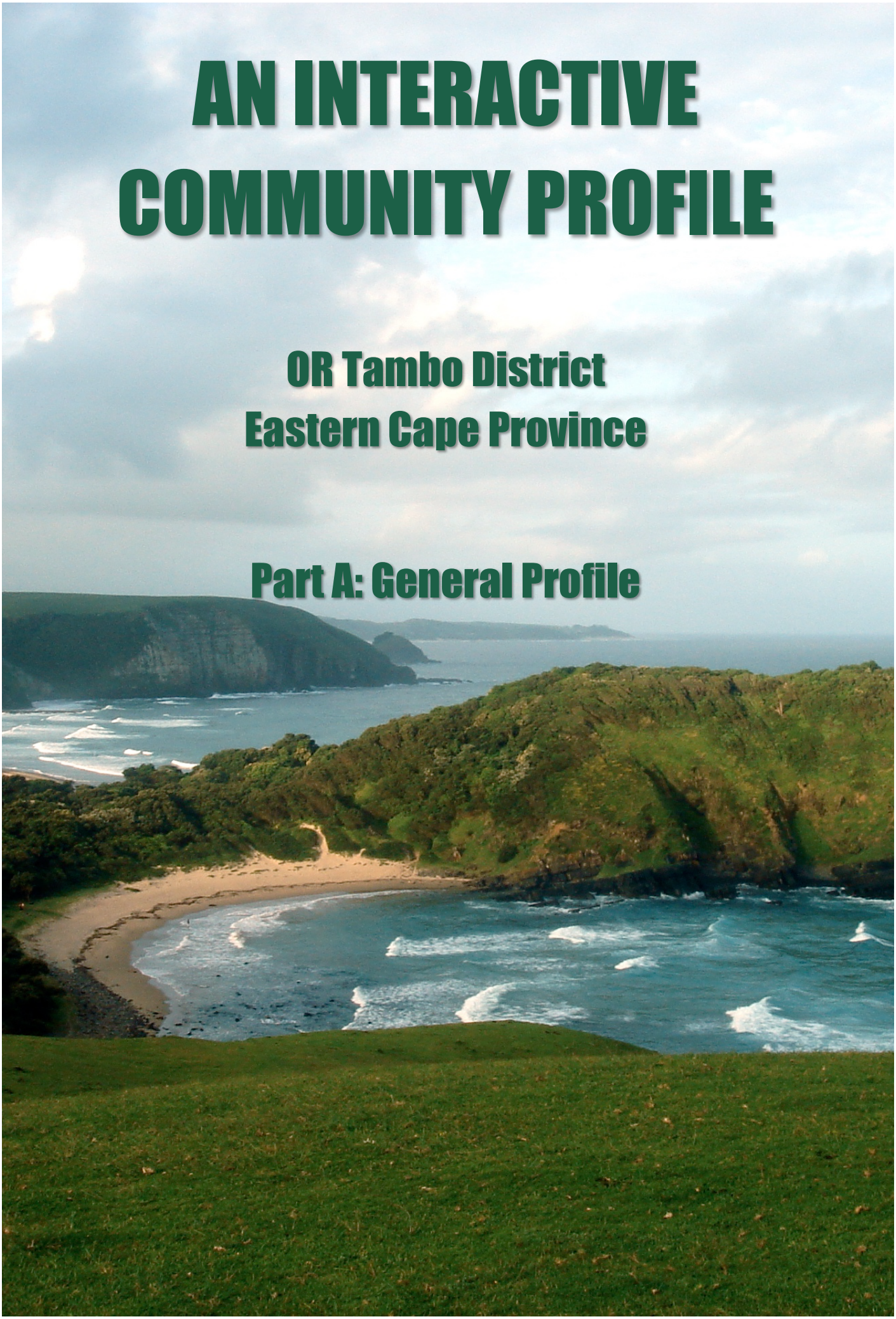
AN INTERACTIVE COMMUNITY PROFILE

OR Tambo District
Eastern Cape Province

Part A: General Profile



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INFORMATION BOXES

DATA TABLES

ACRONYMS

4IR	Fourth Industrial Revolution
ACE	Adverse Childhood Experiences
AEM	Aspirations, Expectations, Motivation
ANA	Annual National Assessments
BANC	Basic Antenatal Care
CAPS	Curriculum and Assessment Policy Statement xx
CDC	Centers for Disease Control
CDS	Career Development Services
CSE	Comprehensive Sexual Education
DBE	Department of Basic Education
DHET	Department of Higher Education and Training

DHIS	District Health Information System
DoH	Department of Health
DSD	Department of Social Development
ECD	Early Childhood Development
EDO	Employability Development Opportunity
EPI	Extended Programme on Immunisation
EPWP	Expanded Public Works Programme
ESSA	Employment Services of South Africa
ETDP	Education, Training and Development Practices
ETI	Employment Tax Incentive
GBV	Gender-based Violence
HAP	Household Air Pollution
HIV	Human Immunodeficiency Virus
HPV	Human Papilloma Virus
HSRC	Human Sciences Research Council
ICD	International Classification of Disease
IFAD	International Fund for Agricultural Development
INP	Integrated Nutrition Programme
IPSV	Intimate Partner Sexual Violence
IPV	Intimate Partner Violence
LCT	Life Course Theory
NCD	Non-communicable Disease
NCF	Nurturing Care Framework
NDoH	National Department of Health
NDP	National Development Plan
NEDLAC	National Economic Development and Labour Council
NEET	Not in Employment or Training
NELDS	National Early Learning and Development Standards
NQF	National Qualification Framework

NSC	National Senior Certificate
NSFAS	National Student Financial Aid Scheme
NSNP	National School Nutrition Programme
OFO	Organising Framework for Occupations
PAYE	Pay-As-Your-Earn
PHC	Public Health Clinic
PYEI	Presidential Youth Employment Intervention
QLFS	Quarterly Labour Force Survey
RSPH	Royal Society for Public Health
SACE	South African Council for Educators
SAG	South African Government
SAHRC	South African Human Rights Commissions
SAM	Severe Acute Malnutrition
SDG	Sustainable Development Goals
SEM	Social-ecological Model
SETA	Sector Education and Training Authorities
STI	Sexually Transmitted Infection
TVET	Technical Vocational Education and Training
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund
WASH	Water and Sanitation Hygiene
WHO	World Health Organization
YES	Youth Employment Service

EXECUTIVE OVERVIEW

South Africa has a wealth of data to inform strategic planning and interventions to improve the living conditions of the many South Africans experiencing grinding poverty, unemployment and inequality. Despite the depth and breadth of this data it often does not translate into actions that create meaningful change and sustained impact for those affected at a national, provincial and local level.

Deciding on which challenges to address to help co-create a sustainable and thriving community can be overwhelming for organisations. Through its Impact by Design Strategy, the Alchemy benefit organisations have worked to systematically identify and test methods known to improve difficult-to-solve (wicked) social problems. At the core of this emerging strategy are the principles of human centred design and systems thinking. To help embed the principles in this strategy, they were developed by reflecting on previous social investments, the desire to follow an authentic community-led development approach, and the ever-present and concurrent need for meaningful change in the short-term coupled with material progress towards future goals.

This profile represents a key aspect for the evolving strategy as it engages with highly complex and resistant social problems using a life course approach. The life course approach was chosen as it is being increasingly used internationally to better understand social challenges at a systemic level with the aim to better guide stakeholder interventions. This is mainly achieved by examining events that negatively affect what is considered to be a positive life-trajectory. These events can then either be prevented or mitigated using early or remedial actions to reduce the impact of negative life events.

With the aforementioned in mind, this profile will not provide an exhaustive review of each community or life stage given the intention to provide a general sense of key concerns at a national, provincial, district and local level.

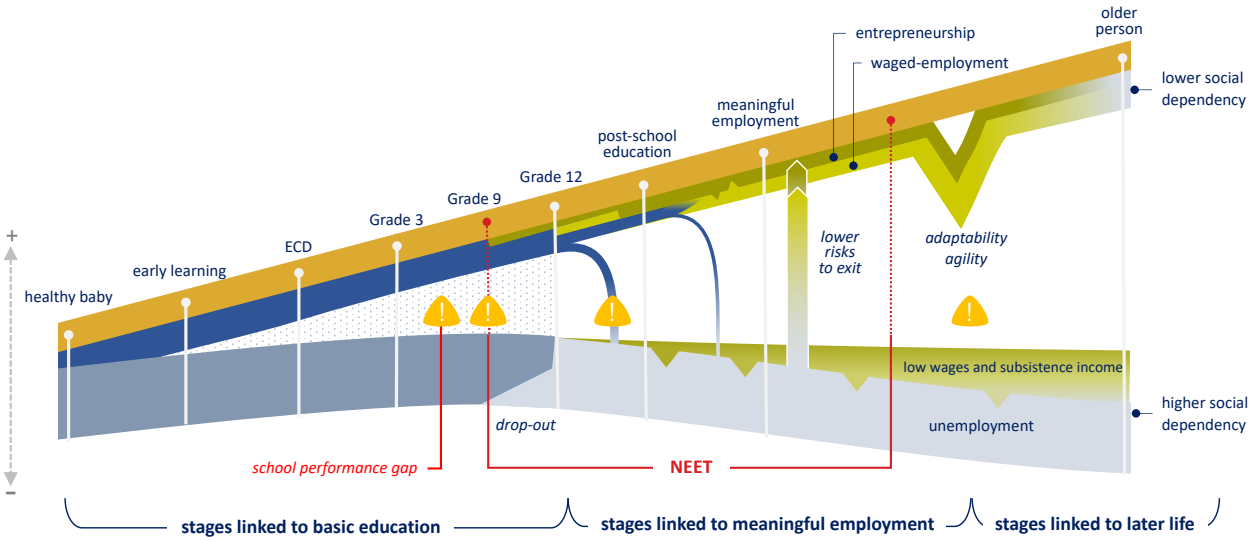
For this overview, three trajectories will be used as a synopsis of the life course data associated to the OR Tambo District. The three trajectories synthesise major themes from specific life stages, such as childhood education and employment, to create insights into the challenges faced along a specific life course. For more detail about the individual life stages please refer to the summaries in Section 4 or the in-depth analysis in Section 5.

TRAJECTORY 1: EDUCATION AND SUSTAINED LIVELIHOODS

This trajectory was identified from the interlocking events associated with early childhood learning, schooling, post-school education, meaningful employment and transitioning out of the labour market in later adulthood. While many of the events are extensively studied and known to be problematic they are seldom presented in a manner that helps create a wider understanding of how they interlock and affect a person's life course.

Figure A illustrates the a trajectory based on the interlocking events identified in the profile.

Figure A. Education and sustained livelihoods trajectory



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Using the trajectory and data overlay the following considerations can be highlighted together with suggestion around what can be done. Please refer to Section 6 for more detail around possible interventions.

consideration	why this is important	what can be done
The majority of the population is under 14 years of age.	Prioritising actionable and to-scale interventions that mitigate systemic failures affecting school performance cannot be over emphasised as it will carry through in the near-future challenges seen in the 15-25 age group.	These interventions will need to also counteract the effects of poverty for this group One course of action can be to introduce resilience building strategies to help children thrive in the short-term, despite the hardships they face.
At least 50% of this age group do not live with their parents and are likely cared for by an older woman	Affects family connectedness and significantly increases known risks for negative life events. Finding ways to support older primary caregivers is critical to ensure better outcomes.	Initiatives that identify and support older women heading households with children.

consideration	why this is important	what can be done
The final years of schooling and transition into the post-school landscape	A need for a practical approach to narrowing the performance gap at the start of Grade 9 and the requirements going forward. Expanding efforts beyond high performing learners as it does not guarantee they will enter into post-school education nor does it assist the majority of learners who are not at that level of performance. Out-of-school youth pose a significant challenge as they make up a large group of affected people.	Strategies that net more learners in each grade, while supporting multiple post-school tracks linked to self- and waged-employment with or without post-school education. Interventions that offer multiple and novel pathways to augment the post-school education pinch point. Developing meaningful pathways for out-of-school youth to re-enter the school system or follow a track towards skilled employment currently not utilised– in other words expanding the post-school education options beyond current offerings towards skilled employment.
The transition from education to employment	The trajectory reflects the two pathways as part of the general national response to unemployment, namely self and waged employment each with or without post-school education.	The self- and waged-employment pathways with or without traditional post-school education must be strengthen, which implies looking beyond current and "obvious" solutions.

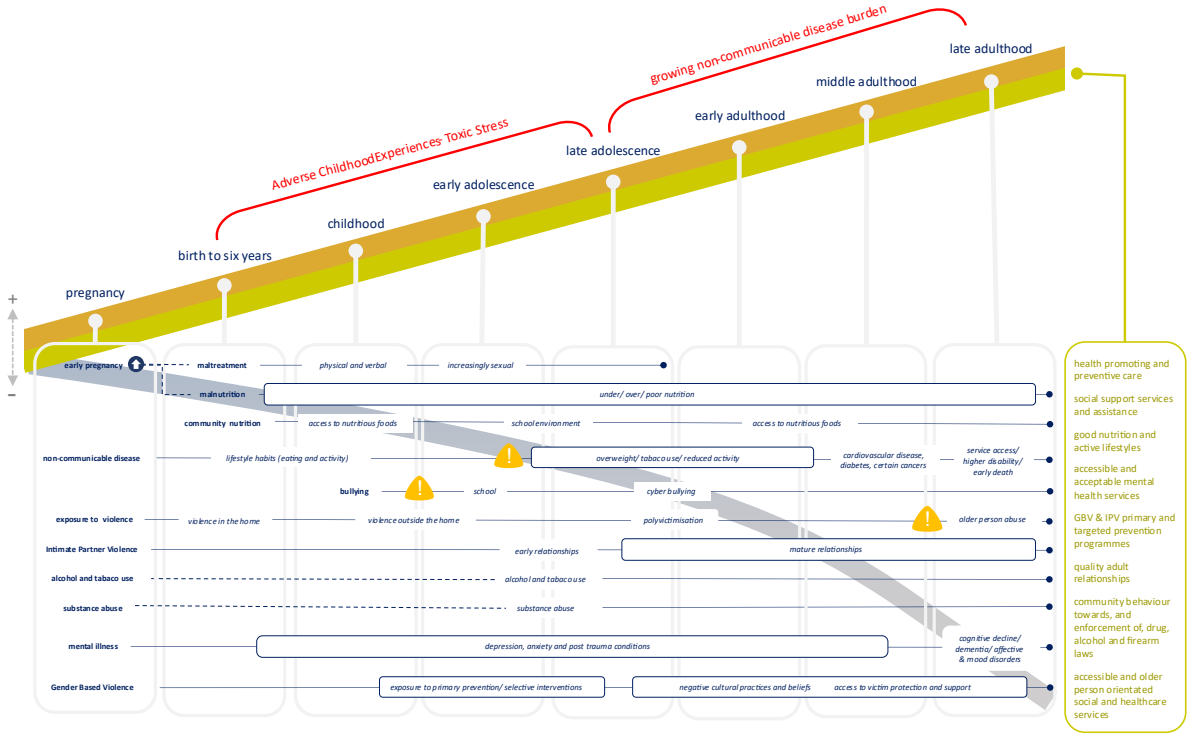
consideration	why this is important	what can be done
The schooling system and post-school education bottleneck	Fixing the school system will not address the bottleneck in accessing publicly funded post-school educational institutions. This implies the need for multiple and parallel initiatives to skill youth for employment that are not solely reliant on public institutions of learning. There needs to be a rethinking of the attempt to shoehorning the lucky few into a system that cannot accommodate the many.	There is a need to create work opportunities at-scale and looking beyond the district and provincial economy. These opportunities should support a forward-looking labour market where youth can create their own businesses in the context of the district, province, national and global markets. Such opportunities will likely call for better alignment with emerging opportunities suitable for rural communities associated with the fourth industrial revolution.
Outward migration	Without meaningful work opportunities the number of young people leaving the province and district will to continue. One foreseeable effect of this will be a district unable to support and care for older persons.	Slowing down or even arresting this outward migration is inextricably linked to work opportunities at-scale that can keep younger people in the district.

TRAJECTORY 2: SAFER COMMUNITIES AND HEALTHIER LIVING

The second trajectory, shown in Figure B below, addresses the concern of the growing prevalence of preventable non-communicable diseases (NCDs) as the primary cause of morbidity, disability and early deaths in South Africa. Moving beyond the important preventative measures for NCDs associated with nutrition and active lifestyles, the trajectory accounts for the emerging evidence that mental illness is often a co-morbidity for NCDs. This phenomenon underscores the importance of managing mental illness as a source for the risk behaviours which may result in an NCD in later life. A third aspect of the trajectory reflects multiple studies that found South Africans are regularly exposed to

violence, be it in the home or community. This has been shown to have a major impact on the mental health of individuals and communities by increasing the prevalence of depression, anxiety and post-trauma disorders. Taking the interrelatedness of these concerns into account the trajectory suggests the importance of maintaining a positive trajectory across what may at first seem to be separate areas of concern.

Figure B. Safer communities and healthier living



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Applying the above trajectory and relavent data overlay the following considerations can be highlighted together with suggestions around what can be done. Please refer to Sections 3 and 4 for more detail around possible interventions.

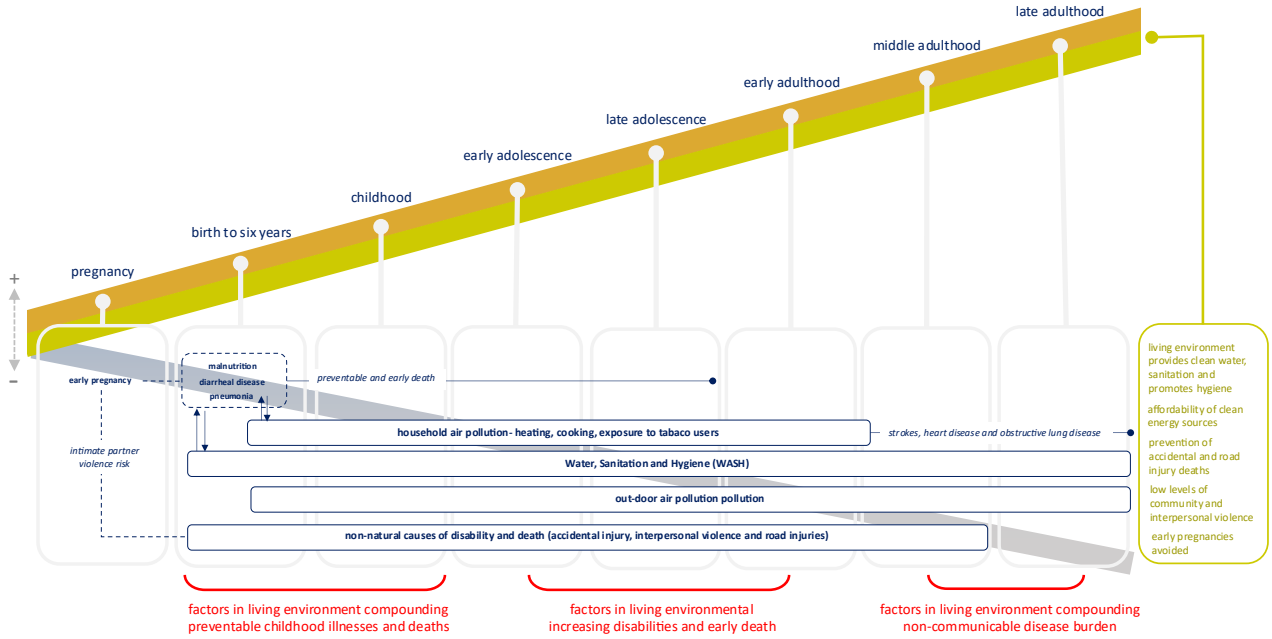
consideration	why this is important	what can be done
A high rate of early pregnancy.	Early pregnancies have a wide range of effects, which may be further compounded by mothers living in rural communities. These effects include, malnutrition due to low household incomes, maltreatment, and not accessing social services and grants. Younger mothers are also believed to be at greater risk to Intimate Partner Violence and often have poor access criminal justice and shelters.	Comprehensive Sexual Education coupled with school based programmes address Gender-based and Intimate Partner Violence (IPV) has been shown to equip young women to avoid early pregnancies and take action when experiencing IPV in their relationships.
Experiencing violence and maltreatment in the home and community.	There is strong evidence that Adverse Childhood Experiences and Toxic Stress has a major impact on mental health and high-risk behaviours later in life. These risk behaviours often underpin people developing one or more noncommunicable disease such as hypertension, diabetes and certain cancers leading to early death. Compounding this concern is that South Africans experience extreme levels of both interpersonal and community violence, which is associated with increased mental health problems. Moreover, there is little difference in the level of exposure between urban and rural communities.	There are complex underlaying causes for violence in both homes and communities. However, some factors appear to play a significant role. These include cultural practices and beliefs as well as the enforcement of drug, alcohol and firearm laws. In the event of exposure, it is also important that communities can provide access to constructive criminal justice services in addition to mental health and other social services.

consideration	why this is important	what can be done
Health promoting and preventive care.	A major component in the trajectory is the importance of regular interaction with health promoting and preventive care services. In childhood, this would include regular growth and development monitoring to assess signs of malnutrition and maltreatment. For adolescence and early adulthood, the focus shifts to healthy lifestyles and reducing key risk behaviours such poor eating habits, inactivity, tabaco and alcohol use. In older adults active screening for early detection and the effective management to avoid additional complications for those affected becomes a priority.	The presence of health services is not in itself sufficient. Accessibility is but one dimension of an effective health system. Acceptability of services offered have been repeatedly shown to addressing the needs of key populations such as youth and older persons. While promoting healthier lifestyles is becoming more widespread, the context of such programmes, especially where poverty and poor service delivery limits what communities can practically implement, it is important. As such, the design of locally relevant programmes over generic programmes are likely to offer more impact value.
Older persons.	Given the relative size of the youth population the challenges faced by older persons, especially in rural communities can be overlooked. This notwithstanding their importance in providing childcare and as a source of household income through social grants. A growing concern is older person abuse, which includes emotional, physical, and financial abuse. Forced sex and rape is also prevalent amongst older persons with one study find a rate of 50 cases per 10 000 older women.	Studies in South Africa has shown challenges with both access and acceptability of health and social services provided to older persons. This impacts their chronic disease treatment outcomes increasing disabilities and the need for rehabilitation, personal safety, identification of abuse and quality of life. When an older person takes on the role as primary caregiver for children, it has also been suggested that they need additional support to provide adequate care and access available resources.

TRAJECTORY 3: A SAFER LIVING ENVIRONMENT

As shown in Figure C below, this trajectory relates factors within a person's living environment that increases the burden of disease, disability and early deaths from preventable causes. It accounts for concerns around the increasing number of non-natural deaths that peak in early adulthood as well as the impact of household air pollution on childhood illnesses and non-communicable diseases later in life.

Figure C. Safer living environment



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With the above trajectory and relavent data overlay several considerations can be highlighted together with suggestions around what can be done. Please refer to Section 6 for more detail around possible interventions.

consideration	why this is important	what can be done
Household air pollution (HAP) and WASH.	Great emphasis is rightly placed on childhood nutrition and immunisation. However, this is only part of the chain to reduce the number of children affected by preventable diseases and early deaths. Exposure to air pollution in the household associated with affordable sources of fuel for cooking and heating increase the likelihood of a child developing pneumonia. Falling ill is further compounded in poorer households by malnutrition and the effects of re-occurring diarrheal disease. Similarly for older adults on-going exposure to HAP is associated with increased risk of stroke, heart and obstructive lung disease at a time when NCD prevalence is on the increase due to other lifestyle factors. Many rural communities are affected by poor service delivery, particularly in terms of sanitation. In communities with agricultural activities, particular hygiene practices become important. Sanitation and hygiene is expected to become even more critical given that with even modest increases global temperatures exposure to environmental pathogens will increase significantly. When water is available, it is often not tested to ensure it meets minimum standards not only for organic and microbial contaminants but also inorganic pollutants.	While access to cleaner energy sources such as electricity is key, it should be kept in mind that affordability, and the related tendency to mix energy sources, must form part of the solution that would be relevant to both the household and desired outcome. WASH programmes in communities need to find practical ways to ensuring cleaner living environments as well as an adequate amount of safe water.

consideration	why this is important	what can be done
Non-natural injury, disabilities and deaths.	Non-natural injury, disabilities and deaths start to raise significantly in adolescence and peaks in early adulthood. Causes include accidental injuries such as electrocution, falling and drowning as well as interpersonal violence including assault and transport injuries. The personal impact of deaths aside, treating injuries and the long-term management of disabilities places a high demand for services often not available to rural communities.	Some non-natural deaths can be prevented through less complex measures such training parents and children around water, electricity and road safety. Preventing interpersonal violence and transport injuries related to negligent and dangerous behaviours by drivers and operators is more complex. As discussed in the safer communities and healthier living trajectory, community tolerance and enforcement of relevant laws is a major step towards addressing the problem.

While the picture that emerges from the above trajectories may extend beyond the ambit and resources of one organisation, it is assumed that multiple actors could either be interested in or actively addressing the same concerns. Such actors will likely be open to partnerships and co-resourcing of initiatives aimed at a shared transformative goal. Through this, Alchemy and its benefit organisations can apply the insights drawn from this profile to better direct its own resources, partner with others and advocate for more impactful interventions.

With this in mind, Part A of the community profile seeks to help generate useful insights into the community of the OR Tambo District. In turn, Part B will share the outcome of a social design-driven process to identify the means to create the desired change at a local level, thereby, helping to inform key decisions around interventions and partnerships.

1. ORIENTATION TO PART A: THE GENERAL PROFILE

Part A describes a defined community using the life stages within a life course. Each section in Part A unpacks a specific life stage by considering the early actions that can be taken to mitigate factors that may negatively impact a community member, a key transition or turning point[1], the performance of public systems and finally what may represent a material improvement. A summary of these attributes can be found in Section 5.

Information boxes provide additional insights drawn from research findings, global best practices and relevant national legislation, policy and programmes to further explore key points. These information boxes are not exhaustive reviews, but rather they are selective overviews to help highlight areas of interest.

The third component of the life stage description is the data tables. Each data table reflects publicly available data at a national, province, district and municipal level. Given the scope of the elements being considered, there is a range in the both the level and age of the data. Where the age of the data is noteworthy it will be indicated. Additional information that helps interpret the data, for example lowest and highest national rates or relative burden compared to other levels be it district, province or nationally, is also shared.

2. THE COMMUNITY OF OR TAMBO DISTRICT

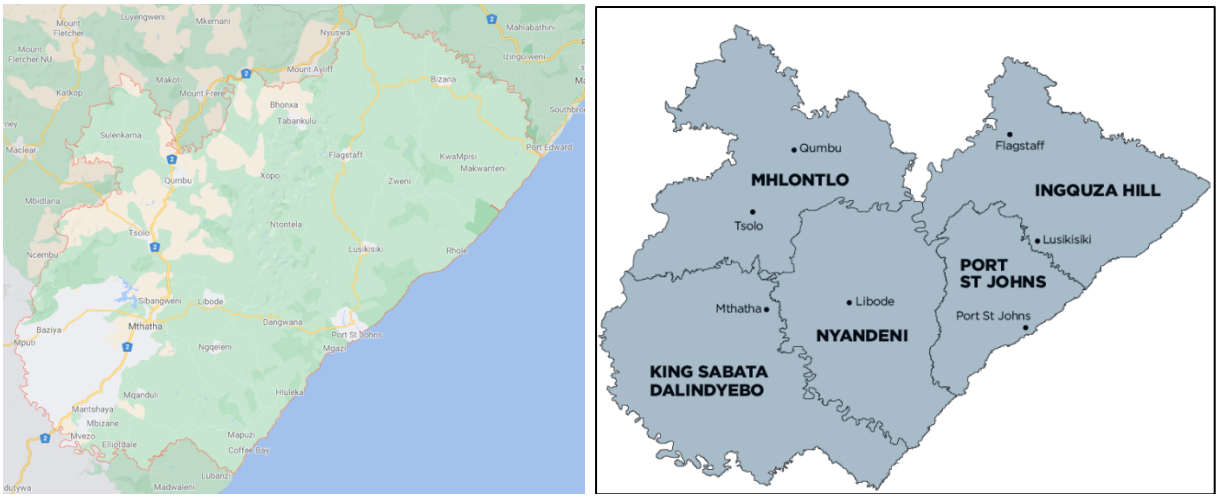
The OR Tambo District Municipality is one of seven districts in the Eastern Cape Province. The district extends across 80% of the former Transkei homeland and is situated towards the upper eastern part of the province. Given the severe challenges faced by the district, it

[1] Transitions are gradual and expected changes during as well as between life-stages, while turning points are sudden and generally unexpected resulting in sudden and disruptive change.

became one of the four Eastern Cape nodes included in the largely unsuccessful Integrated Sustainable Rural Development Node Strategy of the South African Government[2] [1, 2].

As shown in Figure 1, this rural district is divided into five local municipalities, namely King Sabata Dalindyebo, Nyandeni, Port St Johns, Ngquza Hill and Mhlontlo. Of these, only Mhlontlo is not part of the Wild Coast region along the Indian Ocean. The district's administrative seat is in Mthatha, three hours (230km) from the provincial government in Bisho and the urban centre of Buffalo Metropolitan City. If travelling to larger urban centres, Mthatha is equidistant from the metropolitan cities of Nelson Mandela Bay and eThekwini, both of which are six hours away.

Figure 1. The geographic location of OR Tambo District Municipality



Sources: Google Maps, 2021; and Municipalities of South Africa, 2021 [insert new maps]

The district is home to an estimated 1,52 million people of which the vast majority are black African (99%) and Isixhosa speaking (96%). Given its size, the district has a relatively high population density of 108 people per km^2. Of the 314 000 households in the district, approximately two-thirds occupy formal and traditional structures.

[2] According to a Statistics South Africa review, the 18 rural nodes nationally failed to show a significant improvement over the ten-year period of intervention. Compared to non-nodes, these areas did not catch up on key concerns such as education, economic activity, living conditions and multidimensional poverty. This was attributed in part to a lack in improvement in service delivery [1].

Services to households in the district vary but are in general very limited. Approximately 14% of households only have sufficient electricity for lighting. Equally, 14% of households in the district have no electricity supply, with the King Sabata Dalindyebo Local Municipality having the most households without an electricity supply (17 100 or 36%). It is likely that the supply of electricity is not constrained by distribution alone, given household incomes.

Only 33% of households have access to water provided by a regional or local service provider. The largest source of water in the district comes from rivers (48%). Seen in totality, these figures are alarming due to the findings of a recent study of water supply in rural South Africa. The study highlighted a pressing need for proper water treatment based on active monitoring of water sources given the level of contaminants in the water used by rural communities [3].

In addition to water supply concerns, only one in five households (21%) have access to flush or chemical toilets. This is more than half the provincial and two-thirds the national figure. Moreover, the vast majority of households (89%) have to dispose of their own refuse. This further underscores challenges around environmental health and water contamination in the district.

Moving on to the demographics of the population, it is noteworthy that the average age of those living in the district is only 19, compared to the national average of 25. Current population estimates indicate that 58% of the district's population is younger than 25 and children under 14 make up 39% of the total district population.

This phenomenon may be attributable to the high levels of outward migration from the province that sees adults leaving to seek better living conditions and employment[3]. A

[3] As a whole, the Eastern Cape leads in outward migration, losing over 1,5 million residents between 2006 and 2018. Statistics South Africa projects that these high levels of outward migration will continue in the near future.

recent study in the area clearly demonstrates these push factors, concluding that the lack of waged employment increases the reliance of households on social grants. Grant receipts in the area increased by 250% between 2002 and 2016. However, social grants focus principally on children, the disabled and older people and were never intended to be the sole income for a household. This creates a scenario where failure to create sustainable livelihoods not only increases the vulnerability of households and their dependency on the State for social assistance, but also fuels an outward migration of adults seeking better livelihoods [4]. This outward migration is compounded at a provincial level. The province loses an estimated R13 billion a year in the equitable share allocation from the national government as its proportion of the total national population shrinks.

Unemployment in the district is subsequently a major concern, with pre-COVID pandemic employment standing at only 16% – compared to 26% provincially and 39% nationally. This may be indicative of the large portion of the population (47%) who are generally not considered to be economically active due to their age – in other words, the number of people under 15 and over 60.

These difficulties are further reflected in annual household income, which is on average only R 14 600. Although similar to the provincial average, it is only half the national average of R29 400. Annual individual income is equally low, averaging R15 000. This is half of both the provincial and national average of R30 000. It is not surprising therefore to see a recent Department of Cooperative Governance and Traditional Affairs report state that 67% of the population lives in poverty.

The district is attempting to address this situation through a Local Economic Development Strategy. Five priority areas have been identified to bolster the local economy and job creation, namely the green economy, agriculture, mining, manufacturing and tourism. That said, between 2008 and 2018 there was a good deal of volatility in the value added by

agriculture and mining as primary sectors. Similarly, manufacturing as a secondary sector showed little growth in the same period. These challenges aside, several major projects are planned for the district, including the N2 Wild Coast Toll Road between Mthatha and Port Edward, the Wild Coast Meander, a special economic zone that incorporates an agro-processing hub near Mthatha Airport and establishing Coffee Bay as a town.

The Department of Cooperative Governance and Traditional Affairs recently made the following recommendations to support sustainable development of the district:

Strengthen the safety net for poor and child-headed households – creating a database of affected households, extending the social package (grants and free basic services) and implementing childcare programmes.

Accelerate the delivery of household infrastructure and services – focusing on basic service provision.

Grow the export-focused agricultural and agro-processing sector – mapping export opportunities, mobilising small farmers to become part of the value chain and utilising incubation hubs.

Strengthen the regional N2 coastal corridor link – including robust community consultations as part of the development.

Activate large scale community-empowering tourism – through a tourism plan, developing local tourism operations, training in tourism as well as by providing funding and finance for community operators.

Safeguard the natural resource base and resolve mining versus tourism trade-off – improving cost-benefit studies and better interrogation of the associated processes.

Expand the forestry sector – for commercial use as well as to provide wood energy for rural communities.

Develop the oceans corridor – connecting small rural beach towns to aid tourism and economic growth.

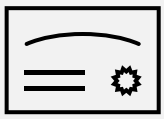
Invest in skills development to promote agriculture – upskilling communities in subsistence and small-scale farming.

Support small businesses with an incubator focusing on agriculture – through the Ntinga Development Agency partnership with the Ingwe TVET College (in the Alfred Nzo District) and others.

Expand the Furntech incubator to Lusikisiki – by drawing on the experience of the Mthatha incubators [4].

3. COMMUNITY DATA SNAPSHOT

 area	1 of seven districts in Eastern Cape Covers 80% of the former Transkei 4 coastal and 1 inland local municipalities Tourism and agriculture are primary industries

 population	Consists of 23% of the Eastern Cape population 1 in 3 people (39%) are 0-14 years old 1 in 5 (19%) are 15-24 58% are younger than 25 (nationally: 45%) 195 000 people (13%) are older than 50 Outward migration was 1,9 million people between 2016-2018 (EC)
 households	Number of households 314 100 R14 600 the average annual household income 1 in 3 households rely on social grants 57% are women-headed 1 in 3 children do not live with either parent 1 in 3 live only with their mother (both parents alive 81%) 79% of children experience multidimensional poverty 1/3 black children are not adequately simulated for early learning (SA) 1 in 3 children experience sexual abuse (SA) 1 in 4 children are exposed to violence in the home and 1 in 2 witness violence in the community (SA) 1 in 6 women experience intimate partner violence (EC) 1 in 50 older women in OR Tambo report being a victim of sexual abuse
 service delivery	2 in 3 households supply their own water 2 out of 3 households use pit toilets 78% of households use own dump for refuse
 education	1 in 3 children attend an early childhood development centre (EC) Grade 3 progression is 85% (EC) 1 in 4 children meet mathematics expectations by Grade 9 (SA) 1 in 4 children do not go to secondary school (EC) 50% of children will drop out by Grade 12 (SA) Almost 2/3 of girls and half of boys are bullied at school (EC) 1 in 4 children failed Grade 12 in 2020 (EC) 4% of youth under have any post-school qualification 1 in 3 the number of 15- to 24-year olds Not Employed, Education or Training (NEET) (EC)

health	1 in 5 women have their first child at 18 (EC) 1 in 4 births are unwanted (EC) 1 in 5 women do not receive antenatal care 144 mothers die for every 100 000 live births at a facility 56 children died from Severe Acute Malnutrition in 2018 (289 admitted for care) Immunisation coverage is well above the provincial average but still below 90% Measles immunisation is below the 95% legislated Of the top ten causes of adult deaths, 6 are linked to risk manageable NCDs 23% of non-natural deaths are due to interpersonal violence
negative life events	1 in 4 males and 1 in 6 females are sexually active at 15 (SA) 1 in 2 use alcohol by age 15 and 1 in 3 report binge drinking (SA) 1 in 6 use illegal substances (SA) 1 in 2 school children report being bullied at school (EC)
community asests	ECD centres: No verifiable district data could be sourced Combined schools: 405 Primary schools: 636 Secondary schools 159 University: Walter Sisulu University TVET College: King Sabatha Dalindyebo TVET College Primary Health Care: 153 clinics (10 per 100 000 people– national 11,2) Public hospitals: 153 (10 clinics per 100 000 people– national 11,2) Academic hospital: 1 Police stations: No verifiable district data could be sourced Non-Profit Organisations: No verifiable district data could be sourced Small-Medium Businesses: No verifiable district data could be sourced Large Businesses: No verifiable district data could be sourced

Note: Where indicated, data refers specifically to the Eastern Cape (EC) or South Africa (SA)

Sources: Statistics South Africa Community Survey, 2016; Demarcation Board Municipal Capacity Assessment, 2018; Department of Basic Education, Education Management Information System, 2019; and South African Police Service, 2020

From the community snapshot it is clear that OR Tambo District is characterised by its large population of young people, many of whom do not live with their parents. Levels of

poverty and unemployment are extremely high, with many households depending on social grants to survive. The school system is failing learners especially in their final years of school– a problem that can be traced back to weaknesses in the foundation and intermediate phases of school. Immunisation levels are not in line with national targets, maternal and newborn deaths are high and service delivery in general is poor.

To reiterate, OR Tambo District has several areas of concern. Most striking are the relatively young age of its population, severe poverty, low levels of service delivery and challenges resulting from outward migration.

4. LIFE STAGE SUMMARIES

CONCEPTION TO BIRTH

Attribute	Summary	Potential interventions	Partners, resources and community assets[4]
Early action	**Avoiding early parenthood (adolescent pregnancies)** Address negative single parenting behaviours that affect children at a community level. Ensure access to sexual education to improve adolescents' knowledge of risks. Ensure adolescents have access to contraceptives and condoms to prevent unplanned pregnancies and sexually transmitted infections (STIs) including HIV. Reduce the risk of transactional sex and age-disparate relationships due to economic hardship. Increase job opportunities for young women.	Provide sexual education to support positive choices, resilience to coercion and Improve understanding of the consequences of sex. Ensure access to contraceptive methods and information on options around unwanted pregnancies. Work with community leaders and social influencers to change negative cultural and social practices affecting the girl child and women. Assist older adolescents to remain in or return to school. Ensure access to skilled and youth-friendly BANC services. Facilitate the provision of social services/ information that optimises access to social	**Department of Education** Scripted lessons for Comprehensive Sexuality Education **Department of Health** Youth-Friendly Services Programme Mother-Baby Friendly Initiative BANC and BANC+ MomConnect EML app for standard treatment guidelines and essential medicines list for South Africa Guidelines for maternity care in South Africa **Department of Social Development** Victim Empowerment Programme

[4] Note: this list is not exhaustive and is only indicative of partners and resources. Inclusion should not be interpreted as an endorsement of the organisation itself, policies, programmes or quality of services rendered.

Attribute	Summary	Potential interventions	Partners, resources and community assets[4]
	Work at a community level to engage with problematic cultural and social practices that negatively impact young women. Offer assistance for young mothers to avoid undernutrition. Improve access to social assistance programmes to support young mothers and their children. **Promoting maternal health** Support access to antenatal care to detect and manage risk factors and pregnancy-related complications (contact with antenatal services eight times). Support national nutritional supplementation guidelines. Encourage community-level programmes that promote healthy lifestyles and improve access to health and social services for pregnant women. Ensure health services are competently and consistently applying the national basic antenatal care (BANC) approach.	programmes and assistance grants – boost household income, improve food security and provide nutritional supplementation If required. Identify young women at risk of social and economic exploitation and assist. Support older adults who are acting as primary caregivers of adolescents with sexual education and positive adult interactions. Encourage pregnant women to attend antenatal services early and consistently. Promote maternal mental health in communities, ensuring access to mental health assessment and positive experience services[5]. Provide rural women access to IPV services (social and victim-supportive criminal justice) and emergency shelters.	South African Social Security Agency **South African Police Service** Family Violence, Child Protection and Sexual Offences Units **Community-based Organisations** National Shelter Movement Philani Trust PATH Humana People to People in South Africa

[5] While research in certain developing countries indicates value in maternal health programmes supported by community health workers, South African research into local programmes has not demonstrated similar value both in health outcomes – especially for rural communities – and in terms of the cost benefit cost benefit **Invalid source specified.**. This may raise questions around programme design, training and responsiveness to local factors.

Attribute	Summary	Potential interventions	Partners, resources and community assets[4]
Transition and turning points	Sexually active Nationally 41,5% of girls and 50,8% boys will have had sex by age 19. Early motherhood Nationally 9,8% of live births annually were to mothers under the age of 18. Early motherhood rural communities Rural adolescent mothers are more likely to deliver early and underweight babies compared to adult mothers. Rural adolescent mothers are more likely to have children with stunted growth. Early childbirth, being underweight at birth and malnutrition are high-risk factors for child mortality in the first year of life. Child marriage Limpopo has a higher child marriage rate at 17,5% compared to the national rate of 3,1% for all registered marriages. Intimate Partner Violence Nationally, Limpopo has recorded the lowest prevalence of intimate partner violence (IPV) in the past 12 months (7,1%). However, transactional and age-disparate		

Attribute	Summary	Potential interventions	Partners, resources and community assets[4]
	relationships are associated with an increased risk of IPV.		
System performance	**Access to sexual education** Programmes providing comprehensive sexual education in schools face significant resistance from a range of school community stakeholders, resulting in limited access to information to mitigate known risks. Research indicates an unfavourable environment for adolescent mothers to return to school. Completing one's education is a significant factor for later life-stages. **Access to sexual and reproductive health services** Adolescents have limited access to sexual and reproductive health services, reducing the use of contraception and the timeous treatment of STIs. Approximately one third of pregnant women in the Waterberg district do not have their first antenatal visit before 20 weeks – early contact with health services is considered important to reduce maternal health risks. **Safe childbirth**		

Attribute	Summary	Potential interventions	Partners, resources and community assets[4]
	Waterberg maternal deaths are below the national rate, but 211% higher than the lowest recorded district rate nationally. Waterberg neonatal deaths are similar to the national rate, but 107% higher than the lowest recorded district rate nationally. Cultural and social practices Local community practices could conflict with the Constitution and legislation that promote gender equality and the rights of children.		
Improvement	The number of adolescents with access to comprehensive sex education. The number of adolescents with access to youth-friendly sexual and reproductive health services. Access to social services for mothers in rural communities (social grants and IPV). Household food security and access to nutritional supplementation for pregnant mothers. Early contact with antenatal health services (before 20 weeks). Healthcare workers competent and implementing BANC plus.		

Attribute	Summary	Potential interventions	Partners, resources and community assets[4]
	The number of job opportunities for young women. Community-based programmes supporting maternal health and access to health and social services. Bottom-up advocacy around gender equality and protecting the rights of the girl child.		

FIRST TWO YEARS AND CHILDREN UP TO SIX

Attribute	Summary	Potential interventions	Partners, resources and community assets
Early action	**Newborn care** Assist mothers of underweight and premature babies to take additional precautions. **Nutrition** Regular monitoring of weight and growth. Promoting exclusive breastfeeding for first six months. Access to nutritional supplementation as required. **Preventing diarrheal disease** Reduce exposure to critical risk factors – water and sanitation hygiene (WASH)) and improve food safety. Ensure on-time vaccinations, supplementation and adequate nutrition. **Managing pneumonia** Prevent diarrheal disease as it compounds the risk. Ensure on-time vaccinations.	Provide additional post-natal education for mothers with underweight and premature babies and assist with access to social grants. Assist mothers and primary caregivers to follow a growth monitoring and immunisation schedule. Provide HIV-positive and working mothers with additional breastfeeding support **Invalid source specified.**. Provide households with WASH information and support. Educate mothers and primary caregivers on dangers signs of life-threatening illness in children and support urgent care access. Identify households with vulnerable mothers and children who need targeted support (mental health, nutrition, IPV, access to social services, extreme lack of income). Educate mothers and caregivers about stimulating a young child and early learning.	**Department of Health** Mother-Baby Friendly Initiative Road to Health booklet Road to Health mobile app NurseConnect Integrated Management of Childhood Illnesses (2019) National Integrated Nutritional Programme **Department of Education** Tshwaragano ka Bana - Let's play, learn and grow together (DSD, DoE and UNICEF) Thutong Portal – Grade R resource pack **Department of Social Development** South African Social Security Agency Early Childhood Development Grant **South African Police Service** Family Violence, Child Protection and Sexual offences Units

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Address household air pollution and overcrowded living spaces. **Interaction with healthcare services** Ensure on-schedule interactions for growth monitoring and vaccinations. Educate caregivers on danger signs as indicators to seek urgent care. **Early learning at home** Encourage caregivers to provide simulation and learning opportunities for the young child in the home. Encourage attendance of community programmes or registered ECD centres. **Child maltreatment** Establish a comprehensive response that focuses on individual, relationship, community and societal factors.	Offer access to community-based ECD programmes, registered centres and schools offering Grade RR and R. Work with community leaders and social influencers to address negative cultural and social practices that normalise child maltreatment and IPV. Destigmatise and provide access to mother-friendly mental health and social services.	**UNICEF** Tippy tap field demonstration guide **Community-based Organisations**[6] Early Learning Resource Unit Childline South Africa Child Emergency Line Child Welfare South Africa Women and Men Against Child Abuse
Transition and turning points	Multiple occurrences of preventable diseases (such as diarrhoea) increasing risk of malnutrition and pneumonia. Exposure to early learning opportunities within and outside the home.		

[6] Listing these organisations is based on programmes they offer and does not represent an endorsement of the organisation itself or the quality of its programmes.

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Exposure to maltreatment, with girls three times more likely to experience sexual abuse and boys being at greater risk of physical abuse. Starting to attend Grade RR and R as part of the foundation phase of schooling.		
System performance	**Growth monitoring and vaccination** Caregivers are not accessing health services, resulting in sub-optimal coverage rates for required vaccinations. **Access to early learning** Caregivers are not assisted to provide at-home stimulation and early learning activities. Access to registered early childhood development centres and programmes is limited. Access to schools offering Grade RR and R is often highly limited as well as problematic for rural communities given barriers such as the distances involved. **Services for maltreated children**		

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Identification and referral systems are not well established and is dependent on the capacity of healthcare providers, community-based organisations and the criminal justice system.		
Improvement	A minimum of 85% immunisation coverage for children under six years of age. A reduction in number of children with diarrheal disease and pneumonia by addressing risk factors. Number of caregivers equipped to identify danger signs in children and the ability to seek urgent care. Acute severe malnutrition is eliminated. Number of caregivers equipped to provide early learning in the home. Number of children who have access to ECD centres or community programmes for two years. Quality of child maltreatment prevention, identification and support resources and services in the community.		

THE OLDER CHILD (SIX TO NINE YEARS)

attribute	summary	potential interventions	partners, resources and community assets
Early action	**Performance in the initial years of schooling** Ensure mastering of learning in Grades 1 to 3 as learning gaps will widen and compound learning challenges in later grades. **Following a growth mindset** Engage learners using an approach that growth is possible even in difficult subjects. Avoid labelling individual attributes as inherent to success, for example boys are better at science or she has a talent for maths. **Reducing malnutrition (under and over nutrition)** Promote access to good nutrition and not just a meal to address hunger– up to one in four children on the National School Nutrition Programmes can still suffer malnutrition due to the quality of meals provided. Strengthen food management and hygiene practices among groups preparing school meals.	Assist schools and foundation phase teachers with subject knowledge and appropriate teaching methods. Engage with schools, teachers, parents or guardians to advance the idea that you can develop a child's intelligence levels, talents, and abilities. Ensure nutritional quality of National School Nutrition Programme meals. Work with community organisations and schools to improve food management and hygiene practices for school meals. Educate parents and primary caregivers about how to improve the nutritional value of meals for children. Help build quality adult relationships for children at-risk in their household, community or school. Assist teachers with subject knowledge and teaching methods for the senior phase.	**Department of Education** Thutong Portal – foundation phase resources **Department of Health** Integrated School Health Policy (DOE, DSD & DOH) **Department of Social Development** Victim Empowerment Programme South African Social Security Agency **South African Police Service** Family Violence, Child Protection and Sexual offences Units **Community-based Organisations** Lunchbox Fund Peninsula School Feeding Association Joint Aid Management (JAM) **Corporate Social Investment** Tiger Brands Foundation KFC's Add Hope programme

attribute	summary	potential interventions	partners, resources and community assets
	Ensure nutrition literacy in the foundation phase based on subject knowledge and appropriate teaching methods. Assist caregivers to make better practical nutritional choices with limited household incomes. **Addressing child maltreatment** Use the benefit of school populations to prevent maltreatment and help children affected access support – noting that the abuser is typically known to the victim and is likely a fellow child or teen. **Reducing the impact of adverse childhood experiences (toxic stress)** Developing resilience in children through a supportive parent, caregiver or adult to help prevent or mitigate the effects of negative experiences in the household, school or community – including the effects of poverty and direct and indirect violence. **Improving school health services** Improve key stakeholders' understanding of their roles and contributions as well as how to collaborate to achieve the programme objectives.	Improve collaboration between key stakeholders in school health and increase parent or guardian participation. Support health promotion and disease prevention activities for school children. Advocate for healthier food options in and around schools.	Discovery Vitality Schools Programme Vodacom e-School

attribute	summary	potential interventions	partners, resources and community assets
	Balance the biomedical aspects of the programme with the preventive and promotive components.		
Transition and turning points	**Starting school** The child starts their formal education, which has been shown to significantly impact progression and attainment in later years. **Adverse childhood experiences** Adverse experiences are linked to long-term behavioural changes that can negatively impact outcomes in adulthood.		
System performance	**School performance** Subject knowledge and effective teaching is a significant challenge in schools and results in learners failing to meet the expected levels of achievement by Grade 3. **National School Nutrition Programme** This massive programme has a wide reach and provides many children with their only meal for the day. However, while it is making a major contribution to alleviating hunger not all school meals offer sufficient nutrition.		

attribute	summary	potential interventions	partners, resources and community assets
	School Health Programme The programme is plagued by underfunding, a lack of co-ordination and collaboration by key stakeholders. Moreover, when implemented, the focus appears to be on biomedical care and not on health promotion and disease prevention.		
Improvement	Number of Grade 3 learners meeting the expected level of progress in reading and writing. Number of children receiving a safely prepared and nutritious meal at school. Number of children interacting with a parent, caregiver or adult who is equipped to help develop their resilience. Number of schools delivering the package of care described in the Integrated School Health Policy. Community-based organisations are actively involved in preventing maltreatment, coupled with support for children and families affected via health, social and judicial services.		

EARLY ADOLESCENCE (TEN TO FOURTEEN YEARS)

Attribute	Summary	Potential interventions	Resource partners and community assets
Early action	**Mental health interventions** Promote mental health and offer integrated youth-friendly services to identify and address mental illness in general and cyberbullying in particular. **Comprehensive sex education** Address adolescents' knowledge of sexual and reproductive health through comprehensive sex education. Provide access to youth-friendly services that support positive engagement with the healthcare system. **Quality adult relationships** Help adolescents experience quality adult relationships and family connections. Encourage fathers to be involved with their families and children. **Delaying sexual debut**	Engage with parents, schools and community leaders to facilitate implementing comprehensive sexual education in schools. Ensuring youth-friendly sexual and reproductive health services. Destigmatise mental illnesses and promote youth-friendly mental health services. Collaborate with community leaders and social influencers to address negative cultural, social and community practices that promote substance abuse (including alcohol) and violence. Deliver school-based programmes that focus on boys in terms of gender equality, GBV and IPV. Help to build quality adult relationships for children at-risk in their household, community or school.	**Department of Education** Scripted lessons for sexuality education. Bullying in schools online resources. **Department of Health** Integrated School Health Policy (DOE, DSD & DOH) Child and Adolescent Mental Health Policy[7] **Department of Social Development** White paper on families in South Africa National Drug Master Plan 4th Edition 2019-2024 Substance abuse helpline South African Social Security Agency **South African Police Service** Treatment of juvenile offenders and support their reintegration into society training

[7] A recent study on the status of a child and adolescent mental policy in South Africa concluded that none of the nine provinces had such a policy or implementation plans for such a policy **Invalid source specified.**. This could explain stakeholder observations of widespread neglect of child and adolescent mental health services in the South African health system **Invalid source specified.**.

Attribute	Summary	Potential interventions	Resource partners and community assets
	Improve socio-economic choices for adolescents, particularly girls. Address barriers to educational attainment for girls. **Substance abuse** Understanding factors related to unemployment and how youth can spend their time. Address ease of access to and unregulated production of alcohol in communities. Provide early interventions supported by a well-integrated mental health service. Encourage cultural leaders to address negative cultural practices. **Schooling** Promote a growth mindset. Success comes from learners developing abilities over time rather than based on an individual characteristic, such as boys are better at science or clever children are better at maths. Ensure the foundation for mathematics is established by Grade 9.	Support advocacy for adherence to weapon, alcohol and illegal substances controls. Strengthen the code of conduct in schools and its implementation to improve school culture around bullying both at school and through social media platforms. Engage schools, teachers, parents or guardians to promote a growth mindset around 'difficult subjects'. Assist teachers improve their subject knowledge and teaching methods for the senior phase. Identify families or households lacking connectedness and provide social services. Identify at-risk youth and intervene early through specific programmes. Help schools and teachers to foster a positive environment to facilitate the reintegration of offenders.	**Department of Justice and Constitutional Development** Educational resources on the Child Justice Act **Community-based Organisations** South African Depression and Anxiety Group Childline South Africa – anti-bulling resources for schools Stop Bullying Network – online resources and toolkits Khulisa – diversion programmes South African National Institute for Crime Prevention (NICRO) – diversion programmes **Corporate Social Investment** Vodacom e-School

Attribute	Summary	Potential interventions	Resource partners and community assets
	Support teachers both in subject knowledge and teaching methods for mathematics and science. Address social and cultural attitudes among parents and teachers towards girls following careers in science. **Bullying** Address school culture that may covertly permit bullying behaviours. Ensure that there Is a school code of conduct and that It Is enforced. Engage teachers to share the extent and impact of bullying and explain danger signs to look out for when children are being bullied. **Conflict with the law** Address gender equality, gender-based violence and intimate partner violence with boys. Address causes for assault (interpersonal violence). Promote family connectedness through parental engagement. Assist schools and teachers to support children who are in trouble with the law.		

Attribute	Summary	Potential interventions	Resource partners and community assets
Transition and turning points	**Sexual debut** A large proportion of adolescents start having sex in their early adolescence. Boys (28%) being more likely than girls, (16%) of whom have had sex by the age of 15. **Criminal capacity** Under the Child Justice Act, adolescents between the ages of 10 and 14 may have criminal capacity if proved by the State and are assumed to have criminal capacity if they are over the age of 14. The number of children in conflict with the law increases in late adolescence, with more children standing trial and receiving more punitive sentences. **Substance use and abuse** Up to 16% of adolescents are using tobacco products by age 15, representing the majority of those who will start using tobacco during adolescence. The likelihood of initiating is associated with family, peer and cultural attitudes towards tobacco use. A large number of adolescents (49%) consume alcohol, with 32% of those reporting binge-drinking.		

Attribute	Summary	Potential interventions	Resource partners and community assets
	13% of school-going youth report using cannabis, methamphetamines, heroin and mandrax at least once. **Uptake of mathematics** Mathematics is a core subject for a career in science and technology. Since 2008 there has been a decline in learners taking mathematics in favour of mathematical literacy. In 2016, the mathematical literacy to mathematics ratio was 1,5:1 compared to 0,9:1 in 2008.		
System performance	**Acceptability of healthcare services amongst youth** Youth have poor experiences with healthcare services which discourages them from seeking care. **Lack of service integration, particularly in mental health** The poor integration of service both within and between departments and with other stakeholders results in poor policy implementation and service delivery. Mental health services in particular are poorly integrated. **Inadequate delivery of school health services**		

Attribute	Summary	Potential interventions	Resource partners and community assets
	There are significant challenges in implementing school health services, including poor co-ordination and clarification of roles. **Late management of substance abuse** Current services appear geared to treatment and rehabilitation – a late-stage intervention. Use of early prevention and intervention programmes are believed to be grossly inadequate. **School performance in mathematics and science** Preparation for mathematics in the intermediate phase is inadequate, compounded by poor performance in the foundation phase. There is a lack of a growth mindset in schools to encourage continued effort to achieve in difficult subjects. **Cultural and school community views on gender** Girls face significant challenges in terms of sexual reproductive health and the acceptance of intimate partner violence. Girls are not encouraged to pursue mathematics and science or are made to		

Attribute	Summary	Potential interventions	Resource partners and community assets
	believe that these are not careers that can be successfully pursued by women.		
Improvement	The number of adolescents with access to comprehensive sexual education. The number of adolescents with access to youth-friendly sexual and reproductive health services. The number of schools covered by school health services. Well-integrated mental health services spanning early prevention, intervention and management. Number of learners having an adequate mathematics foundation to continue with mathematics in Grade 10. Number of girls choosing to continue with mathematics and science beyond Grade 9. Number of schools with an anti-bullying strategy in place anchored by school-culture, a code of conduct and support of victims.		

LATE ADOLESCENCE (FIFTEEN TO NINETEEN YEARS)

Attribute	Summary	Potential interventions	Partners, resources and community assets
Early action	**Reduce drop-out rates** Reaching back to address challenges in the foundation phase and breaking the cycle. Focusing on fundamental capabilities in Grade 9 as the basis for progression. Promoting a growth mindset around subject that are perceived to be difficult. **Improve career guidance and planning** Provide Improved career guidance and planning to help learners better understand the requirements and path associated with their choice. Encourage awareness, uptake and use of the Department of Higher Education and Training career guidance and planning portal and service. Help learners navigate the requirements for high demand occupations which are typically associated with higher-level qualifications. **Employability as a long-term development strategy**	Support programmes to strengthen fundamental capabilities expected on progression to Grade 9. Support programmes to help youth at-risk of dropping out and that enable reintegration of youth who have dropped out. Support programmes that help learners with differing capabilities and genders to perform better in 'difficult subjects'. Provide access to improved career guidance and planning, as well as exposure to workplaces and employer networks. Assist youth to become more agile navigators of the labour market. Help schools to strengthen their existing teaching to emphasis critical 4IR soft skills. Capacitate schools to offer entrepreneurship programmes that include building practical experience in starting a venture, and exposure to networks that can support a successful venture.	**Department of Education** Care and Support for Teaching and Learning Programme Action Plan to 2024: Towards the Realisation of Schooling 2030 E3 Initiative (Entrepreneurship, Employability and Education) and E3 TeacherConnect WhatsApp platform Prevent violence in schools- learners take action (educational resources) **Department of Higher Education** Khetha Career Development Services portal **Department of Health** Integrated School Health Policy (DOE, DSD & DOH) Youth-friendly health services Child and adolescent mental health policy **Department of Social Development** White paper on families in South Africa

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Employability speaks to the lifelong ability to have meaningful and rewarding employment. This implies not only being relevant to the demand within the labour market, but also having access to supportive systems that allow agile navigation of changes in demand. Longer-term strategies that support employability should therefore be considered alongside short-term measures to support employment. **Promoting entrepreneurship** Develop entrepreneurial skills among school-going youth with a dedicated curriculum that includes practical experience. Foster a positive view of entrepreneurship within the community and among youth. **Responding to skills critical for the Fourth Industrial Revolution (4IR)** Reinforce priority 4IR skills such as creativity, critical thinking and problem solving within the current curriculum. **Reducing exposure to and impact of violence** Engage with the factors underpinning exposure to violence at an individual,	Provide support for youth to help build resilience at being exposed to violence and to help them deal with the impact of violence. Support school-based programmes that address GBV and IPV. Support community-level programmes that help shift negative cultural, social and community practices that affect GBV, IPV and inter-personal violence (assault). Provide access to youth-friendly mental health and social services. Identify and address causes of accidental death relevant to a community as well as possible future exposure.	National Drug Master Plan 4th Edition 2019-2024 Substance abuse helpline South African Social Security Agency **Community-based Organisations** DG Murry Trust (DGMT) National Youth Development Agency South African Institute for Entrepreneurship **Corporate Social Investment** Vodacom e-School Investec–Nextwork Global Exposure Programme (youth focused)

Attribute	Summary	Potential interventions	Partners, resources and community assets
	relationship, community, and societal level (social-ecological model). Address bullying given the challenge in distinguishing between it and violent behaviours. Address the negative mental health impact of exposure to violence by offering integrated services for mental illnesses. **Dealing with gender-based (GBV) and intimate partner violence (IPV)** Establish programmes for GBV and IPV in schools aimed at both primary (population-based) and selective (group-based) interventions. Advocacy at community-level around negative cultural practices and beliefs that support or condone GBV and IPV. **Reducing non-natural deaths** Prevent accidental deaths among youth through youth-led programmes. Address community violence and GBV to reduce deaths resulting from assault.		
Transition and turning points	**Career guidance and planning** Ability to exercise positive subject choices related to post-school planning.		

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Exposure to entrepreneurial education and mentoring. **Leaving school prior to Grade 12** Dropping out before completing school and joining youth in the not in employment, education or training (NEET) population. **Exposure to violence** Observing negative interpersonal behaviours and conflict resolution within the home, peer group, school and community. Experiencing violence increasing mental health problems.		
System performance	**Education system** Poor performance in the foundation and intermediate phase is compounded in the final years of schooling, reducing subject choices, academic performance and completion. Lack of entrepreneurship education and longer-term skills development and mentoring of in-school youth. **Health system** Low acceptability of youth health services and access to integrated mental health services.		

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Security and justice system Poor enforcement of regulations regarding alcohol and control of illegal substances. Access to illegal weapons in communities. **Social and cultural system** Lack of family connection and prevalence of violence in the home. Negative attitudes towards gender and acceptability of IPV. Perceptions around risks and value of entrepreneurship as a source of income.		
Improvement	A decrease in the drop-out rate between Grades 10 and 11 using group and individual programmes. Number of learners actively completing a career guidance and planning process. Increased Grade 12 completion rate with improved overall academic performance in line with cohort's post-school planning. Number of schools developing critical 4IR skills within current curricula. Number of high schools offering comprehensive entrepreneurial education and mentorship from Grade 10.		

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Number of youth-led ventures operating for two or more years. Number of primary and selective violence prevention programmes implemented in schools. Increased proportion of youth accessing mental health services. Fewer non-natural deaths from accidental-, assault- and transport-related injuries.		

EARLY ADULTHOOD (TWENTY TO THIRTY YEARS)

Attribute	Summary	Potential interventions	Partners, resources and community assets
Early action	**Reducing the youth unemployment rate** Reduce the impact of factors that constrain moving from unemployment to waged or self-employment – age (being older), being a woman, being a woman with a child, incomplete schooling, lack of experience, living in Limpopo and Eastern Cape provinces. Mitigate the impact of living far from opportunities as well as communication barriers with potential employers. Help to foster realistic expectations around jobs and what people qualify for. Leverage labour market interventions to reduce employment barriers and cultivate a pro-youth mindset among employers. **Rural youth and unemployment – adopting an evidence-based approach** Test youth programme assumptions and apply an evidence-based approach during the design phase.	Mitigate unemployment exit risks for both waged and self-employment. Support a robust third development option not dependent on current post-school education steam. Ensure evidence for job creation initiatives is well tested and allows room for other initiatives. Support mental health initiatives and co-morbidity management. Support GBV and IPV programmes that also address negative cultural, social and community practices. Support the establishment of shelters in rural communities.	**Department of Higher Education and Training** Khetha Career Development Services portal Sector Education and Training Authorities (SETAs) National Student Financial Aid Scheme (NSFAS) **Department of Health** Adult Primary Care Treatment Guidelines and Training National Mental Health Policy Framework and Strategic Plan (2013-2020) **Department of Social Development** Gender-Based Violence Command Centre **Department of Public Works** Expanded Public Works Programme **South African Revenue Service** Employment Tax Incentive

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Create room for multiple interventions – avoid concentrating resources on single projects. **Reducing the burden of disease – prevention and early management** Implement prevention and management programmes that take co-morbidity as well as multi-morbidity scenarios into account. Implement comprehensive programmes to assess underlying mental health factors that are often linked to high-risk behaviours such as overeating, inactivity and substance abuse. Develop long-term strategies that anticipate the gradual shift in the youth population bulge towards middle and older adulthood. This is critical to establishing effective health promotion and disease prevention programmes in adolescence and early adulthood to reduce the risks and impact of NCDs in later life. **Acknowledging the importance of mental health** Implement integrated mental health services to address the impact of high levels of exposure to violence and the impact of diseases such as HIV.		**Youth Employment Service (YES)** Assisting business and youth to connect around employment opportunities **Amavulandlela Funding Scheme** Provides funding to entrepreneurs with disabilities **Jobs Fund** Provides funding for enterprise development that focuses on sustainable job creation **Department of Small Business Development** Small Enterprise Development Agency (SEDA) **Department of Women, Youth and Persons with Disabilities** National Strategic Plan on Gender-Based Violence and Femicide **Community-Based Organisations** National Youth Development Agency South African Institute for Entrepreneurship South African Federation for Mental Health South African Depression and Anxiety Group

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Gender- and intimate partner-based violence Implement programmes to strengthen local organisations, counteract negative beliefs in the community, better equip emergency care personnel and the police, improve the experience of the court process and provide emergency shelters, especially in rural areas.		People Opposing Women Abuse (POWA) Lifeline Agisanang Domestic Abuse Prevention and Training (Adapt) Families South Africa (Famsa) STOP Gender Violence Helpline **Corporate Social Investment** Investec – Nextwork Global Exposure Programme (youth focused) Old Mutual enterprise development Various incubators including Anglo American's Zimele (see http://entm.ag/07x for a list of 58 incubators)
Transition and turning points	Leaving school and entering the post-school environment. Moving from unemployment into waged or self-employment. Moving from post-school education into waged or self-employment. Diagnosis of an NCD associated with reduced quality of life and early death. Seeking support and protection against gender- and intimate partner-based violence. Exposure to the criminal justice process.		
System performance	**Increasing employment opportunities** Structural barriers such as the location of communities and access to information limit employment opportunities.		

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Youth struggle to negotiate the labour market and the various barriers associated with entry into employment. Interventions are not based on evidence, wasting resources and blocking other initiatives. **Reducing risks factors** Inadequate risk prevention measures by key stakeholders. Lack of service integration as well as a focus on co-morbidity and multi-morbidity in HIV and NCD management by healthcare providers. **Providing support and care for gender- and intimate partner-based victims** Insufficient capacity in community-based organisations. Ill-equipped emergency care providers, police services and supportive court process. A lack of access to emergency shelters for women.		
Improvement	Number of youth exiting unemployment and moving into education, training, waged or self-employment.		

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Number of interventions that reduce barriers associated with the labour market. Number of youth programmes designed using an evidence-based approach. Number of prevention programmes to reduce risks associated with the burden of disease. Service integration to include mental health with HIV and NCD management. Number of community-based organisations preventing GBV-IPV and supporting victims. Victim experience in the care, management and support from health, social, police and criminal justice personnel. Spaces available in emergency shelters for women.		

MIDDLE ADULTHOOD (THIRTY TO SIXTY YEARS)

Attribute	Summary	Potential interventions	Partners, resources and community assets
Early action	**Sustaining employability** Strengthen education and training systems to accommodate the requirements of adults in this life stage. Facilitate the sharing of information abounding in-demand skills and skilling/ reskilling opportunities. **Mitigating the impact of non-communicable diseases** Early detection and effective management of NCDs. Use digital technology to promote chronic management of NCDs through self-management, social networking and telehealth consultations. **Gender-based and intimate partner violence services** Provide services that address the needs of women in this life stage, such as having children, and the economic challenges of leaving longer-term relationships.	Assist employers and workers with navigating uncertainty in changing demands – equip people to shift from current to future employment demands. Communicate emerging in-demand skills as well as skilling and reskilling opportunities. Support ongoing disease prevention, health promotion and management of NCDs. Support IPV programmes that include the needs of middle-aged women.	**Department of Higher Education and Training** Sector Education and Training Authorities (SETAs) Occupations in High Demand in South Africa Report (Labour Market Intelligence Programme) **Department of Health** Adult Primary Care Treatment Guidelines and Training **Department of Social Development** Gender-Based Violence Command Centre **Department of Women, Youth and Persons with Disabilities** National Strategic Plan on Gender-Based Violence and Femicide **Community-based Organisations** People Opposing Women Abuse (POWA) Lifeline

Attribute	Summary	Potential interventions	Partners, resources and community assets
Transition and turning points	Moving out of the extended definition of youth and programmes that target younger people. Sustaining employment by adapting to changing labour market needs. Being diagnosed with a NCD and requiring long-term treatment. Leaving long-term and/or abusive relationships.		Agisanang Domestic Abuse Prevention and Training (Adapt) Families South Africa (Famsa) STOP Gender Violence Helpline
System performance	**Education and training systems** Education and training systems emphasise access for younger people to reduce youth unemployment. **Health services and effective NCDs management** Health services are not accessible and therefore often not utilised. NCD chronic care has not enjoyed the same attention as the long-term management of HIV and TB. **Victim support** There is a lack of shelters for women and their children which makes victim support difficult.		

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Programmes to support older women ending abusive relationships and becoming self-sufficient are limited.		
Improvement	Accessibility for older adults to information regarding in-demand skills and opportunities to skill/reskill. Access to suitable and funded learning opportunities relevant to the labour market. Implementation of a chronic care model for NCDs that improves patient and healthcare provider effectiveness. Access to shelters to protect and support victims of GBV and IPV.		

LATE ADULTHOOD (OLDER THAN SIXTY YEARS)

Attribute	Summary	Potential interventions	Partners, resources and community assets
Early action	**Income vulnerability** Reduce dependency of other household members on old age grants by addressing the needs of other vulnerable groups in the community. Include older people in income-generating and self-employment programmes to help mitigate the effect of their economic exclusion when younger. **Impact of caregiving** Support and resource older people who are forced to take up a primary caregiver role for children. **Promoting sexual health and combating sexual abuse** Provide older people with information and health services that assist in their sexual health. Protect older people from forced sex by working to promote awareness and reporting at a community level. **Access to health and other social services**	Support economic and development programmes that are inclusive of older persons. Assist healthcare services to be more accessible and responsive to the needs of older persons. Provide support for older person taking on the role of primary caregiver to children. Support programmes that address the sexual health needs of older persons. Support programmes that help identify and assist vulnerable older persons from economic, physical and sexual abuse. Help older persons access health and social services. Support initiatives that help integrate and strengthen services on which older persons in the community depend.	**Department of Social Development** South African Policy for Older Persons South African Social Security Agency **Department of Women, Youth and Persons with Disabilities** National Strategic Plan on Gender-Based Violence and Femicide **Community-Based Organisations** Age in Action Action on Elder Abuse SA Halt Elder Abuse Line (HEAL) The Association for the Aged (TAFTA) Alzheimer's South Africa

Attribute	Summary	Potential interventions	Partners, resources and community assets
	Provide access to healthcare services that are better aligned to the needs of older people – reduce waiting times, improve consultation experiences and ensure the availability of prescribed medications. Strengthen key community systems to provide adequate support for community-based care of the elderly.		
Transition and turning points	Stopping or reducing waged employment due to age or ill health. Becoming a primary caregiver to orphaned or abandoned children. Using the old age grant to support multiple members in a household.		
System performance	**Systems supporting community-based care** Health, social and related systems often fail to support older people in a community, frequently resulting in them being neglected and abused. **Employment programmes** Given major concerns around youth unemployment, the focus of empowerment programmes often falls on this group. Older people, who themselves were often excluded from being economically active in		

Attribute	Summary	Potential interventions	Partners, resources and community assets
	the past, are either not targeted or expressly excluded. **Residential care** Not only is residential care extremely limited, but facilities often fail to meet legislative and regulatory prescripts. While the official government position is to promote community-based care to avoid or delay residential care, the community systems necessary are grossly inadequate.		
Improvement	The number of older people supported to reduce dependency on the old age grant. The number of older people supported in their role as primary caregiver. Accessibility to focused programmes pertaining to sexual health for older people. A community programme to prevent, report and help attain justice for older people who are abused. Healthcare providers initiate services that help meet the health needs of older people. A community programme to integrate and co-ordinate services to improve the support provided to older people in the community.		

5. LIFE COURSE REVIEW

5.1 THE FIRST THOUSAND DAYS

Early childhood development (ECD) is associated with several important milestones that hold life-long implications. These often reflect in school and economic performance that, in turn, ultimately impact the child's future ability to break free of the cyclic phenomenon of intergenerational poverty. The World Health Organisation (WHO) has begun to quantify the impact of this problem by estimating that up to 43% of children from low- and middle-income countries will not realise their full developmental potential in terms of physical, socio-emotional, cognitive and motor development. Moreover, there is now also growing evidence that the window for optimal interventions could be as narrow as the first thousand days of a child's development [6]. With this in mind, the first two stages of the life course will specifically focus on this period by reviewing key elements around conception to birth and the first two years.

5.1.1 Conception to Birth

Taking the first 1 000 days between conception and childbirth as the starting point of a life-course, two sets of early actions become evident. Firstly, young women must be empowered to avoid having children until they are adults, when the psychosocial and economic conditions for pregnancy, relationships and the ability to meet the demands of parenting are more favourable. Secondly, pregnant mothers must have access to the health and social services necessary for a healthy pregnancy and safe childbirth.

This section consequently focuses on the needs of young mothers and promoting healthy pregnancies and safe births.

BOX 1. ADOLESCENT PREGNANCIES IN SOUTH AFRICA

Figures show that one in five adolescent girls will become mothers in South Africa. In 2018, Statistics South Africa reported over 107 000 live births for adolescent mothers between the ages of 15 and 19, with a further 3 235 births attributed to girls aged 10 to 14 years [9]. The Northern Cape (13%) Limpopo (10%) and Mpumalanga (9%) lead the country in adolescent pregnancies, with the Western Cape and Gauteng recording the lowest rates at just over 5%.

Generally, factors that increase the risk of adolescent pregnancy are rooted in intergenerational poverty with various effects seen in multiple life stages leading up to and beyond the pregnancy. One of the earliest risk factors relates to the experience of parenting behaviours by the child. In South Africa, this is a particular concern given that less than a third of teenagers live with their biological father and only two-thirds are living with their biological mother. While over 84% of South African children live in a house with adults, the challenge remains that single parenting is associated with higher levels of poverty as well as an increased risk of poor behaviour and educational outcomes for the child. Compounding the problem even further is the link between poverty and the phenomenon of transactional and age-disparate relationships. One Limpopo-based study found that 16,5% of adolescent and young adult respondents reported having sex for a reward. The persistent presence of poverty creates a difficult path for girls between individual aspirations and social realities [10, 11].

Societal factors that contribute to the prevalence of adolescent pregnancies encompass:

- intergenerational poverty and poor prospects for economic progress;
- gender inequalities, gender role expectations, and intimate partner violence;
- judgemental attitudes of healthcare workers and teachers limit access to accurate sex education and reproductive health services;
- cultural practices such as ukuthwala[8]; and
- social practices such as ku hluva[9] [12, 10, 13, 14, 11].

[8] Ukuthwala (to carry) is predominantly a practice among Xhosa speaking people, who consider this a culturally-legitimate mock abduction of young girls and forced marriage. This practice highlights the complexity of constitutional protection, community relationships with the law, and the need to work from the bottom up to address gender equality and protection of girl children.

[9] ku hluva or ku hluva huku yi karhi yi hanya (plucking the feathers of a live chicken) is a practice where men are coerced out of their money around payday by young women who pretend to be in love with them. They may even cohabitate for a short period. A young woman may even engage in sex to gain access to the money. Once she has the money, she will suddenly leave the man.

Although poverty, poor levels of education and risky sexual behaviour are known to play a role in adolescent pregnancies, closer examination indicates that the majority of adolescents fall pregnant because they do not know how pregnancies occur and do not understand the risks of unprotected sex. The latter is often a key requirement in transactional sex and underscores the impact that a lack of employment opportunities for young women can have on increasing rates of pregnancies [15].

In addition, understanding the difference between the urban-rural situation in South Africa is critical. A recent South African study concluded that not only do rural areas have a higher rate of adolescent pregnancies, but this also has significant consequences for caretaking and the growth of the child. Factors that contribute to the latter include the greater lack of economic support, poor access to child grants and a lower rate of exclusive breastfeeding in the first six months. Rural adolescent mothers also have babies with lower birth weights as well as proportionally more children with stunted growth when compared with their adult counterparts. Both low birth weight and stunted growth due to malnutrition are significant risk factors for ill-health and death among children under two years.

The impact for the mother is equally concerning. While rural mothers are more likely to return to school, drop-out rates are higher, with lower matriculation rates reported. This clearly has life-long consequences, especially in terms of meaningful employment. Negative attitudes of teachers and open opposition are thought to play a major role in this phenomenon [16].

Notwithstanding these challenges, adolescent mothers are also more vulnerable to IPV, and one in five report having experienced IPV. This again underscores the challenges that social and economic pressures bring to bear on transactional and age-disparate relationships [16, 17].

Given the current understanding of factors linked to adolescent pregnancies, actions to mitigate the risks should be multi-layered and not simply focus on behavioural interventions. These actions could include:

- Working at community level to build gendered equality and protect the girl child.
- Improving access to sex education and reproductive health services.

- Reducing the need for transactional and age-disparate relationships by addressing the impact of poverty on households.
- Supporting adolescent mothers to access adequate social support for herself and her child.
- Providing access to community services for young women who are subjected to IPV.
- Promoting the importance of education among adolescent mothers.
- Promoting job opportunities for young women to reduce their economic vulnerability.

BOX 2. PROMOTING MATERNAL HEALTH IN SOUTH AFRICA

Maternal health spans the health of women during pregnancy, childbirth and the postnatal period. While maternal deaths are steadily declining in South Africa, women remain at a high risk of injury or death due to infections (mainly related to HIV), excessive bleeding, complications from high blood pressure and pre-existing conditions such as cardiac disease and diabetes. It is believed that up to 40% of maternal deaths are avoidable if community and clinical factors are adequately addressed. It is also worth noting that two-thirds of these deaths occur at level one and two hospitals; the type of facilities rural communities would typically rely on for their healthcare [18, 19].

It is crucial for pregnant women to have access to and attend quality antenatal care services so that healthcare workers are able to prevent, detect and treat complications. In 2008, the Department of Health introduced the Basic Antenatal Care (BANC) approach in an effort to strengthen maternal health services. It later proposed to increase the minimum number of contact visits from five to eight – called BANC plus [20, 21]. While BANC seeks to improve the quality of antenatal care, implementation has unfortunately not been as effective as hoped since guidelines are not being adopted in practice, clinic staff lack training and quality auditing systems to ensure BANC is properly used are not in place [22].

While maternal health can often involve higher and more specialised levels of care, the WHO suggests several basic measures that if implemented could create a positive pregnancy experience. These measures include:

Nutritional interventions – managing under and overnutrition and providing supplementation (iron, folic acid, calcium, Vitamin A and zinc).

Maternal assessment – within context treating anaemia and infections; addressing intimate partner violence; managing diabetes; preventing tobacco use and second-hand exposure; addressing substance abuse; screening for and managing HIV; and screening for and managing tuberculosis.

Foetal assessment – within context daily foetal movement counting; appropriate growth measurement; and an ultrasound examination before 24 weeks of gestation.

Community-based interventions – implementing community programmes that involve and mobilise women to improve maternal health, particularly in rural settings, to help identify barriers to care and increase support [23].

BOX 3. IMPACT OF COVID ON MATERNAL HEALTH

There is growing concern globally about the indirect impact of the COVID-19 pandemic in low- and middle-income countries and the possible negative outcomes for maternal health. This impact is associated with a disruption in routine healthcare as well as food access at a household level [24]. Groups considering the gender-specific impact of COVID have suggested that the global response does not adequately take into account both the direct and indirect impact of the pandemic [25].

Locally, one of the major challenges the South African Government has had to face during the pandemic has been a surge in gender-based violence (GBV) with the South African Police Service reporting 87 000 calls related to GBV during the initial lockdown [26]. Similarly, in responding to COVID, the health system has struggled to maintain essential services, including those associated with promoting maternal health [27]. These challenges are further compounded by the severe economic impact and disruption to schooling which will disproportionally impact the poor, youth and women. Against this backdrop, the challenges surrounding adolescent pregnancies and maternal health pre-pandemic, are expected to intensify.

Table 1. Adolescent pregnancies

Factor	OR Tambo	Eastern Cape	National
Population adolescent girls 10-19 years [28]	173 739 26% of provincial population	673 715	5 119 944
Adolescents 15-19 years living with [5]	Both parents: 16,8% Father only: 3,3% Mother only: 33,9% Neither parent: 46,1%	Both parents: 19,9% Father only: 3,6% Mother only: 32,8% Neither parent: 43,7%	Both parents: 25,5% Father only: 3,1% Mother only: 34,1% Neither parent: 35,9%
Unemployment by household – no adults employed [6]	–	46,3% of households	29,9% of households
Women under 18 who are [9]	–	–	3,1% of total married in 2016 5,6% in 2003
Sexual debut before 15 [17]	–	–	Girls: 5,7% Boys: 14,5%

Factor	OR Tambo	Eastern Cape	National
Percentage that have had sex by age 19 [17]	–	–	Girls: 41,5% Boys: 50,8%
Age at first child [11]	–	22% had a child before age 18 Vhembe district	
Unwanted births [11]	-	26,4% all ages	14,8% aged <20 years
Live births to adolescence 10-14 years [9]	-	-	0,1% of national total 1 287 live births
Live births to adolescence 15-19 years [9]	-	-	9,4% of national total 86 861 live births

Table 2. Intimate partner violence (women over 15)

Factor	OR Tambo	Eastern Cape	National
Intimate partner violence in the last 12 months [17]	-	17% in 2016 Second highest in South Africa Highest: North West 18,3%	15% in 2016 8,7% in 2003 A third occurs in lower wealth quintiles

Table 3. Maternal health

Factor	OR Tambo	Eastern Cape	National
First antenatal visit before 20 weeks [29]	60,1% in 2018 Increased from 41,8% in 2014 Fourth lowest nationally	61,7% in 2018 Highest Mpumalanga: 75,6% Lowest nationally	68,1% in 2018 Increased from 37,5% in 2010
First visit coverage[10] [29]	82,6% in 2018 Lowest Amathole: 44,7% Highest Frances Baard: 122,%[5]	65,6% in 2018 Highest Northern Cape: 107,3%[11] Lowest nationally	80,8% in 2018 Decreased From 89,7% In 2008
Maternal mortality in facilities [29]	143,7 deaths per 100 000 live births Lowest Sarah Baartman: 31,2 Highest Lejweleputswa: 229,9	106,1 deaths per 100 000 live births Lowest Western Cape: 66,8 Highest Free State: 168,3 Reduced from 128 in 2015	105,9 deaths per 100 000 live births 70,1 per 100 000 in 2008 1 065 deaths in 2018

[10] Is an indication of access to skilled antenatal care. It is based on the proportion of potential antenatal clients coming for at least one antenatal visit.

[11] May be due to an under-estimation of the one-year population or women returning to the province to give birth.

The district is home to one in four adolescent girls in the province, making it a key district where preventative measures should be implemented to avoid early pregnancies. Underscoring this argument is the fact that almost half the children in the district are not living with either biological parent. As will be discussed later, such circumstances will likely impact family connectedness and the quality of adult relationship. This, in turn, is associated with various risk factors that constrain areas such as an optimal education trajectory. A further concern for interpersonal relationships is that over one in six women report experiencing intimate partner violence. This is the second highest rate of intimate partner violence in South Africa.

It is further noteworthy that one in four pregnancies leading to live births are unwanted. The high level of poverty and the lack of income opportunities in the district are thought to play a role in the number of unwanted children.

The lack of early antenatal care and the extremely high maternal mortality rate further compound these issues. Given the rural nature of the district, access to healthcare services and why it is difficult to address is likely to be blamed for this poor performance. However, the current approach is failing, and should signal the need for better innovations and intervention design.

5.1.2 First two years after birth

The WHO published several evidence-informed recommendations for improving Early Childhood Development in 2020. These recommendations build on the NCF developed by WHO, UNICEF and the World Bank in 2018. As shown in Figure 2, this framework covers five components: good health, adequate nutrition, responsive caregiving, security and safety, as well as opportunities for early learning [6].

Figure 2. Nurturing Care Framework

Source: World Health Organisation, 2020

Using the NCF components as measures for ECD capacity, the performance of specific agents and systems can be critically assessed. Not only must this performance data provide a basis to improve the social accountability of public agents and systems, but it should also empower the community in real terms to take or direct meaningful actions that will result in the equitable access to basic human rights such as health, education, social wellbeing and security [31].

5.1.2.1 Good health and nutrition

Good health and nutrition span a range of concerns related to the child's physical and emotional wellbeing. This includes promotive, preventative, curative and rehabilitative interventions that relate both to personal and non-personal (environmental) health concerns.

5.1.2.2 The newborn

A baby is considered a newborn from birth to four weeks of age (the neonatal period). Most newborn deaths stem from being born too early as well as from complications linked to the pregnancy and birth itself. Over 80% of neonatal deaths, however, can be attributed to low birth weight, the result of either premature birth or intrauterine growth retardation. While this is an important area to address, the WHO notes that preventing low birth weights is complex as it involves multiple factors themselves not easily managed (see Box 4) [32].

In South Africa, an estimate of the leading causes of newborn deaths found that 36% are due to preterm birth complications, 20% are related to events during childbirth and 14% related to sepsis and tetanus. Considering that 12 of every 100 live births in South Africa are preterm (before 37 weeks), both the scale and vulnerability of newborns in the country becomes more concrete [33].

As can be seen in Table 4, while the Eastern Cape's newborn death rate is similar to the national rate, the death rate in the district is significantly higher – meaning that is has the fifth highest newborn death rate across districts nationally.

Table 4. Newborn deaths in facilities

2018/19	OR Tambo	Eastern Cape	National
	16,9 deaths per 1 000 live births	12,5 deaths per 1 000 live births	12,1 deaths per 1 000 live births
Neonatal deaths [29]	Lowest West Coast: 6,1 Highest Lejweleputswa: 21,7	Reduced from 15,8 in 2015 Lowest Western Cape: 8,9 Highest Free State: 16,8	Decreased from 13,3 in 2015

BOX 4. INTERVENTIONS FOR HEALTHY NEWBORNS

The WHO's recommendations on reducing preventable deaths and promoting the health of newborns can be viewed as two interlinked sets of interventions – those that apply broadly to newborns, and those that are more specific to newborns who are at high risk due to low birth weight or being preterm. The broad interventions include educating mothers on caring for a newborn, danger signs around serious health problems and seeking prompt care, breastfeeding, the importance of immunisation and development monitoring, as well as accessing available social services.

As mentioned, a low birth weight is a complex issue. Nevertheless, the WHO points to actions that can be taken at different levels to mitigate the problem.

Higher-level interventions include focusing on women's empowerment and education, supporting a women's access to healthcare (for example by funding transport), reducing food insecurity for those at risk, ensuring access to clean and adequate water, sanitation and hygiene, as well as providing improved perinatal care based on a range of clinical protocols (6).

Interventions at an individual level involve increased attention to keep the newborn warm, extra assistance around initiating and supporting breastfeeding, paying special attention to handwashing and hygiene, as well as emphasising and supporting growth monitoring. For HIV-positive mothers, additional information should be provided around treatment, testing and care for an exposed infant, and must include concerns around feeding (8).

Unfortunately, current data sets do not provide additional breakdowns of the first two years other than within the wider birth to age six population. That said, one can assume that children in their first two years of life would be relatively more vulnerable than older children.

5.2 THE CHILD UP TO SIX YEARS

Preventable and treatable childhood diseases have a major impact on the health of children in this group. Four interlinked areas of concern that affect this age group – malnutrition, diarrhoea, pneumonia and immunisation will be examined.

5.2.1 Hunger and malnutrition

The South African Constitution affirms a child's right to basic nutrition. This implies that all children in South Africa should have access to sufficient and safe food. In reality, the United Nation's Food and Agriculture Association estimated in 2018 that 6% of the South African population is undernourished. Statistics South Africa, in their 2017 household survey,

reports that 2,7 million South Africans experienced hunger. This number should also be viewed in conjunction with the finding that 21% of South African households had inadequate access to food. Over a quarter of these affected households had severe inadequate access to food. For those affected, 35% of households with inadequate access, and 36% of households with severely inadequate access to food, had one or more children under the age of five [35, 36].

Against this backdrop, UNICEF reported in 2019 that 27% of South African children under the age of five years were stunted (too short for their height). While stunted growth is associated with poverty, it the South African rates for this measure are significantly higher than other countries with similar economic conditions [37, 38].

Unfortunately, more in-depth data on malnutrition is not readily available at district and local municipality level. Despite this, the Department of Health (DoH) regularly collects data on severe acute malnutrition (SAM) at a district level. It should be kept in mind that SAM only represents the most nutritionally disadvantaged and vulnerable within the group and only paints a partial picture at the extreme end of malnutrition. To help gain a more accurate understanding of SAM and its contribution to childhood mortality the DoH changed its criteria for recording SAM cases in 2017. As a result, SAM is now recorded when present, even if it is not the main cause of death, as may be the case with diarrhoea or pneumonia-related deaths. Table 5 compares the published SAM data for 2018/19 as collected through the District Health Information System.

Table 5. Severe acute malnutrition (SAM) in children under five years of age

2018/19	OR Tambo	Eastern Cape	National
SAM case fatality rate	CFR 13,1% 4,2% pts above provincial rate Lowest: 0% (3 districts)	CFR 8,9% 1,8% pts above the national rate Lowest: Western Cape 1,6%	CFR 7,1%
SAM inpatients	289 children 19,7% of provincial cases 28,9% of provincial population	1 464 children 13% of national cases 12,4% of national population	11 280 children
SAM deaths	56 deaths Highest number of deaths for any non-metro district[12] 42,7% of provincial deaths 28,9% of provincial population	131 deaths 16,3% of national deaths 12,4% of national population	806 deaths

Source: Statistics South Africa, Mid-Year Population Estimates, 2019 and Health Systems Trust, District Health Barometer, 2020 [34, 39]

Table 5 indicates that the Eastern Cape Province, and in particular OR Tambo district, has a disproportionately higher number of SAM deaths, second only to one of South Africa's largest metros. Considering the number of children affected, this raised a significant concern as **children with SAM are six times more likely to die from diarrhoea and nine times more likely to die from pneumonia** compared with other children who are malnourished [40]. As shown in Table 6, this district has the second highest number of deaths from pneumonia in the South Africa.

BOX 5. INTERVENTIONS TO REDUCE MALNUTRITION IN SOUTH AFRICA

The United Nations Sustainable Development Goal 2 calls directly for action to address hunger and, in particular, supports the WHO's target of reducing stunting by 40% by 2025 as one milestone to ending all forms of malnutrition in children by 2030.

[12] The Tshwane Metropolitan Municipality reported 60 deaths, followed by OR Tambo with xxx.

South Africa has been actively trying to address malnutrition in the country since 1994 when the Government established the national integrated nutrition programme (INP). This initiative aimed to combine the efforts of the departments of health, social development, agriculture and later basic education to address malnutrition. While often referred to as a national programme, it appears from published accounts that individual departments essentially set their own objectives and strategies around the INP in line with their particular ambit. This may reflect a belief that if each department contributes to the INP within its specific field they will collectively produce the effect of reducing malnutrition.

With this in mind, and in keeping with the concern around SAM, it should be noted that the DoH published three plans about the INP between 1995 and 2017. In 2002 the DoH described several strategies for growth monitoring, promoting nutrition, micronutrient control, promoting breastfeeding and supporting household food security. Eleven years later, in 2013, the DoH published a roadmap, which set out various strategic approaches, including multisector action aimed at addressing several social determinants such as access to clean water, adequate sanitation, a safe environment and promoting healthy eating and exercise. The department wished to be more active in providing inputs into agriculture, rural development and social development services as well as advocating for the integration of nutrition education. This was to be achieved primarily through planning, be it at a municipal level using the IDP, or through the various departments operating at a district, provincial and national level.

The roadmap also highlighted many existing policies, frameworks and guidelines that support key nutritional interventions. The impression created was that the existing decades-old framework of policies, programmes and initiatives were adequate to create the desired change if implemented correctly [41].

From several assessments of the INP in the past ten years, it is clear that is not adequately addressing malnutrition in children under five years of age [42, 41, 43]. While many of these assessments reduce failures to inadequate implementation, the complexity inherent to the problem of malnutrition is often not assessed nor is it addressed as part of a wider systemic problem. This despite the DoH having recognised the importance of multisector action. This can perhaps be attributed to the difficulty of integrating food and nutrition interventions into wider poverty-alleviation efforts. These challenges

are arguably largely self-imposed by government departments and local authorities who focus on what they believe is their area of responsibility and assume that their contribution will help facilitate a wider outcome. The lack of significant change indicates that this approach is not having the desired effect on the poverty-malnutrition cycle.

Vorster proposes that South Africa should consider Solomon's guidelines to transition policies and programmes to make them more effective in tackling the poverty-malnutrition cycle. This includes:

- Moving away from viewing malnutrition as a largely health sector "obsession" to a broader multisector strategy based on a coalition that includes stakeholders in agriculture, education, trade and commerce, the economy, finance, education, culture, sport, the private sector and civil society.
- Moving beyond blanket solutions to focus on developing locally relevant interventions that help address local interests.
- Focusing on reaching the most affected using selectively targeted interventions – notwithstanding the dual challenges of creating perceptions of discrimination and stigmatisation [44].

5.2.2 Diarrhoeal disease

Diarrhoeal disease is one of the leading preventable causes of death in children under the age of five [45]. Although decreasing at a national level in South Africa, child deaths due to diarrheal disease still account for 7% to 10% of all deaths in children in this age group. That said, children living in poverty are ten times more likely to die from diarrhoea compared to those with better means. Moreover, repeated episodes of diarrhoea increase a child's malnutrition due to reduced food intake and nutrient absorption, placing the child at even greater risk.

An emerging threat in diarrheal disease involves climate change, which is expected to raise South Africa's average temperature by 2° to 4° celsius. These higher temperatures may

significantly increase the burden of disease among children by firstly increasing the concentration of pathogens to which they are exposed and, secondly, by possibly overwhelming the capacity of local services to manage large outbreaks. Rural areas are more likely to be affected than urban areas as residents are exposed to more of the critical risk factors. These risks are further compounded if the supply of electrical power is problematic as it directly impacts food safety. Both these threats could be mitigated by prioritising planning and improving implementation of existing interventions [46].

BOX 6. INTERVENTIONS TO REDUCE DIARRHEAL DISEASE

In general, interventions to reduce the impact of diarrheal diseases include rotavirus vaccinations (provided in South Africa at six weeks of age as part of its routine immunisations schedule), supplementation of zinc and vitamin A, prevention and treatment of HIV, promoting exclusive breastfeeding, adequate nutrition, and the provision of clean water, sanitation and hygiene.

Looking at the comparative impact of these interventions in preventing deaths in children under the age of five years, the importance of non-personal health interventions becomes evident. Also referred to as WASH (water, sanitation and hygiene), these non-personal health interventions include providing safe water in the home, improved sanitation, handwashing with soap and the hygienic disposal of children's stools. One estimate from 2017 suggests that by improving the reach of these WASH factors by as little as 20 percentage points, South Africa could avert 58% of additional projected child deaths by 2030 [47].

5.2.3 Pneumonia

Pneumonia is a leading cause of death in children under five years in South Africa and often goes hand-in-hand with malnutrition and diarrheal disease. Data on the incidence of pneumonia (the number of new cases over a period of time) is limited and often only an estimate. In 2016, 17% of all deaths of children under five in South Africa were estimated to be caused by pneumonia. Almost all these deaths could have been prevented if the child had access to an appropriate package of preventative and curative services.

Table 6. Pneumonia in children under five years of age

2018/19	OR Tambo	Eastern Cape	National
Pneumonia deaths	75 children 51% of provincial deaths 28,9% of provincial population Highest number of deaths among any non-metro district[13]	147 children 15,3% of national deaths 12,4% of national population	962 children
Pneumonia case fatality rate	CFR 5 % Lowest: 0% (3 districts) Highest: Capricorn 8,4%	CFR 3,2 % Lowest: Western Cape 0.2% Highest: Limpopo 3,3%	CFR 1,9 %
Pneumonia incidence	6,1 cases per 1 000 children Lowest: Gert Sibande 2,9 cases Highest: Cape Town 110,3 cases	13,8 cases per 1 000 children Lowest: Mpumalanga 4,5 cases Highest: Western Cape 84,1 cases	27,2 cases per 1 000 children

Source: Health Systems Trust, District Health Barometer, 2020 [34]

As Table 6 illustrates, childhood pneumonia is poorly managed in OR tambo, resulting in a high number of deaths. Again, the district records the highest number of deaths, second only to a large metropolitan municipality. This death rate could be explained in part by the SAM figures in Table 5 and the extreme levels of poverty in the district. However, the relatively low incidence of pneumonia in the district compared to the Cape Town Metropolitan Municipality (6,6 versus 110,3 cases per 1 000), raises the question of whether children are receiving the care required through early identification and effective treatment.

[13] The eThekwini Metropolitan Municipality reported 85 deaths followed next by OR Tambo.

BOX 7. REDUCING THE INCIDENCE OF PNEUMONIA

The incidence of pneumonia in South Africa dropped by almost two thirds between 2008 and 2018. Since most pneumonia-related deaths are preventable, this figure can be further reduced together with the concomitant lowering of child deaths.

Over and above the risk factors pertaining to malnutrition, additional risks include not receiving measles and influenza type b vaccinations, household air pollution (typically associated with heating and cooking) and crowded living spaces. Outdoor air pollution, day-care attendance, smoking in the child's environment and during pregnancy, as well as concurrent diseases such as diarrhoea and asthma further compound the problem. [48, 34].

Ongoing prevention of mother-to-child transmission of HIV; improved infant feeding and the promotion of exclusive breastfeeding; better immunisation coverage; improved health-seeking behaviour and knowledge of danger signs (as in the child's Road to Health Booklet) will continue to curb the incidence of pneumonia. Other interventions include the mobilisation of community health workers for case management, improved case management at facility level and improved access to social and environmental services.

As illustrated in previous Boxes, most health concerns in this age group are interconnected and pertain to both personal and non-personal health factors. Significant intersectoral collaboration is therefore required to meaningfully realise the required systemic change. For example, while a key concern is to ensure high immunisation coverage for children, this on its own cannot reduce the risks caused by air pollution, poor access to clean cooking and heating fuels, and crowded living spaces. These factors will remain significant if they are not addressed as part of the broader community context.

Since children in their first year of life are more vulnerable to pneumonia than older children, they specifically will benefit from stronger, better integrated healthcare, social, housing or environmental services – be they at home, community and facility level [49]. Interventions that address life stage should therefore be prioritised. In a similar vein, this again underscores the value of advocacy programmes such as the First Thousand Days, which focus on the critical stage of development between conception and a child's second birthday. This programme encourages stakeholders to

implement interventions to address optimal cognitive development, access to healthcare, reduce inequities that impact mother and child, and translate the ensuing wellbeing into future prosperity [50, 51].

BOX 8. KEY FACTS ABOUT HOUSEHOLD AIR POLLUTION (HAP)

- HAP is associated with low-income communities in South Africa.
- South African households using non-electric sources appear to have a higher incidence of respiratory infections, in line with global data.
- Globally, HAP is also associated with an increase in stroke, heart disease and obstructive pulmonary disease deaths.
- The South African energy policy framework probably does not address energy poverty adequately – especially energy required for cooking.
- Energy sources in South Africa for cooking and heating include electricity, coal, wood, gas and paraffin.
- Renewable energy solutions may not adequately address cooking and heating needs.
- Follow a balanced approach to energy sources, which includes better use of combustion technologies.
- Regional data indicates that up to two-thirds of households depend on firewood for cooking, probably due to its accessibility and low cost.
- Energy switching, mixing or stacking is common in South Africa depending on funds available to pay for the source as well as cultural factors [52, 53, 54, 55]

5.2.4 Immunisation coverage

Immunisation is a core component of ensuring Universal Health Coverage and South Africa has had notable success in its expanded programme on immunisation (EPI). One example is the country being certified polio-free in 2019. The next priority for the EPI is to eliminate measles, given its potential to cause serious widespread illness and death.

Measles is a highly contagious viral disease through which a single infected person can infect a further 12 to 18 susceptible people. In addition, between 20% to 30% of those infected will develop complications, often leading to death. While widespread immunisation programmes have dramatically decreased the global incidence of measles, countries with lapses in immunisation coverage have seen major outbreaks in recent years. Keeping in mind that measles is transmitted easily, an outbreak can swiftly morph into an epidemic and many deaths, especially amongst malnourished children. So, while many children are vaccinated against measles, immunisation coverage must be raised above 95% to be fully effective at a population level [56, 57].

South Africa will need to address low vaccine coverage and underreporting in some districts if it is to eliminate measles [34]. To this end, the DoH commissioned a National Immunisation Coverage Survey in 2019 which once complete should provide insight into these challenges.

Table 7 highlights immunisation coverage and measles-related data from the DHIS for 2018/19.

Table 7. Immunisation coverage and measles vaccinations

2018/19	OR Tambo	Eastern Cape	National
Immunisation coverage* (Under one year)	85,3%	71,9%	81,9%
	Highest: Xhariep 92,5%	Highest: Mpumalanga 96,8%	
	Lowest: Nelson Mandela Bay 58%	Lowest: North West 68,4%	

2018/19	OR Tambo	Eastern Cape	National
Measles 2nd dose coverage** *Scheduled for month 12*	71,7 %	65,1 %	76,5 %
	Highest: Xhariep 92,5%	Lowest nationally	
	Lowest: Nelson Mandela Bay 58%	Highest: Northern Cape 86,3%	
	Decreased from 74% in 2015		
Confirmed incidence of measles+	0,7 cases per million	0,3 cases per million	1,3 cases per million
	Lowest: 21 districts had 0 cases	Lowest: Mpumalanga 4,5 cases	
	Highest: ZF Mgcawu 11,4 cases	Highest: Western Cape 84,1 cases	
DTaP-IPV-Hib-HBV 3rd dose *Scheduled for week 14*	84,5%	67,1%	83%
	Highest: Frances Baard 104,8%	Lowest nationally	
	Lowest: Nelson Mandela Bay 57,2%	Highest: Limpopo	

Source: Health Systems Trust, District Health Barometer, 2020 [34]

As shown in Table 7, the district is performing better overall than the province, but still falls well short of the target coverage rates of 90% and 95% respectively.

5.2.5 Early Learning

There is extensive evidence documenting the importance of early learning. All other aspects such as nutrition being equal, long-term studies have shown that limited early learning significantly affects income, educational progress and attaining higher qualifications, avoiding conflict with the law as well as good physical and mental health [58].

The South African Government has been prioritising early learning for over 15 years as seen in the Children's Act (32 of 2005), the Department of Basic Education's National Early Learning and Development Standards for Children Birth to Four Years (NELDS), the

National Development Plan (NDP) 2030, as well as the National Integrated Early Childhood Development Policy [59, 60, 61].

The objective of the NDP was for every child in South Africa to have access to at least two years of early childhood development. Of the three actions proposed to achieve this, the focus essentially fell on funding and support alongside improved co-ordination between relevant sector actors and departments. The NDP further called for quality learning at home, in groups, programmes and centres and sought innovative ways to deliver ECD services, as well as investment in infrastructure [59].

In 2019, President Ramaphosa announced two important steps to achieving this NDP goal. The first was to move the early learning mandate from the Department of Social Development (DSD) to the Department of Basic Education (DBE). The second step made pre-Grade R (also referred to as Grade RR) mandatory from 2024. The DBE believed a key enabler would be to build on its existing curricular initiatives that span childhood development from birth to age nine and beyond.

However, this move raised serious concerns around the practical implementation of such a policy given the context in which most of the affected children find themselves. For example, how will young children, many of whom live far from schools, travel safely to these pre-Grade R facilities? Similarly, the situation around school infrastructure and teaching resources is worrying. Some sector stakeholders question how schools will ensure they have both the necessary facilities and the capacity to create a positive and safe learning environment. More specifically, these stakeholders point to the persistent infrastructure and management challenges faced by the DBE recently, and ask how the department will ensure that basic facilities such as toilets are appropriate for these children. In addition, they ask how the general environment will be made both physically and emotionally safe, given the high prevalence of bullying in South African schools. [62].

There are two settings where learning can take place: the home and various centres outside the home. The latter operates as either a registered (formal) or unregistered (informal) centre. Although these two settings can be assessed individually, they are linked to one another as well as with other community systems and services.

5.2.5.1 Early learning at home

Starting with the home, Table 8 sets out the available demographic data relevant to households with children under six years old.

Table 8. Household demographics for children under six years

	OR Tambo	Eastern Cape	National
Number of households [5, 14]	314 100 households	1 774 000 households 30% have children under 6 years	16 923 000 households 29% have children under 6 years
Number of children younger than 5 years [14, 4]	201 000 children	707 000 children 62% live in rural areas	5 710 000 children 43% live in rural areas
Children under six living in poverty [14]	–	679 000 77% of children	4 528 000 65% of children
Children under six living in overcrowded households [15]	–	45% of households 2 people or more per room Highest nationally Lowest: Limpopo 24%	33% of households 2 people or more per room 10% live in dwellings without any bedrooms
Children not attending any ECD or care (0-6 years) [15]	–	48% Highest: North West 56% Lowest: Gauteng 36%	47% By age two, 62% are not attending ECD

	OR Tambo	Eastern Cape	National
Care of children not attending ECD [15]	–	83% of children at home with an adult	87% of children at home with an adult
Stimulation [15]	–	–	31% of black children receive no encouragement to do or initiate activities 35% of black children get no explanation on point to ask Less stimulation in lower-income quintiles
Children in households with no one employed [14, 16]	–	43% of households	30% of households
Sources of household income [17]	–	53% salaries 60% social grants 10% business 23% remittances 6% pension Grants as main source of income 35%	65% salaries 45% social grants 14% business 17% remittances 4% pension Grants as main source of income 20% Grants as source of income increases to 56% in traditional areas
Household expenditure on ECD [15]	–	–	47% spent less than R 200 p/m 73% spent less than R 500

Table 8 sheds light on the significant challenges in achieving early learning outcomes in the Eastern Cape, where three out of four children live in poverty. Underpinning this is the high prevalence of unemployment in households with children under six, where over 40% have no working adults. It is therefore not surprising that close to two thirds of households are solely dependent on social grants with a further one in four being dependent on remittances. Against this backdrop, one third of black children do not receive the

stimulation necessary to promote early learning from their caregivers at home. Compounding the matter even further is that almost half of all children do not attend ECD by age six.

5.2.5.2 Early Childhood Development Centres

The DSD defines an ECD centre as any place where six or more children are taken care of away from their parents. They may include babies, toddlers and pre-school children. The term broadly encompasses crèches, day-care centres, playgroups, pre- and after-school care. Under Section 197 of the Children's Act (38 of 2005), all ECD centres must be registered with the relevant provincial DSDs [66]. The DSD can grant full or conditional registration depending on the centre's level of compliance with national guidelines.

While routine data for ECD centres is not generally available, data from surveys conducted in 2014 and 2016 does exist. Table 6 highlights some data from these surveys in conjunction with other sources.

Table 9. Early childhood development centres

	OR Tambo	Eastern Cape	National
Attending an ECD centre between 0 and 6 years in 2018 [16]	–	29,9% of children up from 20,1% in 2014	32,8% of children up from 21,2% in 2014 50,2% for white children
Not attending any early learning activity between 0 and 6 years in 2018 [16]	–	–	43,1% of children up from 37% in 2014

	OR Tambo	Eastern Cape	National
Number of ECD centres	–	–	18 786 centres
Children living in area enrolled in an ECD centre	–	–	21% of children
Children living in catchment area of a centre	–	–	41 children
Enrolled child to practitioner ratio*	–	–	15,1 children per practitioner
Allocation of ECD grant [65]	No allocation data	R193,9 million financial year 2020/21 increased by R59,7 million for subsidies in 2nd adjustment 2021/22 2020/21 allocation to maintenance R9,1 million 2020/21 final allocation to subsidy R184,7 million	R1, 411 billion financial year 2020/21 increased by R496,2 million for subsidies in 2nd adjustment 2021/22 2020/21 allocation to maintenance R88,7 million final 2020/21 allocation to subsidy R1, 322 billion
Urgent maintenance required [66]	–	55,8% of registered 58,5 of conditional 44,1% of unregistered centres need urgent maintenance	38,1% of registered 40,7 of conditional 37,9% of unregistered centres need urgent maintenance

	OR Tambo	Eastern Cape	National
Fee payment for access to ECD [19]	–	70%	84%

Source: Statistics South Africa, 2011 Census data; Statistics South Africa, Early Childhood Development in South Africa: 2016 [38]; Department of Social Development, National Audit of Early Childhood Development Centres: 2014 [66]; South African Government, Division of Revenue Bill: 2020 [65]

In the second adjustment budget for 2020/21 National Treasury substantially increased funding for ECD centre subsidies. A submission by Treasury to its parliamentary oversight committee in November 2020, seems to indicate that these increases are linked to expanding the Presidential Employment Initiative as part of the COVID economic recovery plan. That said, there is a comparatively small allocation for maintenance and a need for urgent repairs in nearly two thirds of registered and conditional centres, and in half of unregistered centres. Expanding ECD capacity under such constraints raises questions around the level of teaching that can be achieved as well as about the safety of the children attending these centres.

BOX 9. CHALLENGES FACED BY EARLY CHILDHOOD DEVELOPMENT CENTRES

Early Childhood Development centres face a range of obstacles in attempting to provide a safe and effective learning environment. However, the nature of these challenges and relative access to government resources are not the same for all facilities, and it is important to differentiate between public schools, registered and unregistered community facilities, for example. This Box concentrates mainly on the latter two facility types and has broken down the challenges facing ECD centres into six general areas.

Adequate infrastructure

When considering infrastructure, it should be remembered that public schools only need to provide facilities for pre-Grade R and Grade R children on the back of mostly existing infrastructure that can

be maintained and improved using Government resources. In contrast, community facilities must accommodate the full range of children's needs from birth to pre-school and are largely self-sufficient. In the context of poorer communities, this tends to translate into facilities that are not fit-for-purpose. This difference has been flagged as a major cause for ECD centres not being fully registered.

Drilling down into specific infrastructure challenges, audits point to the need to address urgent maintenance, overcrowding, a lack of suitable outdoor play areas and vandalism. Moreover, since ECD centres require access to clean and adequate water, sanitation and electricity, centres are vulnerable to poor service delivery, common in rural and poor communities [69].

Providing nutrition

Adequate nutrition is central to a child's ability learn and fully develop their potential. While the DSD has set out nutritional standards, there is considerable variation across the three types of facilities (as described above). Moreover, a 2011 interdepartmental report found that a third (28-37%) of all facility types relied on meals sent from home. Additionally, a third (31%) of unregistered facilities relied on milk or feeding formula sent from home. Exacerbating the problem is that government subsidies which should largely cover the needs of the child, are primarily used to cover administrative and operational expenses [69].

Use of qualified practitioners

There are 15 current and historic qualifications for ECD practitioners on the National Qualifications Framework (NQF) database. They range from NQF level 1 to 7, reflecting a rather long history around formal qualifications for ECD practitioners. In 2015, it was reported that 58% of the people working at an ECD centre did not hold a relevant ECD qualification. Most practitioners with an ECD qualification had completed a programme between NQF level 1 and 4.

In March 2017, the Department of Higher Education and Training (DHET) gazetted a policy on minimum standards for ECD educators. This policy set the entry-level qualification for ECD practitioners at NQF level 5 higher certificate [70]. While the Department acknowledged the important role recognition of prior learning would play in migrating existing practitioners, how this

would be achieved in practice was not addressed. Moreover, with these minimum standards in place, the South African Council for Educators (SACE) under the SACE Act has started the process to register ECD practitioners with the Council.

To professionalise ECD practitioners, those with historic qualifications will need to comply with the new minimum standards over time. This has raised significant concerns among several stakeholders who point to the lack of successful large-scale examples of vertical articulation from diverse or alternative pathway qualifications, such as the National Certificate Vocation, into a series of higher qualifications. At the heart of this concern is the lesson that although articulation is a much-emphasised characteristic of the NQF, it seldom translates smoothly, if at all, into the realities of educational institutions [71]. Compounding this concern is that existing barriers for ECD practitioners were already regarded as exclusionary and substantial in limiting access before the implementation of this policy [72].

The Education, Training and Development Practices Sector Education and Training Authority (ETDP SETA) shares these concerns about the gap between the concept of articulation and the practical realities. They however also point to additional stumbling blocks such as a low uptake in ECD programmes despite theoretically high demand. This has placed some providers under significant pressure given the requirements to run ECD programmes, such as facilitating 18 months of work experience. As a result, many programmes are being discontinued as uneconomical [73].

The ETDP SETA questions the value of learnerships, which do not necessarily create a reliable pipeline for the country's ECD workforce needs. Learnership graduates often do not take up a position in an ECD centre, probably for one of two reasons. Firstly, the learnership mechanism may be viewed as a temporary opportunity to overcome unemployment and, secondly, there is limited earning potential in the sector. Stakeholders point to a lack of adequate government funding as the root cause for the sector not thriving. This seems to mirror concerns raised in the previous section about subsidies being used to cover administrative costs as opposed to nutrition costs.

Advocates in the sector claim that there is a need for 210 000 more trained practitioners supported by an additional 140 000 assistants. These numbers are probably apt based on the child-practitioner ratios in Table 6 but the concerns discussed in the previous two paragraphs mean that aligning supply,

demand and educational capacity will need to be improved dramatically. This will ultimately return sector stakeholders to the issue of funding and how to make the sector a more attractive career choice. [74].

Administrative capacity

Despite their size and setting, ECD facilities are expected to meet certain minimum administrative standards. These standards are not just to promote efficient management, they also address various legislative requirements and critical practices.

On a positive note, research in the sector has found that most facilities are consistently use application forms, check Road to Health cards, and complete attendance registers. Conversely, compliance was low with regard to keeping incident-, medicine administration- and accident-books, as well as child progress reports.

Financial management was flagged as a conspicuous area where capacity building is needed. Compared to what may be considered good practice, many facilities do not maintain minimum financial controls and reporting systems. This impacts these facilities' ability to account for income, be it subsidy or fee-generated, to monitor expenditure as legitimate (for example the use of petty cash), and provide verifiable annual financial statements. These weaknesses are not necessarily the result of governance structures being absent, but rather to a lack of internal control systems [69].

Compliance with legislation and regulations

The principal piece of legislation for ECD centres is the Children's Act (38 of 2005 as amended) with its accompanying regulations. The Children's Act aims to support families and promote the wellbeing of children by reinforcing a child's constitutional rights. The Act defines ECD services and programmes, sets out the legal requirements for services and practitioners, required registration and stipulates government's obligations in funding services [75].

Given that registration is compulsory under the Children's Act and, informed by DSD guidelines, compliance is typically measured by registration status. Table 6 shows that approximately half of all

ECD centres are not registered with the DSD and, one of the main reason centres only receive partial registration or fail to attempt registration at all is because of the minimum infrastructure requirements.

A group of 42 organisations recently called on the SAG to rethink the Children's Act as it pertains to ECD centres as part of the proposed Children's Act Amendment Bill. This is based on the fact that the current framework is unnecessarily complex and onerous, creating significant barriers to registration and funding at a time when Government aims to achieve universal access to ECD by 2030 [76].

Funding for centres

Taking Table 5 into account, the capacity for a community facility to generate income by charging a fee to parents or caregivers is highly limited. Community facilities are thus dependent either on government funding or other forms of fundraising.

The primary source for Government funding is the ECD grant allocation to the provincial DSD. Currently, the DSD allocates facilities R15 a day per child for 264 days of service. That said, the DSD is under no obligation to fund all qualifying ECD services and so expanding registered services will not automatically result in a facility accessing additional funding.

As noted in Table 6, a further challenge for ECD facilities will be the decrease in the maintenance portion of funding from the ECD grant. This can only but increase the existing pressure on facilities to address their needs around improving and maintaining their infrastructure.

5.2.6 Increasing non-natural deaths among children under five

Recent data released by Statistics South Africa indicates that non-natural deaths almost doubled between 2007 (10,9%) and 2017 (22,4%). The leading causes for these deaths include transport accidents and accidental injury, all of which could be reduced through prevention [81]. The World Health Organisation (WHO) identifies a range of preventable

causes of non-natural deaths incorporating road traffic injuries, drowning, burns, falls and poisoning. Globally it is believed that poverty increases the vulnerability of children to injury and death. The WHO-recommended approach to help prevent these deaths starts with identifying what the problem is (gathering data through surveillance), determining the causes (risk factors), understanding the options around what could work (interventions) and, finally, implementing and assessing if the steps taken worked [82].

The countermeasures below may help mitigate the risks uncovered in this process.

Countermeasure	Implementation
Prevent the creation of the hazard in the first place	Ban the manufacture and sale of inherently unsafe products
Reduce the amount of energy contained in the hazard	Speed reduction legislation and enforcement
Prevent the release of the hazard	Supply child-resistant medicine containers
Modify the rate or spatial distribution of the hazard from its source	Use of seat belts and child restraints when driving
Separate people in time or space from the hazard	Create bicycle and pedestrian pathways
Separate people from the hazard by interposing a material barrier	Use of window bars, pool fencing and cover wells
Modify the relevant basic qualities of the hazard	Make softer playground surfaces
Make the person more resistant to damage	Provide good nutrition for children
Counter the damage already done by the hazard	Have first-aid treatment on hand for scalds – 'cool the burn'
Stabilise, repair and rehabilitate the injured person	Have burn grafting, reconstructive surgery and physical therapy available

5.2.7 Child maltreatment

Child maltreatment is a distressingly common phenomenon in South Africa with close to a quarter of children having experienced abuse. This section discusses how the risk and causal factors are complex and interlocked with broader social and economic challenges.

One of the first challenges in dealing with child maltreatment is to establish what constitutes maltreatment in the light of diverse cultural rules and practices. South Africa shares in this global issue given its many rich and diverse cultures, as well as the historic struggle with colonialism and apartheid. That said, South Africa has a robust and progressive legislative framework to address child maltreatment.

The WHO has defined maltreatment as "all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child's health, survival, development or dignity in the context of a relationship of responsibility, trust or power" [77].

With this definition in mind, maltreatment thus encompasses physical abuse, sexual abuse, emotional abuse and neglect.

5.2.7.1 Risk factors for children under six years

The WHO and others have identified several risks for maltreatment globally and specifically within South Africa.

Age – Children under five years are more vulnerable to abuse than older children and are twice as likely to be killed. In South Africa, children under one year of age are most affected

by abuse and are more likely to die from abuse [78]. In addition, within this age group, the perpetrator is often related to the victim [79].

Sex – Generally girls in this group are at greater at risk of abuse than boys (70% versus 30%) and are up to three times more likely to experience sexual abuse. South African girls under four years are twice as likely to die from abuse. That said, boys are at greater risk of physical abuse (58%) likely due to harsher punishment and use of physical discipline [77, 79].

Overcrowding – Households that are overcrowded are more likely to see abuse [77].
Poverty – There is a strong association between poverty and the maltreatment of children [77].

Cultural factors – These include cultural values and norms, gender inequality, parental roles and child-parent relationships [77, 79].

Special characteristics – Premature infants, twins and children with disabilities could be at a higher risk [77]. In South Africa, 10% of reported abuse is of children with disabilities although they only represent 6% of the population [77, 79].
Some of these risk factors appear more prevalent in certain provinces according to the Optimus Study which found significantly higher rates of abuse in Gauteng, Limpopo, Mpumalanga, North West and Eastern Cape [80].

5.2.7.2 Preventing maltreatment

Despite the extent and magnitude of maltreatment of children, the problem has not drawn the political and financial investment it deserves from either the SAG or funders. The social cost of this poor response impacts a range of mental and physical health outcomes. It has

been estimated that the cost of this inaction is equivalent to 5% of South Africa's gross domestic product [81].

A broad coalition of international organisations, including the WHO, UNICEF, the Centres for Disease Control and Prevention as well as the World Bank, recently proposed the following seven broad strategies to end violence against children:

I implementation and enforcement of laws

N norms and values (change adherence to restrictive or harmful norms)

S safe environments

P parent and caregiver support

I income and economic strengthening

R response and supports services

E education and life skills [82, 83]

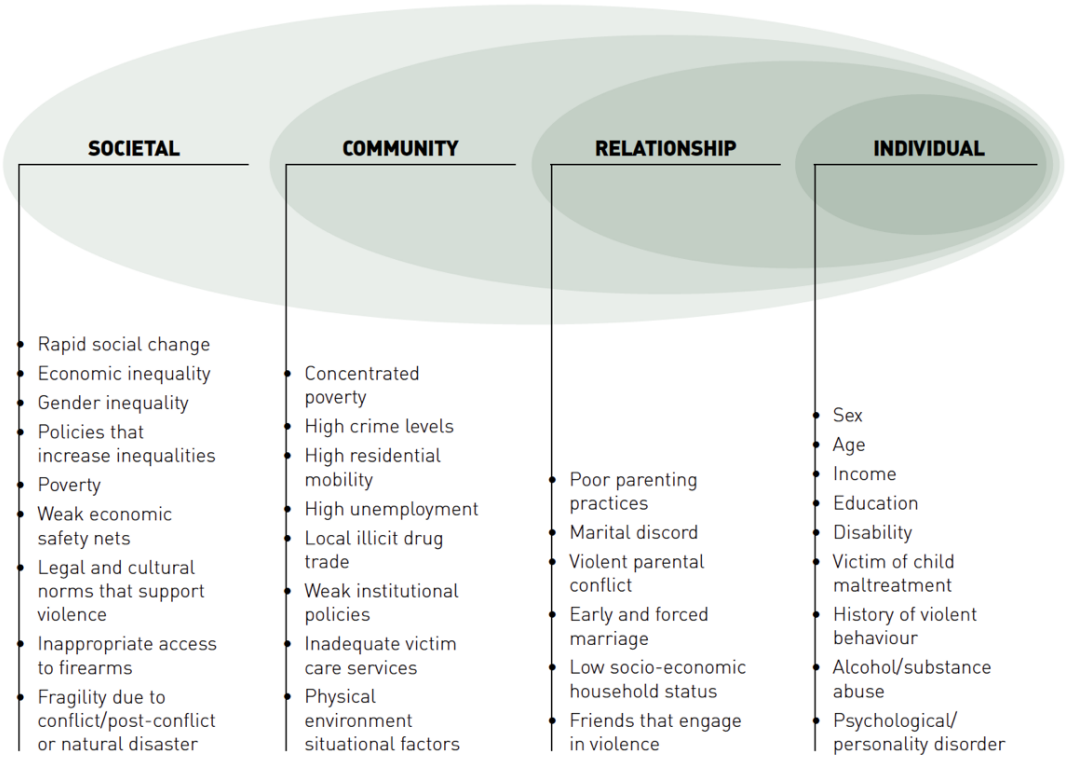
These INSPIRE strategies are grounded in a social ecology of societal, community, relationship and individual factors as shown in Figure 3[14]. INSPIRE clarifies the systemic nature of the problem and, in the process, helps map out a broader multi-stakeholder response to violence against children. However, INSPIRE essentially requires significant longer-term social and economic interventions to bring about the desired change, and in the South African context there has been no large-scale progress with many of these underlying factors.

This raises the question of what could be done on a more practical level for this age group in South Africa. Some authors have proposed that the First Thousand Day strategy, together with the Nurturing Care Framework, could play a significant role in promoting

[14] The social-ecological model is examined in greater detail in Box 18.

maternal mental health, thereby protecting both mother and child through the active uptake of services. Common disorders such as depression and anxiety among mothers can be detected early and managed effectively through regular interaction with local services and community support structures, and should help reduce many of the contributing factors in child maltreatment [90].

Figure 3. INSPIRE's social-ecological model



Source: World Health Organisation, 2018 [82] [redo figure for layout copy]

5.3 THE OLDER CHILD (6-9 YEARS)

This life-stage covers the transition between early childhood and a child starting their schooling. This may account for why, when compared to the preceding life-stages, data for this period is mostly education-related. With this in mind the focus of this section will be around factors related to early school performance as well as specific vulnerabilities such as malnutrition and maltreatment.

5.3.1 Performance factors related to the initial years of schooling

Concerns about the poor quality of basic education in South Africa have been expressed since the advent of democratic rule in the country. While much has changed, the desired systemic change towards a basic education system capable of contributing to the required social transformation remains elusive. As discussed below, learning lost in these initial years of schooling (known as the foundation phase) significantly impacts a child's school performance in later years.

5.3.1.1 Access to education

South Africa has high levels of school enrolment with 98% of children aged 7 to17 years attending an educational institution in 2018. Long-term data shows that attendance remains high in the compulsory schooling years, with the final two non-compulsory years of schooling having the greatest drop out rate. It must be remembered, however, that attendance rates do not capture either the regularity of attendance or the quality of the education received. In rural communities the former is particularly important as children from more disadvantaged backgrounds – those with limited economic resources, lower levels of parental education and not living with their mother – are more vulnerable to dropping out and making slow progress [85].

5.3.1.2 Impact of early inequalities in schools

There is substantial evidence of significant inequalities in South African schools in terms of educational inputs and, especially, outcomes. Given that learning is a cumulative process, the lack in mastering earlier learning puts the child at an ongoing disadvantage. For example, learners at the end of their foundation phase (Grades 1 to 3) who only have an elementary grasp of reading and writing will find it practically impossible in later years to catch up in key subjects such as mathematics and science.

This compounding effect can be seen specifically in data tracking effective performance among children from different economic quintiles. By one measure, 80% of the poorest children on reaching Grade 9 will only effectively be performing at a Grade 4 level. This problem starts early given that 60% of Grade 3 children in South Africa's poorest schools are three years behind in learning compared to their more advantaged peers. This early learning gap grows to five years by Grade 9 [85].

5.3.1.3 National targets and monitoring

When introduced in 2012, the Annual National Assessments (ANAs) set national targets for learners in Grades 3 and 6. This target was for 75% of learners to meet the required level of competency in language and mathematics. However, after strong resistance from various stakeholders, in particular teacher unions, the ANAs were essentially discontinued by the DBE, with the last national report being published in 2014.

According to research, the ANAs had two unintended, but largely predictable, sticking points. The first was that teachers regarded the ANA as a tool to assess their performance rather than the value of the educational process. The second was a concern that teaching would become narrowly focused on test preparation. So, while teachers still seem to appreciate the importance of receiving feedback on a child's school performance, they are essentially questioning the means of that assessment [86, 87].

Box 10. Expanding our understanding of performance factors

The Human Sciences Research Council (HSRC) has proposed that the educational system's performance should be examined both in terms of conventional as well as non-conventional factors, given that the latter interacts at various levels of the system, from the learner to the wider school community. Conventional factors are perhaps easier to understand as they are more self-evident and include school resources, teacher experience and qualifications, class sizes and language of instruction. In contrast, non-conventional factors refer to less tangible elements like aspirations,

expectations and motivation (AEM). While these AEM factors play a significant role in teacher and school behaviours in South Africa, current education policy appears to focus exclusively on improving academic achievement alone. In doing so, many schools approach their learners as having fixed traits that essentially set their schooling trajectory, despite the evidence that engaging learners with a "growth is possible" mindset can significantly improve learner achievement in difficult subjects [88]. In practice, schools are seen to direct children with "academic potential" to take subjects perceived to be difficult.

Box 11. Challenges in mother-tongue education

There are significant socio-political reasons why a country would pursue a mother-tongue education policy. Given its history of colonisation and apartheid, there has been considerable debate in South Africa around the use of a mother-tongue education policy. This, in turn, has also exposed the complexity around implementing such a policy.

Currently, the DBE promotes mother-tongue instruction from Grade 1, with some exposure to English to assist with the transition to English-based instruction in Grade 4 – an approach known as additive bilingualism. By comparison, a mother-tongue education policy would focus on using a language most familiar to children throughout their education to improve their academic success.

Contemplating a mother-tongue education policy in South Africa, with its divided past and multilingual make up, will bring about multiple challenges on various levels on implementation. For example, attempting to promote indigenous language use in schools where multiple indigenous languages are spoken by its learners raises important practical questions around how this would be managed. Similarly, there are concerns about relying on a standardised form of indigenous languages that were mostly codified in the 19th century. How would these formal languages be used to develop contemporary learning resources given the everyday spoken language in communities? This notwithstanding, there are numerous challenges around poor teaching practices in disadvantaged schools where teachers are overly dependent on textbooks to convey content [89, 90].

Since 2012, the Eastern Cape Department of Education has run a pilot programme to use isiXhosa as the language of instruction for mathematics and science. This pilot illustrated that while a mother-tongue policy can serve important socio-political goals such as addressing the decolonisation of education, it is not the intent that presents a problem but rather the implementation. Considering the dilemma of the spoken language versus its formal form, isiXhosa is not as homogenous a language as may be assumed and has at least four distinct community-specific variations. This excludes localised forms spoken in urban communities. These difficulties aside, supporters of the policy emphasise although mother-tongue instruction is important, it does not address other critical areas. The poor quality of teaching in schools, for example, will essentially counteract the benefits of such a policy [91].

It is worth being mindful of where the emphasis in this contentious space is being placed. Scholars point to the difference between conversing in a language and being able to read, learn and be examined in that language. In other words, proficiency depends largely on the ability to read and comprehend (reading for meaning), and not just on the ability to have a conversation [90].

5.3.2 Malnutrition in children six to nine years of age

Malnutrition extends across a variety of conditions including under-nutrition, over-nutrition and nutrient deficiencies. These conditions present as stunted growth (low height for age), wasting (low weight for height), being underweight (low weight for age), and being overweight or obese (high weight for height). While the underlying causes stem from socio-economic factors and dietary intake, malnutrition can also be linked to diseases such as diarrhoea, HIV and tuberculosis. Addressing malnutrition therefore requires a wide-ranging interventions that include household food security, dietary improvements, disease mitigation and conducive living environments. Information Box 5 explores some of the measures being taken to reduce malnutrition in South Africa.

Recent studies suggest that addressing this phenomenon among older children, attention should be given to the double burden of malnutrition, namely under- and over-nutrition, against the backdrop of race and gender considerations.

A study of rural school children in Limpopo between the ages of six to nine found that 25% were affected by under-nutrition, with boys (29%) being more affected than girls (22%). Compounding this was the finding that a further 17% of children met the criteria for mild-acute malnutrition despite having access to a school meal through the National School Nutrition Programme (NSNP). The study also established that child under-nutrition and maternal over-nutrition often co-exist. This finding is attributed to households that predominantly consume energy dense foods due to limited dietary options linked to household incomes. As a result, mothers are overweight or obese while their children suffer from undernutrition as these foods are not nutrient dense enough to provide adequate nutrition [92].

Similar studies have established a high prevalence of black girls being overweight or obese during adolescence. This is concerning and draws attention to lifestyle factors such as poor dietary patterns and low physical activity in this group, which could negatively affect the transition from late childhood to early adolescence [93, 94].

5.3.3 Benefits of the National School Nutrition Programme

The National School Nutrition Programme (NSNP) aims to give learners in primary and secondary schools one nutritious meal a day. Good nutrition will improve the learner's ability to learn and fosters a healthy lifestyle among learners and parents. To achieve this, the DBE supports school feeding schemes, food gardens and nutrition education. In 2018, the school feeding scheme reached 83% of primary and 78% of secondary schools [24].

With the NSNP active in over 21 000 schools, providing millions of meals daily, the programme has been the subject of many studies, reviews and critique. While concerns around the programme may be well founded, they must be weighed up against the size and complexity of the NSNP as a national undertaking.

At a functional level the DBE stipulates that the NSNP meal should account for 30-45% of a child's recommended daily allowance and be prepared mostly from locally produced sources. However, many school meals are nutritionally poor and obesogenic[15]. This problem is compounded by the food environment in and around schools that often do not support healthy diets, resulting in many learners eating cheap high sugar, high salt and fatty foods daily [95, 96].

While most stakeholders are positive about the impact of the NSNP on reducing hunger and alleviating the effects of malnutrition on learning, some have raised concerns that it is not necessarily improving the nutritional status of the learner. This is likely due to the programme not being specifically set up to counteract under- or over-nutrition using dedicated assessment and monitoring activities. As seen in the previous section, this creates a significant weakness in the NSNP as children accessing the programme can still suffer from mild acute malnutrition. Similar observations around school feeding schemes not improving the nutrition status of children have also been made in other African countries.

Additional concerns have been raised around the strong output orientation of the programme, where counting the meal provided appears to override the process of preparing nutritious and safe meal. To illustrate this concern, one study in eight urban primary schools identified significant lapses in hygiene and food safety practices. The same study found 60% of children had received a school meal containing one or more parasitic

[15] Promoting excessive weight gain.

infections [96]. Not only does this underlines the importance of personal and non-personal hygiene practices in the NSNP, it also highlights how an output-oriented approach with limited integration can lead to missed opportunities for early interventions in healthcare.

Motivating for ways to improve the NSNP in terms of child nutrition is challenging as many schools and departments already view the NSNP as having an overall positive impact on school attendance, learner concentration and participation in social and physical activities. Similarly, positive effects linked to skills development, food gardens that serve more than just the school, improved nutrition literacy and hygiene practices underscore this programme's wider social value [97]. Therefore, shifting the focus from high-volume, easy-to-measure outputs to more nebulous outcomes such as improved nutritional status, may be of little interest to key stakeholders.

While there is growing evidence that alleviating hunger has a positive impact on learner performance it is not the only factor that affects learning and the quality of education. This then raises the question of how other factors that form part of an integrated systemic approach are being addressed to improve learning [98, 94].

5.3.4 Promoting nutrition literacy in the foundation phase

The DBE's Curriculum and Assessment Policy Statement (CAPS) for the foundation phase of school (Grade R to 3) includes specific life skills topics promoting healthy habits and nutrition. While it may seem to the lay person that the foundation phase curriculum would be relatively straight forward, this is not the case, and many teachers face an array of challenges with implementation. These challenges include a lack of in-depth knowledge of the content as well as their ability to help the child understand and transition from everyday knowledge to the more formal and specialised knowledge required in the intermediate

phase. In fact, a recent study demonstrated the negative effect primary school teachers can have on nutrition education when they do not have a sound knowledge base. The outcome – learners are taught questionable practices and misconceptions that undermine healthy dietary practices [99].

Several organisations are working to help teachers better implement the foundation phase life skills curriculum through free educational resources. These include Vodacom's e-School, Pick n Pay's School Club, Pearson's Day-by-Day workbooks and Novartis's KaziBantu programme. A significant barrier to leveraging these resources is the challenge of awareness, uptake and consistent use. The KaziBanthu initiative, for example, specifically focuses on this barrier to improve uptake and use.

5.3.5 Maltreatment of children six to nine years of age[16]

The World Health Organisation uses the term maltreatment to include all forms of physical and emotional ill-treatment, sexual abuse, neglect, commercial and other forms of exploitation of children younger than 18 years. In South Africa, the Optimus Study is often cited as a comprehensive survey dealing with both sexual and non-sexual abuse among children. Although the survey gathered data from adolescents, it was structured to largely establish data on earlier childhood experiences.

In general, the study found that sexual abuse[17] was reported by one in five adolescents. Boys were equally likely to report abuse compared to girls, although girls were more likely to experienced forced or penetrative sexual abuse. The abuser was typically known to the victim and more likely to be a fellow child or teen than an adult.

[16] Also see Section 6.2.6 for additional information on child maltreatment.

[17] In the Optimus study this included being exposed to coerced (unwanted or by force) and consensual sexual touching, exposure to intimate body parts or pornographic images, sexual harassment, penetrative and non-penetrative sexual intercourse (actual or attempted), by or with an adult or similar-aged peers.

Physical abuse was more prevalent with one in three children reporting being hit, beaten or kicked by an adult. Girls, coloured and black respondents were more likely to report physical abuse while emotional abuse was reported by 16% of respondents. Again, girls were more likely to have experienced emotional abuse.

The Optimus Study also looked at neglect, which was defined as either living in an unsafe environment or parents not taking care of their children's basic needs. One in five children reported neglect with girls, coloured and black children being more affected [100].

In terms of exploitation, the emphasis appears to fall more on sexual exploitation and trafficking. Organisations combating child exploitation note that children become vulnerable to sexual exploitation and trafficking between the ages of 10 and 14. This is largely driven by the social and economic status of many children and is a critical risk factor. Perpetrators exploit this vulnerability to lure children away from families with promises of education or work. Moreover, as discussed previously, children can be forced to enter into transactional relationships to survive [101].

Another focal area for child exploitation is child labour. South Africa has a range of instruments to combat child labour including legislation, programmes such as the National Child Labour Programme of Action, various social grants for children as well as shelters and care centres. Notwithstanding these instruments, it has been stated that ineffective enforcement combined with the insufficient scope of social programmes limits the extent to which South Africa can make ongoing progress towards eradicating child labour [102].

There are two fundamental challenges regarding the maltreatment of children: dealing with maltreatment in the specific age group as well as tackling the increased likelihood of a child's social and economic vulnerabilities been exploited as they transition into adolescence. Moreover, gender and race also appear to underpin the likelihood of

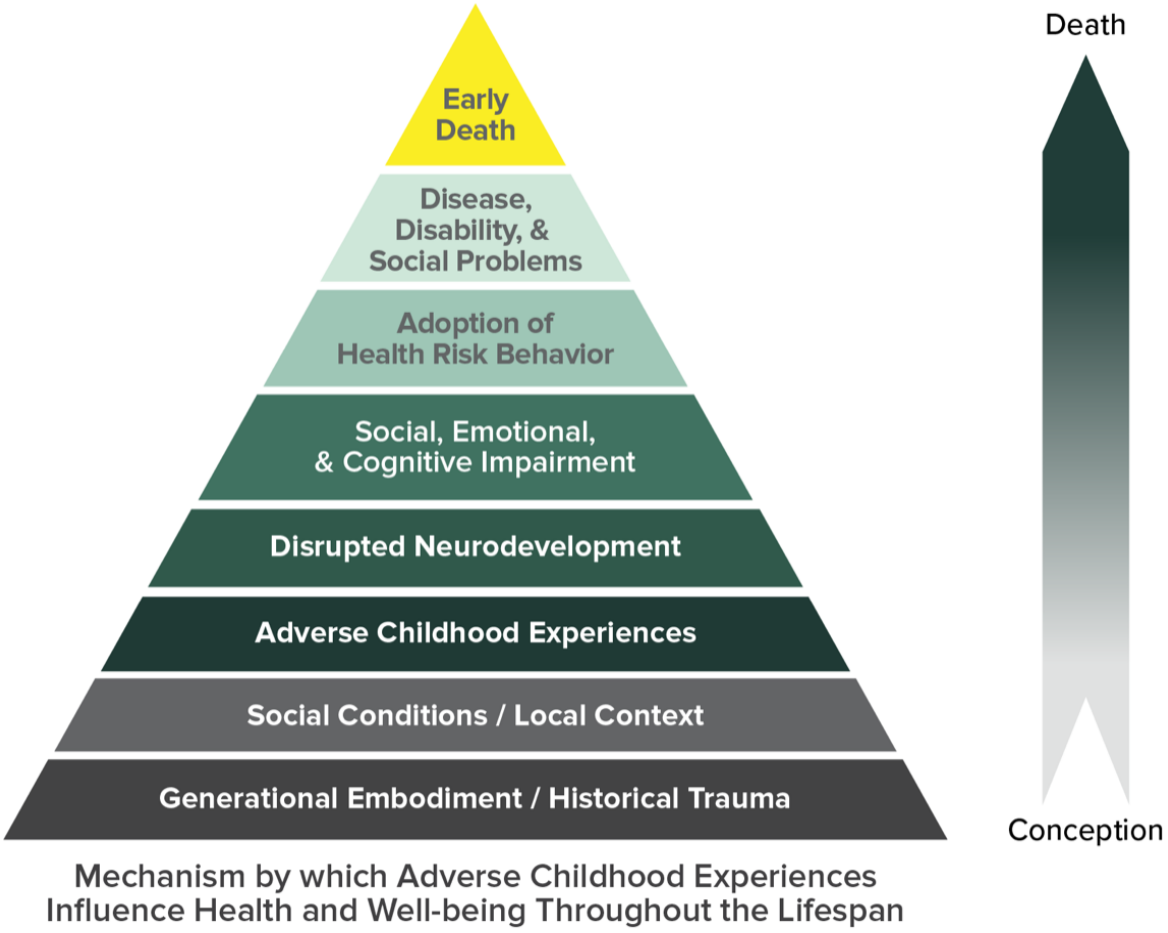
maltreatment. While this points to critical factors such as the dehumanising effect of poverty, it may also have a basis in social and cultural practices. As discussed earlier, addressing cultural practices within the context of a constitutional democracy that enshrines certain human rights is not simply a matter of enforcement from the top-down. Rather, a bottom-up engagement process with local communities may be a better way to create positive change in cultural practices when they are in conflict with individual rights [13].

5.3.6 Toxic stress in children

There is growing recognition of the impact that persistently high levels of stress in a child's environment can have on their learning, behaviour and health across their lifespan. Referred to as toxic stress, this occurs when a child experiences strong, frequent or prolonged adversity in the form of physical and emotional abuse and neglect, or through exposure to a caregiver with substance abuse, mental illness or violent behaviour problems. It may also present as part of an accumulative effect of the burdens associated with socio-economic hardships within a family.

While the short-term impact may be seen in developmental delays, over the course of the person's life problems such as heart disease, diabetes, substance abuse and depression become more likely. As shown in Figure 4, in the mid-90s, a large-scale American study looking at the impact of Adverse Childhood Experiences (ACE) helped describe the link between toxic stress and negative health and social outcomes [103].

Figure 4. The Adverse Childhood Experiences Pyramid



Source: Centre for Disease Control and Prevention, 2020

Counteracting toxic stress in children is by its nature a complex problem firmly entwined with many wicked social problems. That said, research indicates that consistent and supportive caregiving has the potential to prevent or mitigate the effects. Some programmes use this insight to help parents build more positive behaviours towards their children. Other programmes concentrate on developing the child's resilience to enable them to better cope with stress through a positive relationship with a supportive parent, caregiver or other adult [104].

There appears to be little research in South Africa around toxic stress and adverse childhood experiences. Most of the research so far has been on mental and substance abuse. Findings support the associated link to later problems in adulthood. While current

research in South Africa is limited, the high levels of poverty and inequality in the country, together with insights from the Optimus Study around direct and indirect experiences of violence, high levels of toxic stress among South African children are extremely probable. This poses a significant challenge in mitigating the negative factors in a person's life trajectory. It also emphasises the importance of getting to grips with early interventions in areas that may, at face-value, seem unrelated to subsequent negative social and health behaviours.

5.3.7 School health services for children six to nine years of age

Schools are considered a unique setting for health promotion, prevention and care services given that children may spend up to a third of their time there. The WHO advocates for a whole school approach that includes safe and healthy environments, health skills and nutritional services.

South Africa adopted an integrated school health policy in 2012, jointly overseen by the Departments of Health, Basic Education and Social Development. The policy focuses on school-going children as well as on a secondary group comprising the school community (teachers, managers, auxiliary staff and parents). The policy defines a series of grade-based service packages including the foundation phase (Grades R to 3) and Intermediate Phase (Grades 4-6).

A recent study that examined compliance with the policy indicates significant problems with implementation, with widespread non-compliance and a general lack of collaboration between various stakeholders. Given their findings, the authors believe that many children will in all likelihood not come into contact with a school nurse for early detection of problems and intervention [105]. Others have suggested that concentrating mainly on the biomedical aspects of the programme may itself contribute to the problem. This critique

given the relative lack of emphasis on health promotion, which is arguably just as beneficial with fewer constraints to implementation.

The research points to several interventions that could improve implementation of the policy:

- Advocacy among parents to improve their involvement in the programme.
- Improved role clarification, co-ordination and collaboration between stakeholders.
- Balancing the biomedical aspects of the programme with the preventative and promotive components.
- Prioritisation of the programme within departments, coupled with adequate resourcing [106, 107].

Table 10. Children aged six to nine years at school

Factor	OR Tambo	Eastern Cape	National
Population (5-9 years) [15]	199 000 children 13% of district population 26% of the provincial population for age group	758 000 children 11% of provincial population 13% of the national population for age group	5 731 000 children 10% of national population
Number of primary schools	636*	3 243*	17 111
Travel time to school more than 30 min [19]	–	12,1% of primary school children 126 000 children Down from 19,3% in 2002	12,8% of primary school children 1 000 7000 children Down from 17,5% in 2002
Attending primary school [16]	–	99,1% in an educational institution	90,8% primary school 8,1% other education

Factor	OR Tambo	Eastern Cape	National
Workbooks received	–	–	97%
Repeat grade [16]	–	–	5,5% boys are more likely to repeat
Grade 3 progression in 2018 [19]	–	85,1% was 80,5% in 2002 Lowest nationally in 2018 North West highest in 2018: 92,1%	88,4% was 77,9% in 2002

* EMIS entries listed under Education Phase Primary School June 2021.

Table 11. Maltreatment of children aged six to nine

Factor	OR Tambo	Eastern Cape	National
Sexual abuse with contact	–	–	One in ten young people
Other forms of sexual abuse	–	–	33% of young people
Frequency of abuse by known adult	–	–	59% experienced once 11% 4 or more times
Frequency of abuse by another child	–	–	54% experienced once 10% 4 or more times
Forced sexual intercourse	–	–	73% experienced once 7% four or more times

Factor	OR Tambo	Eastern Cape	National
Exposure to violence in the home	–	–	23% of children
Exposure to indirect violence	–	–	18% of children
Exposure to person being attacked	–	–	46% of children

Table 11 illustrates the extent to which South African children are exposed to interpersonal violence, abuse and forced intercourse experienced. As disturbing as these national figures are, the lack of data at a more localised level is a further concern as, in the absence of local data, some may assume that this problem relates to other communities and not their own. The long-term impact of adverse childhood experiences is well known, and failing to take early action to reduce its prevalence and mitigate its impact would be a major failure in creating safer and healthier communities.

5.4 EARLY ADOLESCENCE (10-14 YEARS)

The transition into early adolescence marks the start of a critical period in a child's development with many physical, sexual, cognitive and emotional changes taking place. As discussed in the preceding life stages, this period carries through some of the important mitigating measures to promote good health, support performance at school as well as social participation.

5.4.1 Social determinants that affect adolescents

Social determinants can be seen as the many threads which, when interwoven, produce the complexity of the problems faced by adolescents. Using some of the Sustainable

Development Goals as a reference it can be noted that 62% of adolescents live below the poverty line. In 2019 this translates to a South African living on less than R560 for food per month. It is not surprising then that one in three early adolescents do not have food in their homes for breakfast.

Likewise, South Africa's adolescent mortality rate of 128,7 deaths per 100 000 adolescents, while comparable to other African countries, is more than double the rates seen in other countries with similar income. In addition, South Africa is reporting 4,2 suicides per 100 000 adolescents, making it the second highest cause of death in this age group. This rate is significantly lower compared with countries such as the United States with reported rates as high as 17,9 per 100 000. However, it should be noted that 18% of South African adolescents have been found to have suicide ideation (ideas) [108].

Box 12. Opportunities to address social determinants that affect adolescents

While the situation around social determinants seems bleak there are various opportunities that can be leveraged to promote adolescent health. These include:

- Following a holistic approach to adolescent health which includes individual, family, school, clinic or community-based interventions or a mix of these interventions.
- Using schools as platforms to reach adolescents for programmes and services.
- Improving the acceptability of healthcare services by ensuring healthcare workers are non-judgemental, provide adequate time to assess clients, address problems and respect privacy.
- Community programmes that provide comprehensive psychosocial support outside of clinics schools and other formal structures.
- Combining interventions to address complexity in the problems being addressed [108].

5.4.2 Early adolescent health

Adolescent health in general has not enjoyed the same level of prioritisation in global and social policy as other groups. This poses a particular threat in South Africa where the majority of adolescents grow up in communities facing multiple disease burdens against the backdrop of poverty and inequality. While adolescence may appear to be a relatively healthy life-stage, 35% of the global burden of disease can be traced back to this period due to negative habits such as tobacco and alcohol use. Similarly, it is estimated that 20% of adolescents experience mental health conditions, which are often underdiagnosed and undertreated. This is further compounded by the prevalence of early trauma and violence in childhood.

Despite this, adolescent health interventions in South Africa have primarily centred around the prevention of HIV transmission and mitigating negative maternal health outcomes. While understandable in part, this narrow focus has limited effective engagement around other disease burdens such as substance abuse, violence and injury, mental illness, and TB [109]. Furthermore, the WHO has included malnutrition (under and overnutrition) and exercise as additional areas of concern. How South Africa is responding to the needs around adolescent health is discussed in more detail in the sections that follow.

5.4.2.1 Sexual reproductive health in early adolescence

While it may seem premature to be concerned about sexual and reproductive health at the start of adolescence, evidence points to the importance of engaging young people at this life phase.

South African Government's approach to sexual reproductive health

In 2014, South Africa adopted a National Adolescent Sexual and Reproductive Health and Rights Framework Strategy which was developed by the Department of Social Development. It set out five priorities which broadly addressed better collaboration, education and counselling, service delivery and support, community networks as well as legislative and policy revision. This was followed in 2017 by the Department of Health's National Adolescent and Youth Health Policy. This policy aimed to also combine the provision of comprehensive, integrated sexual and reproductive health and rights services with HIV, AIDS and TB.

The 2017 policy aside, the Department of Health had been actively trying to improve service delivery for adolescents since the early 2000s. These efforts have not created the desired effect as illustrated in a recent study on adolescent and youth-friendly service delivery, which found that a significant gap still exists between high-level policy and facility level performance. This was despite national facility audits and the use of an adolescent and youth-friendly service assessment tool at facility level [110]. These findings are congruent with earlier assessments which, together with other concerns, questioned the acceptability of services offered. Included here were problems with opening hours of facilities, services being perceived as not relevant to youth, perceived favouritism for those who are 'connected', and with adolescents lacking confidence in the treatment received given that all treatment seems similar regardless of the problem [111].

For its part, the DBE is also facing challenges with on-the-ground implementation. In 2019, the Department introduced for the first-time scripted lesson plans for Comprehensive Sexuality Education (CSE), which technically has been part of the South African curriculum since 2000. The new CSE lesson plans address with key concerns by focusing on delaying sexual debut, reducing HIV and STIs, reducing adolescent pregnancy and reducing gender-

based violence. It also applies itself to one of the more notable historic gaps in the approach to sex education, namely the narrow focus on HIV prevention over the wider concerns about sexual and reproductive health in general.

Notwithstanding this progress in dealing with sexuality education in schools, the Department's CSE programme came under strong criticism from conservative and religious groups. Many advocacy groups defended the initiative, rekindling the longstanding debate around sexuality education at school.

The claims made by opponents and proponents alike are simultaneously right and wrong. For example, opponents are correct in that sexual education is typically associated with addressing what may be perceived as "negative" behaviours and unwanted outcomes such as early sexual debut and/or pregnancy, as opposed to promoting the 'positive' behaviours they would prefer. However, they are incorrect in asserting a causal relationship between sexual education and negative health outcomes, in other words, that sexual education leads to early sexual debut and pregnancies. Similarly, proponents are correct in asserting that sexual education does not encourage risky sexual behaviours but may also be incorrect in stating that investing in typical school-based programmes will produce measurable health benefits [112, 113].

Finally, the CSE also aimed to improve the link between learners and other departments through the Integrated School Health Policy – a policy which, as already mentioned, is not well implemented and largely ineffective.

5.4.2.1.1 The importance of quality adult relationships in sexual reproductive health

Early adolescence also marks a change in the child's relationship with their family while their interactions with peers take on new dimensions. Problems within the parent-adolescent

relationship do not spontaneously arise during this developmental period, nor are these relationships consistently stable across the various life transitions, however. This denotes the importance of the relationship prior to adolescence as well as the need to navigate any instability that may occur during adolescence [114]. That being said, the evidence around the quality of the parent-adolescent relationship and its effect on early engagement in sexual behaviours is of particular concern. For example, being exposed to relationships with poor communication and violent behaviour towards partners is shown to be a significant predictor of early sexual debut [115].

Aside from their parents, another adult relationship which adolescents are exposed to is the one with their teachers. A qualitative study in the Free State examined the importance of this relationship. It noted that teachers, as adults, have a key task as mentors and role models in displaying positive behaviours such as respecting diversity and making healthy decisions. Moreover, teachers are able to avoid teaching about matters that make them uncomfortable, thereby denying students access to critical knowledge. The Free State study thus proposed that teachers should be active participants in designing and informing sexual education programmes [116].

Quality adult relationships are clearly key to adolescent sexual and reproductive health. However, as discussed, there is a high prevalence and exposure of children to violence and abuse in the home. Given that some of these negative experiences have been identified as predictors of early sexual debut, one can again see the acutely interconnected nature of these social problems. This aside, when turning to what can be done in the near-term, the importance of promoting positive relationship behaviours by adults is again underscored as critical to building resilience among young people to deal with the larger and more complex negative social conditions that affect them.

5.4.2.1.2 Sexual debut

Data from the South African demographic and health survey shows that 16% of female adolescent respondents had their sexual debut by age 15, compared to 28% of male adolescents. This is consistent with other smaller studies in South Africa. The Eastern Cape, however, is a notable exception with one in three women having their sexual debut before age 16. Similarly, black and coloured adolescents are more likely to have an early debut (before age 16). This race variation becomes negligible in later adolescence (age 16 to 20) [117].

These early sexual experiences are not necessarily positive. A 2008 study of first year university students in South Africa found that 37% of women and 22% of men labelled their early sexual experiences as unwanted. Of these respondents, over 75% of women reported that the experience continued to bother them. In contrast, more than half of men reported they were not bothered by these unwanted experiences [118].

In one study trying to identify the predicators of early sexual debut among South African school children, the authors concluded that poor socio-economic conditions of children essentially constrained individual choices, implying that the child had little agency under their circumstances. The study further found that additional risk factors included intimate partner violence, attitudes and subjective norms around partner violence, gender inequality and the social acceptability of delaying sexual debut [115]. The demographic and health survey also found that women with higher levels of education delayed their sexual debut, which is consistent with many research findings in this area [117].

5.4.2.2 Substance use and abuse in adolescence

It is estimated that a large portion of premature adult deaths are the result of lifestyle behaviours that can be traced back to adolescence. For example, tobacco use is a leading cause of adult non-communicable disease such as chronic respiratory disease, heart disease and cancer. In turn, excessive consumption of alcohol contributes to liver, kidney and brain conditions.

These long-term negative health outcomes aside, substance abuse is also associated with riskier behaviours, which can have a more immediate impact on the adolescent. Moreover, substance abuse is not just a health risk. It has been shown in South Africa to increase physical and sexual violence, and other crimes. Despite these risks and impact, alcohol and drug abuse by youth is growing in South Africa.

A national survey found that 49% of school-going youth have consumed alcohol, of which 32% reported binge-drinking in the previous month. While 13% of school-going youth report cannabis use, 12% say they have used methamphetamines, heroin and mandrax at least once.

Individual factors that contribute to alcohol use include peer pressure, boredom, high unemployment as well as alcohol being cheap and easy access. There is also evidence that violent victimisation and low mental and physical wellbeing exacerbate alcohol abuse [119].

Rural communities often create their own situation conducive to substance abuse, such as:

- Easy access to and poor regulation of substances outside commercially produced and prescribed substances.
- Cultural practices that support access to substances for ancestral worship or festivals.

- Uncontrolled micro-manufacturing and home-brewing of alcohol as well as the cultivation of cannabis.
- Mental health services not being prioritised and integrated, compounded by poor resource allocation.
- Lack of rehabilitative care and minimal community-based interventions [120].

Tobacco use is also a major concern given its impact later in life. Research in South Africa indicates that up to 16% of adolescents are using tobacco products by age 15. This is roughly a third of all uptake that will occur during adolescence, which is also the time when most tobacco users will initiate use. Family, peer and cultural attitudes towards smoking are closely associated with uptake and use, but punitive measures such as increasing the cost of tobacco products have significantly decreased usage [121, 122, 123]. However, while smoking has decreased, a new issue has presented itself in the form of e-cigarettes and vaping, often marketed at young people as safer, more acceptable, and in a range of 'fun' flavours. Apart from various safety-questionable substances used in these products, they also often contain nicotine, which is known to be highly addictive. These and other concerns have led the South African Government to introduce legislation to better control and regulate these products [124].

Box 13. Substance abuse treatment

South Africa is said to have a high rate of untreated substance abuse disorders. Some estimate that at least 13% of the general population has a current untreated abuse disorder [125]. This notwithstanding the Prevention of and Treatment for Substance Abuse Act of 2008, which sets out a legislative framework that includes early intervention, community-based services, in- and out-patient services as well aftercare and integration of services.

Various authors have questioned concerns around the lack of access to treatment as a problem in larger urban centres, pointing instead to a more pressing concern around the quality of treatment and

facility performance [126]. That said, it can be assumed that access in rural settings remains a barrier to treatment, due in part to the challenges around the provision and integration of mental health services. This challenge is compounded by some in the health and social care systems who view substance abuse as a self-inflicted mental disorder and therefore less important. Mirroring this problem, many people with a substance disorder also self-stigmatise. This external and internal stigmatisation several challenges for early and effective treatment.

Of the 65 registered treatment centres nationally, only two are operated by the State. However, 35 receive funding from the Department of Social Development. A critique levelled at many of these centres is that they are geared towards tertiary treatment, in other words, highly specialised services to treat significantly advanced substance disorders. While this critique is based on shifting the focus to lower-cost interventions such as prevention and early treatment, one cannot ignore the challenges within the wider health and social systems to do so.

It is also well known that many South Africans still seek care from traditional practitioners in the belief that they have unique abilities in addressing health and social problems. Approximately one in ten people seen in the biomedical health system for a mental illness has first consulted a traditional practitioner or spiritual healer. These practitioners are deemed to be more accessible in terms of proximity, language and understanding of culture. However, clients are also known to engage both traditional and biomedical practitioners at the same time, which generally leads to poor outcomes. In spite of this, a recent study found that more than half of traditional practitioners were confident they could adequately treat and cure mental illnesses. Many traditional practitioners believe that substance abuse can only be treated if the person expresses a desire to stop, although it seems that few community members actually seek support for substance abuse from traditional practitioners. Against this backdrop, it has been suggested that partnerships with traditional practitioners, such as those developed for HIV and TB treatment, should also be explored for mental illness and substance abuse referrals [127].

5.4.3 Early adolescence and schooling

Previously it was noted that challenges in the foundation phase are compounded over time, leaving Grade 9 learners from poorer communities performing at a level up to three years behind their peers. In 2018, only 70% of learners could pass Grade 9 by the appropriate age [128].

5.4.3.1 The challenge with mathematics

A key performance area for early adolescents is mathematics as after Grade 9 they will need to choose between mathematics and mathematical literacy. This is a critical choice since most science-based programmes in higher education require mathematics. It could be argued though, that there is little choice as most learners lack the knowledge to cope with mathematics from Grade 10 onwards. Depending on the assessment method, between 14% and 28% of Grade 9 learners nationally perform at the expected level [129].

Various factors lie at the root of this poor performance, including the actual content taught to learners – linked to the knowledge of the teacher, incorrect or poor teaching methods, a continuously changing syllabus, as well as social and cultural attitudes towards mathematics [130].

It is feared that the COVID pandemic will further impact performance and further entrench the problem. With this in mind, suggestions have been made to target areas with known learner difficulties, better uptake and use of support materials by teachers as well as approaching testing to help identify problem areas to further help struggling learners [129].

5.4.3.2 Promoting science

The fact that teachers are not specialists in science is of particular concern for implementing the science curriculum from the foundation through to the intermediate phase of schooling. This, however, does not mean that teachers are not competent in engaging learners, but rather that their pedagogic content knowledge is often limited. Teachers should thus be encouraged to place more value on science and to spend additional time deepening their subject knowledge and the methods of teaching science [131].

Beyond teaching and learner scores, there is growing recognition of the importance of a learner's general attitude towards science and its impact on engaging and performing well in the subject.

As discussed, a growth mindset as part of a school's culture is critical. It helps learners to develop their abilities over time which, in turn, helps them to build resilience and maintain a positive attitude when facing challenges. However, this is not just a concern for schools, parents also have a job to foster a more positive attitude towards science among their children – keeping in mind that many of them may themselves not have had positive experiences with science or any significant science education. A growth mindset stresses the importance of effort (to keep working at something) over individual characteristics (he is a clever child). So even parents with limited schooling can still encourage their child to put in the effort and work through the problems they experience.

Attitudes towards women following careers in science must also be taken into account. The stance that 'girls don't do science' is often ingrained in society as part of the notion that individual characteristics (such as being male) determine academic success rather than sustained effort. Steps must be taken to promote science as a subject for girls and to respectfully engage with parents and teachers on social and cultural attitudes [132].

5.4.3.3 Bullying in schools

Bullying among school-aged children is an aggressive, unwanted behaviour where a child is habitually dominated, threatened, humiliated or intimidated either physically, verbally or emotionally by another child. With the advent of social media platforms, bullying is not just limited to in-person interactions but can occur online, creating a new and very public dimension for victimisation (see Box 14 for details).

In South Africa four Acts form a comprehensive framework to address this problem:

The South African Schools Act – requires governing bodies to adopt a code of conduct for learners as well as stipulate the consequences of not adhering to the code.

The Children's Act – protects the child from maltreatment, abuse and neglect and promotes the best interests of the child.

The Child Justice Act – establishes the criminal liability of children and aims to rectify injustice through a process of restorative justice.

The Protection from Harassment Act – affords harassment victims with a civil remedy against harassment, which can include a protection order against a child-bully [133].

The DBE has included bullying as part of its school safety framework. Starting in 2012, the Department partnered with the Centre for Justice and Crime Prevention to guide schools in addressing bullying. They promoted a whole-school approach that aims to establish a positive ethos and environment, involve caregivers and communities and leverage curricula [134]. Since then, the Department has rolled out various initiatives including the STOP, WALK, TALK anti-bullying campaign and is working with UNESCO to support its programme to end school violence and bullying.

On the ground, however, a recent national study among Grade 9 learners demonstrated the extent of bullying in South African schools, with over 50% of learners having experienced bullying (depending on the form). Moreover, it found statistically significant differences between the prevalence of bullying in no-fee and fee-paying schools. While victimisation is high across both types of schools, more children in no-fee paying schools are victimised. That said, bullying in both types of schools was significant, with children in no-fee paying schools being more likely to threaten and hurt others and share information about others online or in person [135].

In contrast to other international studies, this study found that South African boys are more likely than girls to be victims of bullying across all forms of the behaviour. This implies that interventions in South Africa will need to be more sensitive to the needs of adolescent boys. The study also showed that a child's socio-economic status was not as robust an indicator for prevalence as may have been thought. Rather it may be the learners' perceived tolerance of bullying behaviour within the school environment that determines prevalence.

Moving from concerns of prevalence, the consequences of bullying among early adolescents in South Africa have been reported to include lowered self-esteem, higher rates of absenteeism, self-harm, an inability to make academic progress, insecurity and isolation [136].

Given local research findings, South Africa interventions should specifically take into account the differences in school-types, address the school-going experience, gender nuances and work with victims as a distinct group [135].

Box 14. The impact of social media and cyberbullying on children

The advent of social media massively scaled up the ability to socialise and build relationships without requiring any physical interaction. However, these virtual interactions have significant, often negative, consequences in the real-world.

The impact of social media

The Royal Society for Public Health (RSPH) in the United Kingdom published a report in 2017 which declares social media as being more addictive than tobacco and alcohol, with significant consequences such as increased anxiety and depression among youth. Yet social media has also improved access to the experiences of others, promoted a feeling of support through contacts and aided access to expert information. In their research, the RSPH found YouTube to be the most net-positive platform while Instagram was the most net-negative [137]. The figure below further breaks down the impact of social medial on the wellbeing of users aged 14-24 years.

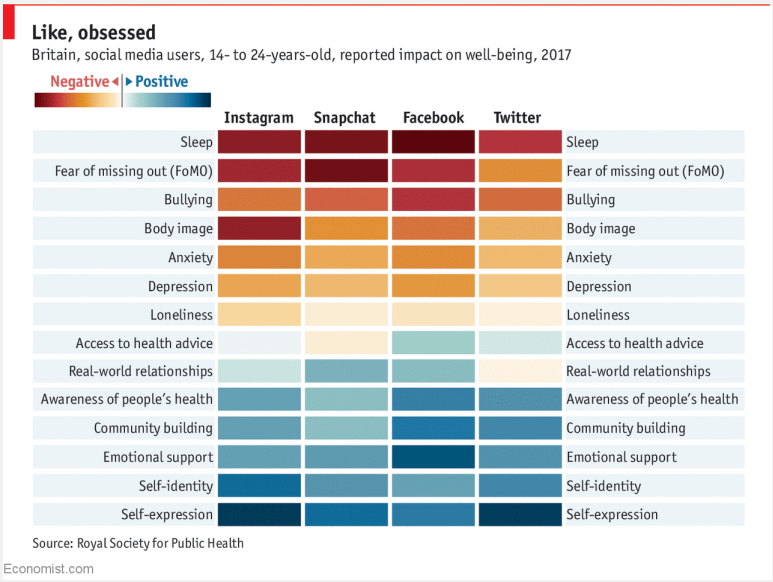


Image source: The Economist, 2018 citing the Royal Society for Public Health, 2017 [redo for layout copy]

Adding to the mental health implications of the RSPH findings, a large study in the United States concluded that spending more than three hours a day on social media heightened the risk of mental health problems in children, mostly due to internalisation [138].

Older studies in South Africa suggested that school-going children have for some time been experiencing the same net-positive and negative effects seen in the United Kingdom and United

States. Also concerning is that South African learners often share personal information and agree to meet people they do not know in person [139]. Advocacy groups report that these behaviours are not just limited to urban youth, making rural youth an equally important key population.

A recent study of social media use among rural youth confirms that they are indeed active on social media – with girls being more active than boys. Assuming that the use of social medical platforms and an increased risk of mental health problems are linked as research shows, this suggests that while rural youth are similarly at risk, they may have less access to mental health services and support. Adding to this concern are findings that the primary intention for using social media among rural youth is socialisation and not knowledge sharing. The importance of using these platforms to access and share trustworthy knowledge and information must therefore be stressed [140].

In evaluating which platforms are most popular in South Africa, a recent study of adult users (users older than 18 years) found they favour Facebook (83%) and YouTube (78%). Instagram (47%) and Twitter (39%) were less popular, but still featured prominently among those surveyed. Keeping the RSPH study's findings around Instagram in mind, its popularity as a net-negative platform is a concern. Other noteworthy findings from the South African study are that social media users are mostly active on a single or related group of platforms, and that younger users are more active on these platforms [141].

Cyberbullying

Cyberbullying has grown simultaneously with increased access to and use of the internet and its various social platforms. While initially differentiated, web and mobile-based platforms are no longer thought of as separate, because of the widespread use of smartphones. Given the nature of the problem, cyberbullying must be addressed both technically (through the platform and access filters) and in terms of the supporting the victim and dealing with the perpetrator and the audience. Cyberbullying comes in many forms and shapes, including:

Harassment – repeated and persistent sending of rude, threatening or insulting material to a specific person.

Flaming – an intense argument that involves hostile and vulgar exchanges, which may spiral to involve others.

Denigration – sharing belittling comments or images, which may be edited to put the victim in a poor light or be sexually demeaning.

Outing – taking information about a victim that is not public knowledge and sharing it to intentionally cause distress.

Exclusion – intentionally rejecting or isolating a victim from the peer group.

Cyberstalking – unwanted and obsessive attention directed to an individual online.

Trolling – actively searching the internet with the sole intention of forcing opposing views on other users, often in the form of extremist, sarcastic or cynical remarks [142].

While research suggests that in South Africa cyberbullies and victims share the same individual characteristics seen in bullying in the physical realm, there is growing recognition of the differences between the two. For example, cyberbullying can continue beyond school interactions making it more intrusive; it can involve a larger audience which both intensify the attack or significantly widen the social embarrassment; and it can involve sharing information and images of the victim that can be deeply traumatic or distressing. It is evident that cyberbullying is not as dependent on repetition to cause harm as bullying.

As noted earlier, rural children are also active on social media platforms. A recent study in Limpopo found that 84% of participants had cell phones and all could access the internet. Facebook was the platform most used (90%) by these children. The majority (55%) reported bullying, with 65% stating they were bullied at least once a week. Girls were significantly more likely to be bullied (70%) compared to boys (53%). The incidence of sexual bullying and offences was high and included embarrassing or damaging pictures having been taken without the child's consent and shared. This cyberbullying had a significant effect on its victims with reports of anxiety, depression, isolation and suicide ideation. Many victims were also missing school and contemplating dropping out of school altogether. Given their findings, the researchers strongly recommend putting an anti-cyberbullying policy in place in schools, with practical grassroot support and implementation [143]. Interestingly, an Eastern Cape study found that over 80% of teachers believe the DBE has a specific cyberbullying

policy, which it currently does not have. This may be the result of teachers confusing campaigns and pamphlet distribution with a specific policy. The study also showed that teachers who experienced bullying when they were learners tended to be more concerned about cyberbullying than teachers who did not [144].

Several authors emphasise strategies to combat cyberbullying including having a clear learner code of conduct that is enforced, incorporating cyberbullying into existing curricula, training teachers and parents to deal with cyberbullying, as well as identifying and encouraging the use of community support resources [145].

5.4.4 Adolescents in conflict with the law

In 2010, following the introduction of the Child Justice Act in 2008, children under the age of 18 were no longer dealt with under the adult-focused Criminal Procedure Act. The new Act sought to facilitate restorative justice, which aims to correct a child's trajectory while also taking into account the victims of their actions. The Act takes the individual needs and circumstances of the child into account when dealing with their conduct, and the child may be sent to a diversion service before to trial. These diversion services are accredited by the DSD and a list of providers are gazetted annually. The Act also assists with the rehabilitation and integration of the child offender back into their families and communities.

To aid with implementation of the new Act, the Department of Justice and Constitutional Development developed a National Policy Framework to help monitor progress, ensure the different departments involved fulfil their roles, and establish an integrated information management system [146].

On a practical level, there are two important distinctions under the Child Justice Act for early adolescents who are in conflict with the law. Firstly, before age 10, a child cannot be arrested according to the Child Justice Act as they are consider not to have criminal capacity. However, between the ages of 10 and 14 this changes and a child may be

arrested, provided the State can prove their criminal capacity. At age 14 a child is assumed to have criminal capacity and can be arrested. If a child is arrested, an informal inquiry will be held within 48 hours to determine whether the child should be diverted or continue to trial.

However, it is not just the departments of justice and social development that have a role to play in this process. A Gauteng-based study examining children in conflict with the law has stressed the important role teachers and schools play in supporting the child's trajectory. In this study, children in conflict with the law reported teachers were judgemental, did not acknowledge their efforts and were unresponsive to their needs. The child's initial desire to succeed was consequently replaced with frustration, anger, hopelessness and disappointment. This sense of failure translated into various acting out behaviours, which ultimately undermined the effort to change the child's trajectory [147].

Similarly, recent research emphasises how important positive parenting is in managing the challenges with children in conflict with the law. This study found that parents who are physically absent, lack assertiveness or abuse substances weaken family relationships, particularly those with adolescents. These relationships are essential to what is referred to as family connectedness. A lack of connectedness leads adolescents to become distressed by the absence of parental interest, which then opens the child up to destructive influences in the community, ultimately resulting in conflict with the law. The study further highlighted the father's role and the need for them to spend time with their children to help foster a sense of family connectedness [148].

Box 15. Access to education for children with disabilities

Primary data on the number of children with disabilities in South Africa is unavailable. Projections place the number at 500 000, although this number may vary depending on the definition used, given that disability is an umbrella term for a number of impairments, activity limitations and participation restrictions.

Since the 1970's, advocates for people with disabilities have being calling for a shift from a deficiency-orientated worldview of disability – that promotes segregation, exclusion and marginalisation – towards a view that acknowledges disability as a complex social phenomenon that demands inclusion of people with disabilities in all aspects of society [149].

In 2016, over 119 000 learners were enrolled in special schools in South Africa nationally. Of these learners, 9 506 resided in the Eastern Cape with 1 359 (14%) living in OR Tambo District. Limpopo had 8 638 learners of which 740 (10%) lived in the Waterberg District. North West recorded 7 427 learners of which 2 711 lived in the Bojanala District. A further 121 461 special education needs learners were enrolled in ordinary schools. In 2017, up to 11 500 children remained on waiting lists for admission to special schools [150].

Human rights groups claim that up to 600 000 children with disabilities do not have access to basic education. The underlying causes for this dire situation include the attitude of communities, schools and government departments towards people with disabilities, inadequate policies and planning at various levels, a lack of funding for non-governmental partners, compliance and disability-friendliness of the built environment, and a lack of co-ordination and integration of services [151, 152].

Table 12. Early adolescence

Factor	OR Tambo	Eastern Cape	National
Population aged 10-14 [2]	190 000 9% of district population 25% of provincial population aged 10-14	755 000 11% of provincial population 14% of national population aged 10-14	5 544 000 9% of national population
Population aged 10-14 by gender [2]	50,8% male 49,2% female	50,6% male 49,4% female	50,3% male 49,7% female
School systems			
Number of secondary schools*	155 schools 34% of schools provincially 3 technical	453 schools 6% of schools nationally 5 technical 3 commercial 3 agricultural	7 900 schools 115 arts and culture 102 technical 70 commercial 43 agricultural
Gross population to school ratio	1064 learners per school	883 learners per school	701 learners per school
Grade 9s meet expectations for mathematics	_	_	14-28%
Ratio of maths literacy to mathematics	_	_	1,5:1 (2016) Up from 0,9:1 in 2008
Science enrolment			
Risks linked to a negative trajectory			
Sexual debut by age 15 [16]	_	_	20-28% male 8-16% female

Factor	OR Tambo	Eastern Cape	National
Alcohol use and abuse [17]	–	–	**49%** of which 32% are binge drinking
Substance abuse [17]	–	–	**13%** use cannabis **12%** tried heroin, mandrax or methamphetamines at least once
Experienced bullying in school 2016 [18]	–	**Male 43%** **Female 57%**	**Male 48%** **Female 52%**
Number of preliminary inquiries 2018/19 (Child Justice Act) [19]	–	**1498** 11% of national total	**13 619**
Charges against children awaiting trial [16]	–	–	**24%** assault combined **15%** housebreaking and theft combined **14%** rape **14%** robbery combined **6%** murder
Successful diversions 2018/19 (Child Justice Act) [16]	–	–	**217 cases** 3,4% of all new cases
Factors linked to family connectedness			
Female headed households [3]	**57% of households**	**49% of households**	**41% of households**

Factor	OR Tambo	Eastern Cape	National
Children living with parents aged 7-17 2016 [25]	–	37% mother only 30% neither parent	37% mother only 23% neither parent

*Includes combined primary and high schools

Table 12 indicates that the OR Tambo district school system is not under significant pressure given the population served. The risk factors associated with a negative life trajectory accentuate the need and opportunity for early action, particularly with regard to interpersonal violence, such as bullying and assault, and alcohol use. In the absence of additional data on family connectedness and quality adult relationships – the lack of which have already been identified as precursors to interpersonal violence, bullying and alcohol use – proxies such as female-headed households[18] and not living with parents can be considered. While neither of these proxies is inherently negative, they do reveal challenges that could increase the risks associated with a negative trajectory.

The number of women-headed households and children being cared for by others is concerning. The district is 16 percentage points above the national figure in terms of women-headed households and eight points above the provincial figure. While the number of children living with neither parent is already higher than the national figure, it should be kept in mind that the district percentage increases to 46% for children between the ages of 15-19 (see Table 1).

[18] Women-headed households are globally and nationally linked to a range of challenges that impact the family structure and cohesiveness. One of the most notable is the higher incidence of poverty in these households, likely due to the increased presence of complete household unemployment. That said, social and cultural constraints are equally problematic. In South Africa, this phenomenon dates back to the 1930s, coming under various influences related to the structure of the economy and in particular apartheid. Notwithstanding the advent of democratic rule and various social grants, these households continue to experience disproportionate poverty and hardships [22, 23, 24].

5.5 LATE ADOLESCENCE (15-18 YEARS)

Late adolescence marks a significant transition from adolescence into early adulthood. This stage is not only the end of a child's schooling but also the start of the critical pursuit of post-school education and a pathway to meaningful and rewarding employment.

Keeping the life course approach in mind, this section revisits early actions described in early adolescence since actions such as comprehensive sexual education continue into late adolescence.

5.5.1 The final years of schooling

Problems within the school system begin to culminate in a complex and difficult-to-resolve set of challenges in the final years of schooling.

As noted previously, school attendance is high during the compulsory years, but drops significantly between Grades 10 and 11. During this time approximately 50% of adolescents will stop their schooling. Compounding this is the relatively low pass rate which effectively results in 60% of young people ending their schooling years with no school-leaving qualification. In South Africa, socio-economic factors and race play a major role in this situation, with twice as many white youths (88%) matriculating compared to their black and coloured counterparts (44%).

The factors underpinning these challenges can be classified as either push-out (internal to the school) and pull-out factors (external to the school). In addition, it is important to challenge the thinking around what might be seen as the obvious problem. To illustrate this, research suggests that while poverty is indicative of many problems in schools (the obvious problem), thought should be given to the relative experience of poverty in

addressing push-pull factors. This would imply moving beyond the concept of poverty to understand the lived experience of poverty.

An easy example of a pull-out factor is the experience of girl learners from poor households who habitually miss school as they cannot afford or lack access to sanitary pads. Similarly, but less overt, is the impact of an adolescent pregnancy, which is generally associated with high drop-out rates among girls. Under these circumstances, dropping out is not just because of pregnancy. It is often the result of an intensively negative experience of stigmatisation by the community, healthcare system, schools and peers. This phenomenon can be extended to other areas previously raised, such as substance abuse and family connectedness.

Research also points to two striking push-out factors. The first pertains to how a school manages the pressure around the National Senior Certificate (NSC) examinations. Various observers note that there is intense pressure on schools to meet DBE performance requirements around six key indicators, namely:

1. Overall pass percentage.
2. Mathematics pass percentage.
3. Physical sciences pass percentage.
4. Bachelor attainment percentage – calculated as Bachelors-level passes divided by all learners.
5. Distinction percentage – calculated as marks of 80% or more divided by all subject-specific marks obtained (approximately seven per learner).
6. Throughput rate – calculated as the number of learners writing the Grade12 examinations divided by Grade 10 learners two years previously.

It has been further intimated that since the introduction of the national pass rate targets, struggling schools are intentionally 'culling' or 'weeding out' weaker learners by either keeping them in lower grades for multiple years or by coercing learners to leave school before Grade 12.

The second worrying push-out factor is the lack of proper guidance and inappropriate choice of subjects, resulting in learners disengaging and leaving school [153, 154]. This is explored in more detail in the section that follows.

Box 16. Addressing school drop-out rates

Commentators on the drop-out situation in South Africa stress the need for systemic change with outcomes on an individual, institutional and societal level. Some of the proposals include:

- address the foundation phase in early childhood development to ensure expected levels of performance for literacy and numeracy – stopping the performance gap early;
- assist learners to keep up with their age cohort and restrict grade retention to reduce the number of over-age learners;
- implement early warning and tracking systems that start early in schooling[19];
- provide academic interventions, either externally facilitated or peer-based, to strengthen a learner's academic performance;
- offer access to psychosocial and adult support to develop social skills, build resilience and help navigate difficult situations;
- address high-risk behaviours, such as aggression, disruption, bullying, substance abuse and sexual activity;
- involve parents and build family connections Developing teachers' content knowledge and teaching skills to effectively deliver the curriculum; and
- introduce programmes to help re-engage and re-integrate learners who have dropped out so they can complete their schooling [153, 155, 156, 157].

[19] A recent study identified that later drop-out risk factors include being male, not living with a biological parent, experienced previous academic difficulties, using alcohol and tobacco in the past month and having lower levels of intrinsic motivation in leisure.

5.5.2 Career planning and preparing for post-school education

More than half (51%) of youth aged 20-24 are not in education, employment or training[20]. Only 12% in this age group are in post-school education and training, while 21% are employed. Despite an extensive legislative and policy framework to promote a robust post-school educational landscape, significant obstacles remain in the transition from school to post-school education.

5.5.2.1 A lack of post school guidance

At the end of Grade 9, learners choose which subjects they will carry through to Grade 12. Ideally this choice is informed by a sense of what occupation they wish to pursue and what that implies in terms of post-school education plans. However, these decisions are often based on perceptions regarding employment and career opportunities that are far from the daily realities the learners' face.

Complicating the matter even further is a schooling system that consistently delivers large numbers of learners who lack the foundational knowledge required to progress successfully in critical subjects through successive grades, thereby limiting the subject choices they can make. Compounding this is poor guidance by schools on subject choices and future possibilities. The net result? It becomes difficult for learners to have realistic expectations of their abilities and future plans.

Unfortunately, there is little data on how learners navigate the post-school education application process. Anecdotal evidence says learners may be influenced by perceptions of individual institutions and by a desire to avoid careers involving manual or 'dirty' work. Some studies suggest that these perceptions include that Technical Vocational Education

[20] The NEET group is discussed in detail in the early adulthood life stage.

and Training (TVET) colleges and their qualifications are inferior to universities. In the same vein, some universities are viewed as having questionable reputations, making them less desirable [158].

Notwithstanding these perceptions, the Department of Higher Education and Training is trying hard to help youth via their national career advice portal as part of its Khetha[21] initiative. This portal contains a wide range of information and several tools that learners, partners, the unemployed and entrepreneurs can use to plan and obtain support. In particular, the site connects learners to the department's Career Development Services (CDS), which includes a free-to-call Career Advice Helpline and real-time online chat service. The CSD has also developed a comprehensive step-by-step career plan guide that a learner can work through on their own. The department has also set goals for learner support for other stakeholders such as the SETAs, TVET colleges and universities.

5.5.2.2 High demand occupations

Employability is ultimately linked to demand in the labour market. Therefore, when Grade 9 learners makes decisions about their future career, a key consideration should be the level of demand for their chosen occupation.

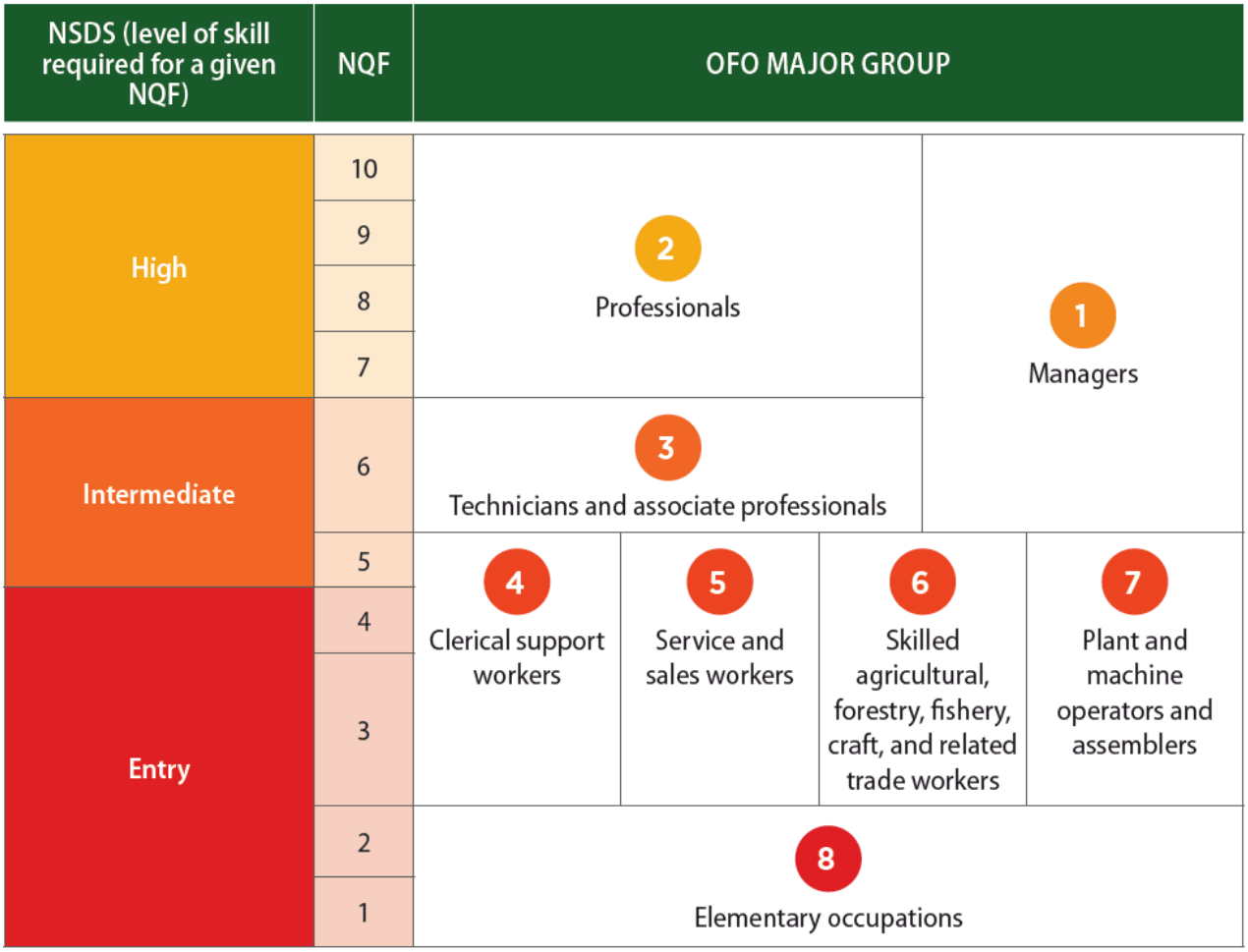
As part of their labour market intelligence programme, the DHET has started to track occupations that are verifiably in high demand. Technically, an occupation is said to be in a high demand when it shows strong signs of growth, there is a shortage (demand outstrips supply) or it is currently novel but is expected to show significant near-future growth.

The Department classifies the demand for specific occupations using its Organising Framework for Occupations (OFO). This framework comprises eight levels which cluster

[21] https://www.careerhelp.org.za

occupations from eight high-level groupings down to 1 510 individual occupations. As shown in Figure 5, the eight high-level groups of the OFO can be mapped against the NGF to illustrate the broad relationship between a major occupational group and the level of qualification required.

Figure 5. Mapping the major OFO categories in the NQF



Source: Department of Higher Education and Training, 2020 [redo for layout copy]

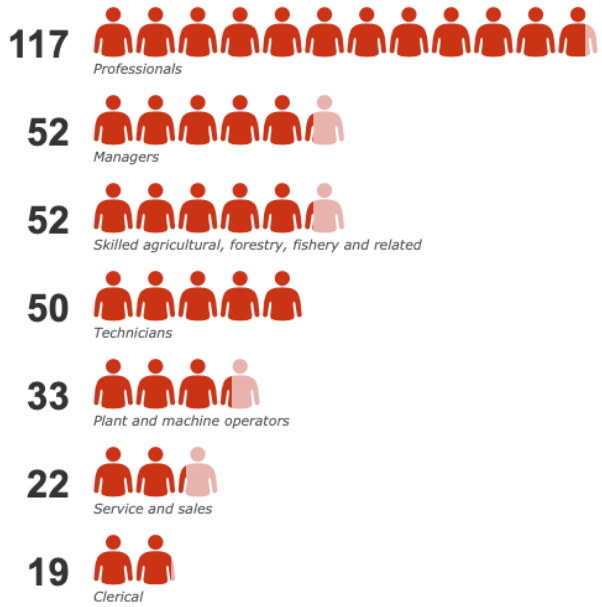
The 2020 review identified 346 occupations that were verifiably in high demand[22]. At a macro level, professionals were found to be twice as much in demand as the next three occupational groups. Those three groups being managers; skilled agricultural, forestry, fishery, craft, and related trades workers; and technicians (see Figure 6). Taking Figure 5

[22] Please refer to the DHET report for the full list of occupations.

into account, it can be further noted that the latter occupations required intermediate to higher level qualifications.

The performance of schools is accentuated in Figure 6, which not only reflects an imbalance in supply and demand, but also the problems learners face if they do not enter post-school education or qualify for a lower skilled occupation. Essentially, learners who are not capable of entering higher skilled occupations will probably have to seek employment in a low-demand high-supply labour market.

Figure 6. Demand by major occupational group



Data source: Dpeartment of Higher Education and Training, 2020

Given the time it takes to collate and analyse the data, DHET had to estimate how the COVID pandemic would impact report findings. They concluded that of the 346 occupations, 73 (21%) are likely to recover quickly or show an increase in demand due to COVID. In comparison, 196 occupations (57%) will recover slowly or will decrease in demand due to COVID. The impact on demand can also be viewed in terms of the pandemic's effect on specific sectors, as shown in Figure 7.

Figure 7. Potential impact of the COVID pandemic on specific sectors

Sub-sector	Impact of COVID on demand in sector	Impact of COVID on supply in sector	Potential impact of COVID on labour demand	Recovery timeframe
Accommodation and food services	Negative	Negative	Negative	>3 years
Agriculture, forestry and fishing	Neutral	Neutral	Neutral	1–2 years
Construction	Negative	Negative	Negative	2–3 years
Education	Ambiguous	Neutral	Neutral	1–2 years
Financial and insurance activities	Neutral	Neutral	Ambiguous	1–2 years
Human health and social work	Positive	Negative	Positive	6–12 months
Manufacturing	Negative	Negative	Negative	2–3 years
Mining and quarrying	Negative	Negative	Negative	2–3 years
Other services, gym, personal services, etc	Negative	Negative	Negative	1–2 years
Public administration and defence	Ambiguous	Ambiguous	Neutral	6–12 months
Real estate, business, and administrative activities	Negative	Negative	Negative	2–3 years
Transport, Storage and communication	Ambiguous	Ambiguous	Positive	1–2 years
Utilities	Negative	Negative	Neutral	2–3 years
Wholesale and retail trade	Positive	Ambiguous	Ambiguous	6–12 months

Source: Department of Higher Education and Training, 2020

Noteworthy in the 'in-demand' list are the 50 occupations that have more than 500 unemployed graduates associated with them, according to the Employment Services South Africa (ESSA) database. This anomaly may be partly explained by local variations in

demand, in other words, some graduates are seeking employment in areas where the demand is lower. Another reason for this anomaly may be that the ESSA database is a live database that reflects the situation as it was on the date the data was compared – in September 2020. Given that the demand data was collected primarily before the COVID pandemic, the ESSA data probably represents the impact of COVID on demand (see Figure 8) [159].

Box 17. Employment and people with disabilities

Although the number of people with disabilities (PWDs) employed in South Africa has improved, only an estimated 2% of PWDs are employed. This notwithstanding a range of legislation, policies and strategies pursued by the South African government.

PWDs face barriers to employment such as discrimination (often due to a lack of information);inaccessibility of buildings; the physical work environment, transportation;, a lack of skills and experience; PWDs intentionally not disclosing their disability (impacting the employer's ability to make an affirmative appointment or assisting an employee); perceptions around productivity; and employers viewing legislative prescripts as making the employment relationship exceptionally onerous. However, local and international research has found that, based on their experience, employers believe employing PWDs has several benefits. These include being more competitive in scoring equity points in bids, the attitude of PWDs towards further education and their positive contributions [160].

The South African Human Rights Commissions (SAHRC) encourages employers to become more inclusive of PWDs in their recruitment processes [161] by:

- Conducting targeted outreach through liaising with community-based partners as well as relevant national organisations.
- Posting recruitment announcements in targeted spaces.
- Offering ongoing training for those involved in the recruitment, hiring and retention process.

- Promoting return to work programmes which encourage an injured, disabled or impaired worker to return to work as soon as is medically feasible.
- Providing reasonable accommodation to create an enabling environment both during recruitment and once employed.
- Providing disability awareness programmes that sensitise non-disabled persons towards negative attitudes and misconceptions.
- Leveraging community partnerships to enable these steps by consulting with community organisations, parents and PWDs.

5.5.2.3 Supporting employability as a long-term strategy

While efforts to create work opportunities in the short-term can help alleviate unemployment and the impact of poverty, from a longer-term development perspective, these opportunities do not always translate into sustained, meaningful or rewarding employment. It is therefore helpful to differentiate between employment and employability as outcomes, when developing longer-term strategies.

The core difference between employment and employability is that the employability has to do with the long-term perspective across the whole of a person's work life. Employability is a broad term that covers the concept of being able to be productive throughout your work life, with skills that are relevant to labour market demands, and being able to maintain meaningful and rewarding employment [162]. This implies finding employment, as well as being relevant and productive throughout your work life. It means being part of a wider system of support that allows you to adapt to changes in the labour market over time. Such adaptability is increasingly important to ensure a sustained reduction in unemployment and to mitigate the effect of the speed and extent of change in the local and global economy.

Employability is also a key mitigating factor in reducing the effect that low economic inclusion during a person's work life has on older adults and the dependency that results (see Section 6.7).

5.5.2.4 The scale of unemployment among youth

Youth employability remains a chronic and critical concern in South Africa, even with the multitude of interventions implemented since the advent of democratic rule. These efforts and concerns are driven by the fact that youth comprise the largest group of new job seekers in the labour market, making them the most affected and vulnerable to a lack of work opportunities.

As of the first quarter of 2020, Statistics South Africa reported the national unemployment rate for youth aged 15 to 24 is 59%. While not providing specific data on rural youth, it can be assumed from various studies that rural youth will be disproportionally affected, with unemployment rates as high as 75% [163, 164].

Within this dire situation, Statistics South Africa estimates 1,9 million youth have given up trying to find work and have disengaged from the labour market. This number should be viewed in tandem with another important measure of unemployment, the NEET[23] rate, which reached 34% (approximately 3,5 million young people) in the first quarter of 2020. Unpacking the NEET rate further shows a significant gender difference, with female youth more affected (35,9%) than males (32,2%). When seen together, the unemployment and NEET rates suggest that youth are facing extreme difficulties in the labour market, compounded by a lack of experience and prolonged unemployment [163].

[23] Not in employment, education or training (NEET)

A deeper look at the structural problems of youth unemployment suggests that the South African educational system remains unequal and fragmented. Yet, comparing the inequality in rural and township areas with urban settings, inequality is increasingly becoming less race-based and more reflective of economic status [165].

5.5.2.5 Challenges with further education to mitigate unemployment

Although further education helps mitigate against being unemployed, a third of graduates in this age group (33,1%) were unemployed as of the first quarter of 2020, an 8,5% increase from the previous quarter[24].

Various arguments have been put forward as to what contributes to graduate unemployment. Early studies suggest that undergraduate programmes often do not provide practical career management skills that will allow students to navigate entering the world of work [166]. Whether this remains a problem is unclear, as many South African universities have since initiated specific work-readiness programmes. Nevertheless, a recent study noted that South African universities appear not to be engaging all the known levers associated with Employability Development Opportunities (EDOs). Engaging all the levers is essential to creating the overall positive effect associated with EDOs. These opportunities include the curriculum (how well it prepares the student); exposure to work experience (authentic workplace exposure); personal development planning (identifying achievements and learning from experiences); career development learning (access to career information, advice and guidance); engaging in real-world activities; and extracurricular activities (active participation in a community) [167]. This is congruent with others who have called for improved mapping of graduate and employer expectations by academics to increase a graduate's employability attributes [168].

[24] This number reflects pre-COVID-19 lockdown employment conditions. It highly likely the number will increase given the economic impact of the pandemic.

The graduate unemployment problem may have several systemic roots as well. For example, a study of final year students at a rural South African university identified six systemic factors believed to influence the employability of their graduates. These factors included the graduate's socio-economic background; the legacy of a poor basic education system; alignment of the curriculum with employer expectations; a student's choice of institution; and access to social networks or connections that can aid in securing work [169].

5.5.2.6 Entrepreneurship strategies

Entrepreneurship strategies are central to addressing youth unemployment, despite mixed outcomes in the past. Several authors have noted how important it is to build a culture of entrepreneurship and sustained entrepreneurial development. This can be achieved, in part, by addressing young people's attitude and motivation towards starting a business and teaching them how these businesses are supported by various government departments and agencies [170, 171, 172]. Promoting entrepreneurial thinking in schools and post-school institutions will go a long way to accomplishing this. Barriers to creating a thriving business must also be removed or mitigated barriers that hinder [173, 174, 174].

The current draft of the National Youth Policy for 2020-2030 proposes that as part of dealing with economic impact of the COVID pandemic, youth should be encouraged to transition from thinking about seeking employment to thinking about entrepreneurship. be While on the face of it this is a good suggestion, various South African studies among in-school youth have identified a low appetite for entrepreneurship. This is partially due to a high level of risk-aversion and an unrealistic expectation of high incomes possible with a post-school qualification. Other challenges include access to substantial start-up capital, critical business skills and long-term support.

Clearly, encouraging young people to pursue an entrepreneurial venture is a key component to addressing youth unemployment. However, such ventures are inherently risky, require a fair degree of innovation, the ability to work independently as well as a level of confidence that the business will be successful.

Box 18. Developing entrepreneurship at school level

A recent study identified several insights around what could be done at school level to promote entrepreneurial activity among youth. Firstly, while both short- and long-term participation in entrepreneurship development does increase entrepreneurial activities, longer-term programmes that include mentoring, the narration of success stories and reworking of learning outcomes to include innovation and creativity are more effective.

The researchers recommend making entrepreneurship development compulsory for Grade 10 to 12 learners. The curriculum should cover business planning; business improvement and rescue; problem-solving; networking; finance and financial management; creativity and innovation; mentorship; design-based learning; reflection exercises; team development; value creation; market research and field research. This would require teacher development, access to learning resources as well as practical opportunities for learners to apply their knowledge in real-world settings [175].

Extensive and ongoing community engagement to enhance youth awareness of and orientation to entrepreneurship should also be on the agenda [176].

5.5.2.7 Responding to the Fourth Industrial Revolution

The fourth industrial revolution (4IR) is already underway with technologies doing work that could previously only be done by people. The 4IR is driven by developments such as independent automation, virtual and augmented reality, applying big data and the use of artificial intelligence. While these may seem very distant from the world of most South

African schools, schools can still open learner's eyes to this new world by emphasising key 4IR skills such as creativity, critical thinking and problem solving within their curriculum.

Specialists in the field point out that promoting 4IR-readiness in schools is less about access to high-end technology and more about developing the skills relevant to the context. For example, computer coding as a school subject is only helpful if it leads to innovative, creative and critical thinking, which in itself relies on a learner having a broader sense of practices and trends related to the use of technology.

While the 4IR brings with it additional demands, many of the skills required for 4IR are built on the basics of existing education such as the three Rs or the four Cs. Reading well and a good grasp of mathematics therefore remain imperative. Similarly, critical thinking, creativity, collaboration and community are also crucial to navigating this new world [177]. Taking a global perspective, the World Economic Forum has identified what it believes are the ten most important skills required to thrive in a 4IR world in 2020 [178]. These are:

1. Complex problem solving
2. Critical thinking
3. Creativity
4. People management
5. Coordinating with others
6. Emotional intelligence
7. Judgement and decision making
8. Service orientation
9. Negotiation
10. Cognitive flexibility

These skills require considerable intentional planning within the education system for it to respond effectively, and will require extensive collaboration between the private sector, non-governmental organisations and government. However, this does not mean that schools cannot take the lead to start promoting the required skills within their existing curricula – they can start now and do not need to wait for national, provincial or district strategies to be handed down to them [177, 179].

Box 19. Helping schools with 4IR readiness

Equipping learners to navigate the 4IR has little to do with access to high-end technologies and is more about developing key skills that can be used to leverage that technology. Some suggestions are:

- Start early in primary school and use the whole curriculum (not just mathematics and science) to promote the critical skills needed for thriving in a 4IR world (see list above).
- Promote a growth mindset and address barriers that relate to individual characteristic such as suitability and gender – avoid framing 4IR as being relevant only to a few.
- Promote pursuing these 4IR skills as part of a movement to improve people's lives and not about technology simply replacing people. For example, the difference between Facebook and a manufacturing robot.
- Use technologies to develop and integrate critical skills during learning, making it a means-to-an-end and not the end in itself. For example, learning computer coding versus applying computer coding to solve a real-world problem.
- Ensure access to high-speed reliable internet to facilitate interaction with others and learning.
- Develop the teacher's subject knowledge and ability in teaching the required 4IR skills.

5.5.2.8 Funding post-school education

Before examining funding post-school education, it should be kept in mind that even if every applicant was funded, there are a finite number of seats available in post-school institutions. The availability of post-school education falls well short of both international benchmarks and national targets.

Access to post-school education is a complex matter – due as much to a lack of capacity in physical and human resources as to funding. Funding a student's studies only addresses part of the problem, albeit an important one, in terms of accessing post-school education.

Half (51%) of youth aged 18-24 cite not having money as the main reason why they are not engaging in post-school education. Many of those who are able to enter higher education

will continue to face various financial challenges as highlighted in the Fees Must Fall movement. In response, the National Student Financial Aid Scheme (NSFAS) moved to cover more students as well as to provide funding for a wider range of needs.
While these changes do add value, some have questioned if NSFAS is experiencing a benefit-creep that will ultimately impact its already precarious financial position. These sustainability concerns can only increase given the negative impact of the COVID pandemic on the economy, institutions and students in general. Recent statements by several student representative councils rejecting fee increases for 2021 add to this pressure.

Private sector and government funding of bursaries and scholarships have also been an important lifeline for many students. In the wake of the Fees Must Fall movement, many came forward to support students either directly or through institutional funds. Again, with the economic impact of COVID likely to be felt until 2030, it is reasonable to assume that these funders will be making smaller contributions given their own fiscal constraints.

This scenario means that addressing post-school education funding cannot be viewed in isolation. Identifying funding sources, applying and complying with their rules is only part of the guidance needed. Learners also need to be prepared to manage the transition to further and higher education institutions and the new academic demands this will place on them, while simultaneously navigating the many socio-economic obstacles in their life.

This being said, with the limited seats in post-school institutions, alternative and productive educational pathways to meaningful employment must be explored and developed if the scale of the problem is to be successfully addressed.

Box 20. The importance of prioritising career guidance

Within the South African context of poverty and inequality, many young people are desperate to find a way to improve their lives and believe that further education has a major part to play in that goal. Yet it is easy to lose sight of the individual impact when addressing the challenges of career guidance.

Many of those who want to pursue further education or have already enrolled in programmes have little sense of what career they are best suited for, what their chosen career path looks like and the nature of the job market they will be entering. Moreover, adolescents are expected to make many of these critical career decisions with long-term implications when they themselves are still developing cognitively and emotionally.

The consequences of getting it wrong are severe for youth from poor communities. These include significant financial and emotional distress for the student and their family when studies are not completed, or unhappiness in a chosen career and poor job performance. It is worth emphasising that this distress can be significant for poor families, many of whom anticipated being supported by these young adults when they take up their careers, and who frequently rely on older children to help younger siblings pursue their own studies. All this can greatly affect the mental health of those involved, with research indicating that suicidal behaviour of young people in higher education is greater than among the general population.

The cost of such failed attempts is also significant on a non-personal level. This can be measured by major direct losses due to the expense associated with poor academic progression, as well as by the consequent congestion in institutions. Not only does this make the South African education system inefficient, over time it also effectively reduces the number of opportunities that can be made available to others, notwithstanding a growing demand for more opportunities [180].

5.5.3 The experience of violence

5.5.3.1 Gender-based and Intimate Partner Violence

Gender-based (GBV) and Intimate Partner Violence (IPV) are major concerns in South Africa. As discussed in previous sections it presents repeatedly as part of the complex interwoven challenges associated with poverty, degraded family relationships and negative cultural practices. As shown in Figure 8, GBV covers a range of physical, psychological and sexual acts.

Figure 8. Acts associated with Gender-based and Intimate Partner Violence

Physical	Psychological/ emotional	Sexual	Controlling
Beating	Insulting	Any type of unwanted sexual attention– harassment	Isolating from family and friends
Biting	Yelling	Touching sexual parts of the body	Monitoring movements
Kicking	Recalling past mistakes	Touching in a sexual manner against the will of the person, for example kissing, grabbing or fondling	Restricting access to financial, employment or healthcare resources
Restraining	Constant criticism	Forced sexual intercourse– rape	
Pulling hair	Expressing negative expectations	Use of a weapon to force the person into a sexual act	
Choking	Humiliation	Forced prostitution	
Throwing objects	Denying opportunities	Sexual trafficking	
Using weapons	Discriminating		
Homicide			

Adapted from: Open University, 2011 [181] and World Health Organisation, 2012 [182]

A meta-analysis of international data has found that GBV is more prevalent in east and southern Africa, with younger adolescent women being at a greater risk than older women. This includes forced sexual debut [183]. South African data is congruent with these findings, with women being particularly vulnerable in the transition from late adolescence and early adulthood (18-22 years). Yet this type of violence has already been found in Grade 8 adolescents, with 12% of girls having experienced IPV and 16% of boys reporting using violence against their girlfriends. Against this backdrop it has been repeatedly reported that over a third of South African adolescent girls have experienced forced sexual initiation [184].

Effective approaches to GBV can take the form of both primary and selective interventions. Primary interventions concentrate on the underlying attitudes, norms and behaviours that support GBV in a community, as well as on the role of the bystander. Data from high-income countries suggests that primary interventions are best delivered in school, colleges and universities. One challenge for school interventions is distinguishing between bullying and GBV behaviours, suggesting that the two should be addressed concurrently. Furthermore, the advantage of school-based programmes is their ability to address early relationship skills and dating violence as well as to increase the willingness of bystanders to safely intervene.

Selective interventions are more focused on key populations that are either at risk of victimisation or perpetrating violence. Given that the majority of GBV is perpetrated by boys and men, these interventions typically focus on them. One area that is gaining more and more attention is the missed opportunities for early identification and assistance amongst at-risk youth. This seems apt in the South African context given the data of adolescents in conflict with the law, where there is a clear spike in violent crimes in late adolescence, including rape and murder.

Finally, it has also been suggested that outcomes for intervention programmes should be developed with affected communities and that these programmes should be more flexible and agile to deal with ongoing social changes, driven in part by social media platforms. Improved programme monitoring to understand how things unfold in the real-world is also needed [185].

Box 21. Outcomes associated with effective intimate partner violence programmes

A meta-analysis of IPV programmes found that effective interventions focus on the following outcomes [186]:

Behavioural outcomes

- Social skills
- Non-violent conflict resolution
- Violence
  - Perpetration/experience of sexual violence
  - Perpetration/experience of intimate partner violence/dating violence
  - Perpetration/experience of bullying
  - Perpetration/experience of sexually aggressive behaviour
  - Perception/experience of harassment
  - Level of marital discord
- Gender equitable behaviour
  - Girls enrolment in school
  - Age at marriage
  - Shared decision making
- Protective behaviours
  - Help seeking
  - Bystander intervention
- Sexual and reproductive health
  - Early sexual debut/coerced sex
  - Transactional sex

Attitudes/ skills/ self-efficacy outcomes

- Gender equitable norms
- Rejection of rape myths and victim blaming
- Perception that IPV is not a private affair
- Intolerance of IPV and sexual violence
- Approval of healthy timing and spacing of births
- Ability to resolve couple disputes non-violently
- Self-efficacy dealing with sexual coercion
- Intention to intervene
- Perceived parental competence

Knowledge outcomes

- Violence risk and protective factors
- Ability to label rape scenarios as rape
- Awareness of risks/consequences of intimate partner sexual violence (IPSV)
- Contraceptive knowledge
- HIV prevention knowledge

- Multiple sexual partners
- Use of health services, for example voluntary counselling and testing, and contraception
- Condom/contraceptive use
- Diagnosing sexually transmitted infections, including HIV
- Unwanted pregnancy

5.5.3.2 Experience and effect of violence

From the Optimus study it is known that South African children have a high exposure to violence. One third of children have experienced violence within their family, with girls being more likely to have had this experience. Violence outside the home is even more dire with over two-thirds of children reporting having been the victim of violent behaviours [80].

A more recent South African study of an urban population between birth and 22 years found that only 1% of respondents had not been exposed to violence in their lifetime. Notably, 40% of respondents were exposed to or experienced multiple types of violence, in other words they were polyvictimised. This indicates that there are few safe spaces at home, at school or in the community. The Optimus Study established that the prevalence of violence in rural areas was generally lower than in urban areas, but ultimately prevalence remained high.

South African children tend to habitually behave violently towards others as well. This problem is already evident among pre-school children with over half reporting aggressive and bullying behaviours. From there the individual experience of violent behaviour escalates over the school years to reach 89% in late adolescence. As adolescents' transition to adulthood, the frequency of experiencing violent behaviours declines. However, the nature of the violence becomes more serious as perpetrators become more likely to use

weapons such as guns or knives, hurt an intimate partner, force a person to have sex with them, or beat up and rob someone [187].

One recent South African study examined the cumulative psychological effect of exposure to violence among adolescents. The study discovered different effects for distal (community) and proximal (such as in homes and schools) environments. Exposure to violence in distal environments appears to increase hopelessness, depression, anxiety, perceived stress, and suicidal ideation. These feelings are likely to result in an enduring sense of not being able to avoid the risk of victimisation. This can lead to chronic emotional arousal, which is associated with the adverse mental health outcomes described. In contrast, proximal exposure was more strongly associated with depression and anxiety. The study further confirmed that girls were more vulnerable both to being a victim and to the effects of victimisation. It should be further noted that girls are more vulnerable to these effects irrespective of the level or type of exposure to violence [188].

Box 22. Preventing violence

Various international and national organisations support the use of the social-ecological model (SEM) to develop violence prevention programmes [189, 190, 191]. The model explores four levels to reduce risks and increase protective factors in developing an effective intervention strategy:.

Individual:	Personal, biological, behavioural, experience factors that increase the likelihood of being a victim or perpetrating violence. Interventions may include addressing child maltreatment, treating mental illness, avoiding substance use, developing conflict resolution and other practical life skills.
Relationship:	Close relationships that increase risk of experience or perpetrate violence. This includes family, peers and other influencers. Interventions may involve parenting and family-focused programmes, mentoring by positive role models, and promoting healthy relationships.

Community: Settings or institutions in which social relationships that are linked with being a victim or perpetrator of violence take place. Interventions may include reducing social isolation, improving economic and housing conditions (overcrowding and living environment), addressing the environment in schools and workplaces, as well as stopping local drug and gun trade.

Societal: Broader factors that build acceptance of or reduce tolerance for violence, such as cultural norms (gender-based and child-based); health, economic, education or social policies; and factors that sustain social inequalities.

Practical application of the social-ecological model

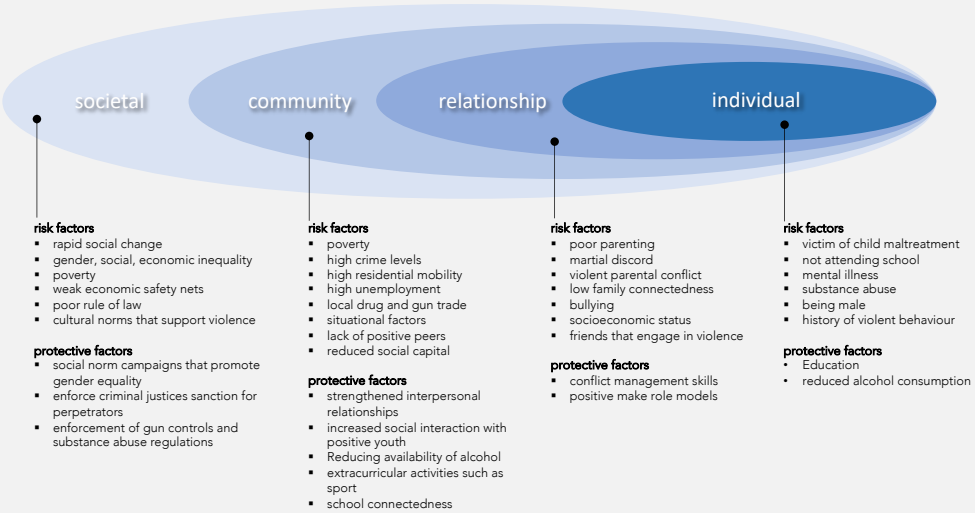
The social-ecological model can be used to map and assess strategies, as shown in the example below.

Level	Activity/Strategy (Planned or Current)	What risk factor/s does this reduce?	What protective factor/s does this increase?
Individual			
Relationship			
Community			
Societal			

Source: Centre for Disease Control and Prevention, 2020 [189]

The figure below illustrates some of the factors that could be considered in the above table.

Examples of violence risk and protective factors in a social-ecological model



Based on: Children's Institute, 2019 and World Health Organisation & Violence Prevention Alliance, 2020

The Centre for Justice and Crime Prevention has used the SEM to identify nine resilience factors to reduce violence amongst South African youth [190].:

1. Keep adolescents engaged and interested in education.
2. Engage boys as a key population to reduce vulnerability to and influence of deviant peers.
3. Promote non-violent resolution of disputes in family environments.
4. Avoid exposure to anti-social and criminal role models.
5. Substance abstinence.
6. Interaction with non-delinquent peers (peers not in conflict with the law and school-going).
7. Reduce experience of victimisation.
8. Address neighbourhood factors such as access to weapons.
9. Intolerance to violence and anti-social behaviour.

5.5.3.3 Non-Natural Deaths

Statistics South Africa reports that 61% of non-natural deaths in 2017 for the age group 15-29 is due to accidental injury[25] (excluding transport accidents), followed by assault at 23% and transport accidents at 10%. Accidental injuries typically include burns, drowning, poisoning, electrocution and suffocation. Male deaths due to non-natural causes was significantly higher during this time (57%) compared with females (18%) [192].

The need to address inter-personal violence between males as well as GBV and IPV has been stressed for some time [193]. However, given the deterioration in the prevalence of violence and GBV, the effectiveness of national and local programmes in particular can be questioned.

[25] Statistics South Africa uses a classification system based on the International Classification of Disease (ICD-10) system. Accidental injury (as classified under W00-X59) includes falls, exposure to inanimate mechanical forces (for example being struck by a thrown object), exposure to an animate mechanical force (for example being hit by another person), accidental drowning, accidental threat to breathing, exposure to current, radiation, extreme temperature or pressure (for example contract with electric transmission lines).

Table 13. Late adolescence

Factor	OR Tambo	Eastern Cape	National
Population aged 15-19	68 000 people 4% of district population 41% of provincial population aged 15-19	165 000 people 3% of provincial population 4% of national population aged 15-19	4 760 000 people 8% of national population
School attendance ages14-17 2018 [24]	–	74,7% in secondary school 94,4% in an educational institution	85,5% in secondary school Up from 76,4% in 2014 9,7% in other education Down from 19% in 2014 4,8% not attending any education
Reason for not attending school 16-18 years [25]	–	–	28,7% no money for fees 11,1% viewed as completed or satisfied with level of education
Received textbooks for all subjects [24]	–	–	79%
Repeat grade [24]	–	–	10,7% boys are more likely to repeat
Drop-out rate	–	–	Grade 10: 15%. Grade 11: 24% Grade 12: 48%

Factor	OR Tambo	Eastern Cape	National
Reason for not attending school 16-18 years	–	–	**28,7%** no money for fees **11,1%** viewed as completed or satisfied with level of education
Grade 12 pass rate 2020	–	**76,2%** Free State highest 85,1% Norther Cape lowest 66%	**76,2%** Admission to Bachelor's Degree 36,4%
Grade 12 mathematics 2019	–	–	**54,5%** achieved 30-100% 222 034 learners wrote final 15,9% fewer learners than in 2015
Grade 12 physical science 2019	–	–	**75,5%** achieved 30-100% 164 478 learners wrote final 14,8% fewer learners than in 2015
Grade 12 accounting 2019	–	–	**78,4%** achieved 30-100% 80 110 learners wrote final 42,9% fewer learners than in 2015

Factor	OR Tambo	Eastern Cape	National
Public Higher Education Institution enrolment 2016	–	–	**975 837 students** NDP 2030 target 1, 6 million 203 076 graduated 2016 29% with science and technology 28% with business and management
TVET college enrolment 2016	–	–	**705 397 students** NDP 2030 target 2,5 million 111 460 completed 2016 47% with engineering-related studies
National drop-out rate undergraduates for diplomas and degrees 2016 cohort [194]	–	–	**23,1%** after one year **34,6%** for the cohort NSFAS student cohort with DHET funding: 22,4%
National graduation rate for diplomas and degrees 2016 cohort [194]	–	–	**58%** for the cohort NSFAS student cohort with DHET funding: 68,9%
Unemployment rate people aged 15-24[26] (2016/2020*)	**54%** official definition **62,4%** expanded definition	**54,2%** official definition **65,1%** expanded definition	**59%** of age group*

[26] Official definition: a person is unemployed if he or she is (a) without work, (b) available to work, and (c) actively seeking work. The expanded definition excludes criterion (c)

Factor	OR Tambo	Eastern Cape	National
NSFAS [195]	–	5% from North West Highest KwaZulu-Natal: 24%	604 114 beneficiaries 61,4% female 84,2% African
Non-natural deaths 2017	14% of all deaths* Highest in province	11,9% of all deaths/ all ages	31,2% of all deaths people aged 15-19 Down from 44% in 2007 61,2% accidental injury** 23,2% assault** 10,5% transport accidents**

* Not all recorded deaths were allocated to a specific district
** Population aged 15-24 years

5.6 EARLY ADULTHOOD (20-30 YEARS)

Transitioning from adolescence to early adulthood marks the point where a person would be expected to finalise their post-school education and training, attempt to enter the labour market and start longer-term and more intimate relationships. As detailed in the previous sections, South Africa faces severe challenges that start to culminate at this life stage against the backdrop of intergenerational poverty and inequality. These challenges are often experienced as an inability to gain meaningful employment, limited opportunities for post-school education, inter-personal violence as well as poor access to basic health and social services.

Given that previous sections have considered early actions in areas such as school performance, post-school education, pregnancy, family connectedness and parenting, this

section will mainly focus on unemployment mitigation and the reduction of communicable and non-communicable diseases.

5.6.1 Addressing the high unemployment rate among youth

The youth unemployment rate in South Africa peaks above 60% between the ages of 20 and 25, with young women being more vulnerable to unemployment than men. While such statistics helps convey the magnitude of the problem, they fail to account for the experience of unemployment both in duration and personal impact. Keeping this in mind, this section explores additional insights beyond those usually cited in terms of quality of education, labour market dynamics and economic challenges.

5.6.1.1 Risks associated with the duration and exiting of youth unemployment

In 2015, the first empirical study to examine risks linked to black youth unemployment in South Africa was published. Evidence from this study provides some key insights into the risks broadly associated with unemployment duration and exit [197]. More specifically, these insights contextualise initiatives outlined later in this section and which reference priorities, such as gender, without providing the underlying dynamics that may need to be addressed.

Age and gender

- The younger the individual (both male and female) the more likely they are of exiting unemployment.
- Failure to find a job or invest in their education will result in extreme difficulties to exit unemployment later in life.
- The younger the individual the more likely they are to be self-employed as a means of survival due to the lack of wage-employment opportunities for new jobseekers.

- Men are significantly more likely to be self-employed due to traditional gender roles of ensuring income for their families.
- Women are more likely to exit into higher education. This is possibly due to women striving to overcome gender-based barriers by investing in education.

Education

- Individuals with a higher education find it more difficult to transition into wage-employment than workers with matric or incomplete schooling. In other words, they struggle the most to exit unemployment and move into wage-employment.
- Women are more vulnerable to the aforementioned experience greater difficulties finding a job.
- Individuals who do not complete their schooling or who leave school with a minimal National Senior Certificate are more likely to exit unemployment into self-employment as the route to further education route is blocked[27].

Married and children

- Having a child does not affect the duration of unemployment significantly.
- However, the presence of a child is significant for unemployed women who are exiting to wage-employment and higher education, and having a child is associated with an overall lower probability of exiting. This risk is not true for men.
- Married individuals are considerably more likely to be self-employed and have short unemployment durations before transitioning to self-employment. This may be due to the pressure of securing an income for their households.

Additional income

[27] The authors of this 2015 study suggest this finding supports the push hypothesis put forward by Moore and Mueller, which states that if the only jobs being created are for individuals with further education, those who are do not pursue this course will be forced to move into self-employment. If applicable, this has a range of implications for entrepreneurial education and initiatives aiming to encourage graduates to pursue self-employment.

- The presence of an additional income earner in a household significantly lowers the probability of women exiting unemployment. This disincentive effect is not as significant among men.
- Having an additional income earner in a household has a noticeably positive impact on exiting into higher education.
- Individuals are less likely to transition to self-employment from unemployment in the presence of an income earner in the household.

Work experience

- The duration to wage-employment is significantly reduced by previous work experience for both men and women.
- Prior work experience reduces the likelihood of exiting unemployment to higher education.

Location

- Individuals who lived in Gauteng from age 12 have statistically shorter durations of unemployment.
- Individuals in Gauteng enjoy more wage-employment and education opportunities.
- Women have significantly longer unemployment durations in Limpopo, KwaZulu-Natal and the Eastern Cape.
- Men in Limpopo have a markedly longer period of unemployment.

Duration

- The longer the duration of unemployment, the lower the conditional probability of leaving unemployment.
- Unemployment does not self-correct over time and requires active intervention.

These insights start to give some context to understanding the dynamics at play when pursuing the macro-level interventions proposed to reduce youth unemployment.

5.6.1.2 Looking beyond the labour market

Factors that affect unemployment outside the labour market by and large fall within three areas – community, household and personal. These factors are typically rooted in the persistent legacy of apartheid. For example, because of apartheid planning the majority of poor and low-skilled people live in communities situated far from work opportunities. Further compounding this is the high cost of transport and communication, which either prevents jobseekers from finding employment or significantly reduces their income from employment.

Another barrier for many young people is access to information, particularly given the availability and cost of online resources. In a similar vein, many poor young people do not have access to the same social capital available to their counterparts who leverage their social networks to facilitate entrée to the labour market.

Notwithstanding these barriers, young people are attempting to leverage opportunities by engaging in opportunistic or seasonal informal trade and forming community support groups that identify work opportunities and help with job applications. While the latter is a positive development, qualitative data suggests that many people who are actively seeking work have unrealistic expectations of the jobs they qualify for and what they should earn. On an individual level, young people, especially women, also often get waylaid by taking on household responsibilities, which limits their participation in the labour force.

Repeatedly engaging with these barriers and still not being able to secure work has a considerably negative impact on youth. Not only does it increase the likelihood of a sense

of hopelessness, depression and anxiety, it can also lead to risky behaviours such as transactional sex, substance abuse and criminal activity [198].

5.6.1.3 Labour market interventions

Since the election of the first democratic government in South Africa, there have been a multitude of studies, plans and reports around the question of intervening in the labour market to reduce the high unemployment rate. As expected, the context of the labour market and unemployment has evolved, particularly with increasing digitalisation and the arrival of the fourth industrial revolution. This section takes a broad look at what has been put forward by various authors to countermeasure unemployment in South Africa.

Higher quality and equal access to education: As discussed at length, in the first four life stages there are a multitude of challenges surrounding equal access to quality basic education. This remains a persistent and social ill that starts in early childhood. Moreover, where race was previously the key determinant of access to quality education, a child's socio-economic status is increasingly becoming the primary factor in rural and township communities.

Rapid, sustained and inclusive economic growth: Such growth must aim to address deficiencies in the demand for low-skilled labour. As already stated, the labour market is currently still largely creating a demand for occupations that require advanced qualifications and experience.

Implementation of active labour market policies: These policies seek to rapidly increase the demand for youth labour. A youth wage subsidy, such as the South African Revenue's Employment Tax Incentive, being one example. This type of incentive is expected to have a big impact on unemployment at a relatively low cost (R28 000 per job created in 2011),

it goes hand-in-hand with other hurdles, including deadweight losses (funding people who would have found work regardless) and substitution (replacing a productive older worker with a lower cost young worker).

A pro-youth employment mindset: This covers a broad spectrum of practices that assist youth entering employment for the first time. These involve offering workplace experience, improving screening and selection tools to take disadvantaged candidates into account, and providing on-the-job training, mentoring and coaching in the workplace. Outside organisations can support this process by mitigating employers' fears and helping youth to fully demonstrate their potential [199, 200, 198].

Box 23. Creating opportunities youth need for education and career success

While there may be many pathways to education and career success, they typically have four components in common:

1. **Re-engagement:** Identifying youth who have disconnected from the education system or their career on a local level, understanding their needs and working closely with them to help access resources that can assist in overcoming barriers.

2. **Sustaining educational momentum:** Helping school learners and post-school students identify and reach key educational milestones linked to their longer-term education goals early.

3. **Connecting youth to future workplaces:** Helping youth gain relevant work experiences and build networks that can facilitate their entry into their chosen career. This applies to e post-school students and school-going learners alike.

4. **Developing youth as part of a community:** Building leadership among youth to boost their social and individual needs and help them become productive members of their communities [201, 198].

Box 24. The COVID pandemic's impact on unemployment in 2020

In the third quarter of 2020 the official unemployment rate stood at 30,8%, up 7,5% from the previous quarter, while the expanded unemployment rate climbed to 43,1%. These increases are, for the most part, driven by the effect of the COVID pandemic. Statistics South Africa has been monitoring this impact through additional questions in the Quarterly Labour Force Survey (QLFS) starting in the second quarter of 2020. These questions cover issues such as place of work, change in salaries, returning to the same job and the possibility of losing a job.

The expanded QLFS showed that third quarter employment decreased by 10,3% year-on-year. The largest loss was in the informal sector (18%) followed by households (12,9%). While all industries were affected, manufacturing, utilities, construction and trade suffered the greatest losses. In terms of occupations, those most affected worked primarily in lower skilled occupations and were generally twice as likely to become unemployed. The Eastern Cape and Limpopo provinces shed the most jobs during this period, while North West lost the least.

For those who remained employed, youth aged 15-34 were marginally more likely not to have been paid during the national lockdown. Workers with lower levels of education were more likely to receive reduced salaries than those with higher levels of education.

The number of people (aged 15-64) who were not economically active increased by close to 2,5 million people, a 16% increase year-on-year, indicating that more people have stopped looking for employment [202].

5.6.1.4 The pre-COVID response to deal with high unemployment

Prior to the COVID pandemic the South African Government (SAG) was working at a national and local level to boost employment opportunities. The following list summarises government's key interventions [203]:

- A national framework agreement with the National Economic Development and Labour Council (NEDLAC), concluded in 2018 [204].
- The Youth Employment Service (YES) which aims to create one million work opportunities for youth. The service is accessible via a dedicated portal[28] servicing both businesses and youth [205].
- An Employment Tax Incentive (ETI) that provides a cost-sharing mechanism to reduce an employee's Pay-As-Your-Earn (PAYE) deduction [206].
- The Amavulandlela Funding Scheme for entrepreneurs with disabilities and who own over 50% of a small to medium-sized enterprise. It offers credit facilities ranging from R50 000 to R5 million which must be repaid with five years [207].
- The Public-Private Growth Initiative is a broad commitment to invest R840 million by 2024 in 19 sectors to create 155 000 jobs.
- The Expanded Public Works Programme (EPWP) creates work in the infrastructure, non-governmental, environment, culture and social sectors to develop community assets and provide services. The programme, currently in Phase IV, has set a target of creating over five million work opportunities[29] by 2024. Of these opportunities, 55% should target youth aged 16-35 [208].
- The Jobs Fund was established in 2011and was specifically designed to overcome barriers in accessing public funding for enterprise development, infrastructure investment, support for work seekers and institutional capacity building. To this end it seeks to stimulate good ideas, risk-taking and investment to discover new ways of working focusing on a pro-poor impact. This is principally delivered through sustainable job creation [209].

[28] https://yes4youth.co.za

[29] A work opportunity is paid work created for an individual on an EPWP project for any period of time. The same person can be employed on different projects and each period of employment will be counted as a work opportunity.

- The recently developed Clothing and Textiles Master Plan aims to create 121 000 new jobs in this sector by 2030, using various social compacting actions.
- The Poultry Master Plan seeks to address a number of challenges in the sector to expand contribution.

In the wake of COVID, the SAG resolved to not just return the economy to its pre-COVID state but to forge a new economy in line with emerging global realities. This commitment is set out in its economic reconstruction and recovery plan and reviewed in the next section.

5.6.1.5 National COVID pandemic recovery plan

In October 2020, the SAG set out nine priority interventions as part of its economic reconstruction and recovery plan. These are:

1. Aggressive infrastructure investment – focusing on developing for network industries, the modernisation of freight and public transport. Empowerment of women, young people, people with disabilities and military veterans will be strengthened while promoting competitiveness and resilience.
2. Employment orientated strategic localisation, reindustrialisation and export promotion – by focusing on economically depressed areas, ventures that create large numbers of jobs including low-skill jobs, leverage existing capacity or competitive advantage and industries that support innovation.
3. Energy security – by addressing the need for an adequate and secure energy supply using various strategies for augmenting supply.
4. Support for tourism, culture and creative industries recovery and growth – through a three- phased approach of re-igniting demand, rejuvenating supply and enabling capability.

5. **Gender equality and economic inclusion of women and youth –** by transforming patterns of asset ownership and income distribution. Empowerment interventions for women include 40% of procurement set aside, closing the pay-gap, ensuring participation in key sectors, access to assets such as land and financial inclusion. In general, it is hoped that women, youth and people with disabilities will participate in the form of cooperatives in key sectors such as retail, agriculture and agro-processing, financial services (cooperative financial institutions), manufacturing and infrastructure development. These aims will be underpinned by a skills building initiative.
6. **Green economy interventions –** including retrofitting public and private buildings such as schools, human settlements and clinics. Other high impact priority areas include support for the Traditional Authorities Demonstration Project and waste picker integration and revitalisation.
7. **Mass public employment interventions –** building on existing EPWP programmes and the implementation of the Presidential Youth Employment Intervention (PYEI) (see Box 21).
8. **Strengthening food security**.
9. **Macro-economic interventions**.

Box 25. The Presidential Youth Employment Initiative

Announced in February 2020, the PYEI seeks to create over two million jobs for unemployed youth aged 18-35. This will be accomplished through further education and training, skills development, employment, work experience, entrepreneurship, or youth service. The PYEI lists five priority actions:

1. **Building a national Pathway Management Network –** to help young work seekers to tap into available learning and work opportunities. A range of support services and work-readiness training will help them navigate into employment and other economic opportunities. In practical terms,

this means that youth can signal their skill sets to potential employers who, in turn, are helped to find the right young people to match the jobs they have to offer.

2. **Implementing agile, demand-led workforce development programmes –** that allow young people to develop the capabilities required to take up new opportunities in growth sectors such as global business services, digital and technology, tourism, agriculture, and social services.
3. **Supporting the township and rural economy –** by creating inclusive markets in opportunity areas such as the food economy, the green economy, health, and education. Enable self-employment and enterprise through systemic enablers such as connectivity, public infrastructure and market access in addition to direct enterprise support and financing. In reality, though, entrepreneurship is not an untethered driver for employment – it requires a set of skills, experience and a host of connections. This implies that youth will need strong guidance as well as exposure to simple yet powerful connections.
4. **Providing opportunities for workplace experience –** particular for TVET college students with the assistance of the Youth Employment Service (YES). Lessons learnt from corporates and young people using YES should be applied to increase its efficacy.
5. **Revitalising the National Youth Service –** through which young people can meaningfully contribute to their communities, develop the critical skills required to participate effectively in the economy, build confidence and expand their networks and social capital [210, 211].

The first large scale recruitment drive in this initiative started in the last quarter of 2020 and will see 300 000 youth receive a R3 500 per month stipend to work in schools as assistants to help strengthen basic education [212]. Over time it is envisaged that the programme will expand to involve 15 national departments across all provinces.

Box 26. Digitisation and job creation in South Africa

While the advancement of technology is potentially disruptive, it also offers an enabling set of circumstances that can create a critical opportunity for job creation and economic growth in South Africa. Global comparisons suggest that to achieve this growth South Africa should be leveraging technology to improve productivity and innovation.

The pace of this change is faster than most people expect and will significantly change long-held beliefs around education, employment and how sectors operate. Job losses will ensure as existing work practices are transformed, while new jobs will be created to manage new operations. On the whole, past experiences with digitalisation suggest that outcome should be a net gain in employment. However, these net gains are sector specific with healthcare and social assistance; construction, professional, scientific and technical services; and educational services leading the way. The greatest net losses will be felt in the retail trade; administrative and government; manufacturing; transport and warehousing sectors.

While these disruptions are often perceived negatively and associated with job losses, the primary challenge appears to be employers failing to manage the transition from current skills to future jobs with their employees. As discussed, employability is not just about having an in-demand skill for the current situation (as critical as that may be). In a broader and more sustained sense employability also needs a support system that allows people to adapt quickly to changes in the labour market. Repurposing, reskilling and retraining then must be in keeping with demand, while bearing in mind that many of these new jobs will require more advanced skill levels than the jobs displaced.

To navigate these demands, workers, work seekers and students should:

- embrace lifelong learning that is intentionally aligned to sectors indicating future growth. This requires stopping and assessing a current position relative to future demands, and this entails access to information and opportunities for further reskilling;
- developing skills that hone behavioural capabilities and mindsets such as leadership, problem solving and communication (see the 4IR section in the previous life stage); and
- be entrepreneurial, either through owning a business or being ready to take the initiative, foster innovation and move organisations forward.

At an organisational level, a future strategy geared towards innovation (over efficiency alone); taking a long-term view in planning for future skills; and adapting to future expectations of employees and ways of working is recommended [213].

The above insights around the impact of digitisation again accentuate the importance of a longer-term developmental approach that both engages with the upstream educational challenges in schools and their response to 4IR, and envisions the mindset and support systems required to maintain life-long employability.

5.6.1.6 Rural youth and unemployment

It has already been said that rural youth are disproportionally affected by unemployment compared to their urban peers. This may be due not only to a lack of access to relevant work opportunities, but also because they lack the information needed to transition into adult life and the labour market (see the previous life stage on career guidance and planning). In light of this, to address the lack of opportunities and its negative outcomes, interventions should focus equally on expanders (factors increasing opportunity) and enablers (factors that help youth to capitalise on opportunities).

Various small South African studies conducted over the past ten years should be considered when trying to get a sense of how to engage with these factors. These studies point to various issues that include experiences and perceptions regarding unemployment, matching employment aspirations, relevant skills and work experience, access or affiliation to support networks and barriers to accessing a desired job [164].

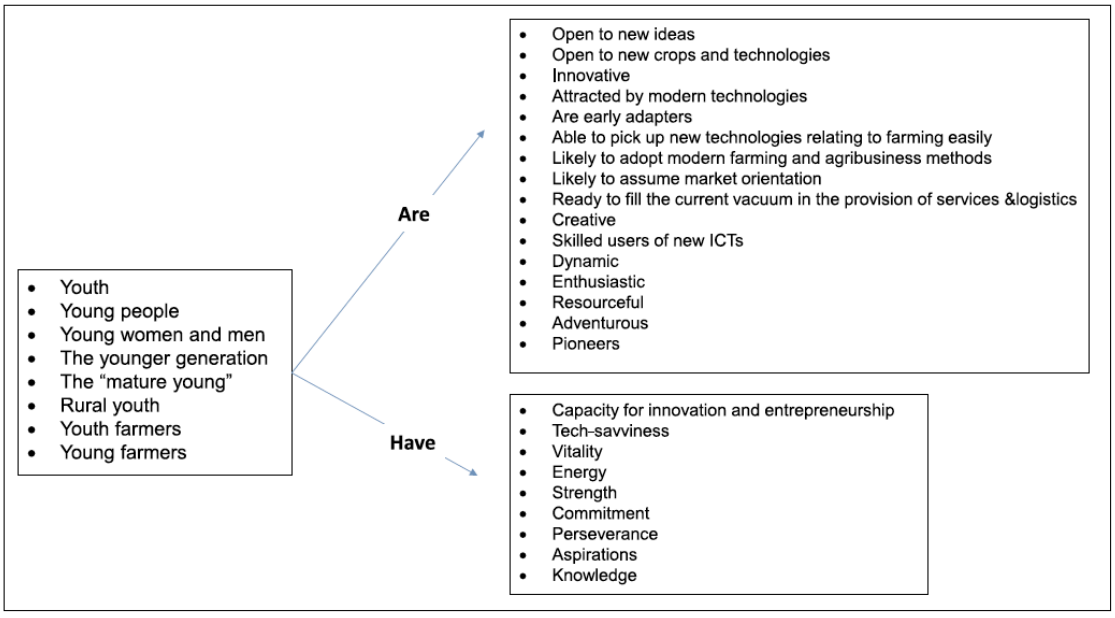
Many organisations and governments tend to respond to these challenges by expressing a set of commonly held views about rural youth. Rural youth, they say, present a significant opportunity for rural development provided they are better educated and encouraged to use more sophisticated agricultural technologies, pursue commercial agriculture and expand non-farm rural enterprises. However, such views are increasingly questioned based on evidence which, although it points to some degree of transformation in this direction,

in practice, the idea that rural youth are in a better position to act is seldom found. Moreover, there is often little difference seen between youth and older adults [214].

While there is no fundamental disagreement as to the severity of obstacles rural youth are faced with, several authors are beginning to critically question the essentialist thinking[30] associated with delineating and responding to these challenges. Many of these well-intentioned responses lack evidence and there is a growing call for development agents to prioritise the rigorous assessment of claims made about rural youth so as to focus on their own and their implementing partners' actions [215, 216].

To further illustrate the problem with ungrounded claims leading to a course of action, a recent study compared the language used by influential development organisations regarding rural youth with the available evidence. As shown in Figure 9, while the language used implies a high degree of confidence or knowing, many of the claims made could not be backed up.

Figure 9. Language used to construct claims around rural youth



Source: Sumberg & Hunt, 2019 [215] [redo for layout copy]

[30] Is a view that every entity has a set of necessary or essential attributes that create its identity and function.

Speculating why such language is used by stakeholders, the authors of the study suggest these statements can be politically symbolic or expedient; intentionally defensible with the use of modifiers such as some, many or tend to be; or are aimed to counter negative perceptions around youth. While this may be well-intentioned, the planning assumptions that arise could waste the limited resources available to assist rural youth by giving rise to impotent interventions. The impact of such decisions not only casts a long shadow on the development community due to a lack of meaningful change, but also often prevents more effective alternatives from gaining traction [217].

Box 27. Evidence-based recommendations for rural youth employment in Africa

In late 2019, the International Fund for Agricultural Development (IFAD) published seven concrete recommendations for investing in rural African youth based on evidence it collected [216].

1. **Invest in agriculture –** The number of youth participating in farming is expected to continue growing, opening the door for those not involved in farming to engage in the non-farm agri-food system[31]. Investment should include expander and enabler factors with a focus on [sic] what is of interest to youth. Investment should also concentrate on productivity to increase the returns for rural youth. Looking to the future, climate-resilience-enhancing investments will be key to sustained growth.
2. **Invest in young women –** The involves early actions including investing in basic and further education, delaying marriage and children. That said, interventions should be available for women who are already affected because of lower education and childcare.
3. **Invest in continued education and skills development –** A key component is promoting further education for all rural youth. Non-cognitive out-of-school programmes to develop capacity must not be left behind. Similarly, attention must be paid to the evolving nature and opportunities of agri-food systems, which may require revisiting curricula and strengthening education systems.
4. **Invest in facilitating transitions –** Rural to peri-urban and urban migration is a significant and often used mechanism for improving the livelihoods of youth and their families. Strategic investments to

[31] This includes a number of rural systems such as manufacturing or agri-processing facilities, schools, healthcare, social services, infrastructure, local services and small business that support the agrifood-system.

facilitate this transition are important[32] and the challenges of youth wanting to transition from agricultural work into other sectors with higher renumeration, must be taken into account as well. While this may be a smaller group, it may be particularly beneficial as these youth could potentially see higher returns than those possible in the agricultural sector.

5. **Invest in an enabling environment –** Significant improvement and progress is associated with improved governance, enabling policies and financial investments.

6. **Invest in opportunities that offer good prospects for a large number of youth –** There is a need to take into account the need for work that pays well while offering decent working conditions and benefits. Although entry into the labour market may not deliver high wages or extensive benefits initially, it is a steppingstone towards better future jobs. A good job for youth is therefore one that offers better prospects for future income and career development. Consequently, investments should focus on creating jobs that offer good prospects for as many youth as possible.

   Care should also be taken when investing in programmes targeting youth entrepreneurs. Current evidence suggests this is not a good pathway for creating sustained rural youth employment because of the high failure rate of these ventures. Nevertheless, evidence points to investing in more robust entrepreneurial ventures that prioritise employing rural youth instead.

   Finally, those who are unemployed should receive continued education and skills development to support their future prospects of employment. Moral support to prevent them from becoming despondent and giving up on finding employment should also be offered. Both actions will require investment.

7. **Invest in data and knowledge generation –** Data for youth, and rural youth in particular, is limited, making this an important area for investment to better understand how to respond to the needs of youth. Specific attention should be given to new metrics that help to understand the quality of jobs, appropriateness of skills and experiences gained, how helpful networks are being created as well as what is offered for better prospects.

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[32] South African studies have shown that will youth often migrate to urban or per-urban areas without having any real prospects for employment. This attempt at gaining an income will frequently be funded from limited household incomes– typically from social grants which significantly impacts the whole family. Rural youth will often find themselves settling in informal communities far from employment opportunities. Compared to their urban counterparts, rural youth are less likely to successful negative finding work. Collectively these factors make migrating rural youth particularly vulnerable to violence and substance abuse.

5.6.2 Reducing the burden of disease

The concept of the burden of disease was developed in the 1990s by the Harvard School of Public Health, the World Bank and the World Health Organisation to describe death and loss of health due to diseases, injuries and risk factors. This burden has ramifications not only for the health of individuals but also for the wellbeing of communities and the availability of basic resources. In simple terms, the higher the total burden, the greater the cost to the country in terms of healthcare (secondary and tertiary care being more expensive). Likewise, the impact of large numbers of people being chronically ill, disabled or dying for example in transport accidents also comes at a high cost.

By studying the burden of disease[33] populations-at-risk (key populations) can be defined, interventions can be prioritised to help lessen the impact, and emerging trends for early intervention can be identified. South Africa has for this reason been actively studying its burden of disease through institutions such as the South African Medical Research Council.

These efforts have also led to improved data collection to better understand the situation. This helps to gain insight into how the proportion of a particular disease, in terms of overall burden, changes over time. Such changes typically reflect improved prevention and management of disease, social changes as well as population growth and aging. One example is the impact of the HIV epidemic as a leading cause of death among black South Africans, and the positive effect that large-scale access to antiretroviral treatment has had on reducing HIV-related deaths.

While the concept of burden of disease may be relatively new, in South Africa the underlying concept has been a major concern for healthcare advocates going back as far as the pre-apartheid era. The basis for this longstanding concern is, unsurprisingly, the high

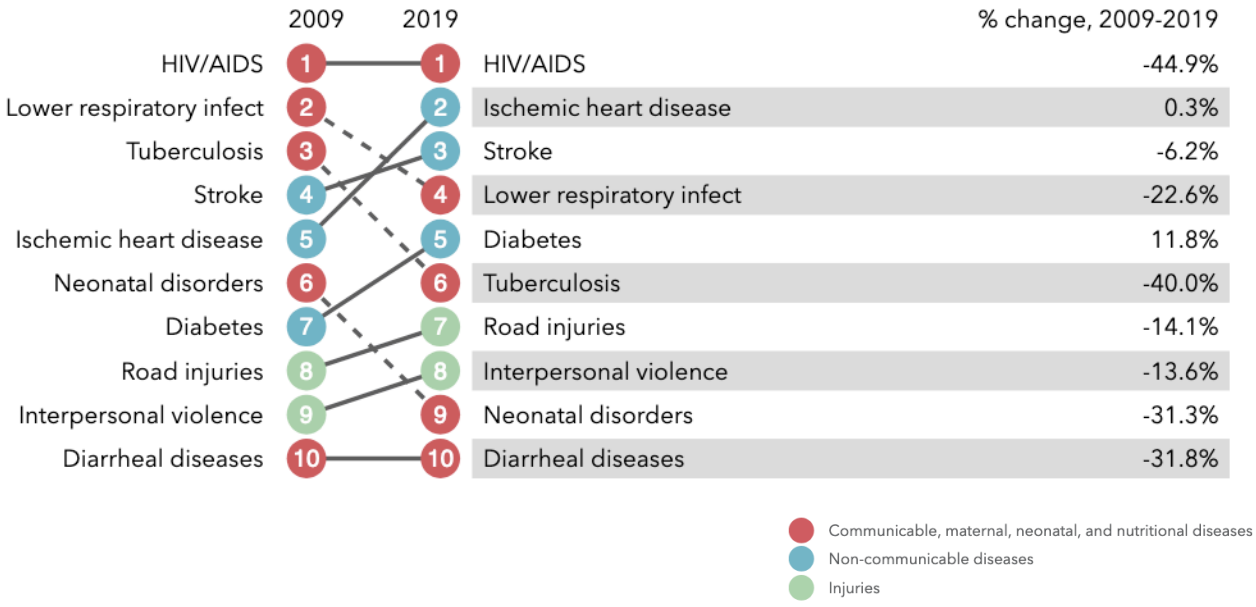
[33] Often the burden of disease is divided into communicable diseases (CD) such as HIV and AIDS or Tuberculous, which can be transmitted from one person to another, and non-communicable diseases (NCD) that typically relate to an individual risk such as an unhealthy lifestyle leading to heart disease or diabetes.

levels of unemployment and poverty, and its impact on the health of the majority of South Africans. Given this situation, the fundamental challenges to better health had already been labelled as 'social pathologies' in the late 1940s – what may today be understood as wicked social problems [218].

5.6.2.1 South Africa's burden of disease

A newly published series of studies examining the burden of disease in 194 countries, including South Africa, has provided key insights into both the current situation and long-term future scenarios [219, 220]. Starting with the top causes of deaths, Figure 10 shows the comparative changes in South Africa between 2009 and 2019.

Figure 10. Most common causes of death in South Africa – 2009 and 2019

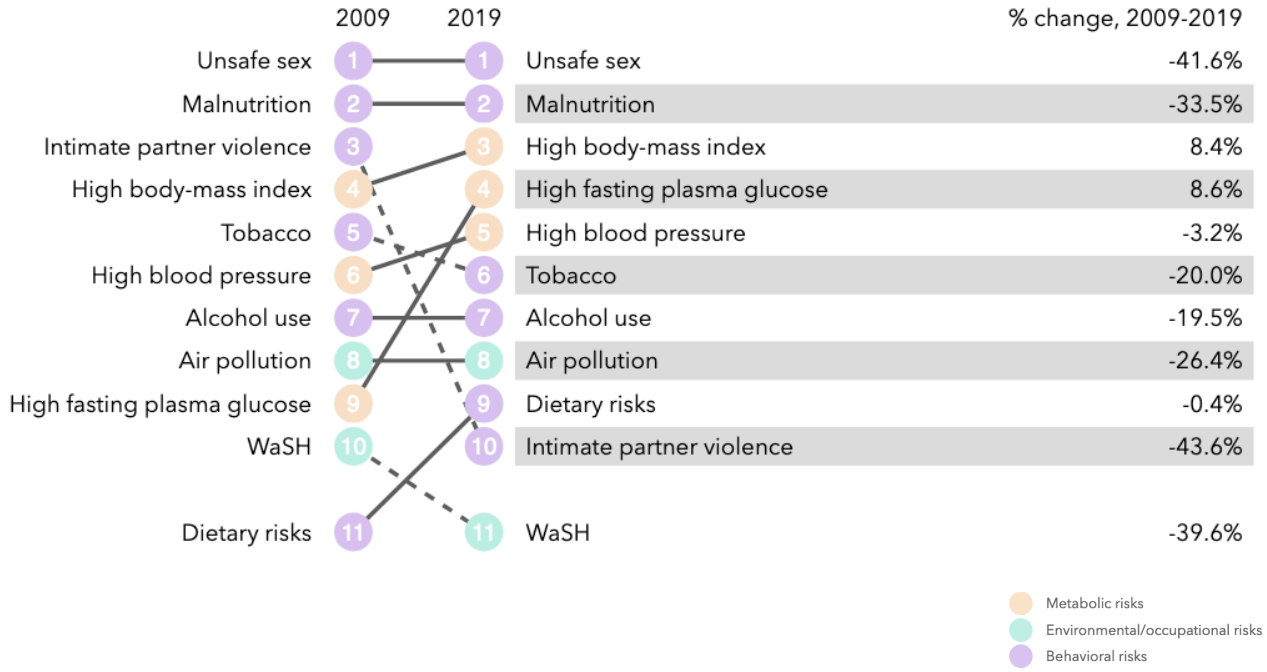


Source: Institute for Health Metrics and Evaluation, 2020 [221] [redo for layout copy]

Figure 10 reflects multiple changes over the ten years. Most causes of death declined as a percentage change. In terms of ranking, HIV-related deaths remained unchanged while five other causes became proportionally higher overall contributors.

Within these shifts, non-communicable diseases (NCDs) are becoming increasingly significant as HIV deaths continue to drop. Within this changing dynamic, public health specialists are now sounding the alarm around the rise of multimorbidity – people who have both HIV and an NCD. Indications are that people receiving antiretroviral treatment are more likely to have cardiovascular events, hypertension, osteoporosis, renal impairment, diabetes mellitus, depression and neurocognitive disorders. In high burden areas, this multimorbidity challenge is increasingly being seen in younger people, with some studies showing the effect as early as adolescence. Thus, particular attention should be given to prevention programmes and screening of youth for NCDs [222]. Figure 11 shows both the combined risk factors and the changes these programmes would have to address.

Figure 11. Combined risk factors associated with the burden of disease – 2009 and 2019

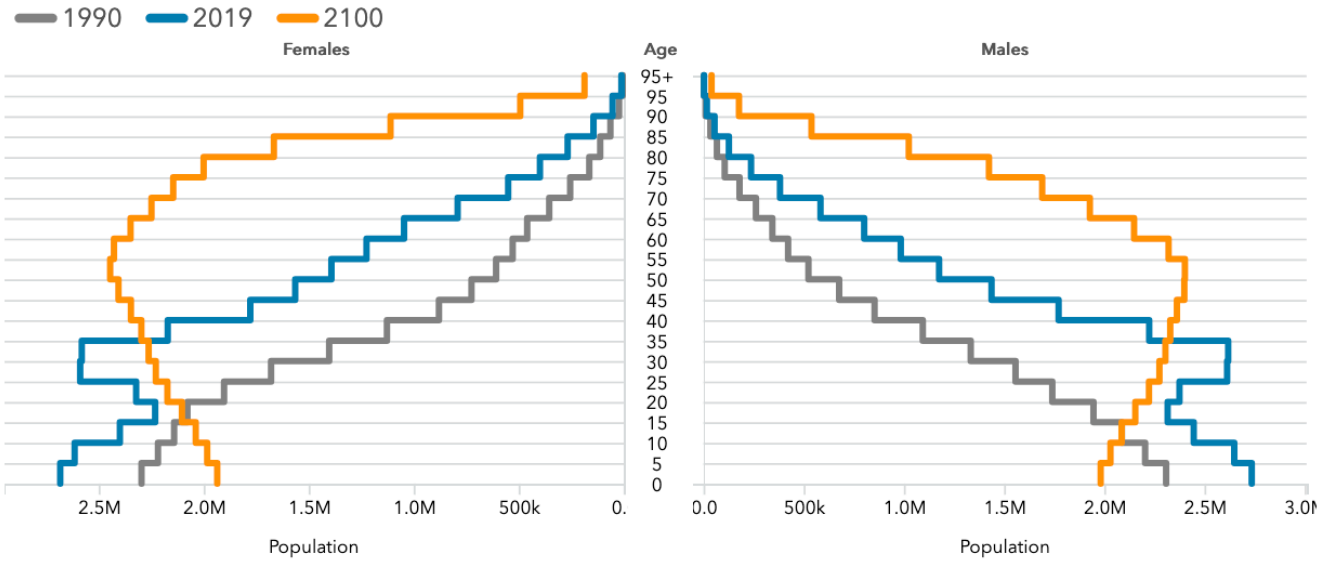


Source: Institute for Health Metrics and Evaluation, 2020 [221] [redo for layout copy]

As can be seen in Figure 11, many of the burdens of disease have lifestyle risk factors. As discussed previously, taking early action to prevent these risk factors from materialising is crucial given that, while they may not be major causes of disease in adolescence initially, the effect will be seen later in adulthood.

Alongside multimorbidity, a further concern emerges – that over time the current youth bulge in the South African population will be replaced by a significant upsurge in the population of older people. This again stresses the importance of laying the preventative foundation to manage the health and wellbeing of a significantly older population, as shown in Figure 12. While this problem may seem far off, it bear in mind that children born in 2020 will form part of that older population by 2100.

Figure 12. Change in age patterns – 1990, 2019 and 2100

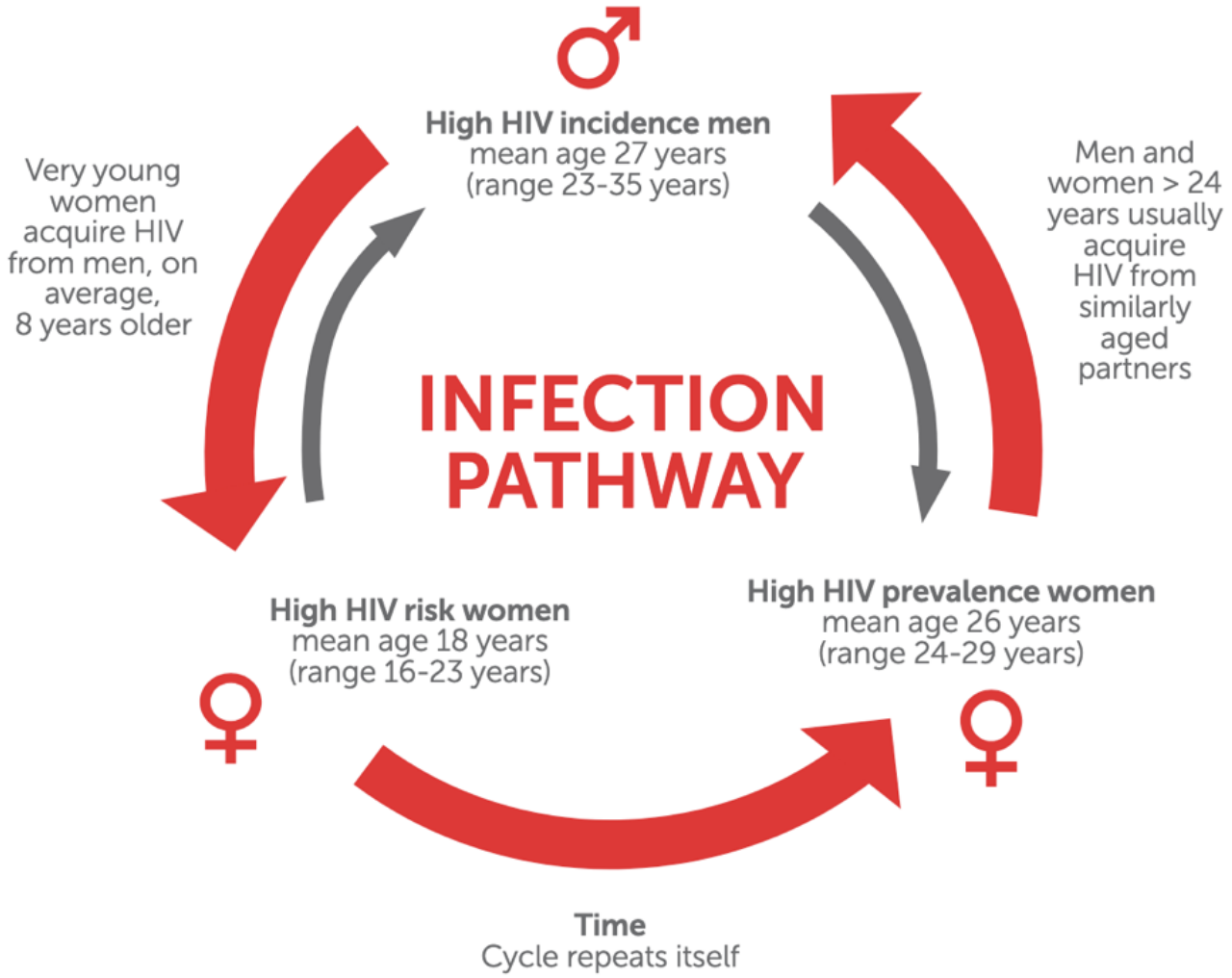


Source: Institute for Health Metrics and Evaluation, 2020 [221]

5.6.2.2 HIV, AIDS and TB prevention and management

The highest HIV burden in Limpopo is found in the Capricorn and Mopane districts. This changes for TB to the Greater Sekhukhune and Waterberg districts. Reducing the HIV burden requires targeted prevention to break the cycle of transmission. As can be seen from Figure 13, the cycle of transmission is largely within the population aged 18-35 years.

Figure 13. HIV infection pathway and targeted prevention



Source: South African National AIDS Council, 2018 [223]

The current National Strategic Plan for HIV, TB and STIs sets out several interventions to achieve this break in transmission. These include achieving the 90-90-90 target for HIV and TB, which essentially translates into 90% of infected people being well-managed; scaling up comprehensive sexual education and linking sexual reproductive health services; and achieving the elimination of mother-to-child transmission of HIV [223].

Box 28. Goals of the National Strategic Plan for HIV, TB and STIs

The National Strategic Plan for HIV, TB and STIs sets out eight goals that broadly address prevention, treatment, targeting key and vulnerable populations, social and structural drivers, grounding responses in human rights, promote leadership, mobilise resources and strengthen strategic

information. These goals are matched to five critical enablers – social and behavioural change communication, building social systems, integration of interventions and services, strengthened procurement and adequate human resources.

A key element of the national strategy are the 90-90-90 targets to be achieved by all districts in both HIV and TB. These targets are defined as follows.

90-90-90 targets for HIV	90-90-90 targets for TB
▪ 90% of all people living with HIV will know their HIV status; ▪ 90% of all people with an HIV diagnosis will receive sustained antiretroviral therapy; and ▪ 90% of all people receiving antiretroviral therapy will achieve viral suppression.	▪ 90% of all people who need TB treatment are diagnosed and receive appropriate therapy as required; ▪ 90% of people in key and vulnerable populations are diagnosed and receive appropriate therapy; and ▪ treatment success is achieved for at least 90% of all people diagnosed with TB.

5.6.2.3 Non-communicable disease prevention among youth

Reducing the impact of NCDs is one of the Sustainable Development Goals. With 35% of the global NCD burden originating in adolescence, early actions to address the risk factors, such as those shown in Figure 12, are a critical step in prevention. That said, ongoing engagement is required as the transition from adolescence to adulthood sees a significant increase in the prevalence of the risk factors among young adults.

The risk factors of tobacco and harmful alcohol use increases significantly in early adulthood compared to late adolescence. Not only is there a major increase in use, but studies indicate that tobacco use among young people has remained essentially constant in the last ten years. This notwithstanding, extensive measures having been implemented to reduce tobacco use. However, the limited measures implemented to reduce alcohol use, such as high taxation, have had little impact on changing harmful behaviours.

Additionally, risks related to an unhealthy diet are growing as more and more South Africans eat poorly balanced high calorie diets. This must also be viewed against the backdrop of increasing levels of physical inactivity among men (48%) and women (63%) aged 25-35 [224]. The negative outcomes are largely predictable as shown in Figure 14 below.

Figure 14. Modifiable risk factors – South Africans aged 25-35

Modifiable risk	Men	Women
Overweight or obese	31%	58%
Hypertension	24%	20%
Diabetes	5%	5%
Elevated LDL cholesterol	29%	33%

Within the health system, NCD prevention strategies follow an individual and population-based approach. In terms of the latter, the National Department of Health points to changes in the Tobacco Products Control Act, tougher regulations on alcohol and food, including limiting trans-fats, reducing sodium (salt), a sugar levy and improved food labelling (front-of-pack). The national strategies also address air pollution and cover a vaccination programme for human papilloma virus (HPV) as a primary prevention for cervical cancer, aimed at girls aged nine [225].

A challenge in implementing these population-level strategies is that they require cross-department collaboration between multiple national and provincial government agents as well as local authorities. It is well documented that calling for collaboration and integration is not sufficient to create a substantial on-the-ground effect (as can be seen from previous discussions on challenges with the Integrated School Health Policy or enforcing alcohol and firearm regulations). Therefore, an argument can be made for active engagement at a community level to meet the objectives of these important preventative strategies.

The WHO suggests that interventions should help young people better understand NCDs and the risk factors associated with various lifestyle choices and behaviours. To aid in this understanding youth should have a leading role in programme design, which should in part ensure access to accurate and relevant information through youth-appropriate channels [226]. At a macro-level, this approach can be encapsulated as:

- Taking a life course approach which allows for interventions at multiple stages throughout life, from childhood through adolescence to adulthood.
- Following an inclusive approach to youth development and empowerment [227].

5.6.2.4 Mental illness as part of the non-communicable disease burden

Individual and community factors that impact mental health are of major concern in the previous life stages. Keeping in mind an estimated 15 to 20% of young people suffer from a mental illness, the total number of people affected is significant.

The most prevalent mental illnesses in South Africa fall under mood disorders, trauma- and stress-related disorders and anxiety disorders. These disorders are also associated with suicide ideation and linked to the high rate of suicide among young people [228].
A major driver for these disorders is probably South African's direct and indirect experience of violence. Few black and coloured South Africans, and in particular women, have not experienced violence in their home by an intimate partner, at school or within the communities they live by the time they reach adulthood.

Research also indicates that a large proportion of patients being treated for NCDs present with a mental illness such as depression but will, by and large, not receive treatment for the latter. The prevalence of mental illness as a comorbidity is likely due to the relationship

between NCD risk factors (tobacco use, alcohol abuse), poor dietary habits and mental health. Over and above this, multi-morbidity scenarios in the context of HIV management also require attention (refer to Section 7.6.2.1). In light of this, there are growing calls from public health specialists for pro-active monitoring and better integrated care models at a primary level of care [229, 230, 231, 222].

5.6.3 National response to gender-based violence and femicide

The transition to adulthood marks a greater risk of violence leading to serious injury or death. Women are significantly more affected with studies showing over one in three women (38%) have experienced sexual or intimate partner violence. In 2018/19 over 41 500 cases of rape were reported in South Africa. A further 52 420 cases of sexual offences were reported in the same period, of which 46% were children. There are also strong indications that people in positions of trust, such as policemen and teachers, are increasingly the perpetrators of this violence.

A major concern raised in the National Strategic Plan on Gender-Based Violence and Femicide is the failure to protect, support and attain justice for the survivors. Several steps are needed to address this current failure, including:

- Strengthening local community-based organisations that provide social services for women and children.
- Counteracting beliefs that domestic violence is a family matter and not a crime.
- Ensuring emergency care services and the police are well equipped to deal with victims and the requirements for collecting evidence. This includes both their approach to victims and access to facilities.
- Making the court process more conducive to meeting the needs of victims.

- Providing shelters that offer emergency accommodation for women and their children, with a particular focus on the critical lack of such shelters in rural communities [232].

Box 29. Violence experienced by the LGBTQIA+ persons[34]

This form of violence is specifically directed at people who are perceived to be part of the LGBTQIA+ community. Victimisation can include multiple incidents over a person's life. Partially fuelling this violence is the belief that homosexuality is un-African. Similarly, LGBTQIA+ youth are often rejected by family and denied affirming care from health and social service providers as well as support from the justice system [232].

It has been suggested that these deep biases form part of a 'hidden curriculum' based on socially held misconceptions that include homosexuality being a product of western culture (it is foreign to African culture), an emotional or mental illness or caused by depravity of moral values. Another fallacy is that people are seduced into becoming homosexuals, that it is contrary to a religious worldview and so discrimination is justified (in the same way slavery, racism, child abuse, domestic violence and sexism was/is justified) [233].

Illustrating the impact of these misconceptions, a 2018 report by the Gender Health and Justice Research Unit notes factors that constrain cases of violence against LGBTQIA+ people reaching court, among them safety concerns, a lack of support and familial homophobia, prejudice at entry points and perceived inefficiencies of the criminal justice system. For those cases that do reach court, a victim's sexual orientation and gender identity is not disclosed or not identified as a bias-motivated crime [234].

Findings from a recent study in rural South Africa mirrors these challenges for LGBTQIA+ youth and access to healthcare. This study confirmed that homophobia, stigma and discrimination can be considered social determinants of health that affect physical and mental health outcomes both in health seeking behaviours and the quality of care received [235]. While IPV in South Africa is not

[34] Lesbian, gay, bisexual, transgender, queer, intersex, asexual plus all other sexualities, sexes and genders

limited to heterosexual relationships, given the largely heteronormative focus around IPV, there is scant evidence to help unpack IPV in LGBTQIA+ relationships and develop effective prevention and support programmes [236].

Table 14. Early adulthood

Factor	OR Tambo	Eastern Cape	National
Population aged 20-30 years [4]	257 000 people 17% of district population 27% of provincial population aged 20-30 years	969 000 people 14% of provincial population 9% of national population aged 20-30 years	10 314 000 people 17% of national population
Gender 20-30 years [4]	50,3% male 49,7% female	50,5% male 49,5% female	50,6% male 49,4% female
Any post-school qualification	4%	4,5%	6%

As seen in Table 14, there is a high concentration of people within this age group in the district. In addition, the low percentage of post-school qualifications (4%) should be compared to post-school education attendance in Table 15 (47%). These figures indicate that while almost half the people in this age group are engaged in post-school education, only one in 12 will attain the qualification they are studying towards.

Table 15. Early adulthood unemployment

Factor	OR Tambo	Eastern Cape	National
Unemployment official definition 15-24 [6]	64,3% 64,6% for females	59,5% 62,7% for females	52,4% 57,8% for females
Unemployment expanded definition 15-24 [6]	79,7%	73%	64,3%
Accessing post-school education [18]	-	-	11,6% 50% higher education 31% TVET colleges
Attending educational institution age 20 [28]	47,5%	46,8%	45,2%
NEET 2011 [6, 29]	30,5%	32,9%	32,2% in 2011 34,1% in 2020 35,9% female 32,2% male
Education level of unemployed	-	-	No matric: 54,8% Matric: 35,4% Post-school: 6,8% Graduates: 2,3%
Women aged 15-24 who have given birth to a child [28]	35,5%	30,8%	28,8%

The high levels of unemployment among this age group (see Table 15) are significantly higher than national and rural figures. While women are typically disproportionately affected by unemployment, women in OR Tambo are no more affected than their male counterparts. Of further significance is the district NEET rate that is in line with both the

provincial and national rate. However, the district NEET rate has probably increased in line with the national figure due to the effects of the COVID pandemic.

Table 16. Growth factors associated with employment

Factor	OR Tambo	Eastern Cape	National
Gross domestic product (GDP) growth 2020 [33]	1%	-0,8% 1st quarter 2020 -1,8% 4th quarter 2019 Lowest GDP per capita	0,7% 2,7% in 2001
Capital expenditure public sector [237]	-	R477 million decline in 2019 19,2% decline from 2017/18 Department of Education spent less	231 billion in 2019 Highest 2016: 283 billion
Employment by tourism [238]	-		2,9 million people employed in 2018 2,8 million in 2017
Tourism share [250]	–	6% of international visitors Highest: Gauteng at 32,1% 6,4% domestic Eastern Cape, Free State and KwaZulu-Natal domestic visitors spend most in province 7% of total economy 2018	3,2% of national GDP Projected to increase to 3,5%

Factor	OR Tambo	Eastern Cape	National
Mass public employment through the EPWP [241, 242]	–	115 600 work opportunities five-year target province achieved 173% of target municipalities achieved 35% of target 97% of opportunities provided without training R90 million allocated	997 286 work opportunities in 2018/19 994 110 work opportunities targeted for 2020/21

Table 17. Burden of disease – top ten underlying causes of death 2017

Underlying cause	Eastern Cape Provincial total ranked	Compared	National National ranking/ Total deaths
Tuberculosis	5 379 8,3% of total	=	1 28 678
Diabetes	3 488 5,4% of total	=	2 25 336
HIV and AIDS	3 411 5,2% of total	↑	5 21 439
Cerebrovascular diseases (stroke)	3 060 4,7% of total	↓	3 22 259
Other forms of heart disease	2 954 4,5% of total	↓	4 22 098

Underlying cause	Eastern Cape Provincial total ranked	Compared	National National ranking/ Total deaths
Hypertensive disease	2 884 4,4% of total	=	6 19 900
Chronic lower respiratory disease	2 750 3,9% of total	↑	8 13 167
Influenza and pneumonia	1 969 3% of total	↓	7 18 837
Other viral diseases	1 690 2,6% of total	↑	10 12 622
Ischemic heart disease	–	–	9 12 766

Source: Statistics South Africa, 2020 [192]

Table 18. Non-natural causes of death 2017

Underlying cause	National Total ranked top three	Eastern Cape % of provincial total
Accidental injury	34 325 67,1% of total	4 786 60,8% of total
Interpersonal violence	7 688 15% of total	1 844 23,4% of total
Road injuries	5 890 11,5% of total	808 10,3% of total

Source: Statistics South Africa, 2020 [192]

Table 19. Non-communicable disease prevalence 2018/19

2018/19	OR Tambo	Eastern Cape	National
Raised blood pressure 15 years and older	16,1%	20,5% Lowest: Mpumalanga 15,6% Highest: Northern Cape 26%	20,7%
Overweight and obesity 15 years and older	45,3%	48,1%	48.2%
Diabetes prevalence	7,4%	12,2%	10,6%
Diabetes treatment coverage	40,5%	34,6% Lowest: Western Cape 29,6% Highest: Northern Cape 46,1%	35,8%
Cervical cancer screening	73,2%	71,6% Lowest: Northern Cape 46% Highest: Mpumalanga 89,9%	65,1%
New PHC clients treated for a mental illness as percentage of total PHC clients	0,3% Lowest: 15 districts* 0% Highest: Mopani 4%	0,2%	0,4%

*May include districts that did not submit data.

Source: Health Systems Trust District Health Barometer 2018/19 [34]

5.7 MID-ADULTHOOD (30-60 YEARS)

During mid-adulthood the success of earlier actions to mitigate risks and promote a positive life trajectory become evident. However, this does not negate the need to continue with many of these actions. This section will briefly consider what these extended actions entail.

5.7.1 Sustaining employability

As noted, longer-term strategies to reduce unemployment must incorporate support systems that help workers to nimbly navigate changes in the labour market through access to employment-relevant skilling and reskilling. While the term life-long learning makes for a succinct sound bite, it fails to encapsulate the implications of such an endeavour for the majority of South Africans.

Perhaps the most striking concern is that a large number of jobseekers and workers in this age group cannot easily access the post-school education and training system. Although these systems do not preclude these individuals per se, there are self-evident constraints that must be overcome. Previous educational attainment or experiences, knowledge of relevant and in-demand skills, being able to find the required time to study while being employed, the ability to pay for further education and family commitments are some examples.

It could be argued that the SETAs actively offer sector-relevant workplace opportunities. However, it the SETAs place the bulk of their emphasis on youth gaining skills and experience to enter the labour market. The tools for this include apprenticeships, learnerships, candidacies and internships. Further to this, employers conducting in-house skills development programmes for the benefit of their employees tend to pursue short-term interests within the limits of their resources.

Early actions that can assist with this challenge encompass sharing critical information around in-demand skills, sharing opportunities for older workers to skill or reskill and providing educational support to older learners who may be studying towards new emerging jobs.

5.7.2 Mitigating the impact of non-communicable diseases

As the population ages, NCDs become more prevalent leading to ill-health, disability and early death. While health promotion and disease prevention activities remain important, efforts around early detection and optimal treatment must be strengthened. For example, ensuring a person with Type II diabetes is identified early, and receives and follows an effective treatment regime is critical to curtailing complications such as cardiovascular disease, loss of sight and amputations that could result in significant disability and death.

Public health specialists are proposing that South Africa should follow the Integrated Chronic Care Model of the World Health Organisation [224, 243, 244]. The model essentially advocates for more productive interactions between the health team and the patient to improve the outcomes of efforts in chronic disease management. This is achieved by ensuring the health team is prepared and proactive in their chronic care practices, coupled with the patient being informed and activated to co-manage their disease. A key aspect of this model is the understanding that support is not just facility-based but also occurs within the community, either in the affected person's home or through workplace programmes. Digital technologies to support self-management, social networking in affected communities as well as telehealth consultations can significantly strengthen and enhance the chronic care model [245].

Box 30. Burden of cancer in South Africa

Over 77 000 people are newly diagnosed with cancer in South Africa each year. These people will join the approximately 107 000 people being treated for cancer. The most common cancers in South Africa in 2018 were breast (13,1%), cervix (12, 1%) and prostate (11,6%). However, the highest number of deaths were due to lung (13,5%), cervix (9,8%), breast (8,2%) and prostate (7,7%) cancers [246]. Limpopo has the lowest cancer mortality rate in South Africa, while the Western Cape has the highest [247].

5.7.3 Gender-based and Intimate Partner Violence

In Sections 6.5.3 and 6.6.3 the early actions linked to GBV and IPV are discussed in detail. While women in this life stage remain vulnerable, certain factors may become more prominent such as having been in a longer-term relationship (affecting the duration of exposure and dependency), having the responsibility to care for children and the lack of further education, limiting work opportunities. This would imply that programmes to prevent GBV and IPV and support victims may need to adapt to better address the challenges mid-aged women are likely to face.

5.8 LATE ADULTHOOD (OVER 60 YEARS)

This life stage covers the period where a person transitions into being an older person with the associated needs that accompany advancing age. Statistics South Africa reports that as of 2020, the life expectancy[35] for women is 68,5 years and 62,5 years for men. This marks a significant improvement from the mid-2000s when HIV deaths reduced life expectancy by more than ten years. However, the impact of NCDs may again put life expectancy under pressure.

[35] Life expectancy is based on an estimate of the average age that members of a particular population group will be when they die.

The 2020 mid-year population estimates indicates that this age group has the highest growth rate in South Africa, growing from 7,6% of the total population in 2002 to 9,1% in 2020. This growth will continue to reach an estimated 15% by 2035. As such, 5,4 million South Africans are currently over the age of 60. Of these, 2,2 million are over the age of 70. The largest proportion of people over 60 live in the Eastern Cape (11,5%), with North West and Limpopo both at 9%.

5.8.1 A legacy profile

Many people in this age group reflect the legacy of apartheid. The profound differences between white and black South Africans are explored in this section.

5.8.1.1 Educational attainment among older people

Many black South Africans have no formal education and approximately half are functionally illiterate – they are unable to write their own name or calculate the change due to them after a purchase. Not only does this make daily tasks more difficult, it also makes these older people more vulnerable to exploitation.

5.8.1.2 Economic status of older people

Four out of ten older people in South Africa can be classified as poor. Limpopo and the Eastern Cape have a higher proportion of poor older people compared to other provinces. It is also worth noting that households headed by older women are more likely to suffer socio-economic deprivation.

An older person's economic status also impacts their access to healthcare. For example, as poor health and frailty set in, many in this group will start using chronic medication (38%) and need assistive devices. Compared to black and coloured people, older white people

have a disproportionate access to both chronic medication (58%) and assistive devices such as glasses, hearing aids and wheelchairs [248].

5.8.1.3 Living with family

More than half of older black people live in extended households. These living arrangements tend to include older women (60%) and are most prevalent in rural provinces such as Limpopo, the Eastern Cape, KwaZulu-Natal and Mpumalanga. That said, the trend since 1996 is towards older people living in single-member households, in other words, older people are increasingly living alone.

Where households are headed by an older person, over a third have five or more members. These households are more likely to be situated in traditional areas in rural provinces. This situation underscores the extent to which older people play a role in providing economic and social support to their significant others [248].

5.8.2 Madrid International Plan of Action on Ageing

The South African Government has committed itself to the Madrid International Plan of Action on Ageing introduced in 2002. Although the primary responsibility for the plan rests with government, implementation requires a collaborative effort with civil society partners.

The Madrid Plan of Action pinpoints three priority areas – older persons and development, advancing health and wellbeing into old age, and ensuring enabling and supportive environments. The plan also focuses on the impact of poverty, HIV and AIDS, retirement, social and economic exclusion, as well as the abuse of older people.

In 2005, the Department of Social Development (DSD) published its policy for older people to enact the Madrid Plan of Action [249]. An undated report by the DSD notes that there

has been significant progress made around the priorities of the South African policy. This includes a key piece of legislation in the form of the Older Persons Act, which sets out to promote the wellbeing of older people. However, challenges remain, including improving collaboration between stakeholders to mainstream the needs of older people in all relevant programmes, and improving the integration of services.

5.8.3 Challenges facing older persons

In 2015, the South African Human Rights Commission issued a report on older people. It identified the following problems affecting older people [250].

5.8.3.1 Access to social security

South Africans over the age of 60 who meet the Government's means test criteria are generally eligible to receive an old age grant. In 2020, this grant was set at R1 780 per month, increasing to R1 800 per month for people over the age of 75.

While helpful, the old age grant is not sufficient to address the levels of poverty experienced by older people, especially as they are often not only supporting themselves. Older people are a vulnerable group in themselves become responsible for other vulnerable groups in the community.

This problem is further compounded as many older people suffered economic exclusion during their productive working years. Additionally, older people are not included in government empowerment initiatives such as land ownership, further limiting their ability to generate additional income.

Notwithstanding these problems, the little income that older people receive through the old age grant often makes them vulnerable to abuse by financially dependent family members.

5.8.3.2 Impact of HIV and AIDS on older persons

The impact of HIV and AIDS on older people is twofold in that they may become the primary caregiver of orphaned children, and due to the lack of mainstream education for members of this age group who are still sexually active.

5.8.3.3 Older persons becoming primary caregivers

Given the many deaths caused by HIV and AIDS, older women often become the primary caregivers for the dependents of their own children who have died. These older people are frequently thrust into a dire situation of caring for children while they themselves are experiencing extreme deprivation. Beyond the grim financial impact, these people are also largely unprepared to assume the role of caregiver due to a lack of knowledge, support and access to resources.

5.8.3.4 Sexual health

Taking a closer look at the sexual health of older persons, it is evident that they are often not included in routine screening for HIV and other STIs and do not benefit from specific counselling or management protocols. This becomes especially apparent in programmes that focus on key populations, where the language and approach is inaccessible to older people.

5.8.3.5 Vulnerability to forced sex

A meta-analysis of studies conducted in South Africa has demonstrated that older women are particularly vulnerable to forced sex, rendering them highly susceptible to STIs including HIV [251]. To illustrate the magnitude of this problem, one rural Eastern Cape study found the prevalence of rape among older women as high as 20,7 cases of rape per 10 000 adult women per year.

Amongst all forms of reported abuse, a longitudinal study found that sexual abuse is the most prevalent form of older person abuse. That said, it has been suggested that physical abuse may be more prevalent in urban centres but not reported. In most cases the abuser is known to the older person and either lives with them or is a caregiver. These variations aside, living in a rural area and having a low socio-economic status are considered to be specific risks for sexual abuse of older women.

Notwithstanding the work already done, part of the challenge in addressing this social scourge is that the problem is still poorly understood, which hampers effective interventions. One way to address the aforementioned concern, especially with increasingly longer lifespans, is to view this life stage as a series of changes that occur over an extended period which may be as long as 30 years. This would challenge the view of older people entering a stable state that starts at retirement [252].

5.8.3.6 Older persons access to and utilisation of healthcare

Access to healthcare in South Africa for the poor is severely constrained due to the cost of access, lack of adequate transport (routine or emergency), long waiting times at facilities and stock-outs of medication.

A recent study highlighted several specific concerns for older persons accessing and utilising healthcare services. These include poor communication between provider and patient resulting in poor adherence to treatment and the lack of age-friendly and patient-centred services – such as delivering services based on routine care without considering unique individual factors, negative and unhelpful attitudes amongst staff, rushed consultations, poor continuity of care and failing to provide meaningful patient education [253].

5.8.3.7 Residential care facilities

It is estimated that South Africa has 1 150 older person care facilities. Of these, less than half (415) are registered with the Department of Social Development. Only eight facilities are state-managed and fully funded by government. The remaining facilities are mostly operated by non-profit organisations. In general, these care facilities report that government subsidies are inadequate to maintain minimum care. This is compounded by the late payment of subsidies by government departments. Government has also been criticised for failing to adequately monitor these facilities and ensuring the rights of its residents. Failure to ensure compliance has been associated with higher risks of inadequate care, neglect, abuse and death. There is thought to be a low-level of compliance with the stipulations of the Older Persons Act.

This distressing situation plays out against the backdrop of government encouraging South Africans to keep older people in communities for as long as possible to avoid costly institutionalised care. More so given the high growth rate of older persons in South Africa. This policy position by the Government is heavily dependent on the assumption that a large number of community-dwelling older people can access and utilise adequate and effective health, social and other basic services. This despite extensive evidence that most local health and social systems are ill-equipped to meet the needs of older persons. Moreover,

there is a growing trend that traditional family relationships where young members take care of older relatives are on the wane. More and more older persons and left to take care of themselves, increasing their dependency on well-functioning local systems.

5.8.4 End of life care in an aging population

As previously noted, life expectancy in South Africa is increasing and is likely to continue on this trajectory if risk factors for NCDs are effectively managed. This implies that not only will the South African population have a larger portion of older people, but they will probably live longer as well. This will dramatically increase the complexity of their health and social care, more so given the expectation that older people will receive community-based care for as long as possible before being institutionalised.
An international systematic review of end-of-life care in sub-Saharan countries notes that home-based care programmes in communities where local health and social systems are ill-equipped to support these programmes often result in home-based neglect [254].

With the previous section and above concern in mind, it is clear that the realities of caring for a population growing older using the limited resources on hand will require a concerted effort in order to strengthen local health and social systems and support community-based care.

6. THE METHODS USED TO CREATE THE PROFILE

6.1 WHY AN INTERACTIVE COMMUNITY PROFILE

An Interactive Community Profile (ICP) is an assessment tool used to understand communities, identify challenges, guide long- and short-term strategies and efforts to

improve, and to then allocate resources and funding where they are needed most. An ICP avoids the pitfalls of applying a narrow analytical approach to define neat technical solutions for individual elements of a complex social system and its difficult-to-solve problems.

Simply put, an ICP tells the story of a community. It focuses on making community challenges more transparent by applying integrated systems and design thinking to understanding development. This is achieved by building stakeholders' knowledge of specific problems and how they correlate with local community systems.

Coupled with a practical social design process, this ICP proposes ways of addressing challenges to derive better social returns and impact as part of a community-led development ethos.

6.2 APPLICATION OF DESIGN AND SYSTEMS THINKING

The design and systems methods applied in this profile are aimed at helping communities and development partners gain material and meaningful insights into the current status of a community, so that together they can identify actions most likely to address their concerns effectively. At the heart of these methods is a commitment to promote community-led development, enabled by actionable data and interventions. Put another way, these methods seek to understand the community's needs from the perspective of the people affected, and to focus on how to address these needs in ways that create material value yet remain sustainable.

These methods are operationalised through two critical applications. The first, a Life Course Framework, enriches the understanding of a community as a whole and, in particular, the interactions that negatively affect the life trajectories of its members. The second, Impact

by Design, centres on how to intentionally define and create initiatives that produce a positive social impact. These applications are described in more detail in the sections that follow.

6.2.1 Considering a community's life course

There is growing support for Life Course Theory (LCT) as an interdisciplinary sociological framework to understand the range of influences that impact people from conception to death. These influences include:

Time and place – how current and historical events shape concerns in a community.

Human development – how early experiences are carried forward through the various stages of life.

Inherent timing – how the nature of a person's response to an event can be affected based on when it occurs, for example, becoming a teenage mother versus becoming a mother in later adulthood.

Expressing agency – whether people are capable of affecting their life course.

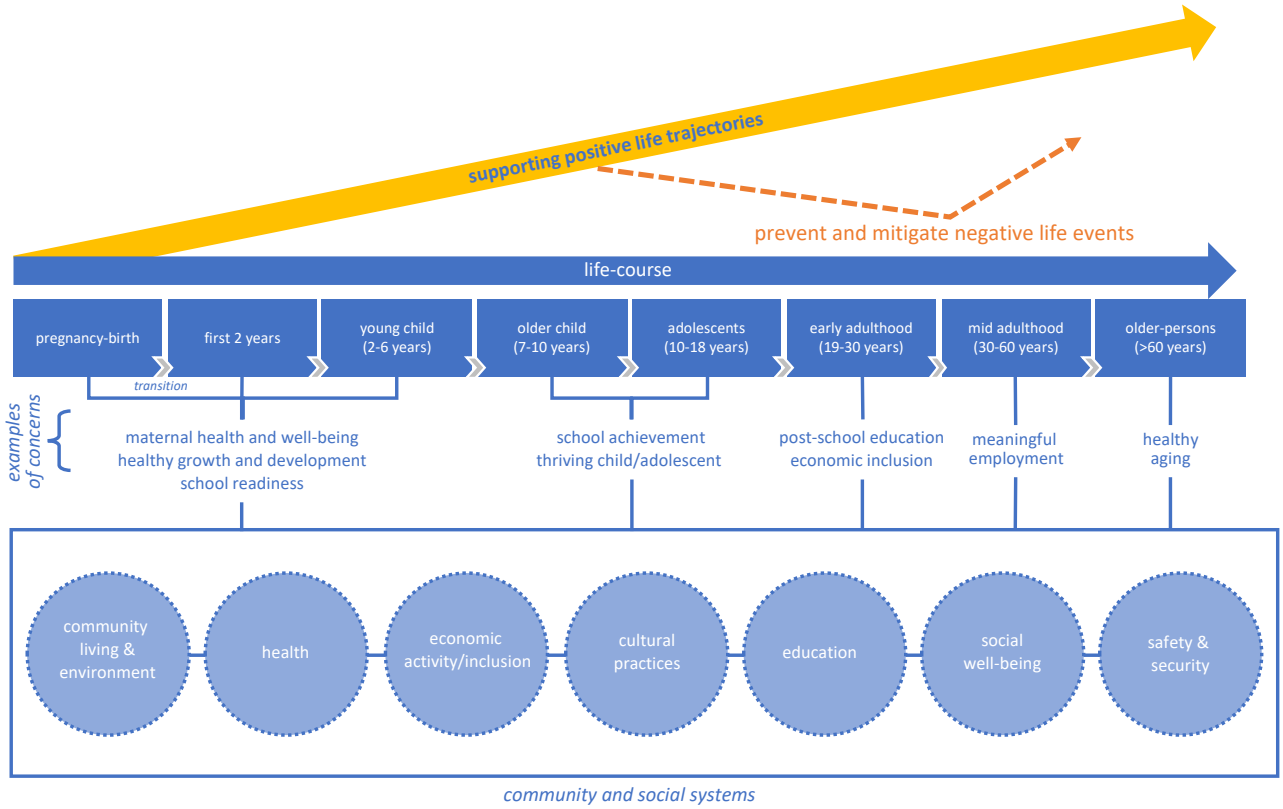
Interlinked lives – how people are not only affected by those closest to them but also by others in the broader community and by the socio-historical influences that have shaped their community [1].

The advantages of applying LCT to interpret a range of social problems and describing critical interventions, organisations such as the World Health Organisation (WHO), UNICEF and the World Bank have designed several high profile initiatives around a life course approach [2, 3, 4]. In its Minsk Declaration, the WHO unpacks the essential attributes of its life course approach as:

- recognising that all the stages of a person's life are closely intertwined, with close others, other people in society or through past and future generations.
- understanding that health and general wellbeing depend on the interaction between risk and protective factors throughout a person's life; and
- taking action as early as possible to protect and promote transition periods; and
- engaging society as a whole to create healthy environments and improve life conditions and people-centred systems [3].

These attributes are illustrated in Figure 15 as a framework for this community profile.

Figure 15. Attributes of the life course approach



Source: Sephebo 2020

Part A of this profile is largely structured around a life course approach to understand areas of concern that require further examination. Part B focuses on how these areas of concern can be addressed.

6.2.2 An Impact by Design Strategy

The Impact by Design Strategy was developed for the Alchemy Benefit Organisations in 2018 to strengthen their community development vision, enhance material value for the communities they serve while focusing on inherent community assets and capacity. In short, the strategy enables community-led development to create positive social impact and promote thriving and sustainable communities.

The strategy applies a systems approach to community development and is informed by a design process that can describe community needs from the perspective of those affected. The process that underpins the Impact by Design Strategy is both practical for community-led development as well as capable of creating and sustaining a positive social impact. Specifically, the initiative demonstrated the importance of the following three strategic actions.

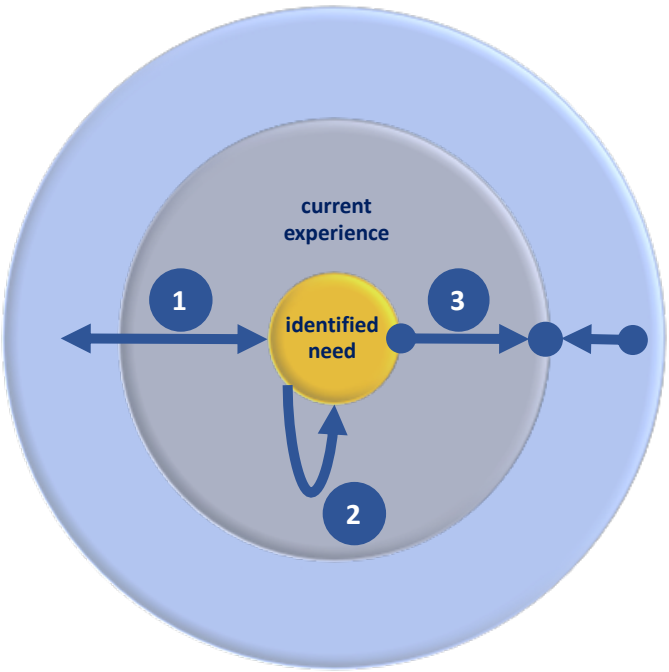
The value of proximity in creating material change– the need to work closely with the people affected to gain critical insights into their needs and the means to address it;

The value of a future now strategy– consistently directing the means for creating change towards the desired future; and

The value of discontinuous improvement– intentionally creating progress through progressive steps that create material change in line with the desired future.

These actions inform the process followed in the Impact by Design Strategy, as shown in Figure 16.

Figure 16. Key elements of Impact by Design process



1. **Frame the problem within the better future state– How does this problem form part of the desired whole?**
2. **Gain insights into changing the current experience– How do the people affected experience the need and how can it be addressed?**
3. **Means creates progress towards desired state– How is the means helping create the future now?**

Source: Sephebo 2020

This process is enriched and strengthened by using a mixed-methods approach to incorporate research and programme data. It also relies extensively on multidisciplinary analysis and enriched ideation which results in better insights and stronger proposals. In addition, interventions are designed and validated with those affected to ensure proposed changes in the lived experience are achieved.

Part B of this profile focuses on applying the Impact by Design Strategy to help define the means to address concerns identified in Part A. This work not only provides development partners with insight into what needs to be changed but also how that could be brought about in practice. While this does not completely remove the need for further engagement with those affected, it will give communities the opportunity to better understand how development partners could address their needs. This will empower them to advocate for better responses. Similarly, for funding partners, such insights can help inform decision making around which interventions are likely to have the desired impact and are deserving of their support.

ANNEXURE: LARGE COPIES OF FIGURES A, B & C

Figure A. Education and sustain livelihoods

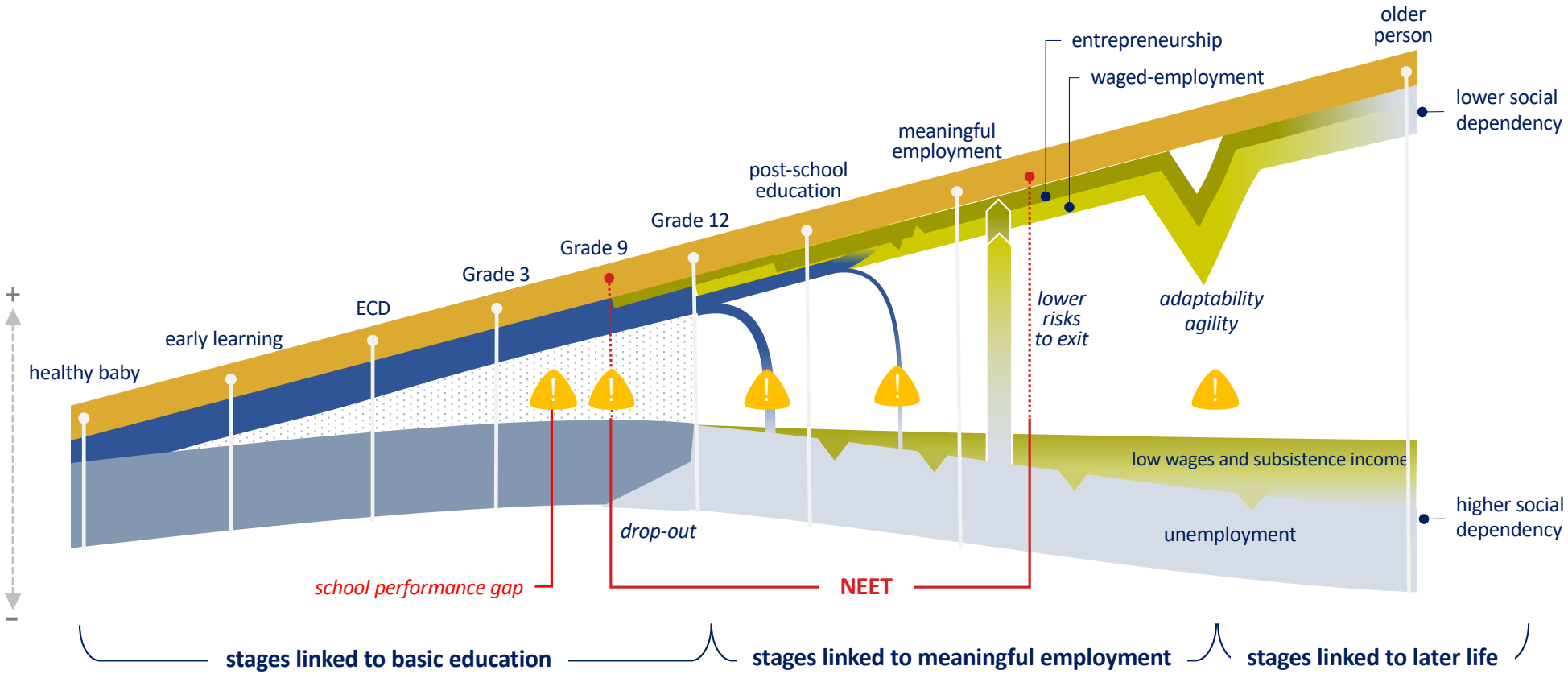


Figure B. Safer communities and healthier living

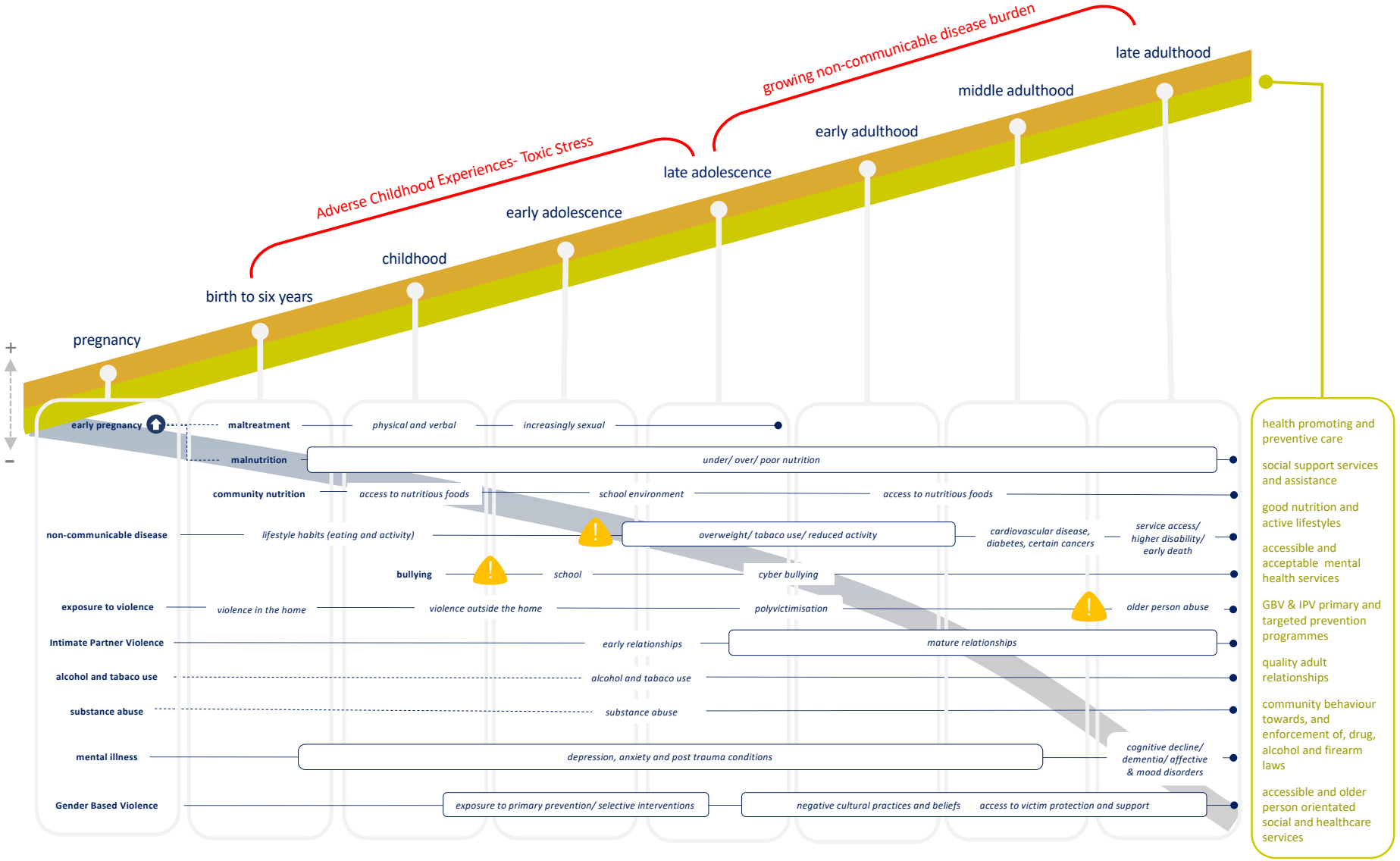
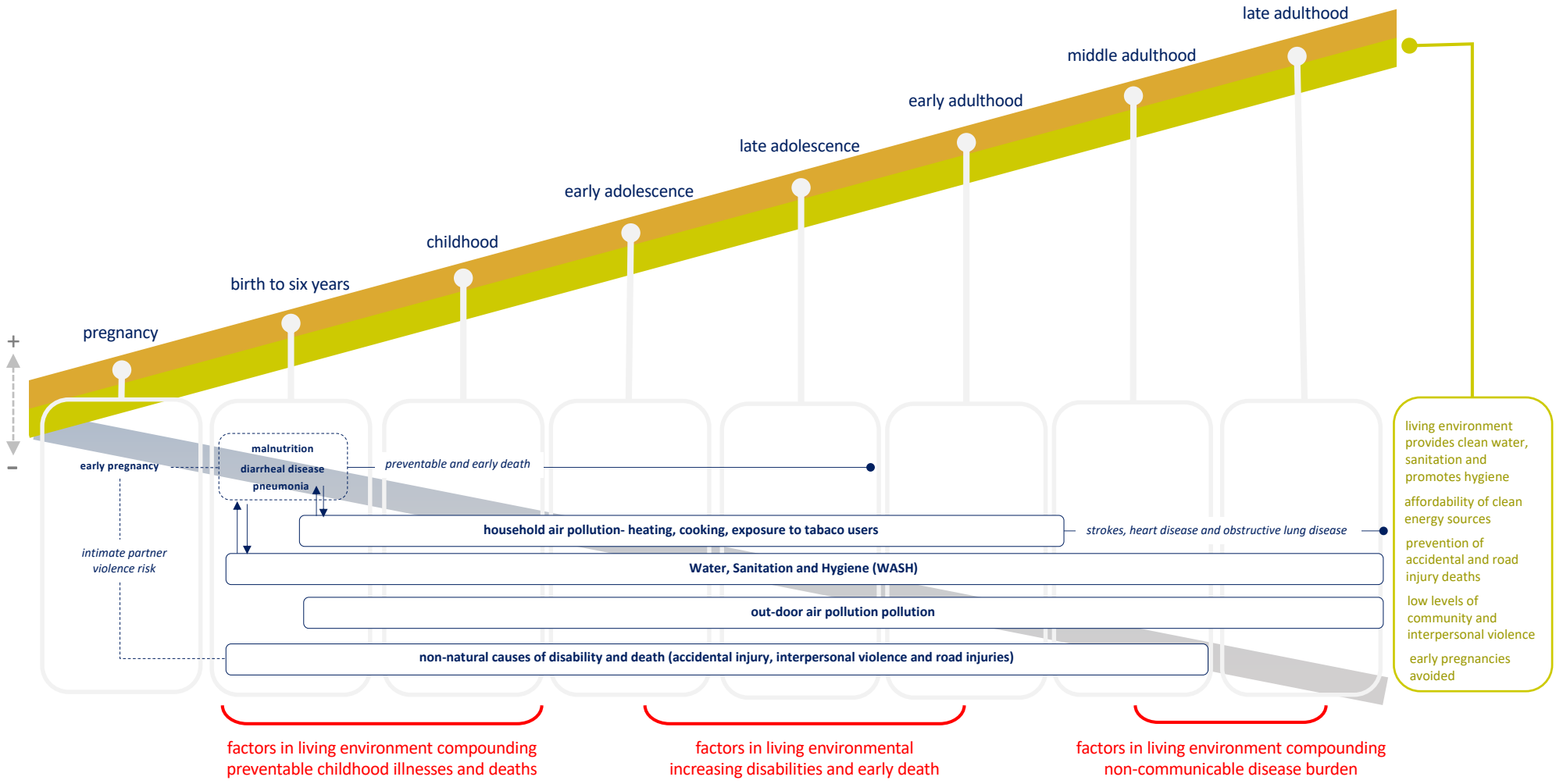


Figure C. A safer living environment



REFERENCES

[1] South African Government, "The Integrated Sustainable Rural Development Startegy," South African Government, Pretoria, 2000.

[2] Statistics South Africa, "Quest for nodal development: Evidence from Census 2001 and Census 2011," Statistics South Africa, Pretoria, 2016.

[3] P. Verlicchi and V. Grillini, "Surface water and groundwater Quality in South Africa and Mozambique—Analysis of the most critical pollutants for drinking purposes and challenges in water treatment selection," *Water,* vol. 12, no. 305, 2020.

[4] F. Hajdu, D. Neves and S. Granlund, "Changing livelihoods in rural Eastern Cape, South Africa (2002–2016): diminishing employment and expanding social protection," *Journal of Southern African Studies,* vol. 46, no. 4, 2020.

[5] Department of Cooperative Governance and Traditional Affairs, "OR Tambo District Municaplity: Profile and analysis," Department of Cooperative Governance and Traditional Affairs, Pretoria, 2020.

[6] World Health Organisation, "Imporving early childhood development: WHO guideline," World Health Organisation, Geneva, 2020.

[7] Statistics South Africa, "Recorded live births 2018," Statistics South Africa, Pretoria, 2019.

[8] C. Ward and T. B. R. Makusha, "Parenting, poverty and young people in South Africa: What are the connections?," in *South African Child Gauge*, Cape Town, Childrens Institute, University of Cape Town , 2015.

[9] T. Maluleke, "Sexual risk behaviour amongst young people in the Vhembe district of the Limpopo province, South Africa," *Health SA Gesondheid,* vol. 15, no. 1, 2010.

[10] L. Mwambene and J. Sloth-Nielsen, "Benign accommodation? Ukuthwala, 'forced marriage' and the South African Children's Act," vol. 11, no. 1, 2011.

[11] L. Mwambene and H. Kruuse, "The thin edge of the wedge: ukuthwala, alienation and consent," *South African Journal on Human Rights,* vol. 33, no. 1, 2017.

[12] Department of Social Development, "Factors associated with teenage pregnancy in South Africa," National Population Unit, Department of Social Development, Pretoria, 2014.

[13] G. Mchunu, K. Peltzer and B. a. S. L. Tutshana, "Adolescent pregnancy and associated factors in South African youth," vol. 12, no. 4, 2012.

[14] K. le Roux, J. Christodoulou, L. Stansert-Katzen and E. Dippenaar, "A longitudinal cohort study of rural adolescent vs adult South African mothersand their children from birth to 24 months," vol. 19, no. 24, 2019.

[15] National Department of Health, Statistics South Africa, South African Medical Research Council, "South Africa Demographic and Health Survey 2016," Department of Health, Pretoria, 2019.

[16] National Department of Health, "South Africa's national strategic plan for a campaign on accelerated reduction of maternal and child mortality in Africa (CARMMA)," National Department of Health , Pretoria, 2013.

[17] L. Bamford, "Maternal, Newborn and Child Health," in *South AfricanHealth Review 2012/13*, Durban, Health Systems Trust, 2014.

[18] G. Hofmeyer and L. Mentrop, "Time for 'basic antenatal care plus' in South Africa?," vol. 105, no. 11, 2015.

[19] T. Ngxongo, "Basic Antenatal Care approach to Antenatal care service provision," in *Selected topics in midwifery care*, London, IntechOpen Limited, 2019.

[20] T. Ngxongo, M. Sibiya and M. Gwele, "Evidence of application of the Basic Antenatal Care principles of good care and guidelines in pregnant women's antenatal care records," vol. 8, no. 2, 2016.

[21] World Health Organisation, "WHO recommendations on antenatal care for a positive pregnancy experience," World Health Organisation, Geneva, 2016.

[22] E. Carter, A. Stegmuller, B. Jackson and T. Sawadogo, "Early estimates of the indirect effects of the COVID-19 pandemic on maternal and child mortality in low-income and middle-income countries: a modelling study," *Lancet Global Health,* vol. 8, 2020.

[23] C. Wengam, J. Smith and R. Morgan, "COVID-19: the gendered impacts of the outbreak," *Lancet,* vol. 395, no. 10227, 2020.

[24] F. Udo, "COVID-19 Lockdown: South Africa Battles the Deadly Epidemic of Gender-Based Violence," 2020. [Online]. Available: https://www.africanwomeninlaw.com/post/covid-19-lockdown-south-africa-battles-the-deadly-epidemic-of-gender-based-violence. [Accessed 29 September 2020].

[25] J. Nyasulu and H. Pandya, "The effects of coronavirus disease 2019 pandemic on the South African health system: A call to maintain essential health services," *African Journal of Primary Health Care and Family Medicine,* vol. 12, no. 1, 2020.

[26] Statistics South Africa, "2020 Mid-year Estimates," Statistics South Africa, Pretoria, 2020.

[27] Statistics South Africa, "South African Community Survey 2016," Statistics South Africa , Pretoria , 2016.

[28] Statistics South Africa, "Census 2011 Municipal Report," Statistics South Africa, Pretoria, 2012.

[29] Statistics South Africa, "Unwanted Fertility in South Africa," Statistics South Africa, Pretoria, 2020.

[30] N. McKerrow, "Reproductive, maternal, newborn and child health," in *District Health Barometer*, Durban, Health Systems Trust, 2020.

[31] L. London, "What is a human-rights based approach to health and does it matter?," vol. 10, no. 1, pp. 65-80, 2008.

[32] World Health Organisation, "WHA Global Nutrition Targets 2025: Low Birth Weight Policy Brief," 2014. [Online]. Available: https://www.who.int/nutrition/topics/globaltargets_lowbirthweight_policybrief.pdf. [Accessed 15 April 2020].

[33] Healthy Newborn Network, "Country indicators- South Africa," [Online]. Available: https://www.healthynewbornnetwork.org/country/south-africa/. [Accessed 15 April 2020].

[34] Statistics South Africa, "Towards measuring food security in South Africa: An examination of hunger and food inadequacy," Statistics South Africa, Pretoria, 2019.

[35] W. Sambu, "Child health: Nutrition," in *South African ChildGauge 2019. Child and adolescent health. Leave no one behind*, Cape Town, Children's Institute, 2019.

[36] R. Sewpaul, "Child malnutrition in South Africa: Results from the South African National Health and Nutrition Examination Survey," Pretoria, 2018.

[37] Statistics South Africa, "Education Series Volume IV: Early childhood development in South Africa," Statistics South Africa, Pretoria, 2018.

[38] N. Massyn, P. Barron, C. Day, N. Ndlovu and A. Padarath, "District Health Barometer 2018/19," Health Systems Trust, Durban, 2020.

[39] Statistics South Africa, "Mid-year population estimates 2019," Statistics South Africa, Pretoria, 2019.

[40] I. Bamford, P. Barron, S. Kauchali and N. Dlamini, "Inpatient case fatality rates improvements in children under 5: Diarrhoeal disease, pneumonia and severe acute malnutrition," vol. 108, no. 3, 2018.

[41] R. Musvaire, "Impact assessment of the integrated nutrition programme on child malnutition in South Africa.," University of KwaZulu Natal, Pietermaritzburg, 2009.

[42] Development Bank of Southern Africa, "Combating malnutrition in South Africa. Input paper for Helath Roadmap.," 2008. [Online]. Available: https://www.dbsa.org/EN/About-Us/Publications/Documents/South%20Africa%20Nutrition_%20input%20paper_roadmap.pdf. [Accessed 26 March 2020].

[43] H. Brits, G. Joubert, K. Eyman and R. De Vink, "An assessment of the integrated nutrition programme for malnourished children aged six months to five years at primary healthcare facilities in Mangaung, Free State, South Africa," vol. 59, no. 6, 2017.

[44] H. Vorster, "The link between poverty and malnutrition: A South African perspective," vol. 15, no. 1, 2010.

[45] O. Awotiwon, V. Pillay-van Wyk, A. Dhansay, C. Day and D. Bradshaw, "Diarrhoea in children under five years of age in South Africa (1997–2014)," vol. 21, no. 1, 2016.

[46] M. Boeckmann, T. Roux, M. Robison and A. Areal, "Climate change and control of diarrhoeal diseases in South Africa: Priorities for action," vol. 109, no. 6, 2019.

[47] L. Chola, J. Michalow, A. Tugendhalft and K. Hofman, "Reducing diarrhoea deaths in South Africa: costs and effects of scaling up essential interventions to prevent and treat diarrhoea in under-five children," vol. 15, 2015.

[48] R. Roomaney, P.-v. W. V., O. Awotiwon and A. Dhansay, "Epidemiology of lower respiratory infection and pneumonia in South Africa (1997–2015): A systematic review protocol," vol. 6, 2016.

[49] D. le Roux, L. Myer, M. Nicol and H. Zar, "Incidence and severity of childhood pneumonia in the first year of life in a South African birth cohort: the Drakenstein Child Health Study," vol. 3, 2015.

[50] Thousand-Days, "Why 1000 days," [Online]. Available: https://thousanddays.org/why-1000-days/. [Accessed 14 April 2020].

[51] S. Cusick and M. Geogieff, "The first 1,000 days of life: The brain's window of opportunity," [Online]. Available: https://www.unicef-irc.org/article/958-the-first-1000-days-of-life-the-brains-window-of-opportunity.html. [Accessed 14 April 2020].

[52] S. Buthelezi, T. Kapwata, B. Wernecke and C. Webster, "Household Fuel Use for Heating and Cooking and Respiratory Health in a Low-Income, South African Coastal Community," vol. 16, no. 550, 2019.

[53] World Health Organisation, "Household air pollution and health," 8 May 2018. [Online]. Available: https://www.who.int/news-room/fact-sheets/detail/household-air-pollution-and-health. [Accessed 14 April 2020].

[54] M. Balmer, "Energy poverty and cooking energy requirements: The forgotten issue in South African energy policy?," vol. 18, no. 3, 2007.

[55] T. Makonese, A. Ifegbesan and I. Rampedi, "Household cooking fuel use patterns and determinants across southern Africa: Evidence from the demographic and health survey data Tafadzwa," vol. 29, no. 1, 2018.

[56] World Health Organisation, "Measles," 5 December 2019. [Online]. Available: https://www.who.int/news-room/fact-sheets/detail/measles. [Accessed 15 April 2020].

[57] H. Holzmann, H. Hengel, M. Tenbusch and H. Doerr, "Eradication of measles: remaining challenges," vol. 205, 2016.

[58] A. Mushtaq and F. Kazi, "The case for early child development programmes," vol. 3, no. 12, 2019.

[59] South African Government, "National Development Plan 2030 Our Future-make it work," South African Government, Pretoria, 2012.

[60] Department of Basic Education, "National early learning and development standards for children birth to four years," Department of Basic Education, Pretoria, 2009.

[61] Departrment of Social Development, "National Integrated Early Childhood Development Policy," Department of Social Development, Pretoria, 2015.

[62] D. Harrison, "Risk and opportunity as early childhood development moves to Department of Basic Education," 11 February 2019. [Online]. Available: https://dgmt.co.za/risk-and-opportunity-as-early-childhood-development-moves-to-department-of-basic-education/. [Accessed 18 April 2020].

[63] K. Hall, W. Sambu, C. Almeleh, K. Mabaso, S. Giese and P. P., "South African Early Childhood Review 2019.," Children's Institute, University of Cape Town and Ilifa Labantwana, Cape Town, 2019.

[64] K. Hall, "Statistics on children in South Africa," November 2019. [Online]. Available: http://childrencount.uct.ac.za/index.php. [Accessed 16 November 2020].

[65] Statistics South Africa , "General Household Survey 2018," Statistics South Africa , Pretoria, 2019.

[66] Department of Social Development, "Guidelines for early childhood development services," Department of Social Development, Pretoria, 2007.

[67] South African Government, "Division of Revenue Bill," South African Governement , Pretoria, 2020.

[68] Department of Social Development, "Audit of Early Childhood Development Centres– national report.," Department of Social Development and Economic Policy Research Institute, Pretoria, 2014.

[69] National Development Agency, "Challenges facing the early childhood development sector in South Africa," 18 April 2012. [Online]. Available: https://www.nda.org.za/assets/resources/CF824421-4FA0-41EE-AB69-4DB10CD0384A/Challenges-facing-ECD-Sector-in-SA-Prof-Atmore.pdf. [Accessed 2020 April 25].

[70] Department of Higher Education and Training , *Policy on minimum requirements for programmes learning to qualifcaitions in higher eductaion for early childhood development educators,* vol. 40750, Pretoria: Department of Higher Education , 2017.

[71] L. Baatjes, S. Hamilton, L. Maluleke, A. Sibiya and S. Leurquain-Steyn, "Articulation possibilities for community development workers," South African Qualications Authority, Pretoria, 2015.

[72] J. Keevy, J. Cedras and J. Samuels, "The articulation challenge: what we can learn from teacher qualifications in South Africa," Pretoria, 2011.

[73] Education, Training, Development Practices Sector Education and Training Authority, "Early childhood development Sector Skills Plan 2019-2020 update," Education, Training, Development Practices Sector Education and Training Authority, Johanessburg, 2019.

[74] Ilifa Labantwana and Kago Ya Bana, "ECD Vision 2018," 2018. [Online]. Available: https://dgmt.co.za/wp-content/uploads/2018/08/ECD-Vision-2018-digital.pdf. [Accessed 26 April 2020].

[75] L. Berry, L. Jamieson and M. James, "Children's Act guide for early childhood development practitioners," Children's Institute, University of Cape Town and Little Elephant Training Centre for Early Education, Cape Town, 2011.

[76] "Rethinking the Children's Act for early childhood development," 2019. [Online]. Available: https://www.smartstart.org.za/wp-content/uploads/2019/04/PDF-1-Rethinking-the-Childrens-Act-for-ECD-JOINT-POSITION-PAPER-FINAL.pdf. [Accessed 26 April 2020].

[77] Statistics South Africa, "Education Series Volume VII: Children's education and well-being in South Africa, 2018," Statistics South Africa, Pretoria, 2021.

[78] World Health Organisation and UNICEF, "World report on child injury prevention," World Health Organisation and UNICEF, Geneva, 2008.

[79] World Health Organisation , "World report on violence and health," World Health Organisation, Geneva, 2002.

[80] S. Mathews and L. Martin, "Developing an understanding of fatal child abuse and neglect: Results from the South African child death review pilot study.," vol. 106, no. 12, 2016.

[81] L. Jamieson, W. Sambu and S. Mathews, "Out of harm's way? Tracking child abuse cases through the child protection system in five selected sites in South Africa," Children's Institute and University of Cape Town., Cape Town, 2017.

[82] Centre for justice and crime prevention, "The Optimus study on child abuse, violence and neglect in South Africa," Centre for Justice and Crime Prevention and Universty of Cape Town, Cape Town, 2015.

[83] C. Hsiao, D. Fry, C. Ward and G. Ganz, "Violence against children in South Africa: the cost of inaction to society and the economy," vol. 3, 2018.

[84] World Health Organisation , "INSPIRE: seven strategies for ending violence against children," World Health Organisation , Geneva, 2016.

[85] World Health Organisation, "INSPIRE Handbook: action for implementing the seven strategies for ending violence against children," World Health Organisation, Geneva, 2018.

[86] R. Turner and S. Honikman, "Maternal mental health and the first 1 000 days," vol. 106, no. 12, 2016.

[87] N. Spaull, "Schooling in South Africa: How low-quality education becomes a poverty trap.," in *South African Child Gauge 2015*, Cape Town, Children's Insitute, University of Cape Town, 2015.

[88] M. Maphalala and J. Dhlamini, "Standardised testing: A case of Annual National Assessment in South African Primary Schools," vol. 15, no. 4, 2017.

[89] M. Maphalala and D. Mncube, "Standardised testing in South Africa: The National Annual Assessments under the micoscope," vol. 15, no. 4, 2017.

[90] K. Yu, G. Frempong and L. Winaar, "Improving learner achievement in South Africa: A policy proposition for a growth mindset approach to enhance learner support at basic education level.," Human Sciences Research Council, Pretoria, 2015.

[91] M. Magocha, D. Mutasa and J. Rammala, "Mother-tongue education in South Africa: A highly contested terrain of the 21st century," vol. 39, no. 3, 2019.

[92] R. Sibanda, "Mother-tongue education in a multilingual township: Possibilities for recognising lok'shin lingua in South Africa," vol. 10, no. 1, 2019.

[93] L. Nowicki, "Experts lukewarm on exams in isiXhosa and Sesotho," 20 January 2020. [Online]. Available: https://www.groundup.org.za/article/experts-lukewarm-exams-isixhosa-and-sesotho/. [Accessed 27 October 2020].

[94] P. Modjadji and S. Madiba, "The double burden of malnutrition in arural health and demographic surveillancesystem site in South Africa: a study ofprimary schoolchildren and their mothers," vol. 19, no. 1087, 2019.

[95] L. Nyati, M. Pettifor and S. Norris, "The prevalence of malnutrition and growthpercentiles for urban South African children.," vol. 19, no. 492, 2019.

[96] L. Graham, T. Hochfeld, L. Stuart and M. Van Gent, "Evaluation study of the national school nutrition programme and the tiger brands foundation in-school breakfast feeding programme in the Lady Frere and Qumbu districts of the Eastern Cape.," University of Johannesburg, Johannesburg, 2015.

[97] D. Sanders, M. Hendricks, F. Kroll and T. Puoane, "The triple burden of malnutrition in childhood: Causes, policy implementation and recommendations.," in *South African Child Gauge 2019: Child and adolescent health, leave no one behind.*, Cape Town, Childrens Insitute, University of Cape Town, 2019.

[98] A. Gresse, A. Momvete and C. Walter, "Situational analysis: implementation of the national school nutrition programme in low socio-economic primary schools in Nelson Mandela Bay," vol. 2, 2017.

[99] S. Grantham-McGregor, Y. Cheung and S. Cueto, "Developmental potential in the first 5 years for children in developing countries," vol. 369, no. 9555, 2007.

[100] M. Sanousi, "The Expected Effects of the National School Nutrition Programme: Evidence from a Case Study in Cape Town, Western Cape," University of the Western Cape, Cape Town, 2019.

[101] T. Joubert, "A nutritional education tool for practical applciation of the food based dietary guidelines for primary school teachers in Nelson Mandela Bay.," Nelson Mandela University, Nelson Mandela Bay, 2019.

[102] P. Burton, C. Ward, L. Artz and L. Leoschut, "The Optimus Study on child abuse, violence and neglect in South Africa," Centre for Justice and Crime Prevention, University of Cape Town, Cape Town, 2015.

[103] Child Welfare South Africa, "Sexual exploitation and trafficking," [Online]. Available: https://childwelfaresa.org.za/sexual-exploitation-and-trafficking/. [Accessed 18 November 2020].

[104] Bureau of International Labor Affairs, "International Child labour and Forced Labor Reports. South Africa.," United States Department of Labor, Washington, 2019.

[105] V. Felitti, R. Anda, D. Nordenber and D. Williamson, "Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults. The Adverse Childhood Experiences (ACE) Study.," vol. 14, no. 4, 1998.

[106] Center on the Developing Child, Harvard University, "Toxic stress," [Online]. Available: https://developingchild.harvard.edu/science/key-concepts/toxic-stress/. [Accessed 20 11 2020].

[107] R. Rasesemola, G. Matshoge and T. Ramukumba, "Compliance to the Integrated School Health Policy: Intersectoral and multisectoral collaboration," vol. 42, no. 1.

[108] K. Keothaile, "Implementation and outcomes of the school health programme in Ditsobotla," University of the Witwatersrand, Johannesburg, 2016.

[109] A. Janse van Rensburg and A. Rau, "Assessing the implementation of the Integrated School Health Programme (ISHP) in Anonymised Local Municipality, Free State Province," Centre for Health Systems Research and Development, Bloemfontein, 2017.

[110] E. Toska, R. Hodes, L. Cluver and M. Atujuna, "Thriving in the second decade: Bridging childhood and adulthood for South Africa's adolescents," in *South African Child Gauge 2019*, Cape Town , Children's Institute, University of Cape Town, 2019.

[111] K. Jonas, T. Ramraj, A. Goga, A. Bhana and C. Mathews, "Achieving universal health coverage for adolescents in South Africa: health sector progress and imperatives," in *Health Systems Review 2019*, Durban, Helath Systems Trust, 2019.

[112] S. James, P. Pisa, J. Imrie and M. Beery, "Assessment of adolescent and youth friendly services in primary healthcare facilities in two provinces in South Africa," vol. 18, no. 809, 2018.

[113] Z. Mokomane, T. Mokhele, C. Mathews and M. Makoae, "Availability and accessibility of public health services for adolescents and young people in South Africa," vol. 74, 2017.

[114] J. Sabia, "Does sex education affect adolescent sexual behaviorsand health?," vol. 25, no. 4, 2006.

[115] E. Kemigisha, K. Bruce and O. L. E. Ivanova, "Evaluation of a school based comprehensive sexuality education program among very young adolescents in rural Uganda," vol. 19, no. 1393, 2019.

[116] A. McElwain and K. Bub, "Changes in parent–child relationship auality across early adolescence: Implications for engagement in sexual behavior.," vol. 50, no. 2, 2018.

[117] C. Mathews, A. L.E., A. Flisher and W. Mukoma, "Predictors of early first sexual intercourse amongadolescents in Cape Town, South Africa," vol. 24, no. 1, 2009.

[118] J. Chaka, "A critical analysis of sexuality education in schools beyond the disciplinary boundaries of life orientation," University of teh Free State, Bloemfontein, 2017.

[119] Statistics South Africa, "Determinants of health among the youth aged 15–34 years in South Africa," Statistics South Africa, Pretoria, 2020.

[120] L. Nicholas, "Assessing unwanted early sexual experiences in a South-African sample," vol. 34, 2008.

[121] D. Cooper, A. De Lannoy and C. Rile, "Youth health and well-being: Why it matters," in *South African Child Gauge 2015*, Cape Town, Children's Institute, University of Cape Town, 2015.

[122] D. Mpanza and P. Govender, "Rural realities in service provision for substance abuse: a qualitative study in uMkhanyakude district, KwaZulu-Natal, South Africa," vol. 59, no. 3, 2017.

[123] R. Mashita, M. Themane, K. Monyeki and H. Kemper, "Current smoking behaviour among rural South African children: Ellisras Longitudinal Study," *BioMedicalCenteral Pediatrics,* vol. 11, no. 58, 2011.

[124] N. Vellios and C. van Walbeek, "Determinants of regular smoking onset in South Africa using duration analysis," *British Medical Journal Open,* vol. 6, 201.

[125] D. Swart, P. Reddy, B. Pitt and S. Panday, "The prevalence and determinants of tobacco-use among Grade 8-10 learners in South Africa," Medcial Research Council, Cape Town, 2011.

[126] A. Westwood, A. Vanker and D. Gray, "Tobacco, nicotine and e-cigarettes: Protecting children in South Africa," *South African Journal of Child Health ,* vol. 13, no. 1, 2019.

[127] B. Myers, J. Louw and S. Pasche, "Inequitable access to substance abuse treatment services in Cape Town, South Africa," vol. 5, no. 28, 2010.

[128] B. Myers, R. Govender, R. Manderschied and P. Williams, "Need for and readiness to implement a performance measurement system for South Africa's substance abuse treatment services," vol. 15, 2017.

[129] C. Audet, S. Ngobeni, E. Graves and R. Wagner, "Mixedmethodsinquiry into traditional healers' treatment of mental, neurological and substance abuse disorders in rural South Africa'," *PLOS ONE,* vol. 12, no. 12, 2017.

[130] K. Hall, "Grade progression," Children's Insitute, University of Cape Town, 11 2019. [Online]. Available: http://www.childrencount.uct.ac.za/indicator.php?domain=6&indicator=61. [Accessed 25 11 2020].

[131] C. Pournara and L. Bowie, "Now is the time to lay a firmer school maths foundation," University of the Witwastersrand, 13 08 2020. [Online]. Available: https://www.wits.ac.za/covid19/covid19-news/latest/now-is-the-time-to-lay-a-firmer-school-maths-foundation.html. [Accessed 25 10 2020].

[132] Y. Makhubele and K. Luneta, "Factors attributed to poor performance in Grade 9 mathematics learners secondary analysis of the Annual National Assessments.," in *ISTE International Conference*, Pretoria, 2014.

[133] A. James, S. Beni and M. Stears, "Teaching science in the foundation phase: Where are the gaps and how are they accounted for?," *South African Journal of Childhood Education,* vol. 9, no. 1, 2019.

[134] A. Juan, S. Hannan and C. Namome, "I believe I can do science: Self-efficacy and science achievement of Grade 9 students in South Africa," *South African Journal of Science,* vol. 114, no. 7/8, 2018.

[135] A. Laas and T. Boezaart, "The legislative framework regarding bullying in South African Schools," *Potchefstroom Electronic Law Journal,* vol. 17, no. 6, 2015.

[136] Centre for Justice and Crime Prevention and the Department of Basic Education, "Addressing bulling in schools workbook.," Centre for Justice and Crime Prevention, Pretoria, 2012.

[137] A. Juan, L. Zuze, S. Hannan and G. A., "Bullies, victims and bully-victimsin South African schools: Examining the risk factors," *South African Journal of Education,* vol. 38, no. 1, 2018.

[138] C. Memoh, "An investigation of the different forms of bullying amongst grade 10 learners in South African schools: a case study of three schools in the Western Cape," University of teh Western Cape, Cape Town, 2013.

[139] Royal Society for Public Health, "StatusOfMind. Social media and young people's mental health and wellbeing," Royal Society for Public Health, London, 2017.

[140] K. Riehm, K. Feder and K. Tormohlen, "Associations between time spent using Social media and internalizing and externalizing problems among US youth," *Jounal of the American Medical Association,* vol. 76, no. 12, 2019.

[141] T. Mayayise, "The social impact of the internet on Gauteng high school learners.," University of Pretoria, Pretoria, 2008.

[142] H. Shava and W. Chinyamurindi, "Determinants of social media usage among a sample of rural South African youth," *South African Journal of Information Management,* vol. 20, no. 1, 2018.

[143] A. F. K. Budree and E. Lins, "Investigating usage of social media platforms in South Africa," *The African Journal of Information Systems,* vol. 11, no. 4, 2019.

[144] A. Payne, "The nature and Impact of cyberbullying among South African youth: An explanatory analysis," University of Cape Town, Cape Town, 2014.

[145] P. Farhangpour, C. Maluleke and .. H. Mutshaeni, "motional and academic effects of cyberbullying on students in a rural high school in the Limpopo province, South Africa," *South African Journal of Information Management,* vol. 21, no. 1, 2019.

[146] L. Cilliers and W. Chinyamurindi, "Perceptions of cyber bullying in primary and secondary schools among student teachers in the Eastern Cape Province of South Africa," *Electronic Journal of Information Systems in Developing Countries,* vol. 86, no. 4, 2020.

[147] M. Couvillon and V. Ilieva, "Recommended practices: A Review of schoolwide preventative programs and strategies on cyberbullying," *Preventing School Failure,* vol. 55, no. 2, 2011.

[148] Department of Justice and Constitutional Development, "Child Justice Act National Policy Framework," Department of Justice and Constitutional Development, Pretoria, 2010.

[149] L. Tlale, "Understanding and giving suppport to children in conflict with the law: A socio-ecological perspective," University of South Africa, Pretoria, 2013.

[150] M. Danhouse and C. Erasmus, "Family connectedness in families dealing with adolescents in conflict with the law.," *Social Work,* vol. 56, no. 3, 2020.

[151] S. Khumalo and T. Fish Hodgson, "Chapter 5: The Right to Basic Education for Learners with Disabilities," in *Basic Education Rights Handbook – Education Rights in South Africa*, Johannesburg, Section 27, 2017.

[152] Department of Basic Education, "Progress report on inclusive education and special needs education," in *Parliamentary Portfolio Committee on basic education meeting* , Cape Town, 2017.

[153] Departments of Social Development, Women and Children and People With Disabilities, and UNICEF, "Children with disabilities in South Africa: A Situation Analysis 2001-2011," Departments of Social Development, Women and Children and People With Disabilities, and UNICEF, Pretoria, 2012.

[154] Human Rights Watch, "South Africa: Children with disabilities shortchanged- Adopt free, inclusive education for all," 24 May 2019. [Online]. Available: https://www.hrw.org/news/2019/05/24/south-africa-children-disabilities-shortchanged. [Accessed 2020 December 8].

[155] M. Shung-King, L. S. D. Lake and M. Hendricks, "Child and adolescent health.Child and adolescent health Leave no one behind. Leave no one behind," Childrens Insitute and University of Cape Town, Cape Tiwb, 2019.

[156] Statistics South Africa, "Vulnerable Groups Series III Report," Statistics South Africa, Pretoria, 2016.

[157] Department of Justice and Consitutional Development, "Annual Report 2018/19," Department of Justice, Pretoria, 2019.

[158] A. Hartnack, "Background document and review of key South African and international literature on school dropout," DGMT, Cape Town, 2017.

[159] M. Gustafsson, "Optimal school-level Grade 12 performance indicators and a proposed school report card," Department Treasury, Pretoria, 2017.

[160] V. Reddy, S. Van der Berg, D. Janse van Rensburg and S. Taylor, "Educational outcomes: Pathways and performance in South African high schools," *South African Journal of Science,* vol. 108, no. 3/4, 2012.

[161] D. Fair, "School mathematics performance: A longitudinal case study," University of the Free State, Bloemfontein, 2019.

[162] E. Weybright, L. Caldwell, H. Xie and L. Wegner, "Predicting secondary school dropout among South African adolescents: A survival analysis approach," *South African Journal of Education* , vol. 37, no. 2, 2017.

[163] N. Branson, C. Hofmeyer, J. Papier and S. Needham, "Post-school education: Broadening alternative pathways from school to work," in *South African Child Gauge 2015*, Cape Town, Children's Institute, University of Cape Town, 2015.

[164] DNA Economics, "The 2020 list of occupations in high demand: A technical report," Department of Higher Education and Training , Pretoria, 2020.

[165] P. Maja, W. Mann, D. Sing and A. Steyn, "Employing people with disabilities in South Africa," *South African Journal of Occupational Therapy,* vol. 41, no. 1, 2011.

[166] South African Human Rights Commission, "Promoting the rights of persons with disabilities," South African Human Rights Commission, Johannesburg, n.d..

[167] C. Marock, "Grappling with youth employability in South Africa," Human Sciences Research Council, Pretoria, 2008.

[168] Statistics South Africa, "Quarterly Labour Force Survey, Quarter 1: 2020," Statistics South Africa, Pretoria, 2020.

[169] A. Wilkinson, A. Pettifor, M. Rosenbuerg and C. Halpen, "The employment environment for youth in rural South Africa: A mixed-methods study," *Development South Africa,* vol. 34, no. 1, 2017.

[170] P. Marumo and M. Sebolaaneng, "Assessing the state of youth unemployment in South Africa: A discussion and examination of the structural problems responsible for unsustainable youth development in South Africa," *Gender and Behaviour,* vol. 17, no. 1, 2019.

[171] E. Archer and Y. Chetty, "Graduate Employability: Conceptualisation and findings from the University of South Africa," *Progressio,* vol. 35, no. 1, 2013.

[172] O. Pitan and C. Muller, "Student perspectives on employability development inhigher education in South Africa," *Education and Training* , vol. 62, no. 9, 2020.

[173] R. Shivoro, R. Shalyefu and N. Kadhila, "Perspectives on graduate employability attributes for management sciences graduates," *South African Journal of Higher Education* , vol. 32, no. 1, 2018.

[174] T. Harry, W. Chinyamurindi and T. Mjoli, "Perceptions of factors that affect employability amongst a sample of final-year students at a rural South African university," *South African Journal of Industrial Pyschology,* vol. 44, 2018.

[175] A. Steenekamp and S. a. A. R. van der Merwe, "An investigation into youth entrepreneurship in selected South African secondary schools: An exploratory study," *Southern African Business Review,* vol. 15, no. 3, 2011.

[176] S. Gwija, C. Eresia-Eke and C. Iwu, "Challenges and Prospects of Youth Entrepreneurship Development in a Designated Community in the Western Cape, South Africa," *Journal of Economics and Behavioral Studies,* vol. 6, no. 1, 2014.

[177] J. Kew, "Obstacles and opportunities for youth entrepreneurship: A co-ordinated approach critical to promote youth entrepreneurship," Auwal Socio-Economic Rsearch Institute, Johannesburg, 2016.

[178] O. Fatoki and L. Chindoga, "An investigation into the obstacles to youth entrepreneurship in South Africa," *International Business Research,* vol. 4, no. 2, 2011.

[179] Department of Women, Youth and Person's with Disabilities, "National Youth Policy 2020-2030," Department of women, youth and person's with disabilities, Pretoria, 2020.

[180] S. Bux and J. van Vuuren, "The effect of entrepreneurship education programmes on the development of self-efficacy, entrepreneurial intention and predictions for entrepreneurial activity," *Acta Commercii,* vol. 19, no. 2, 2019.

[181] I. Iwara, V. Netshandama, B. Kilonzo and J. Zuwarimwe, "Sociocultural issues contributing to poor youth involvement in entrepreneurial activities in South Africa: A prospect of young graduates in Thohoyandou," *Afrika: Journal of Politics, Economics ad Society,* vol. 9, no. 2, 2019.

[182] A. Kwinanna and P. Mohau, "Our vision for South African education. Driving education conversations and solutions. 2nd Eddition.," Kagiso Trust and the University of Johannesburg, Johannesburg, 2019.

[183] World Economic Forum, "The future of jobs employment, skills and workforce strategy for the Fourth Industrial Revolution," World Economic Fourm , Geneva, 2016.

[184] A. Oke and F. Fernandes, "Innovations in teaching and learning: Exploring the perceptions of the education sector on the 4th Industrial Revolution (4IR)," *ournal of Open Innovation: Technology, Market and Complexity,* vol. 6, no. 31, 2020.

[185] A. Pillay, "Prioritising career guidance and development services in post-apartheid South Africa," *African Journal of Career Development,* vol. 2, no. 1, 2020.

[186] The Open University, "Chapter 6. Gender based violence," in *Health Education and Training* , London, The Open University , 2011.

[187] World Health Organisation , "Understanding and addressing violence against women," World Health Organisation , Geneva, 2012.

[188] M. Decker, A. Latimore, S. Yasutake and M. Haviland, "Gender-based violence against adolescent and young adult women in low- and middle-income countries," *Journal of Adolescent Health* , vol. 56, no. 2, 2015.

[189] P. Mahlangu, A. Gevers and A. De Lannoy, "Adolescents: Preventing interpersonal and gender-based violence," in *South African Child Gauge 2014*, Cape Town, Children's Insitute, University of Cape Town, 2014.

[190] C. Crooks, P. Jaffe, C. Dunlop and A. Kerry, "Preventing Gender-Based Violence among adolescents and young adults: Lessons from 25 years of program development and evaluation," *Violence Against Women,* vol. 25, no. 1, 2019.

[191] R. Lundgren and A. Amin, "Addressing Intimate Partner Violence and sexual violence among adolescents: Emerging evidence of effectiveness," *Journal of Adolescent Health,* vol. 56, no. 2015, 2014.

[192] L. Richter, S. Mathews, K. Kagura and E. Nonterah, "A longitudinal perspective on violence in the lives of South African children from the Birth to Twenty Plus cohort study in Johannesburg-Soweto," *South African Medical Journal,* vol. 108, no. 3, 2018.

[193] X. Sui, K. Massar, L. Kessels and P. Reddy, "Violence exposure in South African adolescents: Differential and cumulative effects on psychological functioning," *Journal of Interpresonal Violence,* 2018.

[194] Center for Disease Control and Prevention, "The Social-Ecological Model: A framework for prevention," 28 January 2020. [Online]. Available: https://www.cdc.gov/violenceprevention/publichealthissue/social-ecologicalmodel.html. [Accessed 9 December 2020].

[195] Safer Sapces, "Youth violence," [Online]. Available: https://www.saferspaces.org.za/understand/entry/youth-violence. [Accessed 9 December 2020].

[196] Violence Prevention Alliance, "The ecological framework," 2020. [Online]. Available: https://www.who.int/violenceprevention/approach/ecology/en/. [Accessed 9 December 2020].

[197] Statistics South Africa, "Mortality and causes of death in South Africa: Findings from death notification 2017," Statistics South Africa, Pretoria, 2020.

[198] M. Seedat, A. van Niekerk, R. Jewkes and K. Ratele, "Violence and injuries in South Africa: prioritising an agenda for prevention," *Lancet,* vol. 374, no. 1011, 2009.

[199] Statistics South Africa, "General Household Survey," Statistics South Africa, Pretoria, 2018.

[200] Department of Highet Education and Training, "2000 to 2016 first time entering undergraduate cohort studies for public higher education insitutions.," Department of Highet Education and Training, Pretoria, 2019.

[201] National Student Financial Aid Scheme, "Annual report 2019/2020," National Student Financial Aid Scheme, Cape Town, 2019.

[202] Z. Ismail and U. Kollamparambil, "Youth unemployment duration and competing exit states: What hides behind long spells of black youth unemployment in South Africa?," *African Development Review*, vol. 27, no. 3, 2015.

[203] L. Graham and C. Mlatsheni, "Youth unemployment in South Africa: Understanding the challenge and working on solutions," in *South African Child Gauge 2015*, Cape Town, Children's Insitute and the University of Cape Town, 2015.

[204] Budlender, J., "Youth unemployment in South Africa: Causes and counter-measures," 2017. [Online]. Available: https://www.budgetspeechcompetition.co.za/wp-content/uploads/2017/10/josh-budlender.pdf. [Accessed 14 December 2020].

[205] V. Shankar, A. Cooper and H. Koh, "Reducing Youth Unemployment in South Africa," FSG and Rockerfeller Foundation, Boston, 2016.

[206] M. H. F. Corcoran, A. Steinberg and K. Tallant, "Collective Impact for opperunity youth.," FSG, Boston, 2012.

[207] Statistics South Africa, "Quarterly Labour Force Survey Quarter 3: 2020," Statistics South Africa, Pretoria, 2020.

[208] Republic of South Africa, "Job creation," 2020. [Online]. Available: https://www.gov.za/issues/government-priority-creating-decent-jobs. [Accessed 14 December 2020].

[209] Republic of South Africa, "Presidential Jobs Summit Framework Agreement," Office of the President, Pretoria, 2018.

[210] YES4YOUTH, "Home," [Online]. Available: https://yes4youth.co.za/. [Accessed 14 December 2020].

[211] South African Revenue Service, "Employment Tax Incentive," [Online]. Available: https://www.sars.gov.za/TaxTypes/PAYE/ETI/Pages/default.aspx. [Accessed 14 December 2020].

[212] Small Enterprise Finance Agency, "Amavulandlela Funding Scheme," [Online]. Available: https://www.sefa.org.za/services/product/12. [Accessed 14 December 2020].

[213] Department of Public Works, "EPWP Phase IV Business Plan 2019-2024," Department of Public Works, Pretoria, 2019.

[214] The Jobs Fund, "About the Jobs Fund," 2012. [Online]. Available: http://www.jobsfund.org.za/about.aspx. [Accessed 14 December 2020].

[215] R. Dicks, "The Presidential Youth Employment Intervention – Five priority actions to accelerate youth pathways into the economy over the next five years," Office of the Presidency, Pretoria, 2020.

[216] K. Duncan-Williams, "The Presidential Youth Employment Intervention – Five Priority Actions to Accelerate Youth Pathways into the Economy Over the Next Five Years," 29 February 2020. [Online]. Available: https://mg.co.za/article/2020-02-29-young-people-must-help-design-a-youth-employment-plan/. [Accessed 14 December 2020].

[217] I. Chime, "SA youth 300,000 School Assistant Presidential Youth Employment Initiative 2021 for unemployed South Africans," 12 November 2020. [Online]. Available: https://www.afterschoolafrica.com/52611/sa-youth-300000-school-assistant-presidential-youth-employment-initiative-2021-for-unemployed-south-africans/. [Accessed 14 December 2020].

[218] N. Magwentshu, A. Rajagopaul, M. Chui and A. Singh, "The future of work in South Africa. Digitisation, productivity and job creation," McKinsey and Company, Johannesburg, 2019.

[219] V. Mueller and J. Thurlow, Youth and jobs in rural Africa, Oxford: Oxford University Press, 2019.

[220] J. Sumberg and S. Hunt, "Are African rural youth innovative? Claims, evidence and implications," *Journal of Rural Studies,* vol. 96, 2019.

[221] A. Mabiso and R. Benfica, "The narrative on rural youth and economic opportunities in Africa: facts, myths and gaps," International Fund for Agricultural Development, Rome, 2019.

[222] E. Boamah and J. Sumberg, "The long overhang of bad decisions in agro-industrial development: Sugar and tomato paste in Ghana," *Food Policy,* vol. 89, 2019.

[223] D. Bradshaw, N. Nanna, V. Pillay-van Wyk and R. Laubscher, "Burden of disease in South Africa: Protracted transitions driven by social pathologies," *South African Medical Journal,* vol. 109, no. 11b, 2019.

[224] S. Vollset, E. Goren, C.-W. Yuan and J. Cao, "Global Health Metricswww.thelancet.comVol 396 October 17, 20201285Fertility, mortality, migration, and population scenarios for 195 countries and territories from 2017 to 2100: a forecasting analysis for the Global Burden of Disease Study," *Global Health Metrics, The Lancet,* vol. 396, 2020.

[225] S. Vollset, E. Goren, C.-W. Yuan and J. Cao, "Global burden of 87 risk factors in 204 countries and territories, 1990–2019: a systematic analysis for the Global Burden of Disease Study 2019," *Global Health Metrics, The Lancet,* vol. 396, 2020.

[226] Insitute for Health Metrics and Evaluation, "South Africa- GHDx," 2020. [Online]. Available: http://www.healthdata.org/south-africa. [Accessed 16 December 2020].

[227] M. Kamkuemah, B. Gausi and T. Oni, "Missed opportunities for NCD multimorbidity prevention in adolescentsand youth living with HIV in urban South Africa," *BioMedCenteral Public Health,* vol. 20, no. 821, 2020.

[228] South African National AIDS Council, "South Africa's National Stregic Plan for HIV, TB and STIs 2017-2022," South African National AIDS Council, Pretoria, 2018.

[229] D. Bradshaw, K. Steyn, N. Levitt and B. Nojilana, "Non-communicable diseases- A race against time," Medcial Reseach Council, Cape Town, 2016.

[230] National Department of Health, "Draft: National startegic plan for the prevention and control of non-communicable diseases 2020-2025," 28 October 2019. [Online]. Available: https://www.samedical.org/file/1202. [Accessed 16 December 2020].

[231] R. Baker, E. Taylor, S. Essafi and J. Jarvis, "Engaging young people in the prevention of noncommunicable diseases," *Bulletin of teh World Health Organisation,* July 2016.

[232] Plan International, "Noncommunicable Disease prevention and adolescents," Plan International, London, 2017.

[233] S. Paruk, "Update on adolescent mental health," *South African Medical Journal,* vol. 106, no. 6, 2016.

[234] N. Jacob and D. Coetzee, "Mental illness in the Western Cape Province, South Africa: A review of the burden of disease and healthcare interventions," *South African Medical Journal,* vol. 108, no. 3, 2018.

[235] M. Pandey, V. Kulkarni and R. Gaiha, "Non-communicable Diseases and Depression:Evidence from South Africa," Population Studies Centre, University of Pennsylvania, Philadelphia, 2019.

[236] D. Stein, C. Benjet, O. Gureje and C. Lund, "Integrating mental health with other non-communicable diseases," *British Medical Journal,* vol. 365, no. 1, 2019.

[237] Department of Women, Youth and Persons with Disabilities, "National Strategic Plan on gender-based violence and femicide.," Department of Women, Youth and Persons with Disabilities, Pretoria, 2020.

[238] W. van Vollenhoven and C. Els, "The human rights paradox of lesbian, gay, bisexual and transgender students in South African education," *De Jure Law Journal,* vol. 46, no. 1, 2013.

[239] A. Müller and T. Meer, "Access to justice for lesbian, gay, bisexual and transgender survivors of sexual offences in South Africa: A research report.," University of Cape Town Gender Health and Justice Research Unit, Cape Town, 2018.

[240] D. Abaver and E. Cishe, "Violence, abuse and discrimination: key factors militating against control of HIV/AIDS among theLGBTI sector," *Journal of Social Aspects of HIV/AIDS,* vol. 15, no. 1, 2018.

[241] R. Stephenson, A. de Voux and P. Sullivan, "Intimate Partner Violence and sexual risk-taking among men who have sex with men in South Africa," *Western Journal of Emeregency Medicine,* vol. 12, no. 3, 2011.

[242] Statistics South Africa, "Community Survey 2016 Technical Report," Statistics South Africa, Pretoria, 2016.

[243] Eastern Cape Socio Economic Council, "Economic Review for the Eastern Cape Quarter 1 2020," Eastern Cape Socio Economic Council, East London, 2020.

[244] Statistics South Africa, "Capital expenditure by the public sector for 2019," Statistics South Africa, Pretoria, 2020.

[245] Statsitics South Africa, "Tourism Satellite Account for South Africa, final 2016 and provisional 2017 and 2018," Statsitics South Africa, Pretoria, 2019.

[246] Department of Tourism, "State of tourism report 2018/19," Department of Tourism, Pretoria, 2019.

[247] Department of Public Works, "EPWP News- June 2019 Edition," Department of Public Works, Pretoria, 2019.

[248] Department of Public Works, "Presentation to Public Works Portfolio Committee on Expanded Public Works Programme (EPWP) progress 5th March 2019," 5 March 2019. [Online]. Available: https://pmg.org.za/committee-meeting/28022/. [Accessed 16 December 2020].

[249] O. Mahomed and S. Asmall, "Development and implementation of an integrated chronicdisease model in South Africa: lessons in the management ofchange through improving the quality of clinical practice," *International Journal of Integrated Care,* vol. 15, 2015.

[250] E. Maimela, M. Alberts, H. Bastiaens and Fraeyman, "Interventions for improving management of chronic non-communicable diseases in Dikgale, a rural area in Limpopo Province, South Africa," *BioMedicaCentral Health Services Research,* vol. 18, no. 331, 2018.

[251] P. Gee, D. Greenwood, D. Patemiti and D. Ward, "The eHealth enhanced Chronic Care Model: A theory derivation approach," *Journal of Medical Internet Research,* vol. 17, no. 4, 2015.

[252] World Health Organisation, "Cancer Country Profile 2020: South Africa," World Health Organisation, Geneva, 2020.

[253] F. Madea, K. Wilsona, R. Jinaa and N. Tlotlenga, "Distribution of cancer mortality rates by province in South Africa," *Cancer Epidemiology,* vol. 56, no. 61, 2017.

[254] Statistics South Africa, "Profile of older persons in South Africa," Statistics South Africa, Pretoria, 2014.

[255] Department of Social Development, "South African policy for older persons," Department of Social Development, Pretoria, 2005.

[256] South African Human Rights Commission, "Investigative Hearing into Systemic Complaints Relating to the Treatment of Older Persons," South African Human Rights Commission, Johannesburg, 2015.

[257] C. Kotzé, "Elder abuse- The current state of research in South Africa," *Frontiers in Public Health.,* vol. 6, no. 358, 2018.

[258] S. Madhavan, E. Schatz, F. Xavier Gómes-Olivé and M. Collinson, "Social Positioning of older persons in rural South Africa: Change or stability?," *Journal of South African Studies,* vol. 43, no. 6, 2017.

[259] G. Kelly, L. Mrengqwa and L. Geffen, ""They don't care about us": older people'sexperiences of primary healthcare in Cape Town, South Africa," *BioMedicalCentral Geriatrics,* vol. 19, no. 98, 2019.

[260] M. Gysels, P. C., L. Straus and R. Pool, "End of life care in sub-Saharan Africa: a systematicreview of the qualitative literature," *BioMedicalCentral Palliative Care,* vol. 10, no. 6, 2011.

[261] B. Black, D. Holditch-Davis and M. Miles, "Life Course Theory as a framework to examine becoming a mother of a medically fragile preterm infant," *Resrach in Nursing and Health,* vol. 32, no. 1, 2009.

[262] A. Bovenberg, "The life-course perspective and social policies: An issues note. SP Disucsssion Paper No. 0719.," The World Bank, Tilburg, 2007.

[263] World Health Organisation, "The life-course approach: from theory to practice. Case stories from two small countries in Europe," World Health Organisation , Copenhagen, 2018.

[264] United Nations Children's Fund, "UNICEF programme guidance for the second decade: Programming with and for adolescents," United Nations Children's Fund, New York, 2018.

[265] P. Engle, M. Black, M. Cabral de Mello and J. Behrman, "Series, Child development in developing countries. Strategies to avoid the loss of developmental potential in more than 200 million children in the developing world," vol. 369, no. 9557, 2007.

[266] The World Bank, "Learning to realise education's promise," The World Bank, Washington, 2018.

[267] D. Sanders and L. Reynolds, "Ending stunting: Transforming the health system so children can thrive," in *South African Child Gauge*, Cape Town, Children's Institute, 2017.

[268] World Health Organisation, "Health topics: Early child development," [Online]. Available: https://www.who.int/topics/early-child-development/en/. [Accessed 15 April 2020].

[269] A. Tele, "Exploring the perceptions of rural youth Not in Education, Employment or Training (NEET) on factors that influence their employability," University of Cape Town, Cape Town, 2016.

[270] M. Altman, "The context for career guidance in urban and rural areas. Addressing the challenge of youth unemployment in South Africa," in *National Career Guidance Conference*, Tshwane, 2010.

[271] Department of Tourism, "State of tourism report 2017/18," Department of Tourism, Pretoria, 2018.

[272] S. Karuaihe, N. Tsoanamatsie, L. Mashile and M. Molokomme, "Unpacking the true potential of Limpopo's tourism industry," *Human Scicnes Research Council Review*, vol. 12, no. 5, 2014.

[273] Department of Cooperative Governance and Traditional Affairs, "Profile and analysis: Waterberg District Muncipality," Department of Cooperative Governance and Traditional Affairs, Pretoria, 2020.