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 the 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 African National Burden of Disease Study has produced national and provincial infant and under-five mortality trends from 1997 up until 2010. These profiles can be seen at: *http://www.mrc.ac.za/bod/reports.htm*.

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 Coordinating 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 that the infant mortality rate peaked in 2003 when it was 53 per 1,000 and decreased to 28 per 1,000 in 2014. Over the same period the under-five mortality rate decreased from 81 per 1,000 to 39 per 1,000, which equates to a 10% annual rate of reduction up until 2011, with no further noteworthy decline since 2012.

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 11 per 1,000 live births in 2014. Estimates on the NMR are based on registered deaths for the period 2006 – 2013 and the District Health Information System for 2011 – 2014.

Table 3a: Child mortality indicators, rapid mortality surveillance, 2009 – 2014

INDICATOR	2009	2010	2011	2012	2013	2014
Under-five mortality rate per 1,000 live births	56	52	40	41	41	39
Infant mortality rate per 1,000 live births	39	35	28	27	29	28
Neonatal mortality rate per 1,000 live births	14	13	13	11	11	11

Source: Dorrington RE, Bradshaw D, Laubscher R & Nannan N (2015) *Rapid Mortality Surveillance Report 2014.* Cape Town: Medical Research Council.

HIV prevalence pregnant women

The HIV status of pregnant women is vitally important for children, and HIV continues to be a major contributor to both maternal and child mortality. An inquiry into reported maternal deaths between 2012 and 2013 found that of the 87% of women who died and whose HIV status was known, 65% were HIV positive.[5] Of all children who died in hospital between 2012 and 2013, only 35% were known to be HIV negative. Twenty-two percent were HIV exposed, and a further 18% were HIV infected. The HIV status of the remaining 14% of children was not known.[6]

The HIV prevalence amongst pregnant women is the proportion of pregnant women (aged 15 – 49 years) who are HIV positive. The majority of children who are HIV positive have been infected through mother-to-child transmission. Therefore the prevalence of HIV amongst infants and young children is largely influenced by the HIV prevalence of pregnant women and interventions to prevent mother-to-child transmission (PMTCT).

The PMTCT programme had a notoriously slow start in South Africa, with only an estimated 7% of pregnant women receiving HIV counselling and testing in 2001/02. Following legal action by the Treatment Action Campaign, the Department of Health was ordered to make PMTCT services available to all pregnant women, and testing rates increased rapidly in subsequent years. Since 2009 HIV testing has been almost universal.

The most recent evaluation of the PMTCT programme shows that transmission rates have declined to as low as 2.6%.[8]

HIV prevalence is measured in the National HIV and Syphilis Prevalence Survey, which targets pregnant women aged 15 – 49 years who attend a public health facility. The most recent publicly available estimate, for 2013, is 29.7%. Prevalence rates increased steadily from 1% in 1990, when the first antenatal prevalence survey was conducted, to 25% in 2000 and 30% in 2005, and have remained at around this level since.

Results are reported in five-year age bands, and show that HIV-prevalence rates are consistently high amongst women in their 30s (a prevalence rate of 43% in 2013) followed by those in their late 20s & 40s (35% in each age group). HIV-prevalence rates have remained comparatively low amongst youth. Nevertheless, the rates are cause for concern: in 2013, 13% of pregnant teenagers aged 15 – 19 and 24% of pregnant women aged 20 – 24 were recorded as HIV positive.

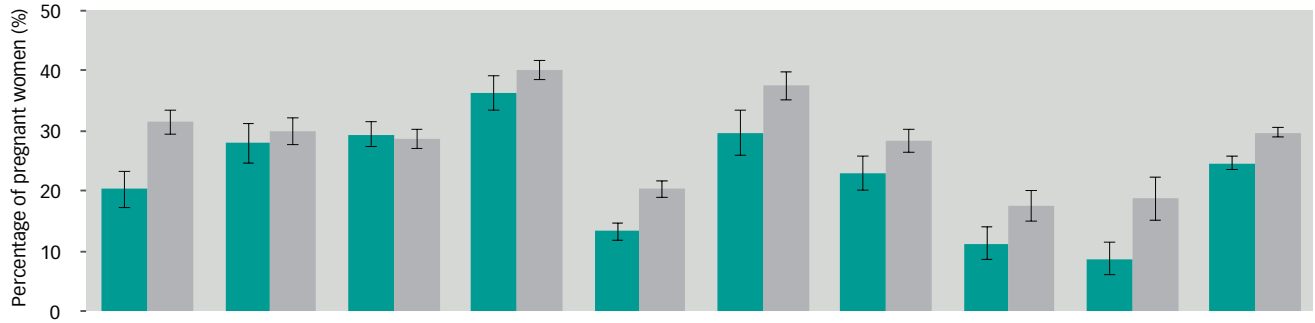
There are substantial differences in HIV prevalence between South Africa's provinces. KwaZulu-Natal has consistently had the highest HIV rates, with prevalence in excess of 36% since 2000. In contrast, the Western Cape has had relatively low prevalence, although the rate has increased by ten percentage points to 19% over the 14-year period since 2000. Other provinces with relatively low HIV prevalence are the Northern Cape and Limpopo, with HIV-prevalence levels at 18% and 20% respectively in 2013.

These inter-provincial differences are partly a reflection of differences in HIV prevalence between different racial and cultural groups. For example, male circumcision is believed to be a major factor explaining inter-regional differences in HIV prevalence within Africa,[9] and its prevalence differs substantially between South Africa's provinces[10]. Other factors such as differences in urbanisation, migration, socio-economic status and access to HIV-prevention and treatment services could also explain some of the differences in HIV prevalence between provinces.

Although HIV testing is almost universal in public health facilities, the antenatal prevalence survey does not include pregnant women who attend private health facilities, or women who deliver at public health facilities without having made a booking visit. Women with higher socio-economic status (proxied by post-secondary levels of education) and those seeking antenatal care in the private health sector have a relatively low prevalence of HIV.[11] Thus the surveys, which are conducted only in public health facilities, are likely to over-estimate HIV prevalence in pregnant women generally.

Figure 3a: HIV prevalence in pregnant women attending public antenatal clinics, by province, 2000 & 2013

(Y-axis reduced to 50%)



	EC	FS	GT	KZN	LP	MP	NW	NC	WC	**SA**
2000	20.2%	27.9%	29.4%	36.2%	13.2%	29.7%	22.9%	11.2%	8.7%	24.5%
2013	31.4%	29.8%	28.6%	40.1%	20.3%	37.5%	28.2%	17.5%	18.7%	29.7%

Source: Department of Health (2001; 2015) *National HIV and Syphilis Prevalence Survey 2000*; *National Antenatal Sentinel HIV Prevalence Survey 2013*. Pretoria: DoH.

The number and proportion of 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 through a proxy indicator: 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.[12] 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.[13] 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 because the people who need health 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. 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 Road to Health booklet.[14]

Over a fifth (21%) of South Africa's children live far from the primary health care facility they normally use, and 95% attend the facility closest to their home. Amongst households with children, only 7% do not usually attend their nearest health facility, and within the poorest 40% of households only 3% do not use their nearest facility, while 11% 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, non-availability of medicines, and long waiting times at clinics.[15]

In total, 4 million children travel more than 30 minutes to reach their usual health facility, a significant improvement since 2002, when 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 36% in 2014), KwaZulu-Natal (down from 49% to 27%), Limpopo (from 43% to 24%) and North West (from 39% to 26%) over the 13-year period. Provinces with the highest rates of access are the largely metropolitan provinces of Gauteng and the Western Cape, both at 8%.

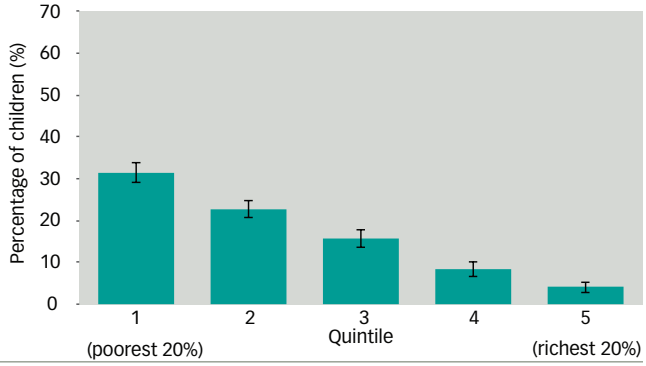
There are also significant differences between population groups. Close to a quarter (24%) of African children travel far to reach a health care facility, compared with only 1 – 10% of Indian, white and coloured children. Racial inequalities are amplified by access to transport: if in need of medical attention, 95% of white children would be transported to their health facility in a private car, compared with only 10% of African children and 31% of coloured children.

Poor children bear the greatest burden of disease, partly due to poorer living conditions and levels of 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 4% 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 3b: Children living far from their health facility, by income quintile, 2014

(Y-axis reduced to 70%)

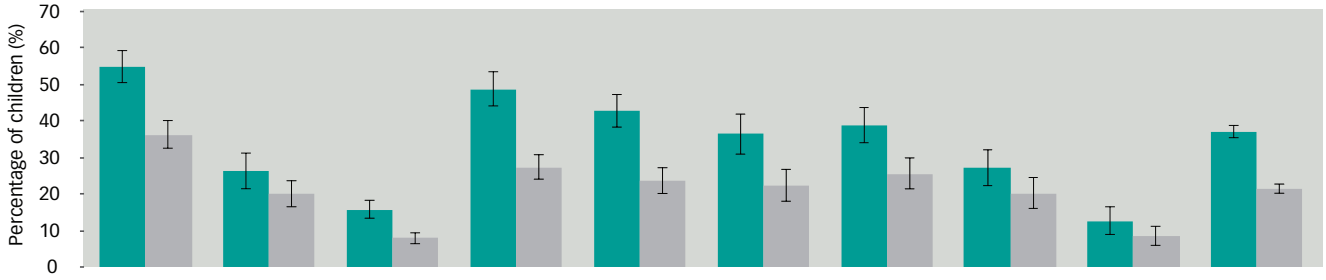


	1 (poorest 20%)	2	3 Quintile	4	5 (richest 20%)
% children	32%	23%	16%	8%	4%
Number	2,096,000	1,154,000	475,000	175,185	74,000

Source: Statistics South Africa (2015) *General Household Survey 2014.* Pretoria: Stats SA. Analysis by Katharine Hall & Winnie Sambu, Children's Institute, UCT.

Figure 3c: Number and proportion of children living far from their health facility, by province, 2002 & 2014

(Y-axis reduced to 70%)



	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
2014	36.3%	20.1%	7.9%	27.3%	23.7%	22.4%	25.5%	20.2%	8.4%	21.5%
	965,000	184,000	281,000	1,113,000	520,000	344,000	326,000	83,000	158,000	3,972,000

Source: Statistics South Africa (2003; 2015) *General Household Survey 2002; General Household Survey 2014.* Pretoria: Stats SA. Analysis by Katharine Hall & Winnie Sambu, Children's Institute, UCT.

The number and proportion of 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 2.3 million children (12%) lived in households where child hunger was reported in 2014. 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 expansion of social grants, school feeding schemes and other efforts to combat hunger amongst children, there may be targeting issues which continue to leave households vulnerable to food insecurity.

There are large disparities between provinces and population groups. Provinces with relatively large numbers of children and high rates of child hunger are KwaZulu-Natal (19%), Western Cape (14%) and the North West (15%), which together have over a million children living in households that report having insufficient food for children. The Northern Cape (18%) has a relatively small child population but has the second highest rate (18%) of child hunger. These provinces consistently reported high rates of child hunger throughout the past decade, although the proportion of children experiencing hunger has declined substantially in all provinces over the period. The Eastern Cape has had the largest decrease between 2002 and 2014, with reported child hunger having dropped by 37 percentage points over the 13-year period. 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 2014.

Hunger, like income poverty and household unemployment, is most likely to be found among African children. In 2014, some 2.1 million African children lived in households that reported child hunger. This equates to 14% of the total African child population, while relatively few coloured children (8%) lived in households where child hunger was reported, and the proportions for Indian and white children were below 3%.

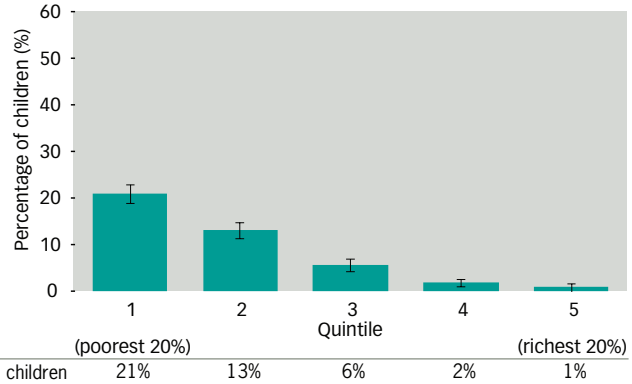
Although social grants are targeted at the poorest households and are associated with improved nutritional outcomes, child hunger is still most prevalent in the poorest households: 21% of children in the poorest quintile go hungry sometimes, compared with 1% in the wealthiest quintile of households. 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, close to 800,000 children younger than five years are reported to have experienced child hunger. Young children are particularly vulnerable to prolonged lack of food, which increases their risk of nutritional deficiencies such as stunting. Inadequate food intake compromises children's growth, health and development, increases their risk of infection, and contributes to malnutrition. Stunting (or low height-for-age) indicates an ongoing failure to thrive. It is the most common form of malnutrition in South Africa and affects 25% of children under five.[16]

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 consumed in the household, including dietary diversity, which has been found to affect the nutritional status of children under five years.

Figure 3d: Children living in households where there is reported child hunger, by income quintile, 2014

(Y-axis reduced to 60%)

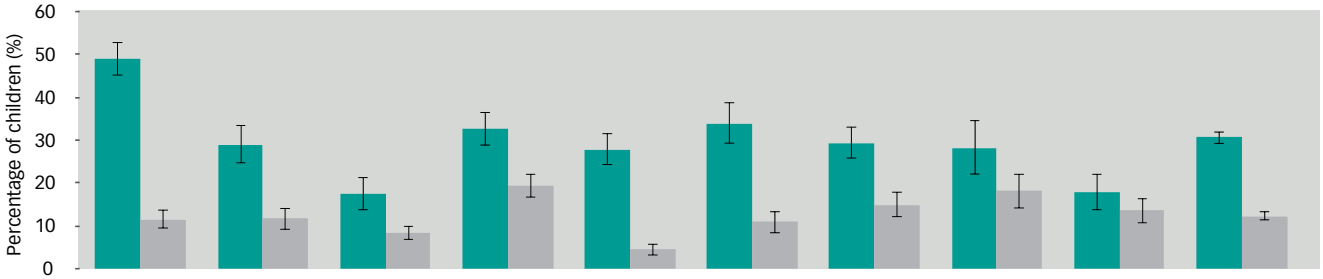


	1 (poorest 20%)	2	3	4	5 (richest 20%)
% children	21%	13%	6%	2%	1%
Number	1,387,000	660,000	170,000	37,000	16,000

Source: Statistics South Africa (2015) *General Household Survey 2014.* Pretoria: Stats SA. Analysis by Katharine Hall & Winnie Sambu, Children's Institute, UCT.

Figure 3e: Number and proportion of children living in households where there is reported child hunger, by province, 2002 & 2014

(Y-axis reduced to 60%)



	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
2014	11.5%	11.7%	8.3%	19.3%	4.5%	10.9%	14.9%	18.0%	13.5%	12.3%
	305,000	107,000	295,000	788,000	98,000	167,000	191,000	74,000	253,000	2,276,000

Source: Statistics South Africa (2003; 2015) *General Household Survey 2002; General Household Survey 2014*. Pretoria: Stats SA. Analysis by Katharine Hall & Winnie Sambu, Children's Institute, UCT.

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