

Child health

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Section 27 of the Constitution of South Africa¹ 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".

Article 14(1) of the African Charter on the Rights and Welfare of the Child² states that "every child shall have the right to enjoy the best attainable state of physical, mental and spiritual health".

Article 24 of the UN Convention on the Rights of a Child³ 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".

The infant mortality rate and under-five mortality rate

Infant and under-five mortality rates are widely used indicators of health status and socio-economic development because they reflect not only child mortality levels but also 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 old 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 children dying between birth and their 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.

A child's growth and development are dependent on the family's living conditions and access to services and resources in the surrounding community. These conditions generate the biological risk factors that impact directly on the child's health through the occurrence of illness and injury, of which death is the most extreme outcome. The IMR and U5MR in developing countries are therefore associated with a broad range of bio-demographic, health and social risk factors. These include access to maternal and child health care services, maternal nutrition status, breastfeeding and infant feeding practices; environmental health factors such as safe drinking water, hygiene and sanitation; and socio-economic factors such as levels of maternal education and household conditions. The IMR and U5MR, as indicators of health and overall societal development, are therefore intrinsically linked to the right to a healthy and safe childhood and an array of socio-economic rights.

Monitoring IMR and U5MR has proved challenging in South Africa. The country has primarily relied on survey data and modelled estimates because the vital registration system is not adequate for this purpose. However, the last reliable survey data on child mortality were collected in the 1998 South African Demographic and Health Survey. In the absence of more recent survey data, previous issues of the *South African Child Gauge* have reported on modelled estimates from the ASSA2008 AIDS and Demographic model of the Actuarial Society of South Africa.

According to ASSA2008 estimates, the IMR gradually decreased from 52 in 2000 to 33 in 2012, while the U5MR increased gradually in the decade leading up to 2003, reaching a high of 74, after which it steadily decreased to an estimated 48 deaths per 1,000 live births in 2012.⁴ The rise in under-five mortality in the late 1990s and early 2000s correlates with a rise in HIV prevalence amongst pregnant women, while the downward trend correlates with the national roll-out of the Prevention

of Mother-to-Child Transmission programme from 2003 onwards.

While there is growing consensus that the ASSA2008 model reflects the general trend of infant and under-five mortality, these estimates do not necessarily reflect the impact of recent changes in South Africa's HIV prevention, treatment and infant feeding guidelines.

Given the uncertainties surrounding this indicator, the Health Data Advisory and Coordination Committee (HDACC) has recommended drawing on the Rapid Mortality Surveillance system established by the Medical Research Council to provide details of deaths of people on the National Population Register by age and sex, with only a six-month delay.⁵ This methodology for monitoring U5MR is new, and will need to be benchmarked through periodic surveys that include a full birth history.

The HDACC also recommends the following baselines and targets for 2014:

Table 3a: Child and infant mortality rates

Indicator	Baseline (2009)	Target (2014)
Under-5 mortality rate (per 1,000 live births)	56	50
Infant mortality rate (per 1,000 live births)	40	36

Source: Department of Health (2012) Health Data Advisory Co-ordination Committee (HDACC) Report, February 2012. Pretoria: DOH.

Reducing child mortality is one of the eight Millennium Development Goals, and the target for MDG 4 is to reduce under-five mortality by two-thirds between 1990 and 2015. Efforts to reduce HIV infection and tuberculosis, improve immunisation coverage and vitamin A supplementation, and promote exclusive breastfeeding, together with the introduction of the rotavirus and pneumococcal vaccines, should enable a significant reduction in the IMR and U5MR. However, it remains unlikely that South Africa will meet its U5MR target of 20 deaths per 1,000 live births by 2015.

Neonatal deaths (in the first 28 days of life) appear to be fairly static at 14 deaths per 1,000 live births, and currently account for about one-third of all deaths in children under five. It is therefore essential to improve the quality of maternal and newborn care in district and regional hospitals.

HIV prevalence in children

This indicator refers to the proportion of children, in a given period, who are HIV positive. South Africa currently has the largest number of people living with HIV in the world. The adult prevalence rate is estimated to have stabilised at 17 – 18% over the 2008 – 2010 period.⁶ Children are profoundly affected by the HIV pandemic, with an estimated 450,000 children under 15 years of age who were HIV positive in 2011,⁷ while others have become ill and died due to AIDS or AIDS-related illnesses.

Children are mainly infected before and during the birth process and some later through breastfeeding – in other words, paediatric HIV is driven by the adult pandemic. HIV prevalence rates among women attending antenatal public health services were 30% in 2010.⁸ The probability of infection from mother to child is considerably high in the absence of interventions to prevent mother-to-child transmission. Children may also become infected through sexual intercourse, including sexual abuse.

Estimates of the number of children infected with HIV are essential for planning responsive health services. Knowing the prevalence of paediatric HIV also helps to monitor the pandemic and gives an indication of the effectiveness of prevention and treatment measures such as the Prevention of Mother-to-Child Transmission (PMTCT) programme and antiretroviral therapy (ART). An evaluation of the effectiveness of the PMTCT programme in 2010 indicates that uptake of PMTCT services is high, with 92% of HIV-positive women included in the sample receiving antiretroviral treatment or prophylaxis. The study also found a national mother-to-child-transmission rate of 3.5% during pregnancy and child birth,⁹ an indication of the successful implementation of the programme.

In the absence of empirical data, ASSA's latest AIDS and Demographic model, ASSA2008, provides estimates of paediatric HIV prevalence in South Africa. It suggests that – while prevalence is increasing over time – the rate at which it is doing so is decreasing. The increase in prevalence could be explained by the increased survival rates for children as a result of increased access to treatment. However, there are significant provincial differences in the prevalence estimates for children, which range from 1.3% in the Western Cape to 4.2% in KwaZulu-Natal in 2011. The modelled data estimate that 3% of children under 15 years of age were HIV positive in 2011.

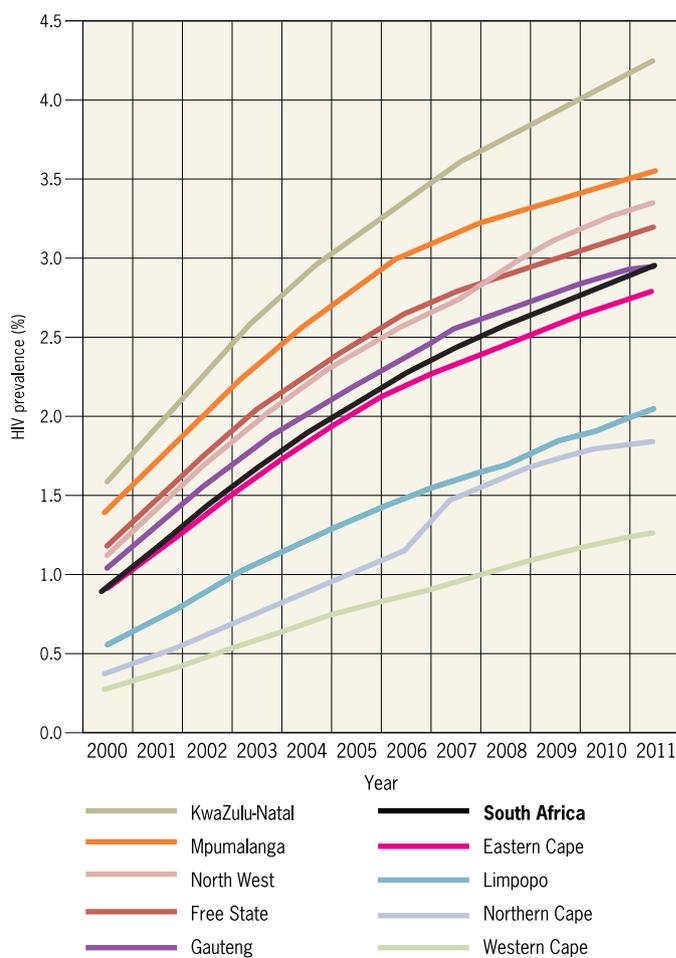
A recent paediatric model projects the number of infected children to be slightly higher than the ASSA2008 estimates.¹⁰ This is partly because it includes more detailed modelling of breastfeeding rates. The probability of infection through breastfeeding is reduced by 80% if breastfeeding mothers receive highly-active ART (HAART) during this period.¹¹ This model takes into account the 2010 treatment guidelines that introduced prophylactic treatment for babies exposed to HIV. According to this model, an estimated 3.8% of children aged 0 – 14 years old were infected with HIV in 2008,¹² compared with 2.6% estimated by the ASSA2008 model. The PMTCT programme evaluation indicates that infant feeding practices should receive greater priority, with only 20% of HIV-positive mothers included in the study exclusively breast-feeding and 18% practicing high-risk mixed feeding.¹³

Children born HIV positive need to receive treatment early because, without treatment, more than 30% of infected children would die before their first birthday.¹⁴ The rapid roll-out of the ART programme since 2002 suggests that increasing numbers of infected babies are receiving treatment, and surviving.

However, the PMTCT programme evaluation points to ongoing missed opportunities in the PMTCT programme and indicates that only 35% of HIV-positive mothers included in the study intended to have their infant tested for HIV at six weeks. The study's method of surveying infants attending immunisation services at six weeks resulted in high take-up rates of early infant HIV testing. These factors suggest that the current approach of testing only HIV-exposed infants requires review and that a universal approach that tests all infants at six weeks should be considered. Linking infant HIV-testing with the six-week immunisation visit is likely to reduce missed opportunities to identify HIV-positive infants in need of treatment.¹⁵

Figure 3a: HIV prevalence in children (0 – 14 years) by province, 2000 – 2011

(Y-axis reduced to 4.5%)



Source: Actuarial Society of South Africa (2011) ASSA2008 AIDS and Demographic Model. Available: www.actuarialsociety.org.za.

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.

The health of children is influenced by many factors, including nutrition, access to clean water, adequate housing, sanitation and a safe environment. Primary health care facilities provide important preventative and curative services, and increased access to such facilities could substantially reduce child illness and mortality. Children therefore need access to good and reliable health services to ensure that they receive life-saving interventions such as immunisation and antiretroviral therapy.

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.¹⁶ 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 drugs such as antibiotics and anti-malarials.

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.¹⁷ 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. Long distances, poor roads and high transport costs can make it difficult for children to reach health care facilities and for mobile clinics and emergency services to reach outlying areas. Physical inaccessibility and other barriers or constraints require urgent attention if the majority of children in South Africa are to gain meaningful access to primary level health care.

Over a third (37%) of South Africa's children live far from the primary health care facility they normally use, and over 90% attend the facility closest to their home. Amongst households with children, only 8% do not usually attend their nearest health facility, and within the poorest 40% of households, only 5% do not use their nearest facility. 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 at clinics and non-availability of medicines.¹⁸

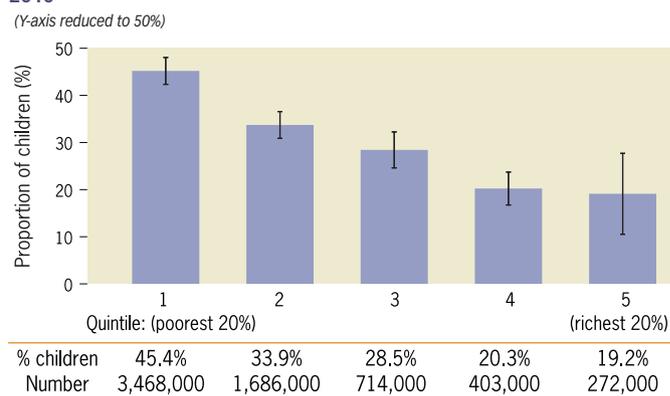
Nearly seven million children would have to travel more than 30 minutes to reach their usual health care service provider. Nationally, the distance to health services has remained relatively constant between 2002 and 2010.

There is considerable variation between provinces, however. While over 40% of children in the Limpopo, KwaZulu-Natal and the Eastern Cape do not have a health facility within 30 minutes travel of their homes, this proportion is much lower for other provinces, and lowest in the largely metropolitan provinces of Gauteng (21%) and the Western Cape (14%).

There are also significant differences between population groups. Nearly four out of 10 African children would have to travel far to reach a health care facility, compared with only 13% – 22% of Coloured, Indian and White children.

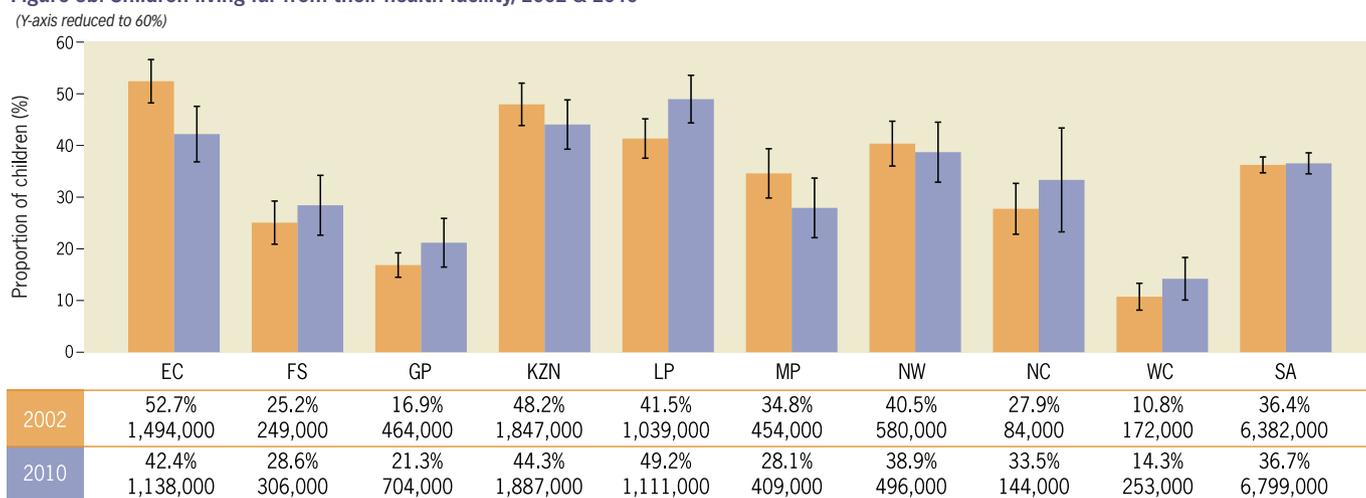
Poor children bear the greatest burden of disease, partly due to poorer living conditions and levels of services (water and sanitation). Yet health facilities are least accessible to the poor. Nearly half of children (45%) in the poorest 20% of households have to travel far to access health care, compared with 19% of children in the richest 20% of households.

Figure 3c: Children living far from their health facility, by income quintile, 2010



Source: Statistics South Africa (2011) *General Household Survey 2010*. Pretoria: Stats SA. Analysis by Katharine Hall, Children's Institute, UCT.

Figure 3b: Children living far from their health facility, 2002 & 2010



Sources: Statistics South Africa (2003, 2011) *General Household Survey 2002; General Household Survey 2010*. Pretoria: Stats SA. Analysis by Katharine Hall, 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 Constitution provides every child with the right to basic nutrition. The fulfilment of this right depends on 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 over three million children (17%) lived in households where child hunger was reported in 2010. There was a significant drop in reported child hunger from 30% of children in 2002 to a low of 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. Although the Northern Cape has the smallest child population, it had the highest rate (36%) of reported child hunger in 2010. However, this deviates from previous years when its hunger rates were within the national average. Either there had been a significant increase in household food insecurity in the Northern Cape, or misreporting from within the very small provincial population has caused this sudden spike in 2010.

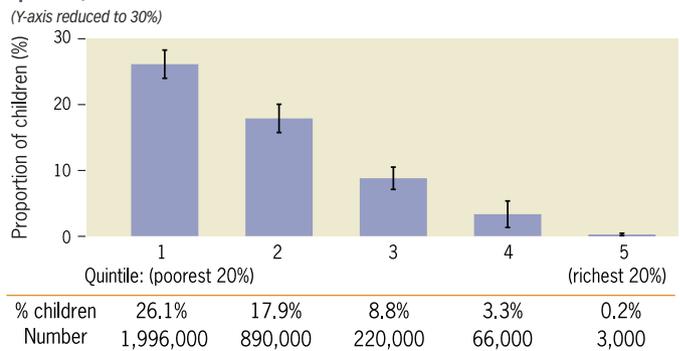
Other provinces with relatively large numbers of children and high rates of child hunger are KwaZulu-Natal (25%), the Eastern Cape and North West (both 22%). These provinces reported high rates of child hunger throughout the nine-year monitoring period, although the proportion of children experiencing hunger has declined over this period. Child hunger rates are lowest in Gauteng (9%) and Limpopo (8%). Gauteng is a relatively wealthy and urbanised province and performs

well on most child indicators. By contrast, Limpopo has a large rural child population with high rates of unemployment and income poverty, yet reported child hunger has remained well below the national average.

Hunger, like income poverty and household unemployment, is most likely to be found among African children. In 2010, some three million African children lived in households that reported child hunger. This equates to nearly 20% of the total African child population, while relatively few Coloured (13%), Asian (5%) and White (0%) children lived in households where child hunger was reported.

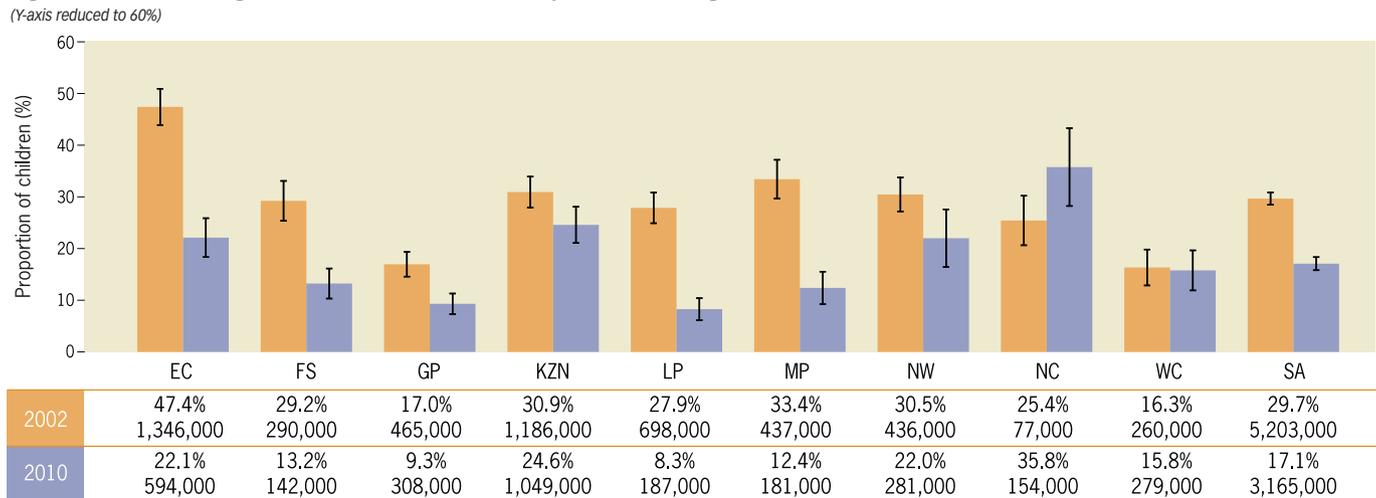
Although social grants are targeted to the poorest households and are associated with improved nutritional outcomes, child hunger is still most prevalent in the poorest households: 26% of children in the poorest quintile go hungry sometimes, compared with less than 1% in the wealthiest quintile of households.

Figure 3e: Children in households with reported child hunger, by income quintile, 2010
(Y-axis reduced to 30%)



Source: Statistics South Africa (2011) *General Household Survey 2010*. Pretoria: Stats SA. Analysis by Katharine Hall, Children’s Institute, UCT.

Figure 3d: Children living in households where there is reported child hunger, 2002 & 2010
(Y-axis reduced to 60%)



Sources: Statistics South Africa (2004) *Labour Force Survey 2003*. Pretoria: Stats SA. Statistics South Africa (2011) *General Household Survey 2010*. Pretoria: Stats SA. Analysis by Katharine Hall & Matt Chennells, Children’s Institute, UCT.

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