

# 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”.<sup>1</sup>**

**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”.<sup>2</sup>**

**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”.<sup>3</sup>**

## The infant mortality rate and under-five mortality rate

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The infant and under-five mortality rates are key indicators of health 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, under-reporting of births and deaths renders the South African system inadequate for monitoring purposes. For example, the vital registration data reported by Statistics South Africa in 2009 showed a stark increase in the number of under-five deaths, almost doubling from 32,485 in 1997 to over 61,335 in 2007.<sup>4</sup> However it is not possible to determine the extent to which this increase was the result of improved death registration, as opposed to a rise in the actual number of deaths. The number of reported under-five deaths declined after the mid-2000’s, reaching a 10-year low of 38,000 in 2011.<sup>5</sup> Again, it is not clear to what extent the rate of reduction parallels the real decline in under-five mortality over the same period.

Like many middle-income countries, South Africa is 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 in child survival, the lack of reliable data since 2000 has led to considerable uncertainty around the level of child mortality. This lack of reliable survey data, together with incomplete vital registration, has made it very difficult to track South Africa’s progress towards the Millennium Development Goal (MDG) 4, which requires a two-third reduction in the U5MR by 2015.<sup>6</sup>

The 2007 Community Survey included questions to women of reproductive age about the number of children they had given birth to, and the number of surviving children. Such information can be used to estimate child mortality rates using demographic models. The survey results provided information on the level of under-five mortality from which to estimate the extent of under-registration of infant and 1 – 4-year-old deaths. This showed improvement in overall registration of deaths under age five, from 50% in 1997 to about 90% in 2006.<sup>7</sup>

In the absence of any more recent survey data, important progress has been made in the development of a rapid mortality surveillance (RMS) system based on the deaths recorded on the population register by the Department of Home Affairs.<sup>8</sup>

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 and the recent RMS estimates allow evaluation of annual trends. They suggest the infant mortality rate peaked in 2003 when it was 53 per 1,000 and decreased to 28 per 1,000 in 2011. Over the same period the under-five mortality rate decreased from 81 per 1,000 to 41 per 1,000, which equates to a 10% annual rate of reduction up until 2011, with no further decline in 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 12 per 1,000 live births in 2012. Estimates on the NMR are based on registered deaths for the period 2006 – 2010 and the District Health Information System for 2010 – 2012.

The decline in infant- and under-five mortality has occurred mostly in HIV-related deaths and is consistent with the findings of a 2011 evaluation of the prevention of mother-to-child transmission (PMTCT) programme, where observed national transmission rates for 4 – 8 week-old infants had dropped to below 2.7%.<sup>9</sup> While dependent on inter-related factors, it is generally assumed that, in the absence of any intervention, vertical transmission ranges between 25% and 30%. The South African Every Death Counts Working Group has identified five categories of death requiring action to achieve the health-related MDGs: non-HIV deaths due to pregnancy, childbirth complications, newborn illness, childhood infections and malnutrition.<sup>10</sup>

The successes in the PMTCT programme and the improvement in completeness of registration over the past decade are commendable. However, if South Africa is committed to the health targets enshrined in the MDGs, it should prioritise the collection of detailed pregnancy histories through a national survey. This information is necessary in order to understand the changes in the relative contribution of the neonatal, post-neonatal and child age groups.

In the spirit of South Africa’s progress towards improving child survival, it is essential to build equitable and sustainable administrative systems across the provinces, which will lay the basis for improved delivery in all public sector initiatives that affect the survival and development of children.

**Table 3a: Child mortality indicators, 2009 – 2012**

INDICATOR	2009	2010	2011	2012
Under-five mortality rate per 1,000 live births	56	52	40	41
Infant mortality rate per 1,000 live births	39	35	28	27
Neonatal mortality	14	14	13	12

**Source:** Bradshaw D, Dorrington RE & Laubscher R (2014) *Rapid Mortality Surveillance Report 2012*. Cape Town: Medical Research Council.

## HIV prevalence in pregnant women

The HIV status of pregnant women is vitally important for children. Around 70% of maternal deaths in South Africa are due to HIV,<sup>11</sup> and HIV continues to be a major contributor to child mortality. Of all children who died in hospital in 2011, only 31% were known to be HIV negative. Twenty-two percent were HIV exposed, and a further 21% were definitely HIV infected. The HIV status of the remaining 15% of children was not known.<sup>12</sup>

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.<sup>13</sup> The most recent evaluation of the PMTCT programme shows that transmission rates have declined to as low as 2.7%.<sup>14</sup>

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 2012, is 29.5%. 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 early 30s (a prevalence rate of 43% in 2012) followed by those in their late 30s (40%).

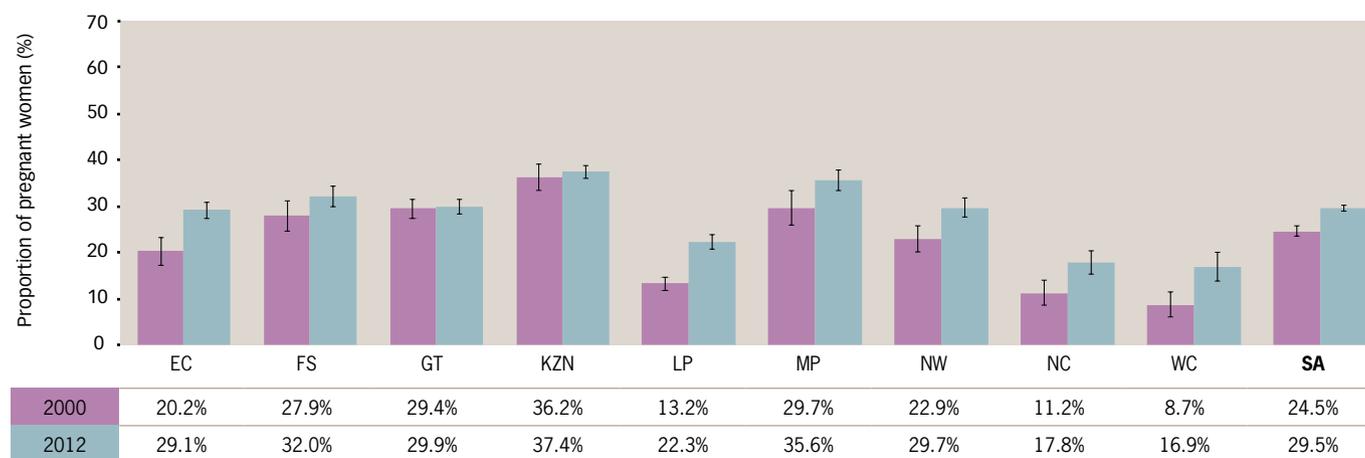
There are substantial differences in HIV prevalence between South Africa's provinces. KwaZulu-Natal has consistently had the highest HIV rates, with prevalence in excess of 36% since 2000. In contrast, the Western Cape has had relatively low prevalence, although the rate has increased by eight percentage points to 17% over the 13-year period since 2000. Other provinces with relatively low HIV prevalence are the Northern Cape and Limpopo, with HIV-prevalence levels at 18% and 22% respectively in 2012.

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,<sup>15</sup> and its prevalence differs substantially between South Africa's provinces<sup>16</sup>. 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.<sup>17</sup> 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 & 2012**

(Y-axis reduced to 70%)



Source: Department of Health (2001; 2013) *National HIV and Syphilis Prevalence Survey 2000; National Antenatal Sentinel HIV and Herpes Simplex Type-2 Prevalence Survey 2012*. 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.<sup>18</sup> 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.<sup>19</sup> 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 booklet).<sup>20</sup>

A quarter (25%) 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, while 16% 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 at clinics, non-availability of medicines.<sup>21</sup>

In total, 4.7 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 37% in 2012), KwaZulu-Natal (down from 49% to 33%), Limpopo (from 43% to 27%) and North West (from 39% to 29%) over the 11-year period. Provinces with the highest rates of access are the largely metropolitan provinces of Gauteng and the Western Cape, both at 11%.

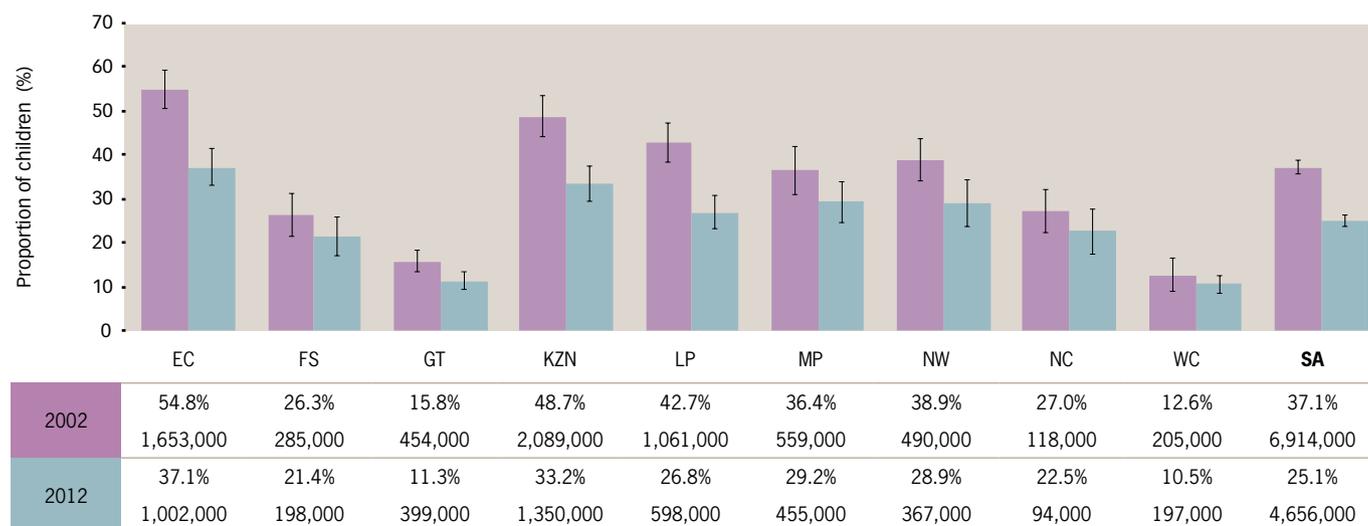
There are also significant differences between population groups. Over a quarter (28%) of African children travel far to reach a health care facility, compared with only 6 – 10% of Coloured, Indian and White children. Racial inequalities are amplified by access to transport: if in need of medical attention, 96% of White children would be transported to their health facility in a private car, compared with only 9% of African children and 30% 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. Over a third of children (36%) in the poorest 20% of households have to travel far to access health care, compared with 6% 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 or age groups.

**Figure 3b: Children living far from their health facility, by province, 2002 & 2012**

(Y-axis reduced to 70%)



Source: Statistics South Africa (2003; 2013) *General Household Survey 2002; General Household Survey 2012*. 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 2.5 million children (14%) lived in households where child hunger was reported in 2012. 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 the Eastern Cape (20%) and KwaZulu-Natal (16%), which together have over a million children living in households that report having insufficient food for children. 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. 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 2012.

Hunger, like income poverty and household unemployment, is most likely to be found among African children. In 2012, some 2.4 million African children lived in households that reported child hunger. This equates to 15% of the total African child population, while relatively few Coloured (10%) children lived in households where child hunger was reported, and the proportions for Indian and White children were below 1%.

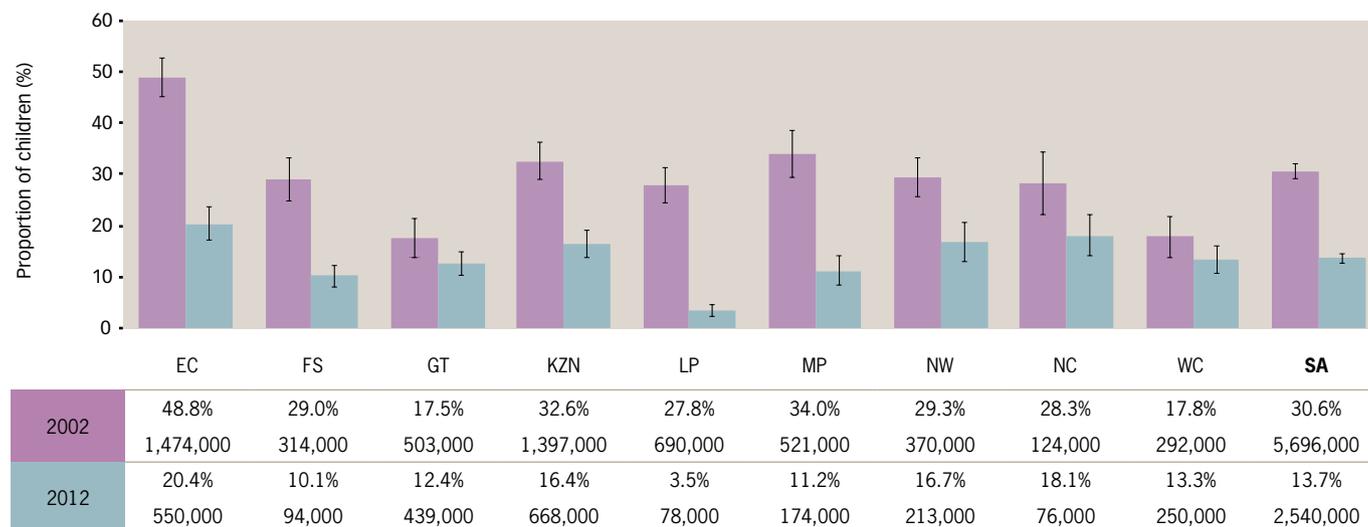
Although social grants are targeted to the poorest households and are associated with improved nutritional outcomes, child hunger is still most prevalent in the poorest households: 23% of children in the poorest quintile go hungry sometimes, compared with 1% in the wealthiest quintile of households.

There are no significant differences in reported child hunger across age groups. However, over 800,000 children aged less 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 which may result in 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.<sup>22</sup>

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.

**Figure 3c: Children living in households where there is reported child hunger, by province, 2002 & 2012**

(Y-axis reduced to 60%)



**Source:** Statistics South Africa (2003; 2013) *General Household Survey 2002; General Household Survey 2012*. Pretoria: Stats SA. Analysis by Katharine Hall & Winnie Sambu, Children's Institute, UCT.

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