Child health: The general context

Beverly Draper and Johannes John-Langba (Children's Institute)

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".

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".

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".

The infant mortality rate and under-five mortality rate in South Africa

The World Health Organisation describes the infant mortality rate and under-five mortality rate as leading indicators of the level of child health in a country. The infant mortality rate (IMR) indicates the number of children per 1,000 live births who died before their first birthday. The under-five mortality rate (U5MR) is the number of deaths among children before reaching the age of five years, per 1,000 live births.

Both these indicators are also used to track progress on the Millennium Development Goal (MDG) to reduce mortality in children under five by 2015. Projected data from UNICEF and the ASSA2003 model clearly show scant promise for South Africa to reach the MDG to reduce mortality in children under five.

The latest mortality data from Statistics South Africa show that the highest number of deaths in the whole population occurred in the 0 – 4 years age group with the U5MR increasing from almost 40 deaths per 1,000 live births in 2001 to 72 per 1,000 live births in 2005. However, available statistics rely on the number of births and deaths that are actually registered, and under-registration of births and deaths remains a challenge to the production of reliable data on infant and child mortality.

The data show that the IMR increased from almost 29 deaths per 1,000 live births in 2001 to 43 per 1,000 live births in 2005.

This apparent trend of rising infant mortality and under-five mortality rates may be due to improved registration of births and deaths. Nevertheless, it is very clear that South Africa is not moving in a positive direction as far as infant and under-five mortality is concerned.

TABLE 12: The infant mortality rate and the under-live mortality rate in South Africa in 2001 – 20	ABLE 12: The infant mort	lity rate and the under	-five mortality rate in S	South Africa in 2001 – 200
--	--------------------------	-------------------------	---------------------------	----------------------------

	2001	2002	2003	2004	2005*							
	Deaths per 1,000 live births											
Infant mortality rate	28.8	33.1	36.5	38.1	43.0							
Under-five mortality rate	39.6	44.7	49.3	52.8	72.1							

* 2005 data are based on mid-year estimates.

Source: Statistics South Africa (2006) Mortality and causes of death in South Africa, 2003 and 2004: Findings from death notification; Statistics South Africa (2005) Mid-year estimates 2005. In: ljumba P & Padarath A (eds) (2006) South African Health Review 2006. Durban: Health Systems Trust. Available: www. hst.org.za

TECHNICAL NOTES ON THE INDICATOR

The IMR is defined as the number of children younger than one year who have died in a year, per 1,000 live births during that year.

Health Systems Trust used population-based estimates to estimate live births. The population-based estimates were derived from the District Health Information Systems (DHIS) figures for the under one-year population, multiplied by a factor of 1.04.

The U5MR is defined as the number of children younger than five years old who have died in a year, per 1,000 live births during that year. It is a combination of the infant mortality rate, plus the 1 - 4 years mortality rate.

Health Systems Trust used population-based estimates to estimate live births. The population-based estimates were derived from the District Health Information Systems (DHIS) figures for the under one year population, multiplied by a factor of 1.04.

The number and proportion of children in South Africa living in households where there is child hunger

Hunger is used as an indicator to monitor the extent of food insecurity among households with children in South Africa. Children who are nutritionally deprived are vulnerable to cognitive and other developmental impairments that include lower intelligence, poor educational outcomes, stunting, wasting, and a diminished capacity for work in adulthood.

In the General Household Survey, respondents are asked to report whether any child in the household "seldom, sometimes, often, always or never went hungry in the past 12 months".

In July 2006, about 2.8 million children were living in households across South Africa where children were reportedly "sometimes", "often" or "always" hungry because there was not enough food, a decline of about 1.1 million children since 2005. This means that about 16% of all children in the country lived in households experiencing child hunger in 2006 compared to 22% in 2005.

Although the proportions of children living in households where there is child hunger has decreased over the last five years (from about 29% in 2002 to 16% in 2006), large disparities among provinces and population groups still persist. In 2006, four provinces (Eastern Cape, Free State, KwaZulu-Natal, and North West provinces) still had proportions of children above the national average of 16% who lived in households experiencing child hunger, with the Eastern Cape continuing to host the largest proportion of children (20%) living in such households. The Eastern Cape is also one of the provinces with the highest rate of child poverty and children living without an employed adult present.

Racial disparities for this indicator are stark. Although the number of African children living in households where there is child hunger has reduced to about half since 2002, some 2.7 million African children lived in such households in 2006, which is about 18% of the total number of African children. In comparison, only about 9%, 0.5% and 1% of coloured, Indian, and white children respectively lived in households where there was child hunger.

The data show that African children still experience hardship and remain adversely affected by the legacy of apartheid, which has resulted in gross inequities and poor access to resources for those who were historically disadvantaged.

Province	2002		2003		2004		2005		2006			
	Number	%										
Eastern Cape	1,333,000	47 *	1,201,000	42*	1,223,000	38 *	937,000	30 *	630,000	20*		
Free State	286,000	29 *	271,000	28 *	247,000	23 *	240,000	22 *	204,000	18		
Gauteng	449,000	16*	535,000	19*	384,000	15	375,000	14 *	355,000	13 *		
KwaZulu-Natal	1,182,000	31 *	1,335,000	35 *	1,032,000	27 *	828,000	22	655,000	17		
Limpopo	696,000	28 *	564,000	22 *	506,000	19	518,000	20 *	297,000	11		
Mpumalanga	434,000	33 *	422,000	32 *	371,000	28 *	343,000	25 *	228,000	16		
Northern Cape	76,000	25 *	48,000	16*	65,000	19 *	62,000	18 *	53,000	15 *		
North West	432,000	30 *	483,000	33 *	460,000	31 *	366,000	25 *	244,000	17 *		
Western Cape	258,000	16*	275,000	17*	245,000	16 *	298,000	19 *	193,000	12 *		
South Africa	5,147,000	29	5,136,000	29	4,533,000	25	3,967,000	22	2,859,000	16		

TABLE 13: The number* and proportion of children in South Africa living in households where there is child hunger in 2002 – 2006

+ Numbers have been rounded off to the nearest thousand

* This proportion should be interpreted with caution, as the confidence interval is relatively wide.

Source: Statistics South Africa (2003; 2004; 2005; 2006; 2007) General Household Survey 2002; General Household Survey 2003; General Household Survey 2004; General Household Survey 2005; General Household Survey 2006. Pretoria: Statistics South Africa. Analysis by Marera DS, Children's Institute, UCT.

TECHNICAL NOTES ON THE INDICATOR

This indicator shows the number and proportion of children living in households who experithe past 12 months, did any child in this household go hungry because there wasn't enough times", "often" or "always" are included as households where children experience hunger.

food?" Those who answered "never" or "seldom" are considered to be households without child enced hunger because there wasn't enough food. The General Household Survey asks, "In hunger for the purposes of this indicator. Those for whom the respondent answered "some-

For more data, visit www.childrencount.ci.org.za

The leading causes of death among children

Child survival is the most common outcome variable used to determine the state of children's well-being in a country. It indicates the direction for health interventions needed and the identification of factors that contribute to both child disease and mortality. By identifying the leading causes of death, particularly among children under five, service providers can frame constructive interventions. It further aids to identify high risk groups in a population.

Child survival programmes have traditionally been lodged in the delivery of cost-effective primary health care interventions. The high coverage of health care for pregnant women and the advent of antiretroviral treatment can positively affect child survival, especially in the framework of an efficient prevention of mother-tochild transmission programme. But while 'cause of death' indicates the direct reason for child mortality, all factors need to be considered that may directly or indirectly contribute to child survival. Therefore improving child survival should be aimed at managing childhood diseases as well as addressing the broader determinants of child health, such as socio-economic, environmental and educational factors. So-called 'diseases of poverty' in children will not be addressed adequately unless an approach that considers issues of deprivation and inequity is implemented.

The leading causes of death in children under five may be broadly categorised into four categories: complications around and shortly after birth, HIV-related illnesses, diseases of poverty (for example intestinal infectious diseases and malnutrition) and trauma. The inter-relatedness of these four categories is well known and only an integrated multi-disciplinary approach to child survival as a whole will make significant indents to under-five mortality. However, HIV/AIDS remains the clear leader in the threat to child survival as demonstrated in the Medical Research Council's Burden of Disease studies, and the HIV/AIDS pandemic continues to devastate the well-being and survival of children.

Data on the leading causes of death among children younger than 15 years for 2000 to 2005 shows that the highest proportion of mortality in children is related to perinatal disorders (disorders that occur in the period of late pregnancy to seven days after birth), which means newborn children and infants under one year are particularly vulnerable. Respiratory and cardiovascular disorders remain the highest specific cause of death in the perinatal period and, since 2002, it is the highest specific category among children under 15 years. According to the Perinatal Problem Identification Program (PPIP), the perinatal mortality rate by the end of 2003 at sentinel PPIP sites¹ was 35.8 per 1,000 for all deliveries, and 26.4 per 1,000 for all infants weighing more than 1,000 grams.

There has been a decline in gastrointestinal, respiratory diseases and malnutrition since 1997. Malnutrition as a cause of death has more than halved between 2000 and 2005, and tuberculosis has slightly increased over the six-year period.

Mortality and causes of death statistics, as derived from death certificates, since 2001 no longer record 'HIV disease' or 'ill-defined causes of mortality' as leading causes of death. However the categories of 'immune disorders' and 'other causes' were added in 2002, and in 2005 they made up approximately one-third of the causes of death in both male and female children.

Non-natural causes of death that account for trauma are classified under 'unspecified unnatural causes', which makes up around 7% of child deaths in 2005. These causes of death must be given higher priority on the child survival agenda.

1 A sentinel site is one of a few selected sites where data are collected, rather than collection of information from all sites in a particular district or province.



	2000		2001		2002		2003		2004		2005	
Cause of death as a proportion of total deaths	Male	Female										
	%	%	%	%	%	%	%	%	%	%	%	%
Intestinal infectious diseases	16.1	17.1	13.7	13.7	5.9	6.1	6.3	6.5	6.5	6.9	6.2	6.5
Influenza and pneumonia	13.3	14.7	13.9	16.2	4.0	4.3	4.3	4.4	4.3	4.8	3.8	4.1
Unspecified unnatural causes	8.0	5.0	9.2	5.9	•	•	٠	•	•	•	8.0	6.0
HIV disease	10.6	11.0	11.2	11.6	•	•	٠	•	•	•	•	٠
Ill-defined causes of mortality	6.7	8.0	7.5	7.7	•	•	٠	•	•	•	•	٠
Respiratory & cardiovascular disorders (perinatal)	6.4	6.0	6.0	6.4	20.0	20.9	20.6	21.3	19.7	20.2	20.9	21.6
Perinatal disorders	4.4	4.7	4.5	4.3	6.6	7.2	6.6	7.1	7.8	7.6	8.3	8.5
Digestive system disorders of foetus and newborn	•	•	•	•	12.4	12.9	12.3	12.7	13.0	12.8	•	•
Infections specific to the perinatal period	•	•	•	•	3.4	3.0	3.7	3.4	3.4	3.3	•	•
Malnutrition	6.9	5.8	5.4	5.2	2.8	3.0	2.5	2.6	2.7	3.0	2.6	2.7
Gestation disorders	3.1	2.9	2.9	2.4	3.7	3.4	3.5	3.2	2.5	2.4	2.2	2.4
Inflammatory diseases of the central nervous system	2.1	1.9	2.1	1.9	•	•	•	•	•	•	•	•
Tuberculosis	1.7	2.3	3.1	2.7	2.6	2.4	2.6	2.7	2.7	2.6	2.6	2.6
Immune disorders	•	•	•	•	3.0	3.2	2.9	3.1	2.7	3.0	2.6	2.5
Other causes	•	•	•	•	35.7	33.7	34.7	33.1	34.7	33.4	33.7	31.8

TABLE 14: The leading causes of death among children younger than 15 years in South Africa in 2000 - 2005

Not applicable as was not considered leading cause of death.

Source: Statistics South Africa (2002) Causes of death in South Africa 1997 – 2001. Advance release of recorded causes of death. Pretoria: Statistics South Africa. Statistics South Africa (2006) Mortality and causes of death in South Africa, 2003 and 2004. Findings from death notification. Pretoria: Statistics South Africa. Statistics South Africa (2007) Mortality and causes of death in South Africa, 2005. Findings from death notification. Pretoria: Statistics South Africa, 2007. Mortality and causes of death in South Africa, 2005. Findings from death notification. Pretoria: Statistics South Africa.

TECHNICAL NOTES ON THE INDICATOR

This indicator shows the leading causes of deaths among children younger than fifteen years. Each cause of death is presented as a proportion of the total deaths for males and females respectively within the given years.

Statistics South Africa's causes of deaths data are derived from the death notification forms collected by the Department of Home Affairs. Apparent increases in deaths should be considered in light of improved registration of deaths.

ADDITIONAL SOURCES FOR CHILD HEALTH: GENERAL CONTEXT

- Actuarial Society of South Africa (2005) ASSA 2003 AIDS and Demographic model. Available: www.assa.org.za
- Bradshaw D & Dorrington R (2007) Child mortality in South Africa we have lost touch. South African Medical Journal, August 2007, 97(8): 582-583.
- Bradshaw D & Nannan N (2006) Mortality and morbidity among women and children. In: ljumba P & Padarath A (eds) (2006) South African Health Review 2006. Durban: Health Systems Trust. Available: www. hst.org.za
- Bradshaw D, Nannan N, Laubscher R, Groenewald P, Joubert J, Nojilana B, Norman R, Desiree P & Schneider M (2004) South African National Burden of Disease Study 2000 – Estimates of Provincial Mortality. Cape Town: South African Medical Research Council, Burden of Disease Unit.
- · Constitution of the Republic of South Africa. Act 108 of 1996.
- Frongillo EA, de Oris M, & Hanson KMP (1997) Socio-economic and demographic factors are associated with worldwide patterns of stunting and wasting in children. *Journal of Nutrition*, 127: 2302-2309.
- Olson CM (1999) Nutrition and health outcomes associated with food insecurity and hunger. Journal of Nutrition, 129: 521-524.
- Perinatal Problem Identification Program 2003. Available: www.ppip.co.za

- Secretary General of the Organisation of the African Union (1990) African Charter on the Rights and Welfare of the Child, OAU resolution 21.8/49.
- Statistics South Africa (2007) Mortality and causes of death in South Africa, 2005: Findings from death notification. Pretoria: Statistics South Africa.
- Available: www.statssa.gov.za/publications/P03093/P030932005.pdf
- Statistics South Africa (2004) General Household Survey Questionnaire 2004, page 8. Pretoria, Cape Town: Statistics South Africa.
- Yach D & Botha JL (1986) The use of age- and cause-specific proportional mortality ratios to compare causes of death in South African children in 1980. Southern African Journal of Epidemiology and Infection, 1(1): 3-10.
- United Nations Children's Fund (1990) First Call for Children. World Declaration and Plan of Action from the World Summit for Children. New York: United Nations Children's Fund.
- United Nations Children's Fund (2006) State of the world's children 2007. New York: UNICEF. Available: www.unicef.org/sowc07
- Weinreb L, Wehler C, Perloff J, Scott R, Hosmer D, Sagor L, & Gunderson C (2002) Hunger: Its impact on children's health and mental state. *Paediatrics*, 110 (3): 1-9.1.
- World Health Organisation (2008). Probability of dying aged <5 years per 1000 live birth (under-five mortality rate). Available: www.who.int/whosis/indicators/2007MortChild/en/