessary documents difficult for families. In addition to the CSG, other social grants that are not directly targeted towards children also show some positive impact on child outcomes (see Box 2).

Figure 5: Coverage of the child support grant by age using different data sources



Source: Extracted from World Bank 2022d. SASSA (2020), weighted estimates using GHS 2019 data.

[13] The caregiver of a child under the age of 18 is subject to an income means-test threshold of R4,600 per month if the caregiver is single and R9,200 per month for the joint income of the caregiver and spouse if the caregiver is married.

Box 2:
Social protection systems in South Africa and impact on human capital outcomes

Social assistance program and coverage

South Africa has one of the most comprehensive social protection programs in the developing world. Social protection is comprised of three main parts: social assistance, which includes social grants of various kinds; statutory funds such as the Unemployment Insurance Fund (UIF); and voluntary funds, for example, retirement funds. Social grants, including the CSG, the older persons' grant (OPG), and the disability grant, account for the largest parts of the system in terms of both budget and coverage.

One in every three South African's (more than 17 million total beneficiaries) receives social assistance in the form of at least one social grant payment per month, addressing specific life cycle and other risks (World Bank, 2021a). More than half (52.5 percent) of the South African population lives in households receiving cash social assistance, with nearly all of those in the first- and second-income quintiles—the poorest population—receiving some kind of social assistance (99.6 and 97.7 percent, respectively).

The primary vulnerable groups that are not covered by the social assistance are working-aged adults, particularly informal sector workers who are not eligible for social insurance (World Bank, 2021a). Before the Special Covid-19 Social Relief of Distress R350 grant was launched in 2020 to mitigate the impact of the pandemic, the only social assistance available to the working-age population were the disability grant which is predicated on disability, the short-term public works schemes, and the unemployment insurance and compensation funds, which is only available to contributing formal sector employees (World Bank, 2021a).

Impacts of social grants on human development outcomes

A significant amount of research has been conducted on the impacts of social grants on health, nutrition, and education outcomes of children in South Africa. Some of the key findings are highlighted below.

Nutrition, Food Security, and Hunger

The impact of social grants on nutrition and related outcomes, such as prevalence of hunger, are mixed and seem to be dependent on the exact outcome variable used. Estimated effects also seem to be mediated by the gender of the grant recipient. The effect of the CSG on nutrition related outcomes is mixed. Waidler and Devereux (2019) find no impact of the CSG, while Coetzee (2013) finds a small positive effect of the CSG on households' food expenditure, and on children's height-for-age. A more recent study by Chakraborty and Villa (2022) finds that increased income from the CSG alleviates extreme malnutrition (underweight and obesity) among female beneficiaries. There is also evidence showing that the older persons' grant (OPG) is associated with improvements in the nutrition related outcomes of children (Duflo (2000; 2003); Waidler and Devereux (2019); Case and Menendez (2007)). Duflo (2000; 2003)

show a more nuanced picture, showing that the effect is driven by grants received by women with a bigger impact being observed on female children.

Education

The impacts of social grants on education outcomes tend to be positive. Receipt of the CSG has also been found to be positively associated with progress through the schooling system (Coetzee, 2013; Case et al. (2005)). Similarly, income from the OPG has been found to positively impact rates of school attendance (Samson et al., 2001; Leibbrandt et al., 2010; Standish-White and Finn, 2015). Case and Menendez (2007, p.162) also find evidence of a positive impact of the OPG on school attendance, but mainly for girls, with the impact being observed when the pensioners are female.)

Health and well-being

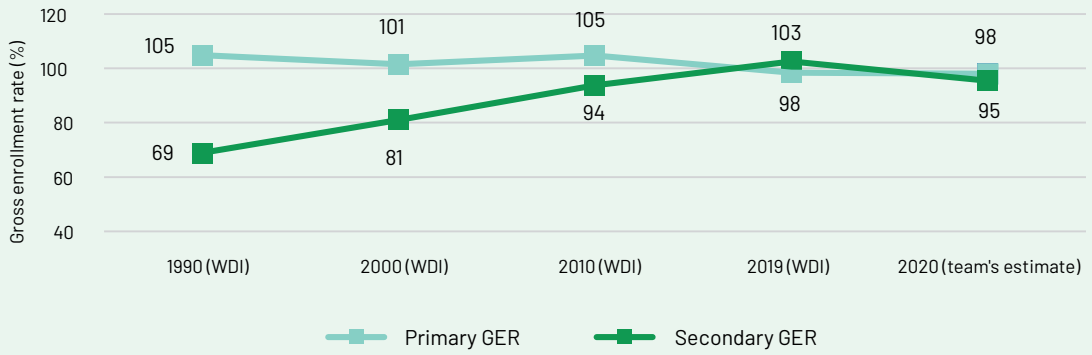
Social grants, including the disability grant, have been shown to improve health outcomes in South Africa. Knight et al. (2013) show that the disability grant enabled households to care for members undergoing anti-retroviral treatment (ART) for HIV. Kilburn et al. (2018) find that receipt of a conditional cash transfer was associated with reduced risk of physical violence, but not for sexual violence, and had positive effects on delaying sexual debut and the number of sexual partners in the preceding 12 months. Further, the authors find a reduction in risk of intimate partner violence. Finally, Eyal and Burns (2018) find large and significant protective effects of receipt of cash transfers on teenagers' mental health, including by reducing parental depression and transition to other household members.

B. School Age Children (Age 6-11)

Children and adolescents of school-going age go through significant physical, emotional, and cognitive development. It is a period where substantial investments are needed to ensure that children enroll in school on time, stay and complete their education, and learn and acquire the wide range of knowledge and skills they need to transition into adulthood. Moreover, continued investments in their nutrition and health are needed to ensure their physical, mental, and social development, all of which are essential for their long-term overall human capital development and well-being.

South Africa has made significant progress in improving access to primary and secondary education and has achieved almost universal access to 9 years of basic education. Gross primary school enrollment has stayed stable at a high level and was estimated at 98 percent in 2020. At the secondary level, remarkable improvement has been observed with the secondary gross enrollment ratio (GER) increasing from 69 percent to 103 in 2019 with a slight dip to 95 percent in 2020. The almost universal enrollment ratios show that children from all parts of the country and socio-economic groups have benefited from the expanded access to schooling. This achievement is a testament to the high-level investments made in the education sector over the years, allowing the country to expand access rapidly, especially at the secondary level.

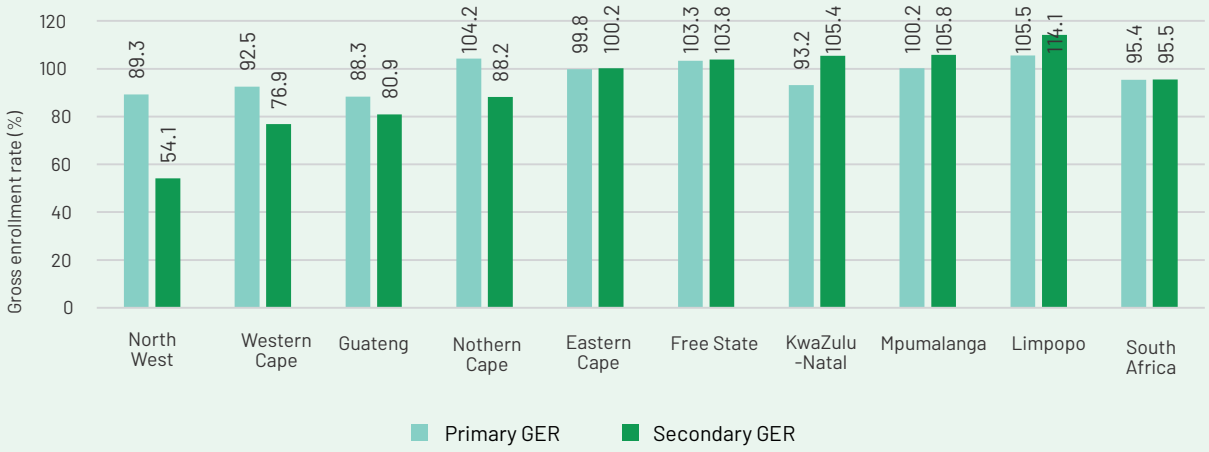
Figure 6: Trends in primary and secondary gross enrolment rates



Source: World Bank, World Development Indicators and team's analysis of General Household Survey 2020

Disaggregated primary and secondary enrollment data across provinces shows that there is some variation across provinces, with the North West and Western Cape provinces having some of the lowest secondary GER figures. These variations in GER, however, conflate variation in access and retention in secondary school as well as the impact of grade repetition, which is high in South Africa.

Figure 7: Primary and secondary gross enrollment rate by province, 2022



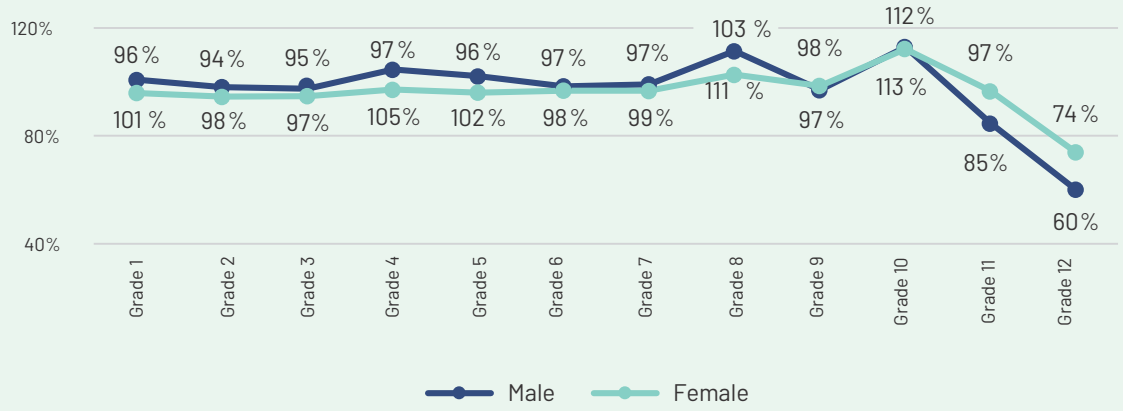
Source: Teams analysis using enrollment data from School Realities report (DBE, 2022) and population data from mid-year population estimate (Stats SA, 2022).

The internal efficiency of the system could be improved by reducing grade repetition and dropout. The Progression Policy[14] is aimed at minimizing grade repetition, however, children are often held back, mainly due to poor learning performance, resulting in a large proportion of learners that are over-age for their grade. A study using data from 2018, for example, showed that by Grade 4, roughly a third of children are overage at least by one year (Van der Berg et al., 2021). Many of the children, especially boys, who complete primary education and manage to transition into lower secondary level (dropout early, before completing their senior secondary education.[15] For example, in 2018 the dropout rates in Grades 10 and 11 were estimated at 11 percent (Van der Berg et al., 2021). Consequently, despite almost all students accessing nine years of education, only a fraction has access to senior secondary education (the further education and training phase), with many leaving the system with limited opportunities for further learning that can prepare them for the world of work.[16]

Among those who reach and complete the last grade of secondary education, the majority are unable to transition into higher education. In 2021, out of those who reached Grade 12 and wrote the school-leaving examination, about 76 percent passed, while far fewer students (36.4 percent) attained a Bachelor's pass which is required to enter university. More female students reach Grade 12 and pass the school-leaving examination, despite there being roughly the same number of girls and boys at the start of school. These findings show that many children transition to youth before they acquire relevant high-level skills needed to access gainful employment.

[14] The policy states that no child should be held back more than once in any education phase (i.e., foundation (Grades R-3), intermediate (Grades 4-6), senior (Grades 7-9), and further education and training (FET) phase (Grades 10-12).
[15] For the purpose of this study, lower secondary refers to Grades 8 and 9, and senior secondary refers to Grades 10 – 12.
[16] It should be noted that some of those who leave the secondary education system may enroll in TVET. However, data on secondary education and TVET is not collected in a way that allows tracking these dropouts and effectively assessing how many may have gone into TVET. The available evidence shows that access to TVET is low.

Figure 8: Schooling profile by gender, 2020



Source: General Household Survey (2020), Team analysis

There are many factors that drive students to drop out after around grade 10, with problems in the school environment along with poverty and related vulnerabilities emerging as critical issues. Low socioeconomic status directly correlates with high school dropouts, with children from the poorest wealth quintile being only a quarter as likely to complete secondary education as those in the richest wealth quintile. Poverty-related barriers to school completion are compounded with other social issues and disadvantages, including lack of a stable home environment due to orphanhood, and limited support and resources including in the school environment. Poor academic performance and the disciplinary climate in schools, which puts a strong emphasis on punishment, are possibly issues that impact boys disproportionality, leading to their early dropout. There are also large groups of vulnerable children who have lost their parents mainly due to HIV/AIDS. In response to such disruptions to the family structure, boys are often expected to become household heads within their families at a very young age. In the context of poverty and limited opportunities, these boys often face economic exploitation and are drawn into a criminal lifestyle, becoming perpetuators of violence themselves and engaging in substance abuse and other deviant behaviors (Hoosen et al, 2022). While sexual harassment and violence were more prevalent among girls, boys also face high risks of GBV. Many grow-up witnessing and experiencing emotional and physical violence, mainly perpetuated by local gangs, which is likely to have a lasting impact on their well-being. For girls, family responsibilities and teenage pregnancy emerge as the leading cause of dropout. In South Africa, approximately 33 percent of girls do not return to school after pregnancy (Parliamentary Monitoring Group, 2021). Poor and underprivileged girls are particularly vulnerable. They are often forced to engage in inter-generational relationships and transactional sex, to achieve basic economic security, while also being exposed to high levels of gender-based violence (GBV).

Box 3: Gender-Based Violence (GBV) in South Africa

Violence against women and girls remains a serious challenge in South Africa. One in three women experiences gender-based violence and one in five children under the age of 18 experience sexual abuse. In 2018, 13.1 percent of women aged 15-49 years reported that they had been subject to physical and/or sexual violence by a current or former intimate partner in the previous 12 months (UN Women, 2020). The prevalence of physical violence tends to be greater among less-educated women than those with secondary or higher education, and the prevalence of physical and sexual violence tends to be higher for women in the lowest wealth quintiles (Statistics South Africa, 2020). In the 2019/20 financial year, a total of 42,289 rape cases were reported in the country. The reported statistics were lower at 36,330 in 2020/2021, this could simply be because of the national lockdowns in South Africa during the COVID-19 pandemic impacting reporting incidences (South African Police Service, 2022).

To mitigate these inequalities, especially to address the impact of poverty on schooling, the government is implementing different approaches. This is achieved through various pro-poor policies and programs. In the early 2000s, the Government sought to address historical biases in spending through the designation of the poorest three quintiles of schools as "no-fee schools". These schools do not charge fees but receive a weighted share of non-personnel funding to compensate for this loss of income. In addition, the Government provides daily meals to over 9 million children through the National School Nutrition Program (NSNP), and the Learner Transport Program ensures that children from remote areas arrive at school safely. These approaches are likely to have contributed to the improved levels of enrollment.

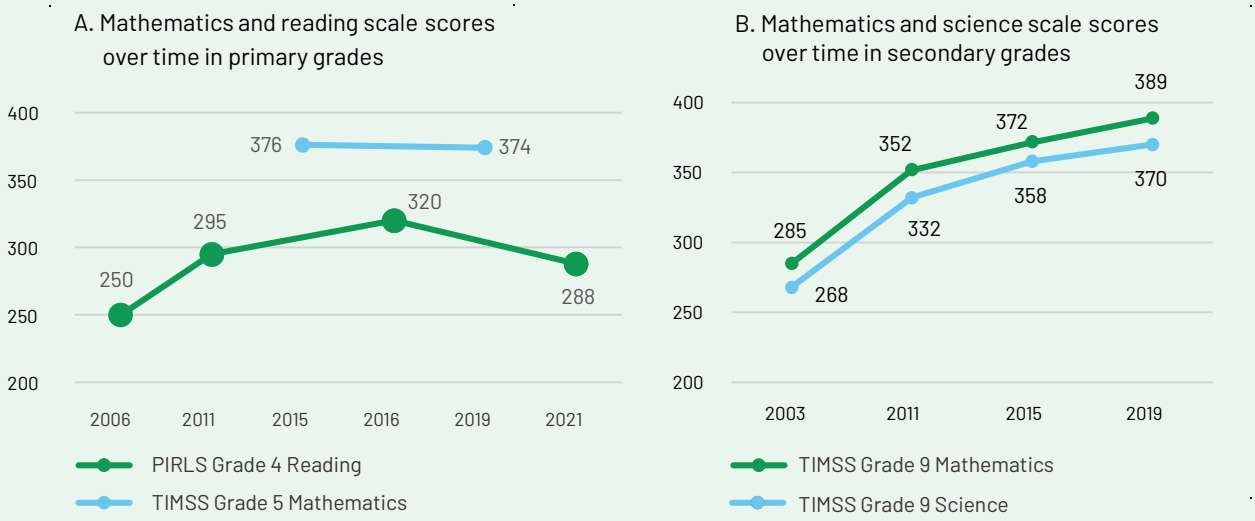
The different social grants targeted at vulnerable households also have a positive impact on schooling outcomes (see Box 2). The CSG, which follows the child from birth to the end of their school years (or until age 18), is an important program aimed at improving enrollment and school completion for students from poor households. A 2021 impact assessment of the CSG found that children who were enrolled in the CSG at birth completed more grades of schooling compared to those only enrolled at age 6 and attained higher scores on a simple mathematics test at age 10 (DSD, SASSA and UNICEF, 2012).

To improve human capital outcomes, getting children to school and retaining them to complete their education is not sufficient; ensuring they are learning is also critical. In South Africa, learning outcomes are improving but remain low both at the primary and secondary levels, especially compared to countries at similar income levels. The learning problem starts early, with low levels of foundational learning in literacy and numeracy. In 2021, results from the Progress in International Reading Literacy Study (PIRLS) revealed that 81 percent[17] of Grade 4 children in South Africa could not read for meaning in any language (Mullis et al., 2018). South Africa is ranked at the bottom of 57 countries, with the largest decline of scores observed between 2016 at 320 points to 288 points in 2021. Learning to read for meaning is one of the most important skills that a child must acquire, as it is the entry way for all other future learning. A low level of foundational learning has also been shown globally as a key determinant of high rates of grade repetition and dropout. The inability of South Africa's education system to deliver this basic result is a critical priority that requires urgent attention.

The learning deprivation South African children face continues beyond the foundational grades with poor learning outcomes being observed in core subjects such as Mathematics and Science. According to the Trends in International Mathematics and Science Study (TIMSS), in 2019, 63 percent of South African Grade 5 children could not do basic mathematics. These children are not able to add and subtract whole numbers, have no understanding of multiplication by one-digit numbers and cannot solve simple word problems. With this result, South Africa was ranked third from the bottom among 64 countries included in the 2019 TIMSS (for other countries the assessment is conducted at grade 4). Moreover, progress in learning outcomes at Grade 5 level has been somewhat stagnant since 2015, showing the urgent need to accelerate the pace of change.

In Grade 9, learning levels in core subjects of Mathematics and Science remain low and compare unfavorably with other countries, however, there is some improvement over time. In terms of the TIMSS average scores at the Grade 9 level, there is a consistent upward trend, with scores in mathematics increasing by 104 points between 2003 and 2019, while scores in science increased by 102 points. These estimates show some of the fastest improvements amongst countries participating in TIMSS, though the improvements are starting from a low base. Despite this improvement, a majority of South African children are failing to reach the basic level of learning in these core subjects (e.g., the 2019 TIMSS show that about 59 percent of learners had not acquired basic mathematical knowledge and 64 percent had not acquired basic science knowledge).

Figure 9: Trends in learning outcomes using TIMSS and PIRLS (various years)



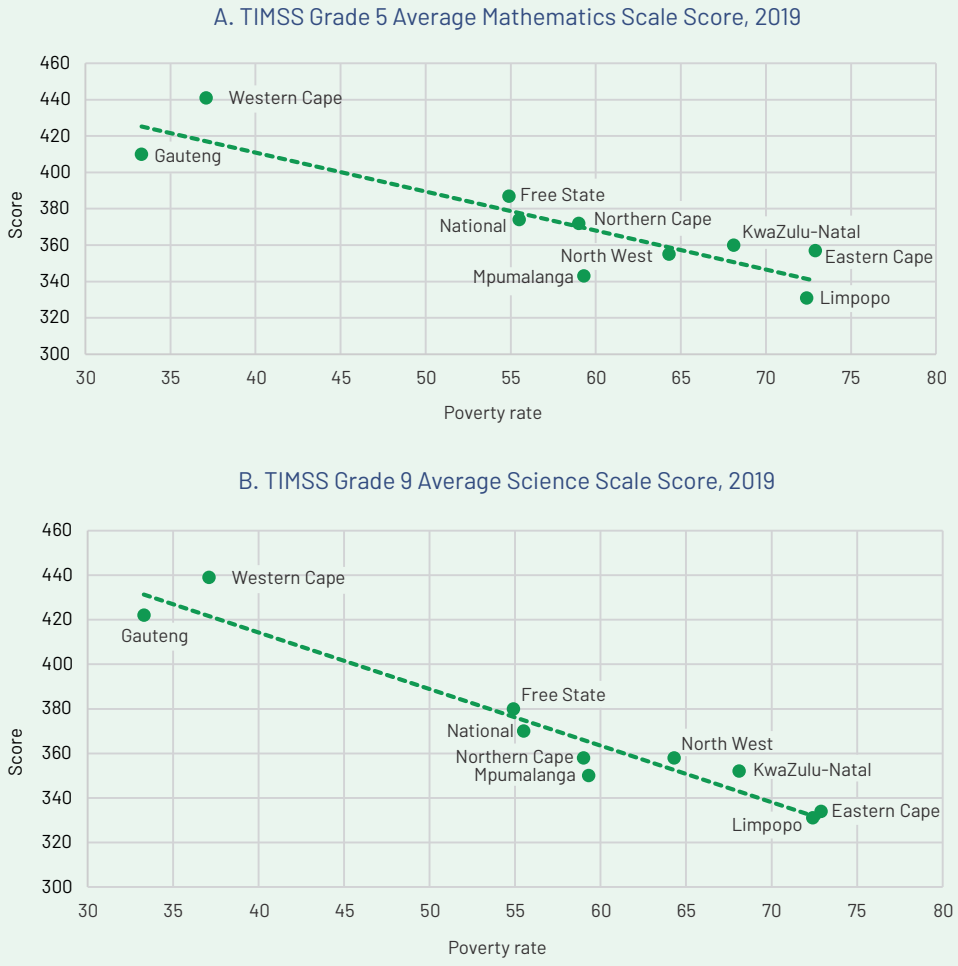
Source: Reddy et al., 2019a; Gustafsson, 2020; Mullis et al., 2023.
Note : The mean PIRLS score for 2011 was intially estimated at 323. Revised scores were estimated at 295, with an overall positive trend between 2006 and 2016.

The international figures on learning performance show significant inequalities across socio-economic groups and gender. Performance in international learning assessments reveals that female learners outperform their male counterparts at every grade of assessment (Grades 4, 5, 6 and 9) and in every subject assessed (Mathematics, Science and English). Socio-economic status is also highly correlated with better learning outcomes. The socioeconomic background of learning, for example, explained 21 percent of the achievement variance in the 2019 Grade 5 TIMSS and about 24 percent of the variance at the Grade 9 level.

[17] These 81 percent of children could not reach the Low PIRLS International benchmark which is defined as a child being able to read for meaning in any of the official languages, locate and retrieve explicitly stated information or make straightforward inferences about events or reasons for actions..

There is also significant variation across parts of the country, with provinces that have higher rates of poverty performing significantly lower than the national average. In the 2019 TIMSS, both at Grade 5 and Grade 9 level, the top three performing provinces were the Western Cape, Gauteng and Free State, which are the three states with the lowest poverty rates. On the other hand, Limpopo, Eastern Cape, KwaZulu-Natal, North West, and Mpumalanga have significantly lower scores. The inverse correlation between the provincial poverty rate and learning outcomes is illustrated in Figure 10.

Figure 10: Correlation between poverty and learning outcomes



Source: Created by the team using province level estimates from Reddy et al., 2019b

Evidence is also emerging that the gains in learning outcomes that have been made over the years are being eroded by the impact of the COVID-19 pandemic. Due to extended periods of school closures, followed by rotational timetables to facilitate social distancing, children have lost significant instruction time over the past two and half years. Estimates show that learners lost about 56–60 percent of the number of contact teaching days in 2020 that they would have ordinarily received in a pre-pandemic school year (Ardington et al., 2021). As a result, substantial learning losses were experienced during the COVID-19 pandemic. Recent research showed that Grade 2 learners lost between 57-70 percent of a year of learning

when measured in terms of reading outcomes relative to pre-pandemic peers. Learning losses were estimated to be between 62-81 percent of a year of learning for Grade 4 learners (Ardington et al., 2021).[18] Evidence from the 2021 PIRLS results highlighted above indicates that more than a decade of progress in reading achievement has been lost, taking the country back to 2011 levels of achievement. Recent evidence from the Western Cape Grade 3, 6 and 9 systemic assessments in both language and mathematics, indicates that learners in 2021 had fallen more than a year of learning behind those in the same grade in 2019 in mathematics, and around three-quarters of a year equivalent in languages (Van der Berg et al., 2022).

Gaps in the capacity of teachers as well as challenges in the teacher development and management systems are critical issues in the education system, even before the COVID-19 pandemic. There is a large body of evidence showing that the majority of teachers in South Africa do not have the content and pedagogical knowledge they need to be effective in the classroom (Spaull, 2019). This is in part driven by the education system's inability to attract highly qualified candidates into the teaching profession. For example, a recent study on teacher supply and demand found that matriculants (Grade 12 completers) enrolled for an education degree (Bachelor of Education) did not perform as well in Grade 12 compared to students enrolled for other degree programs (Van der Berg et al., 2020).

The age distribution of publicly employed teachers points to a teacher retirement bulge, which unless mitigated will have implications on class-size and quality of education. In 2021, close to half (49 percent) of South African teachers were older than 50 years and close to retirement. Projections show that a substantial increase in the number of newly graduating teachers, from 15,000 to approximately 23,000 by 2030 will be needed to replace retiring teachers and accommodate the growth in the school-age population (Spaull, 2022). Ensuring that the learner-teacher ratio is improved to its 2012 level in 2030 (from 30 in 2021), at 27.4, would require an additional 26,000 new teachers to enter the education system. Although it now appears that teacher production in the university system is adequate for this need (despite reservations about quality), fiscal constraints have already led to hiring freezes in most provinces, leading to rising learner-educator ratios.

Teacher unions in South Africa play a strong role in key aspects of teacher management, including by negotiating conditions of work for teachers. However, in some instances, their undue political influence has emerged as a challenge to educational reforms. Teacher unions advocate for improved pay, benefits, and conditions of work, and they are a critical stakeholder in determining which education policies are accepted or rejected at a national level. More recently, the dominant South African Teachers Union (SADTU), however, has remained strongly opposed to a number of national policies, especially those pointing towards any form of monitoring of teachers' work to strengthen accountability systems, even when punitive measures are not included (de Clerq, 2013; Department of Basic Education, 2016). This presents a binding constraint to improvements in the South African education system, especially when international trends show the importance of accountability to improve learning outcomes.

Another challenge that affects the quality of education is the inadequacy of school infrastructure to meet the growing demand, combined with quality gaps, including limited digital infrastructure. Expansion of school infrastructure in South Africa has not kept pace with the growing demand for schooling over decades, especially at the secondary level. The problem is particularly acute in provinces like Gauteng and Western Cape, which are experiencing an inflow of learners due to internal migration. This mismatch between demand and supply has resulted in overcrowded classrooms, putting undue pressure on teachers, and impacting the teaching and learning process. There are also challenges related to the quality of infrastructure. Nationally, a substantial proportion (38 percent) of public schools do not have access to a flush toilet. About 10 percent of schools do not have access to water, while 60 percent only have water on an occasional basis. Approximately 8 percent of public schools in the country do not have access to electricity, with half of all public schools reporting that they have electricity only occasionally. Access to digital andother learning resources are significantly limited with only 43 percent of schools having computer

[18] Using three different longitudinal studies on early grade reading in no-fee schools in several provinces in South Africa, Ardington et al. (2021) found significant learning losses in reading due to the COVID-19 pandemic for Grade 2 and Grade 4 learners.

rooms, 36 percent having school libraries and 22 percent having laboratories. The wealthier provinces (Gauteng and the Western Cape) fare better on the quality of school infrastructure, with the Eastern Cape, Limpopo, KwaZulu-Natal and Mpumalanga provinces having facilities that require significant upgrading (DBSA and World Bank, 2022a forthcoming).

In addition to access to quality education, which is discussed in detail above, the physical and mental health of school-age children and adolescents is essential for their overall development. The available data shows that school-age children and adolescents in South Africa are affected by multiple health challenges that could prevent them from achieving their full potential. These include HIV/AIDS, TB, teenage pregnancy, and violence and injury (Bhana et al., 2019). HIV/AIDS emerges as a major health challenge, especially during adolescence, with the virus prevalence increasing from 2.7 percent among children younger than 15 years to 5.2 percent among adolescents aged 15-19 years (5.8 percent among females and 4.7 percent among males) in 2017 (Simbayi et al., 2019). Following a similar pattern, TB also affects a large share of adolescents: 107 per 100,000 adolescents aged 10-14 years and 305 per 100,000 adolescents aged 15-19 years (Toska et al., 2019). In addition, mental health issues become critical among older adolescents resulting in 4.4 to 11.4 suicides per 100,000 adolescents aged 15-19 years. The COVID-19 pandemic had also increased mental health issues among adolescents and youth. Risky behaviors like tobacco use often start during adolescence. In 2016, 18 percent of male and 4 percent of female adolescents ages 15-19 years smoked, while 12 percent started to show risky drinking behavior. Injuries are another critical issue for the school-age group, contributing to 32 percent of deaths among children aged 5-9 years in 2019 compared to 16 percent in 2010 (Global Burden of Disease, 2019).

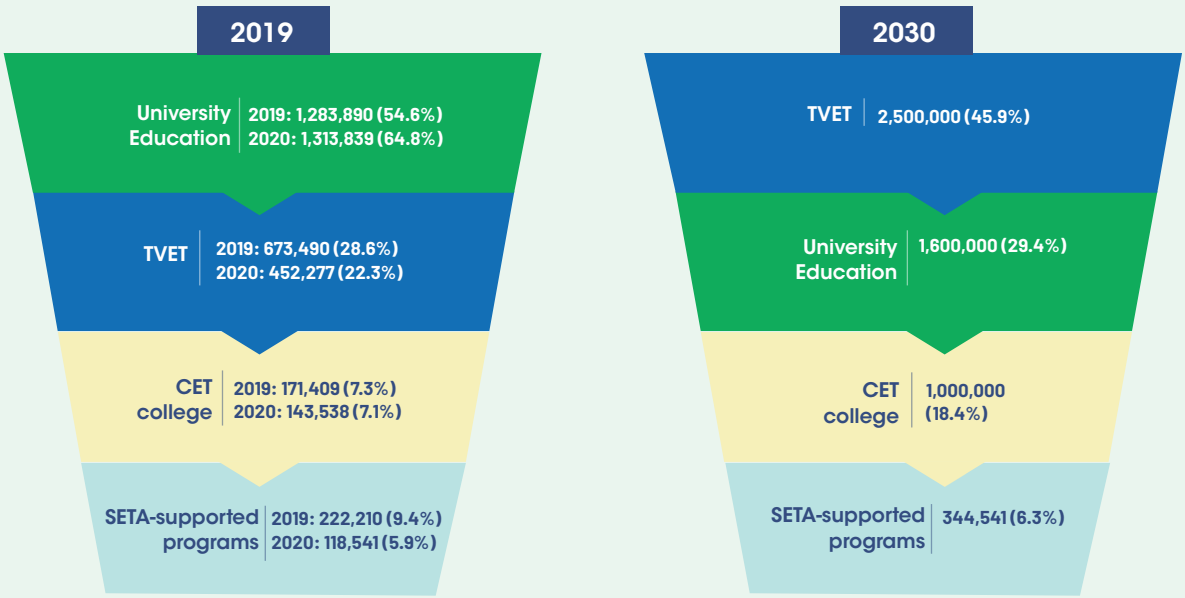
There is some recognition from the government about the importance of investing in the health and well-being of children during the school years. For example, the National Department of Health (DoH) has developed the national adolescent and youth health policy and implemented a sub-program targeting child, youth, and school health to ensure that essential services for children and adolescents are provided as part of primary health care services. About 1264 youth zones intended at reducing HIV/AIDS and teenage pregnancy among youth have been established. The DoH and the Department of Basic Education (DBE) have also jointly launched the integrated school health program in 2012 to provide various preventive and promotive school health and nutrition services that can foster the health and well-being of learners. School health services include health education, health screening (such as vision, hearing, oral health, TB), on-site services such as deworming and immunization, and improving access to adolescent sexual and reproductive health (SRH) services. Between FY12/13 and FY20/21, more than 6 million children were screened for health barriers to learning (for example, vision, hearing, etc.) and more than 1 million children were vaccinated in school including human papillomavirus vaccination for almost 0.4 million girl learners in FY21/22. However, the provision of comprehensive SRH including HIV counselling and testing is reported to be sub-optimal due to limited resources. According to the Demographic and Health Survey (DHS) 2016, about 70 percent of female and 56 percent of male adolescents, who were attending school reported having heard about family planning at school in the past 6 months, leaving a significant share not having access to this basic information.

Overall, there is limited data and information about the health status of school-age children and the coverage and quality of services. This lack of information poses a significant obstacle to designing and implementing programs for this age group. Data on children aged 5-9 years is limited given the seeming absence of these data from routine health information systems and surveys. Similar gaps are evident in the age group aged 10 – 17 years with data derived mainly from disease-specific surveys. Improving routine health information gathering and classification for these age groups is critical for addressing unique challenges such as mental health; sustaining the delivery of essential health services such as vaccination against human papillomavirus; and to comprehensively respond to public health emergencies as evidenced by the COVID-19 pandemic.

C. Youth to Adulthood (Ages 18 and older)

Youth to adulthood is an important life stage that covers the transition from school to post-secondary education and training, to the labor market and economic productivity, to family formation, and gradually, to old age. During this stage of the life cycle, there is a need for ongoing investments in human capital development. Continued education and skills training, access to gainful employment opportunities, high-quality health care, and social protection all remain imperative to ensure that individuals reach their human capital potential and live full, productive, and healthy life. South African youth and adults, however, face numerous challenges in accessing education and skills development opportunities, staying healthy, and in finding meaningful economic opportunities. During the transition between school age into adulthood, many youths struggle to acquire relevant high-level skills and find employment. Often these challenges persist with many facing lifelong poverty and deprivation. South Africans also face poor health outcomes in youth and adulthood, driven by a heavy burden of disease and inequitable access to quality healthcare services, resulting in a short life expectancy that is much lower than what can be expected in the context of UMIC.

Figure 11: PSET enrolment in 2019 and NDP enrolment targets for 2030 by sub-system



Source: PSET Monitor (Khuluvhe et al., 2021)

On the education side, the post-secondary education and training (PSET) sector does not generate the skills needed by the labor market in sufficient numbers and remains highly unequal. The PSET system in South Africa is comprised of four main sub-systems, including university education, Technical and Vocational Education and Training (TVET), Community Education and Training (CET) colleges that provide adult and general education programs, and Sector Education and Training Authorities (SETAs) which channel skills levies from the private sector to fund sector-specific and workplace-based training. In 2019, 2.35 million students were enrolled in the PSET system. University education had the largest enrolment share at 54.6 percent, followed by TVET colleges at 28.6 percent, CET colleges at 7.3 percent and the

remaining 9.4 percent in SETAs (DHET, 2021). This profile of enrollment which is skewed towards university education does not mirror the need for increased PSET opportunities at lower levels to cater for the large group of youth without secondary education complete, nor is it aligned with labor market needs. Against this background, the Government's intention within the National Development Plan (NDP) to boost enrollment in TVET, CETs and WBL relative to tertiary education appears justified and rational (Figure 8). The NDP envisages an increase of the combined enrollment in TVET, CET and WBL training to increase from 1.07 million in 2019 to 3.85 million in 2030, which is a very ambitious target that would require a substantial increase in funding to the PSET system.

The quality of PSET varies considerably by the type of program and by the institution. The university system overall is better positioned to generate the skills demanded by the current labor market at a reasonable cost. However, this average assessment conceals wide differences between some of the top universities on the continent that are in South Africa and historically disadvantaged universities which served the non-white population. Moreover, access remains quite low, with the GER in higher education reaching only 24 percent, compared to 58 percent in UMICs. Students from low SES continue to be underrepresented, both due to the prohibitively high costs of attendance as well as the high dropout rate and poor learning outcomes they experience in primary and secondary levels. Some efforts are currently being implemented aimed at addressing this inequality. For example, starting in December 2017, students from poor and working-class families (households earning a combined annual income of less than R350,000) are entitled to free higher education through the National Student Financial Aid Scheme (NSFAS). If this financial support to poor students is combined with targeted quality improvement interventions at lower grades, a more equal higher education system can emerge and serve as an entryway to address the pervasive economic inequality in the country. However, this support is facing severe fiscal constraints.

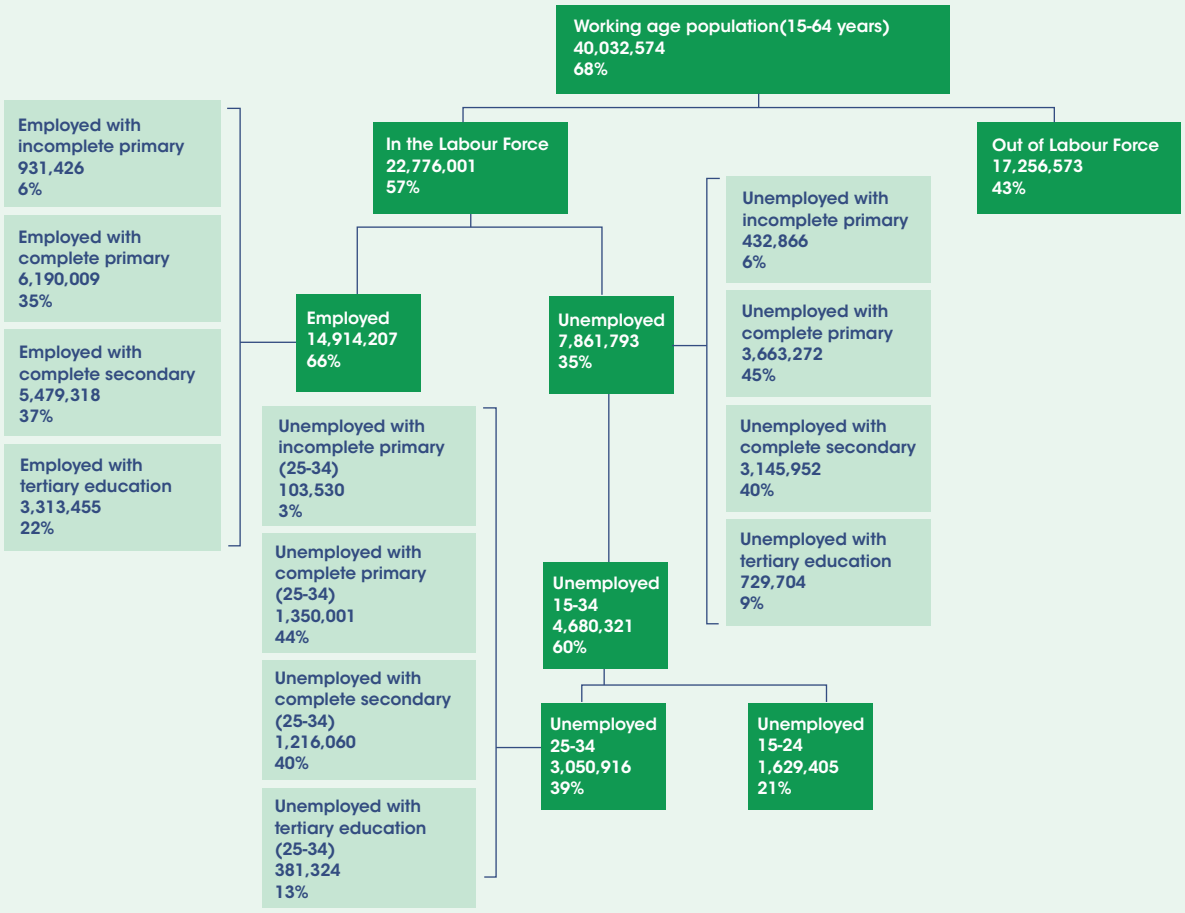
Gender is also a key dimension of inequality in higher education, with female youth outperforming their male counterparts in overall enrollment in universities, but not in Science, Technology, Engineering and Mathematics (STEM) fields. In South Africa, females account for 61 percent of higher education enrolment. However, despite this advantage, female students account for only 28 percent of all students majoring in engineering and less than half of those majoring in science. Women tend to enroll mostly in humanities and social science degrees for which employment prospects are low compared to degrees in STEM, which offer the fastest-growing and highest-paying jobs of the future. Given that girls have better learning outcomes in lower grades, including in mathematics and science (for example as captured by the TIMSS results from 2019), their lower level of participation in STEM points to the barriers they face that are unrelated to their performance. The challenge female youth face in pursuing STEM education continues as they transition into the labor market, having fewer STEM job opportunities.

Several challenges have constrained the expansion of high-quality TVET programs in South Africa. These include gaps in the availability of funding, infrastructure challenges, including limited availability and use of digital technology (DBSA and World Bank, 2022b forthcoming), governance and management capacity gaps, and lack of qualified instructors. These have resulted in high levels of inefficiency, with many students dropping out early, or staying in a program for long durations, even while benefiting from financial aid. The quality of the training received in TVET institutions is perceived by the public to be low and not relevant for the labor market. Most TVET institutions in South Africa offer almost no additional support services to help students find employment or start businesses after they complete their training.

Access to workplace-based learning (WBL) is also low, limiting the opportunities youth have to acquire relevant skills. Currently the Sector Education and Training Authorities (SETAs) are the main channel through which WBL is offered. However, access remains low due to very few companies participating in the system, with very little participation from Small and Medium Enterprises (SMEs). Moreover, WBL opportunities are not widely available to those who are unemployed or are employed in the informal sector.

For example, of the 238,000 trainees that were registered by the SETAs in 2019/20, only around 145,000 came from the ranks of the unemployed (DHET, 2021; Franz, Dulvy & Marock, 2022).

Figure 12. Labor Force Participation 2022



Based on Labour Force Survey, 2022, Q1. https://www.statssa.gov.za/publications/P0211/QLFS%20Trends%202008-2022Q3.xlsx

In the face of limited access to PSET and WBL, and limited employment opportunities including in the informal sector, South African youth and adults face high risks of unemployment. Labor force data[19] indicates that only 37 percent of the working age population (14.9 million) in South Africa hold a job (Statistics South Africa, 2022). Of the 25 million people who are not working and do not earn an income, one-third (7.9 million) are unsuccessfully looking for work (unemployed) and the rest (17.26 million) are inactive, many have been discouraged and felt forced to exit the labor market (Figure 9). The situation is more dire for certain groups: nearly 40 percent of Black South Africans are unemployed as compared to 10 percent of white South Africans. Youth also have significantly higher (broad) unemployment rates than any other age groups, exceeding 70 percent when we consider both those who are searching for work and those who have deemed job search a futile effort and stopped their search. About 49 percent of females between the ages

[19] Quarter 1 2022

of 15 and 34 years are not in education, employment, or training (NEET) compared to 44 percent of males. Further, the unemployment challenges and the inequality in the labor market were exacerbated by the COVID-19 pandemic. Job losses were unequally distributed across different groups in the labor market, with youth, women, the low-educated and people of color experiencing larger losses (World Bank Group, 2021). Women were also spending significantly more time on childcare compared to men during the pandemic, which meant they were facing significant pull and push factors to exit the labor market.

Prior to the COVID-19 global pandemic South Africa's social assistance system did not provide support to working age adults (18-59 years old) - other than those living with disability who benefitted from the Disability Grant. The disability grant is means tested on both income and assets and benefit around 2.2 percent of the population mainly in the lower income deciles. Social assistance is mainly for those who cannot actively work such as children and the elderly. The Expanded Public Works Program and the Community Works Program provide temporary work opportunities to around a million working age adults per year. However, the unemployment insurance and the Compensation Funds are only accessible to a small number of formal sector workers. What makes the gap in protection of the social protection system for the working-age adults particularly glaring is the fact that the social security system is not designed or equipped to provide comprehensive protection against unemployment – a very large challenge given South Africa's high unemployment rates.

The Government was proactive in using different social protection systems to mitigate the impact of the COVID-19 pandemic on the economic well-being of its citizens. This includes both the UIF-TERS and special SRD R350 grant, however, under both schemes, women were less likely to benefit. In the UIF-TERS, female beneficiaries accounted only for 35 to 40 percent of beneficiaries, since women are less likely to be in formal employment. Initially, when it was rolled out, fewer women also benefitted from the SRD R350 grant, despite being overrepresented in the informal sector. The eligibility criteria of the SRD R350 grant excluded individuals who already receive any other social grant. As a result, many women, who were recipients of the CSG on behalf of their children were excluded. It was only in July 2021 that the eligibility criteria for the SRD was modified to include this group. But in the first 6 months of the pandemic, CSG caregivers were also provided with a top-up payment in addition to their regular CSG grant. Still in early 2023, the SRD R350 grant benefitted around 8 million adults (ages 18-59) and has been extended until March 2024. Since 2020, the Presidential Employment Stimulus program has also created about 2 million temporary public employment opportunities for youth aged 18-34, generating an income for young people as well as valuable work experience.

A World Bank review of 106 Active Labor Market Programs (ALMPs)[20] in South Africa suggests that the mix of ALMP programs at the national level is not aligned with the needs of the bulk of job-seeking youth. While most of the unemployed are vulnerable youth, few programs are designed for historically disadvantaged youth. Instead, most programs are designed for better off entrepreneurs or more skilled youth. Although few programs explicitly exclude vulnerable youth, most ALMPs operated by the departments have eligibility conditions that crowd out vulnerable and marginalized youth.

The ALMPs with the largest number of beneficiaries tend to focus on vulnerable youth, while the costliest programs focus on less vulnerable entrepreneurs and job seekers. One-third of the ALMP inventory budget at the national departmental level is for entrepreneurship programs for less vulnerable beneficiaries. Many of these are for current entrepreneurs who aim to expand their businesses. The largest programs in terms of the number of beneficiaries tend to be targeted to vulnerable youth, though these interventions do not have a strong record for leading to future job outcomes.

The constellation of programs offered at the national level do not operate as an integrated ALMP system, resulting in significant gaps in coverage, overlaps and inefficiencies in spending and limiting progress in addressing the employment challenges facing South African youth. This is perhaps not surprising since

[20] World Bank, 2021b. Enhancing Public Support to Youth Employment Toward an ALMP System in South Africa

the publicly funded ALMPs in the inventory are, in fact, programs developed by more than 20 departments to fulfil their own departmental objectives and constituencies. They are not designed to collectively cover the unemployed population. Nor are they designed to work together to provide a sequential pipeline of support for young work-seekers. Instead, different departments offer similar programs for similar target groups. Beneficiaries do not have an orientation to guide their journey through programs to support their job transition. Programs are often once-off rather than being linked to each other with mechanisms to transition people along a pipeline. In short, while these programs can be classified as ALMPs, they are not necessarily designed to holistically address the constraints to productive employment youth face or to focus on redressing high rates of unemployment among youth.

During the youth to adulthood stage, South Africans continue to face multiple health challenges resulting in high risks of morbidity and premature mortality. The prevalence of communicable diseases particularly TB and HIV/AIDS is persistently high in South Africa, while the burden of NCDs such as diabetes, hypertension, and cerebrovascular diseases is also growing. TB remained the leading cause of death for South Africans in 2018, accounting for 6.0 percent of deaths (7.2 percent for males and 4.8 percent for females)(Statistics South Africa, 2021). About 18 percent of South Africa's population between the ages of 15 and 49 are infected with HIV (UNAIDS, 2021), and HIV contributed to about 4.8 precent of deaths (4.6 percent for males and 5.1 percent for females) (Statistics South Africa, 2021). However, South Africa has made commendable progress in lessening the impact of the HIV/AIDS epidemic. Through the rapid expansion of access to antiretroviral therapy for people living with HIV along with other major health initiatives, life expectancy has increased rapidly from an average of 51.6 years in 2005 to 64.4 years in 2020, an increase of over 12 years. However, efforts aimed at containing and eradicating HIV/AIDS need to be sustained to mitigate the risk of the epidemic rebounding. If mortality related to HIV/AIDS can be better controlled, life expectancy can be expected to increase to 73 years by 2040 (Foreman et al., 2018).

Noncommunicable diseases (NCDs) have been on the rise and disproportionately affect the most disadvantaged. NCDs such as cardiovascular disease, type 2 diabetes, cancer, chronic lung diseases and depression among others are increasingly incident among those aged 55+, contributing to lower healthy life expectancy. The disadvantaged are disproportionally affected by the high burden of NCDs. For example, 76 percent of women and 66 percent of men with no education had hypertension, while a little more than one in three had hypertension among those with at least some secondary or higher education (DoH, 2019). The preceding sections of this note have highlighted the concerning trends in the multiplicity of factors that cause NCDs, that may work to amplify the burden of NCDs. For example, childhood poverty, both under and over-nutrition, and adverse childhood experiences are all associated with higher rates of chronic diseases. The prevalence of daily and occasional tobacco smoking, estimated at 37 percent for men and 8 percent for women, is another contributing factor. Also, many do not take NCD treatment effectively: among those with hypertension, less than one in five men (12.6 percent) and women (20.2 precent) took medication to control their blood pressure and had a normal blood pressure level. People from the richest 20 percent tend to have their hypertension better controlled compared to those from the poorest 20 percent in general. Chronic diseases generally require higher frequency of contact with sometimes more complex healthcare services and consequently will exert greater demands on the South African health system. Rapidly improving the access to and quality of health services is therefore key to ensuring healthy life expectancy for this growing section of the population of which 68 – 70 percent may be living with more than two chronic conditions (Chang et al., 2019). Interventions such as the Health Promotion Levy on sugary beverages are also emerging as important ways to address the NCD challenge by providing an environment supportive of healthy behaviors (Essman et al., 2021).

Low quality of essential health and other services, inequitable access and underutilization are all drivers of poor health outcomes in the country. While there have been major changes in health policy and legislation to ensure compliance in the delivery of quality care (International Citizen Insurance, 2022), services in public health facilities used by the majority of South Africans do not meet basic standards of care

and patient expectation due in part to shortage and inequitable distribution of human, material (e.g., infrastructure, equipment, medicine, etc.), and financial resources (Maphumulo and Bhengu, 2019). Although human resources for health in South Africa during the apartheid years were strongly developed through the establishment of training centers, significant workforce shortages have been a challenge: there are only 0.9 physicians and 1.3 nurses/midwives per 1,000 people, compared with 2.2 physicians and 3.7 nurses/midwives in UMICs.[21] Also, community health workers (CHWs) who can also provide home-based preventive and promotive RMNCAH-N are constrained by inadequate number, training, supportive supervision, among others, to provide quality services (Murphey et al, 2021; Schneider et al., 2018). The difference in the quality of services becomes starker between public and private health facilities mainly due to the unequal distribution of health care workers between the well-resourced private sector and the poorly resourced public sector and between urban and rural areas (International Citizen Insurance, 2022). For example, an estimated 70 percent of doctors and 80 percent of specialists work in the private sector, primarily serving middle- and upper-class families, as well as expatriates (International Citizen Insurance, 2022; Maphumulo and Bhengu, 2019; Geroge et al., 2019). Like other countries, the rural areas are historically underserved (van der Hoeven et al., 2012). The accreditation data between 2001 and 2014 confirmed that the private sector facilities scored higher than the public sector facilities in general as well as across service elements including pediatric care as well as obstetric/maternity care (Ranchod et al., 2017).

Inequities in healthcare access, utilization and outcomes are observable by household socioeconomic status and at subnational level and have persisted over time. Inequalities in access to health services persist in key areas such as access to hospital beds and healthcare workers (mainly medical practitioners) at provincial level and across districts in the same province (Massyn et al., 2020). For example, in 2009, the Western Cape with 35.5 per 100,000 population had 1.9 times the number of medical practitioners as the North West province which had the lowest number (18.4 per 100,0000). In 2020, the best-worst ratio had only slightly decreased to 1.7 with Western Cape (41.6 per 100,000) still having the highest number of practitioners, with lowest number now found in Mpumalanga (24.8 per 100, 000). Inequalities in medical practitioners have persisted over time, with rural districts facing significant challenges attracting and retaining healthcare workers. Inequalities in intra-provincial district level spending on primary health care also exist. Health outputs and outcomes demonstrate similar geographic inequities, though these are not consistently observable within specific provinces. Nevertheless, available evidence demonstrates more deprived districts faring worse than less deprived districts, as do more deprived households (Day et al., 2021). In one analysis, the poorest households were 2.7 more likely to have foregone care than the wealthiest ones and were 2.4. times more likely to have had trouble affording the cost of care (Gordon et al., 2020).

A large share of the population is covered by state financed health care, showing the government's commitment to improving the health of its citizens. About 85.2 percent of the population is covered by the State, whereas the remaining 14.8 percent are financed through medical schemes (Council for Medical Schemes, 2021). There is evidence that citizens are protected from catastrophic health expenditure under current health financing arrangements, though this may not account for other costs and foregone earnings (Koch and Setshegetso, 2020). Still, service utilization patterns differ considerably by socio-economic status. Almost half of people from the richest 20 percent of households were covered by medical aid, and most of them received outpatient health care services in the private sector where the quality of service is reported to be better. On the other hand, less than 5 percent of people from the poorest 20 percent were covered by medical aid, and mostly utilized government clinics and community health centers where human and financial resources are limited (DoH, 2019). Also, more than half of the women from the poorest 40 percent reported having at least one problem accessing health care, compared with one in five from the richest 20 percent such as prolonged waiting times due to a human resource shortage, poor hygiene, and poor infection control measures, shortages of equipment and medicine at facilities, and poor record-keeping (Maphumulo and Bhengu, 2019).

[21] World Bank.2021. WDI. https://databank.worldbank.org/source/world-development-indicators

The COVID-19 pandemic has affected decade-long efforts towards improving health outcomes, including the recent gains in life expectancy. Driven by repeated waves of COVID-19, more than 4 million laboratory-confirmed positive cases had been reported by 5 May 2023 when the WHO declared that COVID-19 was no longer a public health emergency of international concern, with over 102,000 fatalities (WHO COVID-19 Dashboard, 2023), representing the highest number of reported cases and deaths on the continent. Between May 2020 and November 2022, there was a cumulative total of about 337,700 'excess' deaths from natural causes of persons of all ages. This may be due to the COVID-19 response such as the national lockdown and diversion of financial and human resources towards combatting COVID-19, along with fear of contracting COVID-19, resulting in lower utilization of essential health services, especially during the beginning of the pandemic (Kelly et al., 2022). This shows that the impact of COVID-19 on South Africa's human capital is considerably higher than the reported deaths of COVID-19.

Box 4: Climate Change and Human Capital Development

Climate change affects human capital development through multiple channels, with the socially and economically disadvantaged faced with increased vulnerabilities. There are many factors that make South Africa susceptible to the impacts of climate change. Rising temperatures and declining and unreliable rainfalls in the Southern Africa region are already directly impacting the country, including by impacting productivity in agriculture, leading to water stress and food insecurity, and contributing to the deterioration of basic infrastructure. High carbon emissions will also negatively affect the country's human capital through air pollution. South Africa's high disease burden means that the population is more vulnerable to the impacts of climate change. South Africa has one of the highest prevalence rates of HIV in the world, along with high TB incidence, and non-communicable diseases such as cardiovascular disease and diabetes. As a result, the impacts of food insecurity, water stress and pollution can be very detrimental on the health outcomes of its citizens.

Social sectors and social service delivery systems are also vulnerable to shocks, including climate change driven disasters. The disruptions during the COVID-19 pandemic have shown that most social sectors are not well prepared to respond to the economic and social impact of predicted and unpredicted shocks quickly and effectively, resulting in significant disruptions in basic service delivery. The impact of disruption due to climate related disasters is also likely to be high, especially for those who are already at a disadvantage, worsening existing inequalities. This shows the need to build the resilience of social sectors to shocks, including by leveraging innovative technology driven solutions.

Beyond mitigating the impact of climate change on human capital, more needs to be done to ensure that the economy adapts and remains competitive in the face of this challenge. In this regard, human capital development investments, especially in education and skills will be critical to promote green, resilient, and inclusive economic growth. For example, education and skills training programs will need to play a bigger role in equipping South Africans with green skills that will allow them to become globally competitive and facilitate a just transition to a green economy. Flexible and adaptive social protection services will also be crucial for protecting gains in human capital from being eroded due to climate change. For instance, rapid scale ups of social cash transfers for households affected by floods or adverse weather event and enhanced employment and intermediation services which support workers impacted by the Just Energy Transition and to help them find new and greener employment as South Africa gradually decarbonizes its energy sector.

The main income support for people of old age is the Older Persons' Grant (OPG) paid out by SASSA. Given the unavailability of social insurance and contributory pensions for large segments of the population in the aftermath of Apartheid and due to the lack of formal sector jobs, the main support for adults 60 years and above is the OPG. The OPG is a non-contributory means-tested pension that is accessible from the age of 60 years, provided that the individual is not cared for in a state institution. The OPG has two benefit levels: individuals aged 60-75 years receive R1,860 per month, while those above the age of 75 receive R1,880 per month (World Bank, 2021a). With these benefit amounts, the OPG is considered fairly generous by international standards and accounts for about 3.2 percent of household expenditures on average and 25.5 percent in the lowest income quintile (the poorest 10 percent). The grant is paid on a sliding scale, with higher private income leading to a lower grant value. Approximately 3.7 million people received the OPG annually making it the third largest grant in terms of the number of direct beneficiaries (after the CSG and the SRD R350 grant). On average[22] the OPG costs around 1.68 percent of GDP annually and occupied the largest share of the total 3.3 percent of GDP that South Africa spends on social assistance (World Bank, 2021a).

The OPG has been shown to have important impact on human capital outcomes including for children. Given the high benefit incidence of the OPG in lower income households and the household structure in South Africa where many children live in households with grandparents or older persons, the OPG has been shown to have positive impacts on education and nutrition outcomes – especially for girl children – and for health outcomes of adults. For more details about the impact on social grants and human capital outcomes see Box 2 above.

[22] Average 2009-16.

2020 © Photo: World Bank / Sambrian Mbaabu

III. A Multisectoral Framework to Accelerate Human Capital Development

Accelerating human capital development is critical for South Africa to get (back) on the path of sustainable and inclusive economic growth and development. In the aftermath of the devastating impact of the COVID-19 pandemic, there is an even greater urgency for better and targeted investments to address human capital deficits and disparities in the country. In this regard, the life cycle framework that has been applied in this policy note to assess the status of human capital development can be used as a framework for action. Specifically, the framework can be used to facilitate a harmonized and multi-sectoral approach for investing in human capital development across the critical stages of the life cycle. In line with this approach, this section presents policy options and priorities for each of the three critical stages of the life cycle while identifying areas for multi-sectoral collaboration and synergy.

There are many opportunities that put South Africa in an ideal position to accelerate its human capital development. First, the high level of Government commitment to this agenda, backed by strong financing for the education, health, and social protection sectors, presents an opportunity to improve human capital outcomes. However, more needs to be done to improve efficiency and impact, by improving allocations across sub-sectors, better targeting of beneficiaries, a focus on the delivery of results and better accountability. Second, there are many successes and innovative initiatives across the human development sectors which South Africa can build on to improve human capital outcomes. Starting from a very low and unequal base, the country has managed to raise the living standards of millions of its citizens over the last three decades. While there are numerous challenges, there is also a wealth of experience and lessons, both positive and negative, as well as innovative initiatives the Government can draw from, and strengthen moving forward. Some key examples are discussed under the policy priorities below.

To address the multidimensional challenges South African's face across the life cycle through effective investments in human capital development, a whole-of-government approach is needed. Such an approach will be key to design and implement policies and programs that foster coordination across relevant sectors - to better target limited resources, to improve efficiency, and to maximize impact. A whole-of-government approach will also be key to

improve collaboration and coordination across different levels of government, including at central, provincial, and district/municipality levels, to facilitate a more equitable allocation of resources to address geographic inequalities as well as scale-up initiatives that are delivering results. By institutionalizing such collaborations (see examples under ECD and TVET sub-sectors), interventions in human capital development can also be better sustained across political cycles.

A. Policy priorities for early childhood

Investing in early childhood, to ensure that children thrive in their physical, cognitive and socioemotional development is one of the key priorities for South Africa's human capital development agenda. From the analysis presented above, two priority areas emerge: (a) ensuring children are well nourished and healthy and (b) children receive early stimulation and learning opportunities from birth onwards.

© Photo: Getty Images / Michelle Gibson

A. Increase the funding going to early childhood development in South Africa.

A substantial increase in funding is required if the Government's priorities of reduced malnutrition and improved early learning are to be achieved. With less than 2 percent of national expenditure going to early childhood development in 2021/22, and high levels of poverty and inequality in the country the Government cannot ensure that young children's needs in terms of adequate nutrition and early stimulation are met. The difference between per child annual public expenditure on ECD programs versus school-based Grade R is significant, with only R4500 spent per child in ECD programs compared to R7300 for children in school-based Grade R, and the per child allocation is much higher for children in Grades 1 to 12 in public schools. The additional investments in early childhood development in South Africa should focus on a set of key interventions with the highest expected returns, which are sequenced to ensure fiscal affordability, and targeting children that are most disadvantaged.

© Photo: Getty Images / Hadynyah

B. Ensure young children are well-nourished and healthy.

Allow women to apply for the Child Support Grant (CSG) while they are pregnant. Strengthening the impact of the CSG first requires expanding timely access to the program amongst the most disadvantaged children. Allowing pregnant women to apply for the CSG before birth (perhaps in their second trimester) can support early nutrition and health during the critical first year of their life. The application could be processed during the pregnancy, and the approval from the South African Social Security Agency (SASSA) could be conditional on the provision of the birth certificate after the child is born. This would also necessitate improvements in the speed at which birth certificates are issued. Further, health workers should be encouraged to provide information on the CSG to eligible expecting mothers when they go in for antenatal care visits, and the CSG application form could be made available at all health facilities.

Link the provision of the CSG with information and support for better health, nutrition and stimulation of young children. Evidence from other countries reveals that linking child grant programs with information about stimulation as well as improved health and nutrition support services yields better child development outcomes. This could involve disseminating information on early childhood nutrition and stimulation during in-person applications at SASSA offices. It could also involve regular home visits by trained Community Health Workers (CHWs) to CSG beneficiaries or group meetings with community facilitators to talk with new parents about adequate health, nutrition and early stimulation for children through games, play and storytelling, both of which have shown significant improvements in parenting practices and child cognitive, language and socio-emotional development outcomes. This approach would require better integration and coordination of services between the social development and health sectors working through community-based health and social workers.

Strengthening coordination between relevant Departments and Programs will also be important to improve nutrition. Government should consider establishing the multi-sectoral Food and Nutrition Security Council recommended by the National Food and Nutrition Security Plan for South Africa 2019-2023 was released by the President in 2017. The Council will be responsible for strengthening coordination, the alignment of policies and strategies, and the implementation of programs and services to address food and nutrition security. The multisectoral nature of nutrition programs requires strengthened linkages between multiple departments and the system to work towards holistic planning, budgeting with adequate and efficient allocation, implementation to achieve nutrition outcomes and consistent reporting on key indicators to course correct as needed.

Box 4:
Lessons learned in operationalizing multisectoral nutrition programs

Malnutrition continues to be one of the world's most critical health and human development challenges. Given the complex, multifactorial, and interlinked determinants of nutritional status and well-being, multisectoral nutrition programming has been widely promoted as the most effective way to address the direct and indirect determinants of malnutrition and to improve nutrition outcomes. Robust governance systems are essential for implementing multisectoral nutrition interventions and creating cost-effective and sustainable programs.

Implementation experiences from 7 ongoing multisectoral nutrition projects, supported by the World Bank and the Global Financing Facility, show the following lessons learned in operationalizing multisectoral nutrition programs:

(i) Advocacy supported by quantitative evidence to show the effectiveness of a multisectoral approach at both national and sub-national levels is critical in securing and sustaining political will and public support.

(ii) Political commitment and high-level vision need to be translated into a national multisectoral nutrition strategy and operational plan that provides the foundation for implementing multisectoral actions at national and sub-national levels to prioritize the key reforms and strategic shifts needed to accelerate progress toward clearly defined nutrition outcomes.

(iii) Coordination mechanisms, often managed by a high-level coordination secretariat at the center of the government, are essential at national and subnational levels for vertical and horizontal coordination and collaboration and to maximize the impact of multisectoral nutrition programs.

(iv) Given that more countries are decentralizing service delivery to the local level, national governments must establish a coordinated approach to improve subnational capacity to manage their multisectoral programs from the district to the community level. Some national programs include results conferences and performance contracts to ensure commitment and build management capacity and accountability at the subnational levels.

(v) To ensure that priority interventions in the Multisectoral Nutrition Plan (MNP) are adequately financed, the country needs to link the MNP to government planning and budgeting processes, monitor the implementation of MNP priorities, and ensure that the funds are allocated efficiently. Institutionalizing budget tracking and budget evaluation requires strengthening the public financial management system

(vi) Innovative results-based financing mechanisms at the central and sub-national level have emerged as a promising approach to incentivize multisectoral coordination and accountability for improved nutrition and stunting reduction.

(vii) Improving the availability of quality and timely nutrition data and performance monitoring systems is key to enhancing program implementation, informing decision making, enabling course correction, and enhancing the accountability of multisectoral programs.

(viii) Community-based engagement models, which encourage local participation in setting nutritional goals and demanding accountability through community data and scorecards as well as integrate communities into a larger social behavior change communication efforts, should be part of the national multisectoral strategy and its coordination platforms.

Source: Excerpt from Subandoro AW, Holschneider S. Ruel-Bergeron J. 2021. Operationalizing multisectoral nutrition programs to accelerate progress: a nutrition governance perspective. World Bank

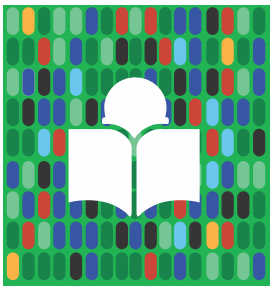
C. Provide more children with early stimulation and learning opportunities.

Improve access to ECD services, particularly for poor parents by simplifying registration and subsidy application processes. The subsidy provided to ECD centers to help reduce the cost burden on households is a key program aimed at improving access. However, only 33 percent of ECD centers are subsidized, in large part due to the complicated registration processes and in many cases because they are not able to meet some of the requirements (e.g., on infrastructure or meeting municipal bylaws) (DBE, 2022). Further, many ECD programs do not obtain subsidies for all eligible children attending because of insufficient provincial budgets allocated for these subsidies. Only slightly more than one-third of children in ECD programs who receive the CSG also receive subsidies for attending ECD. Simplifying the registration and compliance requirements and providing additional financing for ECDs would expand the pool of registered ECD programs who qualify for subsidies. This would, in turn, support poor parents to send their children to an ECD program. The government should provide provinces with sufficient funds for full subsidies to ECD programs for all children meeting eligibility criteria. The forthcoming Second Children's Amendment Bill is an important opportunity that can be used to streamline the onerous processes and address some of the key issues in this program.

Enhance the quality of services by measuring child development outcomes regularly and strengthening the capacity of practitioners. The Thrive-by-Five Index launched in April 2022, for the first time, provides nationally representative data on early learning and physical growth for children aged 50-59 months attending early learning programs. It is important that such data collection becomes a regular exercise. It is also imperative to monitor the progress of younger children and children not attending early learning programs. This could be done through adding a module to an existing household survey (such as the General Household Survey). ECD practitioners are often poorly educated, and most are poorly paid, earning close to the minimum wage. A needs assessment of practitioners should be undertaken and followed by the development of a shorter, entry-level national qualification that is subsidized and widely rolled out through accredited training providers.

B. Policy priorities for children of school going age

During the school years, key priorities for South Africa include: (a) keeping a focus on reading for meaning by age 10, (b) continuing to expand the basic education system while making improvements in the quality of teaching and learning, (c) improving the quality of the teaching workforce and instituting better performance management systems, and (d) ensuring adolescents have other avenues for technical and vocational training without having to complete grade 12.



A. Keeping a relentless focus on reading for meaning by age 10.

While the rhetoric of focusing on reading for meaning has been purported in South Africa through the DBE's latest Action Plan (2019-2024) with Goal 1 aiming to 'increase the number of learners in Grade 3 who, by the end of the year, have mastered the minimum language and numeracy competencies for Grade 3', the actions taken in country have not aligned a large-scale reading and mathematics program to support young learners. A recent World Bank study (Kika et al, 2022) found that there have been about 24 early grade reading programs implemented in South Africa either as pilots or restricted to a few districts since the year 2000, but most of these programs have been at least partly, if not completely, financed by external parties. And despite being one of the few countries in the Africa region leading in effective, structured early grade reading programs that have been rigorously and independently evaluated with positive outcomes, the country has not been able to scale these programs either over time or space and lessons are not integrated into routine practice of the DBE. Recent initiatives such as the national Reading Panel have sought to mobilize politicians and the business sector to raise the profile to learning to read and to give a push to transitioning from operational research to systematic and sustained national level implementation of structured early grade reading. As a start, all stakeholders (students, teachers, parents, education management, teachers' unions etc.) need to embrace the target of ensuring that all children read for meaning by the end of Grade 3 and the education system needs to measure and publicly share progress against this nationally set target annually. Without regular and reliable measurement, it will not be possible to implement an effective foundational learning program.

Focus on recovering learning losses from the impact of the COVID-19 pandemic and building the resilience of the education system. South Africa's approach to learning recovery included a trimmed curriculum through a series of Recovery Annual Teaching Plans, which many decisions on what to teach and assess being devolved to the school and teacher levels. This approach provides flexibility to schools and teachers to teach at the right

level but could also result in high levels of variability in curriculum coverage and high levels of heterogeneity in classroom instruction. Another recovery strategy included the use of teaching assistants. The Presidential Youth Employment Initiative (PYEI), implemented as the Basic Education Employment Initiative (BEEI) has strengthened teacher support in the country, by appointing unemployed youth as Education Assistants or General School Assistants. Education Assistants provided in-classroom support by supporting the preparation of lessons and supporting teachers during and after a lesson. General Assistants assisted with screening learners during the pandemic, ensuring that there was adequate social distancing and supporting the overall maintenance and upkeep of schools. These efforts can be strengthened moving forward to accelerate quality improvement efforts.

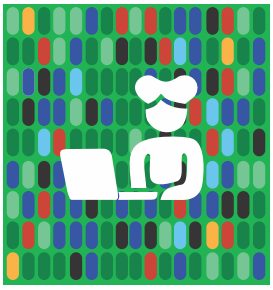
B. Continue to expand the basic education system while improving the quality of teaching and learning.

The basic education system in South Africa has a dual challenge of expanding access to education, while at the same time improving the quality of teaching and learning. It is expected that an additional 1.2 million students will be entering the public education system by 2030 (mainly in secondary education), requiring rapid expansion of the system. This will necessitate more classrooms to be built and additional teachers to be hired, with a much higher impact expected on recurrent costs compared to capital costs going forward. Moreover, the existing school infrastructure needs to be upgraded to meet a minimum basic standard for learning as well as ensure access to digital learning (e.g., by improving digital infrastructure, access to electricity, and connectivity). While there are efficiency gains that can be made, for example, by hiring teachers who are better able and prepared to teach – and accountable for their performance- even just maintaining per student spending given the inevitable growth in numbers of students in the system, will require additional financing for the sector. At the same time, the quality of education service delivery needs to improve, which may require additional funding.

C. Improve the quality of the teaching workforce and institute better performance systems.

As a start, it should become widely known that the teaching profession is well-paid and offers an attractive long-term career. Debunking the myth that teachers are poorly paid and do not have good benefits will hopefully attract more individuals with better matric grades to enter the teaching profession.

To progress in the profession, teachers should participate in continuous professional development training activities and be subject to regular performance assessments. Promotions should be merit based and not based on time spent in the profession. Teachers should be supported through peer groups and subject advisors and supervised by principals to ensure they are in classrooms and effectively teaching learners.



D. Ensure adolescents have other avenues for vocational and technical training without having to complete grade 12.

The Government of South Africa plans to introduce a General Education Certificate (GEC) to enable learners to transition from Grade 9 into alternate pathways. The government is also considering rolling out a three-stream model, which consists of academic, technical, and occupational streams for the National Senior Certificate in the country. This plan offers the opportunity to modernize the post-basic education system, to create better and varied pathways for students in the education and training sectors, and potentially in the labor market, after completing Grade 9. The links between basic education (which is a provincial mandate) and higher education and training (which is a national mandate), needs to be carefully worked out to ensure that learners are clear on their options for further education and training. Simply converting existing academic secondary schools into technical or vocational secondary schools would be expensive and does not make use of the existing resources available through the higher education and training system.

C. Policy priorities for youth into adulthood

A. Expand skills development opportunities that are related to labor market needs including workplace-based learning (WBL).

Efforts aimed at expanding relevant skills development options need to be strengthened to improve the employment prospects of youth as they transition into adulthood. With the objective of ensuring the large youth population, including those who are not in education or employment, are equipped with relevant skills, the government plans to expand TVET and CET. These plans are rational and justified given the high youth unemployment in the country. New programs supporting digital and green skills development are needed. However, expansion of TVET opportunities while keeping and even increasing training quality and relevance will not be achievable overnight. Establishing new and modernizing existing infrastructure and facilities, updating curricula, and expanding the corps of skilled and motivated instructors takes time. Unconventional skilling opportunities, notably through workplace-based learning (WBL), will need to be facilitated to improve the linkage between training programs and the labor market. Regularly monitoring of employment outcomes of graduates from the different PSET stream is important to assist institutions to plan and improve the quality of their training programs in line with market needs.

Unlocking the presumably significant potential of WBL provided in micro-small and medium-sized enterprises (MSMEs) promises to generate quick results in expanding labor market-responsive skills development approaches. Existing barriers preventing MSMEs to participate in WBL, including red tape in WBL administration and limited management and supervisory capacities in SMEs, can be addressed by supporting SETAs to

develop and implement simplified and more conducive procedures for SMEs to register and obtain funding for learners, and by strengthening intermediary arrangements. Especially in the township economy, more comprehensive assistance for SMEs and TVET institutions will be required to overcome the challenges involved in WBL participation. This also includes the development of new demand-driven qualifications and learning programs that suit the skills needs of township enterprises.

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B. Strengthen employment services and pathway development support for youth

To address the weaknesses in the ALMP system, the Government of South Africa may want to introduce reforms to increase the effectiveness of current programs that serve an ALMP function before introducing new ones. South Africa's youth unemployment challenge is overwhelming, but even within current constraints, more can be done to better coordinate and manage the ALMP system to deliver results for vulnerable youth (where unemployment is concentrated). This is not to argue that all programs that can be classified as ALMPs should redirect resources to vulnerable youth. Instead, the recommendation is to identify those programs that can shift their focus to reach a vulnerable target group, shift resources to expand programs that are already designed for this population, and institute reforms within existing programs to better serve the ALMP role.

Moreover, South Africa may want to consider a three-pronged reform strategy for its ALMP landscape: realign, target, and evaluate. First, realign by instituting governance practices and tools to help the current providers of ALMP-type programs to work together in a more efficient way toward greater results for the job-seeking population. Second, improve targeting of on-going programs to better match ALMPs with the needs of the unemployed, drawing from international evidence to tweak program-level design. This might mean intensifying support to second-chance education to meet education criteria for most ALMPs or providing "tiers" of support within a program to serve those with low-and higher-eligibility conditions. Third, systematize the evaluation of ALMPs to continue progress toward greater system efficacy and efficiency. To strengthen ALMP coordination South Africa may want to look at examples from other countries who have taken action towards coordinating the multitude of ALMP implementers by creating one database for all publicly provided ALMP programs (Canada, Korea); building a joint registration system with different portals (Colombia); and putting a place a Secretariat for ALMP program policy and coordination (Jamaica).

The Presidential Youth Employment Initiative (PYEI)'s Pathway Management Network (PMN) has started the task of moving South Africa toward an ALMP System. Launched in June 2019, it is the government's flagship initiative on youth unemployment. Officially launched in June 2021, the PMN is at the centre of the PYEI in an effort to build a network of networks of ALMP programs and implementers. At its core, the PMN aims to ensure that young people are able to transition from learning to earning, by providing layered support to youth along their job-search journey and linking youth from one program to the next. The PMN can serve as a basis for ALMP program coordination across implementing departments. Rethinking the potential of the Department of Employment and Labour's multitude of centers across the country and the employment services they currently provide to work-seekers and how these can be improved would also be key in leveraging existing

structures. Achieving this client-focused goal requires behind the scenes ALMP system-building, including coordination with departments so their programs are offered to and visible to youth using the PMN, as well as identifying the quality of programs to offer on the PMN platform. With the PYEI rapidly evolving and elements of the PMN still at early stages of implementation, it is paramount that the platform sets and maintains high standards for the programs appearing on the platform.

South Africa's informal sector, while relatively small, could serve as a viable space for youth to become economically active. The informal sector currently accounts for around 18.9 percent of the employed relative to 40-60 percent in comparator countries, including those in Latin America and Sub-Saharan Africa. This implies that South African workers, especially youth and those with low levels of formal skills have fewer alternatives when they cannot secure formal employment. If strengthened, with targeted interventions to improve economic inclusion and productivity in the hustle economy (for example, by improving financial inclusion, skills training, and better linkages with established value chains) along with innovative social protection programs to improve economic security, the informal sector could provide an option to absorb unemployed youth and provide income earning opportunities.

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C. Improving health services across all three stages of the life course.

Across all three stages of the life cycle, addressing inequalities in the coverage of quality health services is at the core of closing inequities in health outcomes and preventing loss of the country's human capital potential. In this regard, investments aimed at addressing inequalities in access, utilization and quality of health services will be essential for South Africa to accelerate its human capital development. Key areas for investment include:

a. **Improving the quantity, quality, and distribution of the healthcare workforce.** The shortage of a qualified medical workforce and their inequitable distribution is a critical issue that needs to be addressed to improve health outcomes. This will require resolving issues such as the mismatch between the number and the skills of health graduates produced by the health education system. Creating pathways to leverage the capacity of foreign-trained medical graduates, whose degrees are not being fully recognized in South Africa, could also be an important strategy to address the gap in health workers (Ivins et al., 2022). Strengthening learning health systems approaches can also improve the quality of care and governance of the health system as demonstrated in the Western Cape where emerging innovations in HIV

care were scaled up (Sheik and Abimbola, 2022). The role of CHWs can be strengthened by implementing a standardized national framework for pay and compensation for CHWs, with flexibility for adaptations in recruitment, appointment, working hours and remuneration across provinces (Schneider et al., 2018). Improving data on healthcare professionals will also enhance planning to close current gaps and to meet future workforce needs and address inequities (Ivins et al., 2022).

b. **Improving the quality of care through greater investments in inputs and processes of care.** Investments in other inputs such as essential equipment and diagnostics will be required to improve the quality of care, for example, in neonatal care as highlighted in preceding sections of this note. At the same time, measures to improve the quality of processes of care are required. These include (i) use of clinical audit and feedback mechanisms to support adherence to clinical guidelines and treatment protocols at team, departmental and facility levels; (ii) support for frontline team-based learning and adaptation; and (iii) strengthened leadership and management practices by health facility managers. Measures such as the Ideal Clinics Realization and Maintenance Program could be enhanced by leveraging bottom-up implementation through a learning health system approach (van Rensburg et al., 2022).

c. **Accelerating reforms to health service purchasing to deliver equitable and effective coverage.** Health service purchasing reforms are key to making the most of the financial resources available to the South African health system. Improvements are required to better link payments to the type and quality of care received. These include (i) changes to provider payment systems in both private and public sectors e.g., away from the extremes of fee for service or line-item budgets towards blended systems that account for quality and performance; (ii) strengthened information sharing and use among health service providers and purchasers of health services; (iii) granting greater financial and operational autonomy to public health facility boards and managers; and (iv) optimising use of all available capacity, for example, through networked service delivery and formalized public-private collaboration.

d. **Improving access to and use of information on individual patient interactions, on key population groups, and across sectors.** This note has identified gaps in data on key population groups such as older children and adolescents. Improving routine data collection in this age group can be coordinated across health and education sectors and contribute to outcomes that are important to both, for example, mental health and adolescent fertility. Individual patient data is critical to improving comprehensiveness and coordination of care within and across sectors. Approaches such as the Western Cape's Provincial Health Data Centre (Boulle et al., 2019) demonstrate the gains that could be made for improving patient care and should be integrated nationwide and across both public and private sectors.

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Annex 1: World Bank Support to South Africa on Human Capital Development

World Bank Lending/Trust Funded Operations

South Africa COVID Emergency Response Project (P174259, EUR 454.4 million)

- **Project status**: Board approval – June 13, 2022. Effectiveness – July 14, 2022. Closing date – March 31, 2024
- **Project Development Objective:** To increase COVID-19 vaccination coverage among the population of South Africa.

Accelerating Genomics-Based Surveillance (P177439; US$5 million from Health Emergency Preparedness and Response Trust Fund)

- **Project status:** Board approval – April 11, 2022. Effectiveness: June 20, 2022; Closing: March 31, 2025
- **Project Development Objective:** To improve genomic surveillance capacity of SARS-CoV-2 of South Africa and the Africa region.

Advisory Services and Analytics

Project Name and Number	Completion Date
Early Childhood Development in South Africa	June, 2023
Early Grade Reading in Southern Africa	June, 2022
Skills for Gainful Employment for Youth in Southern Africa	June, 2023
Western Cape Education Sector Analysis	June, 2023
Investing in Human Capital in Southern Africa	June, 2023
The future of medical work in Southern Africa	April 2022
Review of Social Protection Programs and Systems in South Africa	October, 2022
Adaptive Social Protection in Southern Africa	December, 2022
Supporting Innovations for Youth Employment in South Africa	June, 2023
Improving access to Workplace Based Learning particularly for Small and Medium Enterprises	Oct 2022
Green Skills and Green Jobs	Forthcoming
Adaptability of the health and education sectors to shocks	Forthcoming