Child health

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Section 27 of the Constitution of South Africa provides that everyone has the right to have access to health care services. In addition, section 28(1)(c) gives children "the right to basic nutrition and basic health care services".[1]

Article 14(1) of the African Charter on the Rights and Welfare of the Child states that "every child shall have the right to enjoy the best attainable state of physical, mental and spiritual health".[2]

Article 24 of the UN Convention on the Rights of a Child says that state parties should recognise "the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health". It obliges the state to take measures "to diminish infant and child mortality" and "to combat disease and malnutrition".[3]

The infant and under-five mortality rate

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The infant and under-five mortality rates are key indicators of heath and development. They are associated with a broad range of bio-demographic, health and environmental factors which are not only important determinants of child health but are also informative about the health status of the broader population.

The infant mortality rate (IMR) is defined as the probability of dying within the first year of life, and refers to the number of babies under 12 months who die in a year, per 1,000 live births during the same year. Similarly, the under-five mortality rate (U5MR) is defined as the probability of a child dying between birth and the fifth birthday. The U5MR refers to the number of children under five years old who die in a year, per 1,000 live births in the same year.

This information is ideally obtained from vital registration systems. However, like many middle- and lower-income countries the under-reporting of births and deaths renders the South African system inadequate for monitoring purposes. South Africa is therefore reliant on alternative methods, such as survey and census data, to measure child mortality. Despite several surveys which should have provided information to monitor progress, the lack of reliable data since 2000 led to considerable uncertainty around the level of childhood mortality for a prolonged period. However, the second South Africa National Burden of Disease Study has produced national and provincial infant and under-five mortality trends from 1997 up until 2012.[i]

An alternative approach to monitor age-specific mortality nationally since 2009 is the rapid mortality surveillance system (RMS) based on the deaths recorded on the population register by the Department of Home Affairs.[4] The RMS data have been recommended by the Health Data Advisory and Co-ordinating Committee because corrections have been made for known biases. In other words, the indicators shown in table 3a are nationally representative. The RMS reports vital registration data adjusted for under-reporting which allow evaluation of annual trends. They suggest the IMR peaked in 2003 when it was 53 per 1,000 and decreased to 27 per 1,000 in 2015. During the same period the U5MR decreased from 81 per 1,000 to 37 per 1,000, which equates to a 10% annual rate of reduction up until 2011, with no further noteworthy decline since 2012.

Table 3a: Child mortality indicators, rapid mortality surveillance 2012 – 2015

INDICATOR	2012	2013	2014	2015
Under-five mortality rate per 1,000 live births	41	41	40	37
Infant mortality rate per 1,000 live births	27	28	28	27
Neonatal mortality	12	11	12	12

Source: Dorrington RE, Bradshaw D, Laubscher R & Nannan N (2016) *Rapid Mortality Surveillance Report 2015*. Cape Town: Medical Research Council.

The neonatal mortality rate (NMR) is the probability of dying within the first 28 days of life, per 1,000 live births. The NMR was 12 per 1,000 live births in 2015. Estimates of the NMR are derived directly from vital registration data (i.e. registered deaths and births without adjustment for incompleteness) up to 2013, and from 2013 onwards the estimates were derived directly from neonatal deaths and live births recorded in the District Health Information System for 2011 – 2014.

The South African Health and Demographic Survey also reports child mortality rates. After a long gap (since 2003) the SADHS was conducted in 2016. The full report and data will be released in 2018.

i These profiles can be seen at: www.mrc.ac.za/bod/reports.htm.

Children living far from their health facility

This indicator reflects the distance from a child's household to the health facility they normally attend. Distance is measured as the length of time travelled to reach the health facility, by whatever form of transport is usually used. The health facility is regarded as "far" if a child would have to travel more than 30 minutes to reach it, irrespective of mode of transport.

A review of international evidence suggests that universal access to key preventive and treatment interventions could avert up to two-thirds of under-five deaths in developing countries.[5] Preventative measures include promotion of breast- and complementary feeding, micronutrient supplements (vitamin A and zinc), immunisation, and the prevention of mother-to-child transmission of HIV, amongst others. Curative interventions provided through the government's Integrated Management of Childhood Illness strategy include oral rehydration, infant resuscitation and the dispensing of medication.

According to the UN Committee on Economic, Social and Cultural Rights, primary health care should be available (in sufficient supply), accessible (easily reached), affordable, and of good quality.[6] In 1996, primary level care was made free to everyone in South Africa, but the availability and physical accessibility of health-care services remain a problem, particularly for people living in remote areas.

Physical inaccessibility poses particular challenges when it comes to health services because the people who need these services are often unwell or injured, or need to be carried because they are too young, too old or too weak to walk. Physical inaccessibility can be related to distance, transport options and costs, or road infrastructure. Physical distance and poor roads also make it difficult for mobile clinics and emergency services to reach outlying areas. Within South Africa, patterns of health care utilisation are influenced by the distance to the health service provider: those who live further from their nearest health facility are less likely to use the facility. This "distance decay" is found even in the uptake of services that are required for all children, including immunisation and maintaining the clinic card (Road-to-Health book).[7]

Over a fifth (22%) of South Africa's children live far from the primary health care facility they normally use, and 94% attend the facility closest to their home. Within the poorest 40% of households, only 3% do not use their nearest facility, while 13% of children in upper quintile households (the richest 20%) travel beyond their nearest health facility to seek care. The main reasons for attending a more distant health service relate to choices based on perceptions of quality: preference for a private doctor, long waiting times, inconvenient opening times, unavailable medicines or (in 5% of cases) rude staff.[8]

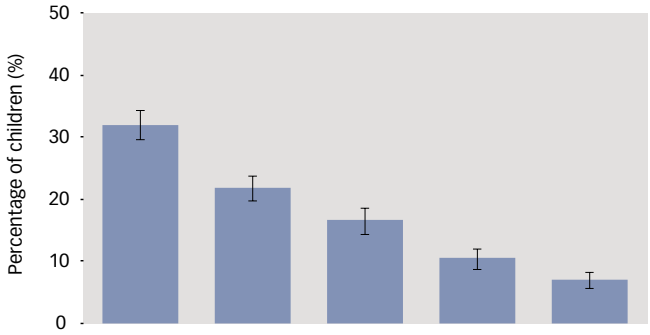
In total, 4.1 million children travel more than 30 minutes to reach their usual health-care service provider. This is a significant improvement since 2002, when 37% (or 6.9 million children) lived far from their nearest clinic.

It is encouraging that the greatest improvements in access have been made in provinces which performed worst in 2002: the Eastern Cape (where the proportion of children with poor access to health facilities dropped from 55% in 2002 to 34% in 2015), KwaZulu-Natal (down from 49% to 31%), Limpopo (from 43% to 24%) and North West (from 39% to 29%) over the 14-year period. Provinces with the highest rates of access are the largely metropolitan provinces of Gauteng (where only 8% of children live far from their usual health-care service) and the Western Cape (9%).

There are also significant differences between population groups. A quarter (25%) of African children travel far to reach a health-care facility, compared with between 5% and 10% of Indian, White and Coloured children. Racial inequalities are amplified by access to transport: if in need of medical attention, 87% of White children would be transported to their health facility in a private car, compared with only 10% of African children and 26% of Coloured children. Poor children bear the greatest burden of disease, due to undernutrition and poorer living conditions and access to services (water and sanitation). Yet health facilities are least accessible to the poor. Close to a third of children (32%) in the poorest 20% of households have to travel far to access health care, compared with 7% of children in the richest 20% of households.

There are no significant differences in patterns of access to health facilities when comparing children of different sex and age groups.

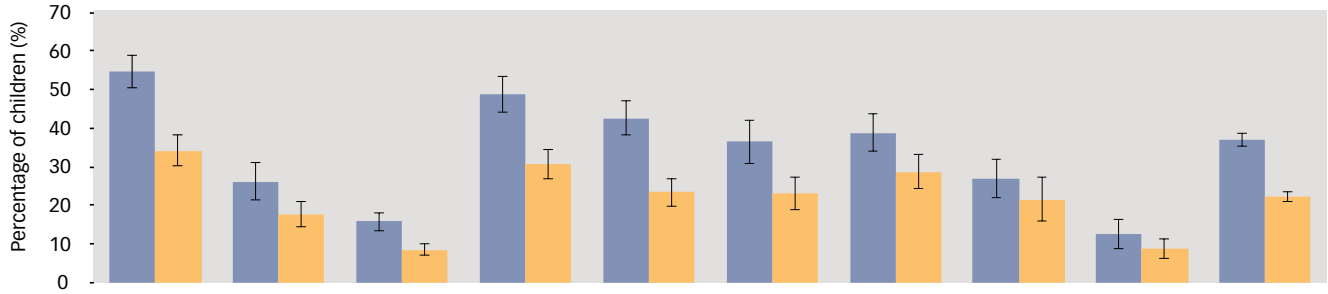
Figure 3a: Children living far from their health facility, by income quintile, 2015



	1 (poorest 20%)	2	3	4	5 (richest 20%)
% children	32%	22%	17%	11%	7%
Number	2,190,000	1,115,000	495,000	203,185	121,000

Source: Statistics South Africa (2016) *General Household Survey 2015*. Pretoria: Stats SA. Analysis by Katharine Hall & Winnie Sambu, Children's Institute, UCT.

Figure 3b: Children living far from their health facility, by province, 2002 & 2015



	EC	FS	GT	KZN	LP	MP	NW	NC	WC	**SA**
2002	54.8%	26.3%	15.8%	48.7%	42.7%	36.4%	38.9%	27.0%	12.6%	37.1%
	1,653,000	285,000	454,000	2,089,000	1,061,000	559,000	490,000	118,000	205,000	6,914,000
2015	34.2%	17.9%	8.4%	30.8%	23.5%	23.1%	28.7%	21.7%	8.8%	22.2%
	904,000	158,000	307,000	1,249,000	516,000	360,000	371,000	89,000	166,000	4,124,000

Source: Statistics South Africa (2003; 2016) *General Household Survey 2002; General Household Survey 2015*. Pretoria: Stats SA. Analysis by Katharine Hall & Winnie Sambu, Children's Institute, UCT.

Children living in households where there is reported child hunger

Section 28(1)(c) of the Bill of Rights in the Constitution gives every child the right to basic nutrition. The fulfilment of this right depends on children's access to sufficient food. This indicator shows the number and proportion of children living in households where children are reported to go hungry "sometimes", "often" or "always" because there isn't enough food. Child hunger is emotive and subjective, and this is likely to undermine the reliability of estimates on the extent and frequency of reported hunger, but it is assumed that variation and reporting error will be reasonably consistent so that it is possible to monitor trends from year to year.

The government has introduced a number of programmes to alleviate income poverty and to reduce hunger, malnutrition and food insecurity, yet 2.4 million children (13%) lived in households where child hunger was reported in 2015. There was a significant drop in reported child hunger, from 31% of children in 2002 to 16% in 2006. Since then the rate has remained fairly consistent, suggesting that despite the expansion of social grants, school feeding schemes and other efforts to combat hunger amongst children, many households remain vulnerable to food insecurity. South Africa therefore has some way to go if it is to achieve the Sustainable Development Goal target of ending hunger by 2030.[9]

There are large disparities between provinces and population groups. Provinces with relatively large numbers of children and high rates of child hunger are the Northern Cape (21%), KwaZulu-Natal (20%), North West (18%) and the Western Cape (16%). Together these provinces have over 1.4 million children living in households that report having insufficient food for children. The Eastern Cape has had the largest decrease between 2002 and 2015, with reported child hunger having reducing by 38 percentage points over the 14-year-period from 49% to 11%. Limpopo has a large rural child population with high rates of unemployment and income poverty, yet child hunger has remained well below the national average, reported at 4% in 2015.

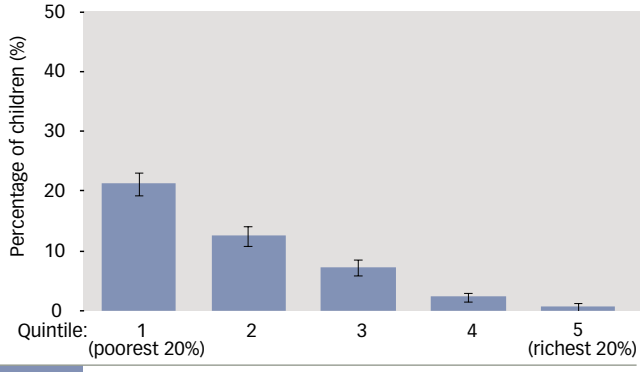
Hunger, like income poverty and household unemployment, is most likely to be found among African children. In 2015, some 2.2 million African children lived in households that reported child hunger. This equates to 14% of the total African child population. Eleven percent of Coloured children were reported to live in households where there was child hunger, while the hunger rates for Indian and White children were below 2%.

Although social grants are targeted to the poorest households and are associated with improved nutritional outcomes, child hunger is still most prevalent in the poorest households: 21% of children in the poorest quintile go hungry sometimes, compared with less than 1% in the wealthiest quintile. The differences in child hunger rates across income quintiles are statistically significant.

There are no significant differences in reported child hunger across age groups. However, just over 800,000 children aged less than five years are reported to have experienced child hunger, signalling a risk of under-nutrition. Young children are particularly vulnerable. Inadequate food intake compromises children's growth, health and development, increases their risk of infection, and contributes to malnutrition and stunting.

It should be remembered that this is a household-level variable, and so reflects children living in households where children are reported to go hungry often or sometimes; it does not reflect the allocation of food within households. The indicator also doesn't reflect the quality of food, including dietary diversity, which has been found to affect the nutritional status of children under five years.

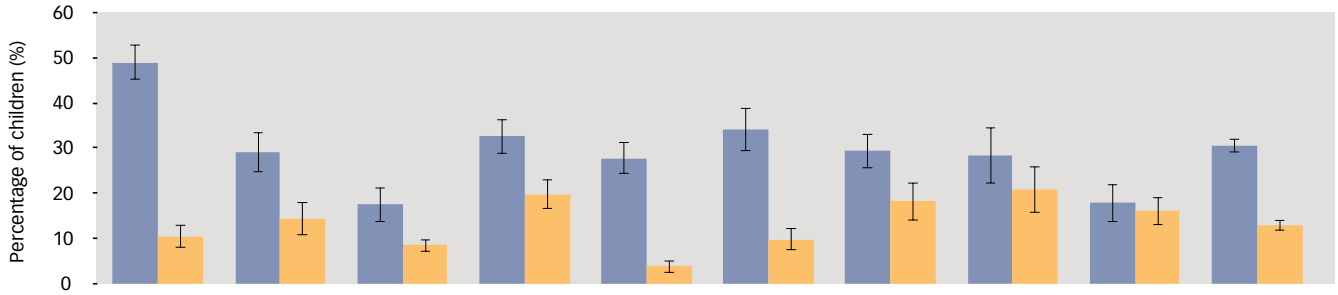
Figure 3c: Children living in households where there is reported child hunger, by income quintile, 2015



	1 (poorest 20%)	2	3	4	5 (richest 20%)
% children	21%	13%	7%	2%	1%
Number	1,455,000	639,000	218,000	45,000	12,000

Source: Statistics South Africa (2016) *General Household Survey 2015.* Pretoria: Stats SA.
Analysis by Katharine Hall & Winnie Sambu, Children's Institute, UCT.

Figure 3d: Children living in households where there is reported child hunger, by province, 2002 & 2015



	EC	FS	GT	KZN	LP	MP	NW	NC	WC	**SA**
2002	48.8%	29.0%	17.5%	32.6%	27.8%	34.0%	29.3%	28.3%	17.8%	30.6%
	1,474,000	314,000	503,000	1,397,000	690,000	521,000	370,000	124,000	292,000	5,696,000
2015	10.6%	14.5%	8.4%	19.8%	3.8%	9.8%	18.2%	20.8%	16.0%	12.8%
	279,000	128,000	307,000	806,000	83,000	152,000	235,000	85,000	304,000	2,382,000

Source: Statistics South Africa (2003; 2016) *General Household Survey 2002; General Household Survey 2015.* Pretoria: Stats SA.
Analysis by Katharine Hall & Winnie Sambu, Children's Institute, UCT.

Teenage pregnancy

This indicator shows the number and proportion of young women aged 15 – 24 who are reported to have given birth to a live child in the past year.

Teen pregnancy rates are difficult to calculate because it is hard to determine how many pregnancies end in miscarriage, stillbirth or abortion: these are not necessarily known to the respondent, or accurately reported. In the absence of reliable data on pregnancy, researchers tend to rely on child-bearing data (i.e. the percentage of women in an age group who have given birth to a live child).

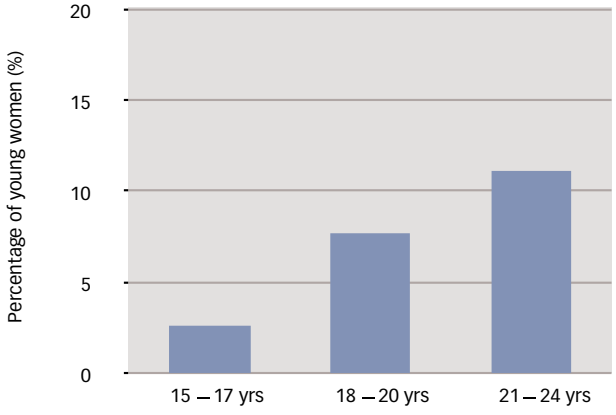
Despite widespread assumptions that teen pregnancy in South Africa is an escalating problem, the available data suggest that the percentage of teenage mothers is not increasing. A number of studies have suggested a levelling off and even a decrease in fertility rates among teenagers in South Africa.[10] Teenage fertility rates declined after the 1996 Census, and Department of Health data between 2004 and 2013 showed no increase in the share of teenagers aged 15 – 19 who attended antenatal clinics.[11]

Fertility rates are, of course, an indicator of possible exposure to HIV. HIV prevalence rates are higher among women in their late twenties and thirties, and lower among teenagers, and the prevalence rate in the 15 – 24-age group has decreased over the past 10 years. However, prevalence rates are still worryingly high: of the young pregnant women surveyed in antenatal clinics in 2013, 13% in the 15 –19-age group and 24% of those aged 20 – 24 were HIV positive.[12] There is a strong association between early child-bearing and maternal mortality, and the majority of deaths in young mothers are caused by HIV.[13] It is important that safe sexual behaviour is encouraged and practised.

Early child-bearing – particularly by teenagers and young women who have not completed school – has a significant impact on the education outcomes of both the mother and child, and is also associated with poorer child health and nutritional outcomes.[14] For this reason is it important to delay child-bearing, and to ensure that teenagers who do fall pregnant are appropriately supported. This includes ensuring that young mothers can complete their education, and that they have access to parenting support programmes and health services. Although pregnancy is a major cause of school drop-out, some research has also suggested that teenage girls who are already falling behind at school are more likely to become pregnant than those who are progressing through school at the expected rate.[15] So efforts to provide educational support for girls who are not coping at school may also help to reduce teenage pregnancies.

Poverty alleviation is important for both the mother and child, but take-up of the Child Support Grant among teenage mothers is low compared with older mothers.[16] This suggests that greater effort should be made to assist young mothers to obtain birth certificates to apply for CSGs. Ideally, home affairs and social security services should form part of a comprehensive maternal support service at clinics and maternity hospitals.

Figure 3e: Child-bearing rate among young women aged 15 – 24 years, by age group, 2015



	15 — 17 yrs	18 — 20 yrs	21 — 24 yrs
Live births in past 12 months	3%	8%	11%
	40,000	117,000	226,000

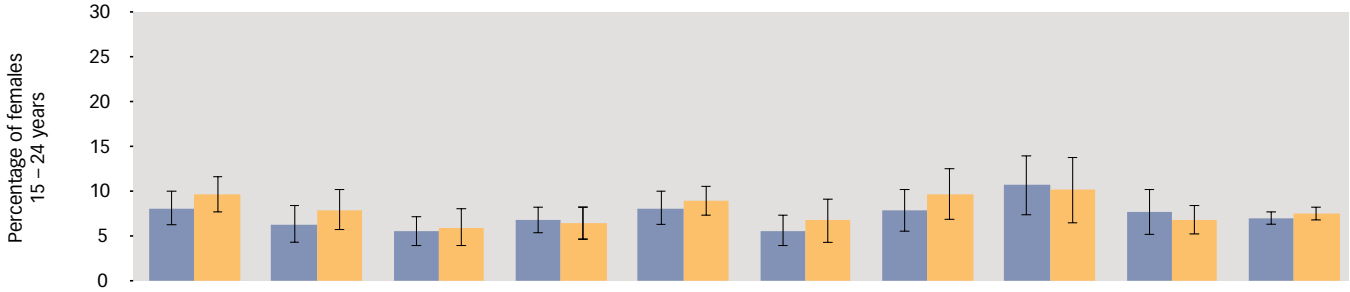
Source: Statistics South Africa (2016) *General Household Survey 2015.* Pretoria: Stats SA. Analysis by Katharine Hall, Children's Institute, UCT.

Since 2009 the nationally representative General Household Survey (GHS) conducted by Statistics South Africa has included a question on pregnancy. The question asks the household respondent: "Has any female household member [between 12 – 50 years] been pregnant during the past 12 months?" For those reported to have been pregnant, a follow-up question asks about the current status of the pregnancy. This indicator calculates the number and proportion of young women who have given birth in the past year.

According to the GHS the national child-bearing rate for young women aged 15 – 24 was 7.5% in 2015. There has been no significant change in this rate since 2009 when the question was first asked, and the estimated number of young women giving birth in a year has remained fairly stable.

As would be expected, child-bearing rates increase with age. Less than three percent of girls aged 15 – 17 were reported to have given birth in the previous 12 months (representing 40,000 teenagers in this age group). Child-bearing rates rose to 8% among 18 – 20-year-olds (117,000 when weighted), and 11% in the 21 – 24 age group (226,000). These rates have also been stable over the seven-year period that the GHS has included this question.

Figure 3f: Annual child-bearing rates among young women aged 15 – 24 years, by province, 2009 & 2015



	EC	FS	GP	KZN	LP	MP	NW	NC	WC	**SA**
2009	8.1%	6.3%	5.5%	6.7%	8.1%	5.6%	7.8%	10.7%	7.6%	7.0%
	61,000	19,000	49,000	81,000	52,000	22,000	24,000	11,000	36,000	355,000
2015	9.6%	7.9%	5.9%	6.4%	8.9%	6.7%	9.7%	10.1%	6.8%	7.5%
	69,000	20,000	63,000	67,000	54,000	30,000	33,000	10,000	37,000	384,000

Source: Statistics South Africa (2010; 2016) *General Household Survey 2009; General Household Survey 2015.* Pretoria: Stats SA. Analysis by Katharine Hall, Children's Institute, UCT.

Malnutrition in children: stunting, wasting and underweight

Healthy growth in children is dependent on a number of factors, including adequate dietary intake, living conditions and health care practices. Poverty, inadequate care and feeding practices comprise children's dietary intake while unhealthy living conditions and associated infections further increase the risk of poor nutrition. The effects of poor nutrition are far reaching. Malnutrition has been found to undermine children's cognitive development[17] affecting educational outcomes,[18] causing a significant reduction in adult size and reducing work capacity. This can ultimately lead to lower wages and exacerbate poverty rates.[19] Poor nutrition also contributes to increased health-care costs, as malnutrition in early childhood is associated with chronic diseases such as diabetes, cardiovascular disease and hypertension in adulthood.[20] It is therefore a drain on household resources and on the public health system.

Malnutrition is a key driver of child mortality globally and in South Africa.[21] According to the Child Problem Identification Programme, 42% of children aged 1 – 5 years of age and 29.8% of infants who died in hospital between 2012 and 2013 were severely malnourished.[22] In addition the leading causes of child deaths include diarrhoea and pneumonia,[23] diseases that cause poor health and increase the risk of under-nutrition.

The causes of malnutrition are complex. In a useful model, UNICEF differentiates between immediate, underlying and basic causes.[24] The immediate causes of malnutrition are inadequate dietary intake and disease, which are mutually reinforcing. Infections such as diarrhoea compromise food intake and contribute to malnutrition which further compromises children's immunity and increases the risk of infection.[25] Underlying causes of malnutrition include household food insecurity, inadequate care and feeding practices. Infection can occur as a result of insufficient or no breastfeeding, exposure to unhealthy environments and poor access to and utilisation of health services. On a macro scale, malnutrition can be attributed to basic or structural causes such as income inequality, unemployment and the deregulation of trade and increasing food prices.[26]

Stunting

Stunting is defined as low height-for-age and is the most pronounced form of malnutrition. Stunting arises if a child's height-for-age measurement is less than two standard deviations from the globally accepted reference cut-off point. When the child's height-for-age measurement is less than three standard deviations from the globally accepted reference cut-off point, then the child suffers from severe stunting.

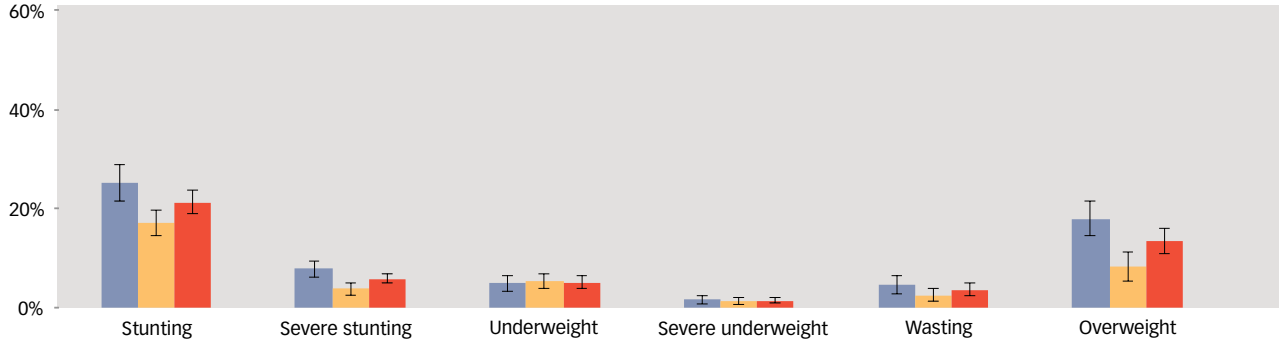
Stunting manifests over a long period, and is normally seen as an indicator of chronic undernutrition and failure to grow. Normally, a decrease in the stunting rates of a country is seen as an indicator of improvements in its socio-economic and health conditions.[27] Stunting is associated with poor socio-economic conditions, poor nutrition and increased risk of frequent and prolonged exposure to infectious diseases.[28] Poor children are at higher risk of being stunted, and if not addressed during childhood, stunting can persist into later life increasing the risk of intergenerational occurrence of malnutrition.[3] Mothers who are short for age are more likely to give birth to infants with low birth weight, and their children are more likely to be stunted.[29] Research has also shown that stunting amongst pregnant women increases the risk of obstructed labour and birth asphyxia, thereby contributing to increased risk for perinatal mortality.[30]

The National Income Dynamic Study (NIDS) is a panel survey that follows households over time, and collects anthropometric data for all children (0 –17 years) unlike other surveys which focus on young children. The 1st wave of NIDS took place in 2008, while the most recent (wave 4) was conducted in 2014/15. An analysis of the anthropometric data from the 4th wave shows that 14% of children under 10 years were stunted, and, in line with other studies, stunting rates were highest amongst children aged under five years, with particularly high rates in the first two years of life. About 25% of children aged 6 months – 2 years were stunted, while 17% of 3 – 4-year-olds were stunted.

About 8% of children aged 6 months – 2 years were severely stunted. For younger children (below three years), low height-for-age is an indication of on-going failure to grow, while for older children it is an indication of children who have failed to grow in the past.[31] Several factors may contribute to the high stunting rates amongst younger children (6 months – 2 years). Stunting could be a result of rapid growth coupled with inadequate dietary intake, including poor quality and quantity of complementary diets, and increased exposure to infection at this age.[32] According to the 2016 South African Demographic Health Survey (SADHS), 77% of children aged 6 – 23 months are not fed a minimum acceptable diet, and a large proportion of children in this age group are not breastfed.[33] Due to lack of national data on dietary intake of older children, it is difficult to know the quantity and quality of diets consumed by children in other age groups.

Amongst children aged 6 months – 9 years, stunting is slightly higher among male children (16%) than females (13%) and higher in

Figure 3g: Malnutrition rates across early childhood age groups, 2014/15



	Stunting	Severe stunting	Underweight	Severe underweight	Wasting	Overweight
6 months – 2 years	25.2% 719,000	7.8% 222,000	4.9% 139,000	1.6% 45,000	4.5% 128,000	18.0% 513,000
3 – 4 years	17.1% 425,000	3.8% 95,000	5.3% 132,000	1.4% 34,000	2.5% 63,000	8.3% 206,000
Total 6 months – 4 years	21.3% 1,139,000	5.9% 315,000	5.1% 271,000	1.5% 78,000	3.6% 190,000	13.4% 714,000

Source: Southern Africa Labour and Development Research Unit (2016) *National Income Dynamics Study 2014 – 2015, Wave 4* [dataset]. Version 1.1. Cape Town: Southern Africa Labour and Development Research Unit [producer]. Cape Town: DataFirst [distributor]. Pretoria: Department of Planning Monitoring and Evaluation [commissioner]. Analysis by Winnie Sambu, Children's Institute, UCT.

rural areas than urban areas. Eighteen percent of children from rural formal areas (commercial farms) and 17% from the tribal authority areas (former homelands) are stunted, compared to 12% of those in urban areas. There are statistically significant differences in stunting across income levels. Stunting is lowest amongst children from relatively wealthy households (4%) compared to 18% of children from households in the poorest quintile.[34]

Stunting rates have remained persistently high especially amongst young children.[35] Analysis of NIDS Wave 1 shows that 25% of children under five years were stunted. The recently released SADHS reported that stunting rates for children in the same age group was 27%.[36] The SADHS also reported very high stunting rates amongst poor households with children under five years: 36% of children living in the poorest wealth quintile are stunted, compared to 13% in the richest wealth quintile.

Underweight

A child is considered underweight if the child's weight-for-age measurement is less than two standard deviations from the globally accepted reference cut-off point, or three standard deviations in the case of severe underweight. Underweight is a composite indicator of both chronic (stunting) and acute malnutrition.[37]

Data from NIDS Wave 4 show that nearly 6% of children 6 months – 9 years are underweight.[38] About 1.5% are severely underweight. No significant differences were observed across urban and rural areas, or amongst males and females. As in the case of stunting, the lowest underweight rates (2%) are found amongst children in relatively wealthy households, compared to 7% amongst children in the poorest 20% of households.

For children aged younger than 5 years (6 – 59 months), underweight rates were 5%. The 2016 SADHS found similar rates for children aged 0 – 59 months (6%). Underweight rates amongst children under five years have significantly reduced over the years and the World Health Organisation (WHO) no longer classifies it as a problem of public health significance.

Wasting

Wasting is also referred to as acute malnutrition, and is defined as low weight-for-height. A child whose weight-for-height measurement is less than two standard deviations from the globally accepted reference cut-off point is considered to be wasted. Severe wasting occurs when the child's weight-for-height measurement is less than three standard deviations from the globally accepted reference cut-off point. Wasting can change rapidly depending on the availability of food and the presence of illness, and is therefore a measure of acute (rather than chronic) malnutrition.[39] Due to significant and rapid weight loss, wasting increases the risk of an infant dying. Severe wasting, commonly referred to as severe acute malnutrition (SAM), is a life-threatening medical condition that requires immediate treatment and therapeutic foods.[40]

South Africa's SAM case fatality rate decreased from 13.3% in 2011/2012 to 8.9% in 2015/2016.[41] This means that 9% of all children under five years admitted with SAM, died of SAM (SAM was documented as cause of death).[42] However, SAM case fatality rates are likely to be higher than reported as SAM is not always recorded on admission, and even if the child died of SAM, it will not be reflected as a SAM death if the admission diagnosis was, for example, diarrhoea. While the decline in SAM case fatality rates suggests that treatment of children diagnosed with SAM is improving, the WHO reports that case fatality rates can be reduced to less than 5% if their guidelines on SAM case management are properly implemented.[43] It is also important to note that malnutrition has a far greater impact on child mortality: 30% of all child deaths in facilities are associated with SAM, and a further 29% are underweight for age.

Analysis of the NIDS Wave 4 shows that 4% of children under five (6 – 59 months) were wasted, and 1% severely wasted. Wasting rates were highest in urban areas (6%) followed by the former homelands (2%). No statistically significant differences in wasting were found amongst male and female children. The SADHS reports that in 2016, 2.5% of children under five years suffered from wasting, and 1% were severely wasted. According to the WHO criteria, wasting is not a child health problem of public health significance.

Overweight

When a child's weight-for-height measurement is greater than two standards deviation from the globally acceptable reference cut-off, then that child is considered overweight. Obesity occurs when a child's weight-for-height measurement is greater than three standard deviations from the WHO Child Growth Standards median. The number and proportion of children suffering from overweight has been on the rise across the world. In Africa, the number of children aged under five years who were overweight increased by 50% between 2000 and 2016.[44] The risk factors associated with childhood overweight and obesity include poor quality diets, displaced breastfeeding with increased intake of sugary beverages and consumption of large portion sizes, and a lack of physical activity.[45] Socio-cultural factors such as household feeding practices also increase the risk of a child being overweight.[46] Children who are overweight or obese are more likely to remain obese in adulthood, and are at greater risk of non-communicable diseases in childhood and adulthood than those whose weight is within normal healthy limits.

Analysis of NIDS Wave 4 shows that 13% of children under five (6 – 59 months) were overweight. Higher rates were observed in the first two years of life, where 18% of children were overweight, compared to 8% amongst 3 – 4-year-olds. No significant differences were observed across gender, or in urban and rural areas. Similar results were seen in the 2016 SADHS which reported that 13% of children 0 – 59 months were overweight.

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