

SOUTH AFRICAN
ChildGauge

Edited by Maurice Kibel, Lori Lake,
Shirley Pendlebury & Charmaine Smith 2009/2010



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Broad overview of the *South African Child Gauge 2009/2010*

The *South African Child Gauge* is produced annually by the Children's Institute, University of Cape Town to monitor government and civil society's progress towards realising the rights of children. This issue focuses on child health.

The *South African Child Gauge* is divided into three parts:

PART ONE: Children and law reform

Part one discusses recent legislative developments affecting child health. In this issue there is commentary on the Children's Act, the Prevention of and Treatment for Substance Abuse Act, provincial health legislation, Tobacco Products Control Amendment Acts, regulations to the Basic Conditions of Employment Act and new regulations to the Social Assistance Act. See pages 11 – 17.

PART TWO: Healthy children: From survival to optimal development

Part two presents a series of 12 essays. Essays one and two set the scene by examining children's rights to health and the status of child health in South Africa. Then come three essays that look at key health challenges and how to address them: HIV and TB; malnutrition; mental health and risk behaviour. These are followed by four essays that examine how to strengthen the health care system's response to childhood illness and injury. This includes defining a package of basic health care services; managing resources and building capacity; providing child- and family-friendly services; and strengthening community-based pro-programmes. The next essay shows how the roots of childhood illness and injury often lie outside the health care system, and calls for concerted action to address the social determinants of health. Two further essays point the way forward. In the first, the Minister of Health describes his vision for child health in South Africa. The second draws on the findings presented in the earlier essays to outline recommendations for a system and a society that support child health. See pages 19 – 93.

PART THREE: Children Count – the numbers

Part three updates a set of key indicators on children's socio-economic rights and provides commentary on the extent to which these rights have been realised. The indicators are a special subset selected from the website www.childrencount.ci.org.za. See pages 95 – 134.

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In memory of two inspirational men, who devoted their working lives
to understanding and promoting enabling conditions for children's well-being

Professor Harold Richman (1937 – 2009)

Professor Alan Flisher (1957 – 2010)



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46 Sawkins Road, Rondebosch, Cape Town, 7700, South Africa
Tel: +27 (0)21 689 5404 Fax: +27 (0)21 689 8330
E-mail: info@ci.org.za Web: www.ci.org.za

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Abbreviations

ACRWC	African Charter on the Rights and Welfare of the Child	IFSNP	Integrated Food Security and Nutrition Programme
AIDS	Acquired Immune Deficiency Syndrome	IMCI	Integrated Management of Childhood Illness
ART	Antiretroviral Therapy	IMR	Infant Mortality Rate
ASSA	Actuarial Society of South Africa	INP	Integrated Nutrition Programme
BFHI	Baby-Friendly Hospital Initiative	IQ	Intelligence Quotient
CESCR	(United Nations) Committee on Economic, Social and Cultural Rights	IYCF	Infant and Young Child Feeding
CDG	Care Dependency Grant	m2m	mothers2mothers (programme)
CRC	(United Nations) Convention on the Rights of the Child	MDGs	Millennium Development Goals
CSG	Child Support Grant	MDR-TB	Multi-Drug Resistant Tuberculosis
CASP	Comprehensive Agricultural Support Programme	MMR	Maternal Mortality Ratio
CFHI	Child-Friendly Healthcare Initiative	NAFCI	National Adolescent-Friendly Clinic Initiative
CHIP	Child Healthcare Problem Identification Programme	NFCS	National Food Consumption Survey 2005
CHW	Community Health Worker	NPOs	Not-for-Profit Organisations
DHS	(South African) Demographic and Health Survey	NSNP	National School Nutrition Programme
EAs	Enumerator areas	PHC	Primary Health Care
EBF	Exclusive Breastfeeding	PMTCT	Prevention of Mother-To-Child Transmission (of HIV)
EPI	Expanded Programme of Immunisation	SASSA	South African Social Security Agency
FCG	Foster Child Grant	SATVI	South African Tuberculosis Vaccine Initiative
GDP	Gross National Product	STIs	Sexually Transmitted Infections
GHS	General Household Survey	TB	Tuberculosis
GNI	Gross National Income	U5MR	Under-Five Mortality Rate
GPI	Gender Parity Index	UN committee	United Nations Committee on the Rights of the Child
HIV	Human Immunodeficiency Virus	UNICEF	United Nations Children's Fund
HHCC	Household and Community Component (of the IMCI)	VAT	Value Added Tax
ICESCR	International Covenant on Economic, Social and Cultural Rights	WHO	World Health Organisation
		XDR-TB	Extreme Drug Resistant Tuberculosis



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Foreword

Marian Jacobs

(Dean: Faculty of Health Sciences, University of Cape Town)

This is the fifth issue of the *South African Child Gauge*, and it has been a privilege to watch its growth and development – from a newborn publication, through its tentative first steps, to a robust, confident, five-year-old which has taken its rightful place among those publications which contribute to nation-building.

The original intent of the *Gauge* was to provide an annual account of the lives of children in South Africa – through monitoring those commitments made to them by adults who make laws, policies and promises; through focusing, year on year, on a special sector or aspect of their lives, such as education or HIV/AIDS; and through providing some numbers which can help to track progress through a quantitative lens. There can be no doubt that this intent has been fulfilled, and that the *Gauge* has found that oft-times elusive middle road between a scientific publication, read mainly by researchers, and one which has a wider readership of people – in state and civil society structures – who seek and appreciate research-based evidence that is presented in a more accessible and policy-relevant format.

Over its short life, the *Gauge* has been faced with the same challenges as those that affect the health of children in the first five years of their lives: to survive; to develop; and to be protected. These challenges have been successfully addressed through efforts by the Children's Institute staff and their collaborators; through the generosity of funders; and especially through the readers, whose positive feedback and interest



have been the greatest inspiration to the *Gauge* team.

This issue presents a very important focus on the health of children – an area in which comprehensive action is urgently needed. For in South Africa, despite having 16 years of policies, programmes and interventions to promote, protect and manage the health of children, there remains an unfinished agenda, parameters of which are captured in the essays as well as in the numbers in this issue.

Where to from here for the *South African Child Gauge*? Discussions on the global stage suggest that the coming years hold much promise for children.

While the twentieth anniversary of the United Nations Convention on the Rights of the Child last year offered a chance to reflect on both gains and unmet agendas for children, the upcoming global Summit on the Millennium Development Goals provides another opportunity for making real plans which can be scaled down to country level. In terms of our Constitution, laws and policies, South Africa is poised to act to implement plans and to embark on a refreshed agenda for children.

Within this, this issue of the *Gauge* makes an important contribution to describing the current state of health of South Africa's children, reviewing policies and interventions, and in so doing, being a significant knowledge broker between all of those who can, and do, make a difference for the health of our children.

Reflections on child health

Mickey Chopra

(Chief of Health: United Nations Children's Fund, New York)

The articles in this year's *South African Child Gauge* continue this now well-established practice of using research evidence and data to keep us all accountable to the most vulnerable in our society. The regular, objective and rigorous use of data and research to document trends, interventions and gaps allows for the identification of critical actions and actors required to improve the well-being of children.

The word 'gauge' derives from the Frankish word 'galgo' which was a 'rod or pole for measuring'. Ever since William Farr, the first Superintendent of Statistics in Britain's Office of the Registrar General, population measures have been at the heart of public health, epidemiology and evidence-based policy-making in the Western world. In Farr's case, he computed innovative national and sub-national measures of vital statistics and mortality to provoke public discussion and debate on the wide differences between cities and rural areas (where the mortality rates were much higher in urban settings), hence laying the ground for sweeping public health investments such as sewage and water works that still serve many English cities today. Meanwhile his French counterpart, Louis-René Villermé, was comparing mortality rates across parts of Paris which fundamentally changed theories of diseases, according to the historians Julia and Valleron:

... these studies contributed to the emergence of a new paradigm. Traditionally the neo-Hippocratic thesis dominated medicine and explanations of mortality difference were seen in the level of hygrometry, directions of the wind, orientation of the streets ... With the census



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data and other surveillance Villermé was able to show how this was more related to changes of industrialisation and the wealth of the arrondissements.¹

A modern day comparison of the levels of mortality across different sub-districts in Cape Town has highlighted the continuing inequalities across the city. This is made even starker when the distribution of public health resources is plotted across the same districts. A phenomenon first described

by the British GP Tudor Hart in England and Wales is also evident in Cape Town: Health resources are concentrated least amongst those who require them most. This example also illustrates the challenges of moving beyond description and towards actual policy change.

Whilst senior management has recognised the mismatch between need and supply, it has found it challenging to shift resources between sub-districts. This is partly because budgets are traditionally changed incrementally; so making large shifts is difficult. But the largest component of the budget is human resources, and moving health workers has proven very difficult. So the audience for this *Gauge* is not only policy-makers and politicians, but also ordinary health workers.

More recently, causes of death data have been collated for the different sub-districts in Cape Town. This analysis has brought to light the growing importance of non-communicable diseases. The rates of mortality caused by conditions such as strokes, diabetes, and heart disease were the same for poor districts such as Khayelitsha as they were for better-off sub-districts. Recent school surveys have found that levels of over-weight and obesity are almost the same as in Europe.

This finding is true across the whole socio-economic spectrum, with worrying implications for the future: These children are at increased risk of chronic diseases such as diabetes, hypertension and strokes later in life. Unless immediate action is taken to increase physical activity levels and modify diets, many children are going to face an even bleaker future. A future edition of the *South African Child Gauge* may wish to pay particular attention to this phenomenon which thus far has been relatively neglected.

Cause of death data have already played a pivotal role in shifting health policy. For many years the impact of HIV and AIDS in South Africa was either denied or seriously downplayed. Meticulous analysis by researchers from the Medical Research Council showed how AIDS was by far the leading cause of death in adults, and increasingly in children. Despite resistance even from their own management, the publication of the findings in an internationally renowned journal² was an important turning point in official recognition of the epidemic.

Unfortunately most people in Africa and Asia are born and die without leaving a trace in any legal record or official statistic. Absence of reliable data on births, deaths, and causes of death are at the root of this scandal of invisibility, which renders most of the world's poor unseen, uncountable, and hence uncounted.

Every year the births of around 51 million children go unregistered globally.³ These children are almost always from poor, marginalised or displaced families, or from countries where systems of registration are not functional. The consequences for their health and well-being are often severe and long-lasting.

Although sub-Saharan Africa has the highest proportion (66%) of children not registered at birth, South Asia, with a corresponding ratio of 64%, has the highest number.⁴ A recent UNICEF analysis revealed that high cost was the primary reason for the lack of birth registration in no fewer than 20 developing countries, resulting in large registration disparities between rich and poor children. In Tanzania, where overall birth registration is very low, there is a strong disparity between rich and poor, with only 2% of the poorest fifth of children being registered compared to 25% of the richest fifth.⁵

Approximately half the countries in Africa and southeast Asia have no cause of death data.⁶ This lack of birth and death registration is not just a matter of deprivation of a basic human right. Recent evidence suggests it may also constrain economic growth. It is widely accepted that economic growth has, and continues to, depend upon a few key factors for which vital registration is critical. Firstly, registration facilitates the workings of a legal system that enables ordinary people to exercise their

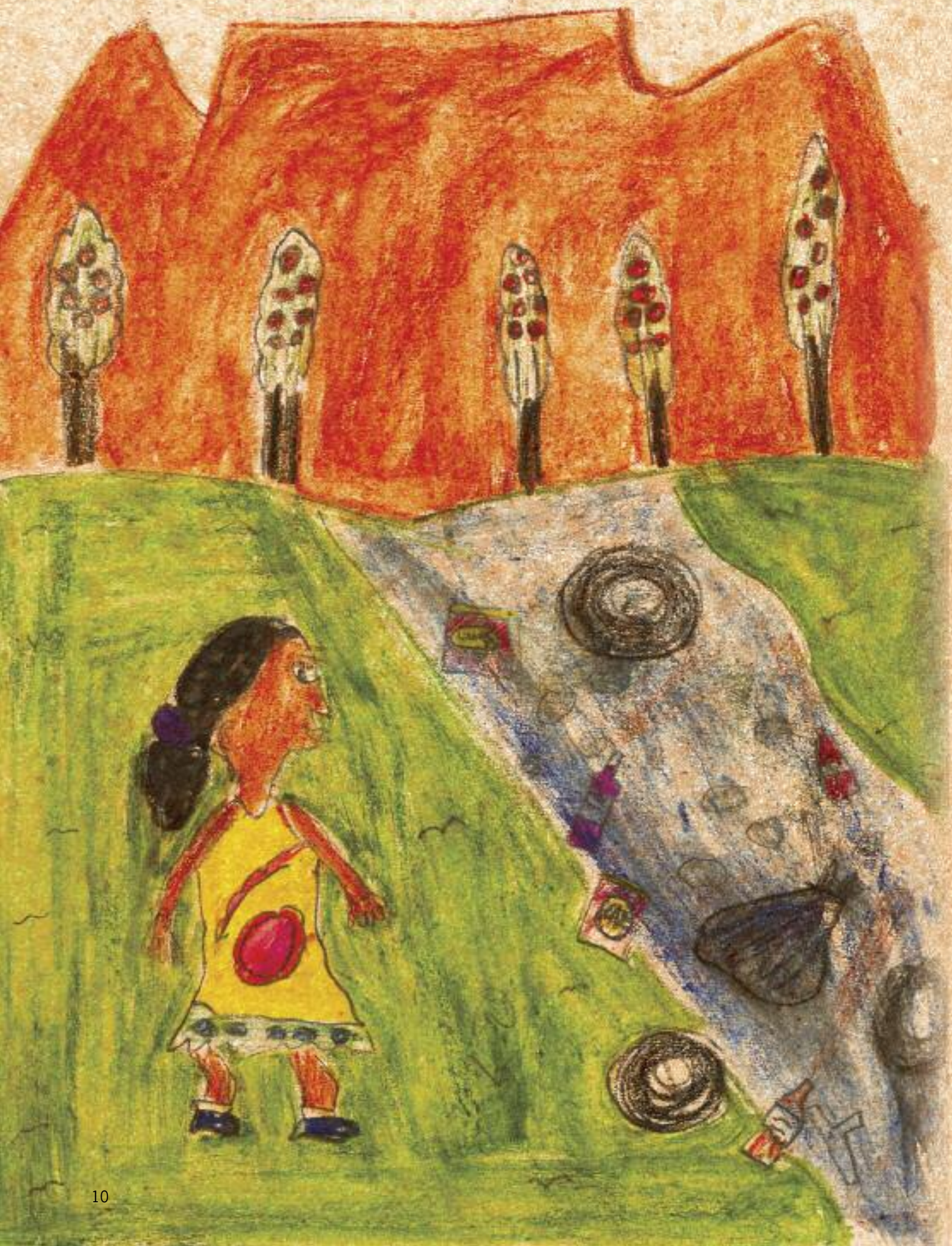
property and other rights. Secondly, it demonstrates, and gives confidence in, the capacity of the State to protect the property rights of the individual. Thirdly, a vital registration system is essential to develop any sort of universal social security system. Such a system has been shown to be vital in ameliorating the serious social problems of disruption caused by market growth. It also gives people the confidence to be more mobile in seeking economic opportunities, as leaving the family or present community network is not such a large welfare risk. It has been persuasively argued that the existence of a robust vital registration system is one of the key reasons why England was the first to undergo the Industrial Revolution.⁷

South Africa has made great strides in improving the coverage of vital registration. More than 90% of births and deaths are now captured in urban centers and the majority are also captured in rural areas with the proportion improving. The majority of births and deaths are now captured in official vital registration systems. The provision of widespread social benefits has greatly facilitated this increased coverage and serves as an important lesson for other countries.

The challenges are to improve efficiency in processing registration data such as death certificates, and for academics, civil society and government to engage with data to turn it into information and ultimately into knowledge that makes a positive difference in the lives of children. Publications such as the *South African Child Gauge* are an important contribution to this process.

References

- 1 Julia C & Valleron AJ (2009) Louis-Rene Villerme (1782 – 1863), a pioneer in social epidemiology: Re-analysis of his data on comparative mortality in Paris in the early 19th century. *Journal of Epidemiological Community Health*. Published Online First, 18 September 2009: <http://jech.bmj.com/content/early/2009/09/23/jech.2009.087957.abstract>.
- 2 Groenewald P, Bradshaw D, Dorrington R, Bourne D, Laubscher R, Nannan N (2005) Identifying deaths from AIDS in South Africa: An update. *AIDS*, 19(7): 744-745.
- 3 Setel PW, Macfarlane SB, Szreter S, Mikkelsen L, Jha P, Stout S, Abouzahr C, on behalf of the Monitoring of Vital Events (MoVE) writing group (2007) A scandal of invisibility: Making everyone count by counting everyone. *The Lancet*, 370(9598): 1569-1577.
- 4 See no 3. above.
- 5 United Nations Children's Fund (2005) *The 'rights' start to life*. New York: UNICEF.
- 6 See no. 5 above.
- 7 Simon Szreter (2005) *Health and wealth: Studies in history and policy*. Rochester: Rochester University Press.



1 Children and law reform

Part one examines recent legislative developments that affect children's health in South Africa.

This includes: the Children's Act • the Prevention of and Treatment for Substance Abuse Act

• provincial health legislation • the Tobacco Products Control Amendment Acts • the regulations to the Basic Conditions of Employment Act, and • new regulations to the Social Assistance Act.



Key legislative developments in 2009/2010: Child health rights

Lucy Jamieson, Prinslean Mahery and Khululwa Seyisi-Tom (Children's Institute)

Article 24 of the United Nations Convention on the Rights of the Child provides for “the right of the child to the enjoyment of the highest attainable standard of health”. This provision expands on the right to health in the International Covenant on Economic, Social and Cultural Rights, and a similar right is found in article 14 of the African Charter on the Rights and Welfare of the Child.

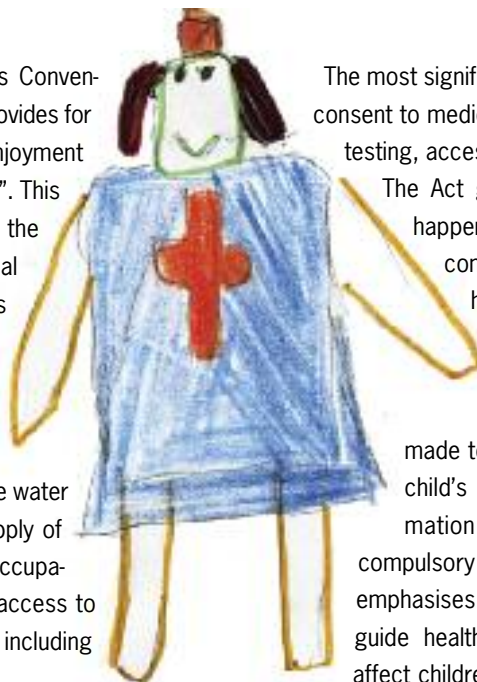
The treaties define health broadly to include the underlying determinants of health such as “access to safe and potable water and adequate sanitation, an adequate supply of safe food, nutrition and housing, healthy occupational and environmental conditions, and access to health related education and information, including on sexual and reproductive health”.¹

The South African Constitution includes children's right to basic health care services and a range of socio-economic rights that place the same obligations on the State as the right to health in international law (see pp. 22 – 28).

The essay in this section describes and interprets legislative developments relevant to child health in 2009/2010. These include the Children's Act, the Prevention of and Treatment for Substance Abuse Act, provincial health legislation, the Tobacco Products Control Amendment Acts, the regulations to the Basic Conditions of Employment and new regulations to the Social Assistance Act.

Children's Act

The Children's Act (as amended by the Children's Amendment Act)² came into full force on 1 April 2010. The accompanying regulations also came into operation on the same day.³ The Act repeals the Child Care Act⁴ and contains a number of new provisions relating to child health.



The most significant changes for child health focus on consent to medical treatment, surgical operations, HIV testing, access to contraceptives and circumcision.

The Act gives clear direction on what should happen when a child lacks the capacity to consent, and on children's right to refuse health services. It also introduces children's rights to participate in health decisions and to access a range of health information. Provision was made to ensure confidentiality in relation to a child's health status and treatment information. The Act also provides for the compulsory reporting of abuse and neglect. It emphasises that the child's best interests must guide health professionals in all decisions that affect children.

Consent

The new law allows for caregivers such as grandmothers to consent to medical treatment and HIV testing for children in their care. Previously, the law specified an age threshold of 14 years for treatment and 18 years for surgery. Now health professionals must consider both the *age* and the *maturity* of the child. The Act allows children 12 years and older to consent to medical treatment or a surgical operation if they are “mature” enough to understand the benefits, risks, social and other implications of the treatment or operation.

The parent or guardian must assist a child over 12 when making a decision about a surgical operation. When a child is too young or lacks capacity, a parent or guardian can give consent, but must consider any views expressed by the child. However, the age threshold of 12 years and older does not apply to a girl child seeking a termination of pregnancy either through medical treatment or surgery because the law that regulates abortions is not the Children's Act, but the Choice on

Termination of Pregnancy Act,⁵ which allows a girl of any age to consent to an abortion, provided she can give informed consent.

A child over 12 years can consent to an HIV test and the disclosure of his/her HIV/AIDS status. A child younger than 12 can also consent to testing or to the disclosure of his/her HIV status, if mature enough to understand the risks, benefits and social implications of the test or the disclosure. No child may be tested without receiving counselling before and after the test. An HIV test must be in the child's best interests and the relevant consent must be obtained.

A court can order that a child is tested for HIV when it is necessary to establish if someone has contracted the virus from contact with the child's bodily fluids. For example, if a child is alleged to have committed a sexual offence, a magistrate can order an HIV test in terms of the Sexual Offences Act⁶ to find out if the victim was exposed to HIV during the alleged offence.

To access contraceptives, a child should be 12 years or older, and no maturity test is required. The Act says that no one (including a health professional) may refuse condoms to a child older than 12 years. This strong wording aims to ensure that teenagers have unrestricted access to condoms to protect themselves against sexually transmitted infections (STIs), HIV, and early pregnancy. To access contraceptives other than condoms, the child must undergo a medical examination, and must be given proper medical advice on how and when to use the contraceptives, and possible side-effects. The Act expressly obliges health professionals to respect children's confidentiality when requesting contraceptives – again to provide a supportive environment for teenagers to access essential reproductive health services.

Female circumcision or genital mutilation is banned by the Children's Act. However, circumcision can be performed on boys for cultural, religious or medical purposes. When it comes to cultural circumcision, a boy has to be 16 years or older and he must consent to the circumcision. Every male child has the right to refuse circumcision if he is mature enough to understand the consequences. Religious circumcision can be performed on a boy younger than 16 if the parents or guardians consent. Boys older than 16 can consent to religious circumcision, but must be assisted by a parent or guardian.

Medical circumcision is treated as a surgical operation and can be performed only for medical reasons on the recommendation of a medical practitioner. Only a medical practitioner or person with knowledge of the cultural or religious practices of the child and who has been properly trained to perform circumcisions can do so. The Children's Act regulations outline the circumcision procedure to safeguard the health of the child.

When a child lacks capacity to consent

When a child does not have the legal capacity to consent, a parent or guardian can consent to any procedure, including surgery. Caregivers (people like grannies or foster parents) may consent only to medical treatment and HIV testing. Designated child protection organisations (eg Child Welfare South Africa) can consent to an HIV test or the disclosure of a child's HIV status when arranging the placement of a child (either in foster care or adoption).

If the child does not have capacity to consent and the parents are unavailable or unreasonably withholding consent, the provincial head of social development, the courts or the Minister of Social Development can consent. A hospital superintendent or the person in charge of a hospital can consent to emergency surgery or urgent treatment to save the life of the child or prevent permanent disability if there is no time for the usual consent procedures.

A right to refuse health care

The Constitution protects children's right to bodily integrity and the National Health Act⁷ obliges health practitioners to inform health users (including child patients with the capacity to consent) about their right to refuse treatment. The Children's Act does not explicitly grant children the right to refuse treatment or surgery; however, it does acknowledge such a right by noting that the Minister of Health can consent to a child's medical treatment or surgery if the child "unreasonably" refuses consent. This implies that refusal will be respected if reasonable. However, as with the right to consent, only a child of consent age and who is mature enough to understand the risks and consequences of refusing can exercise the right to refuse health care.

Health information

Children have a right to information about their health and to participate in the decision-making process even if they do not have the right to consent. All children have a right to information about their own health and treatment options, and to general health information on health promotion and prevention, and on sexual and reproductive health in particular. Adopted children and children conceived artificially have a right to access medical information about their biological parents. The Children's Act requires that information must be provided in a format accessible to children, including children with disabilities.

Reporting and confidentiality

The Act upholds the child's right to privacy and physical integrity by requiring that the child's health status and the status of his/her parents or family members be kept confidential. Any unautho-

rised breach of confidentiality about HIV/AIDS status is an offence. The Act provides that confidentiality may be breached if it is in the best interests of the child. Health professionals will have to make a judgement call in each instance, based on the factors for determining best interests listed in the Act – for example, the nature of the child and parent’s relationship must be considered when deciding to inform a parent of the child’s HIV status.

The Act instructs health professionals to breach confidentiality if they conclude that the child has been abused or deliberately neglected. Health professionals are amongst a range of professionals obliged to report an incident of abuse or deliberate neglect to a police officer, the Department of Social Development, or a social worker. A young child presenting with an STI, a 13-year-old requesting condoms who reveals that she is having sex with an adult, or a child with signs of physical assault are examples of where confidentiality must be breached to ensure the child is protected from further abuse.

Strengths and weaknesses

The law now requires health professionals to assess the child’s maturity. However, neither the Act nor its regulations provide guidance on how maturity should be assessed. This could result in children being treated differently or health professionals simply using the age threshold as the determining factor. The regulations state that the consent form has to be completed by the person performing surgery on a child, or a representative of the facility where the operation will be done. When completing the form, this person is required to indicate that s/he has explained to the child the nature, consequences, risks and benefits of the surgery, and that s/he is satisfied that the child is of sufficient maturity and has the mental capacity to understand the risks, benefits, social and other implications of the operation.

Currently, it is common practice for receptionists and administrators to complete the consent forms, and the Act would appear to allow this because they could be considered a “representative of the facility”. However, assessing the child’s maturity and mental capacity to understand the risks, benefits, social and other implications of the operation is a skilled task that should be done only by trained professionals.

The provisions are not so clear about who should determine maturity for medical treatment or HIV testing. However, the precedent set in the regulations for surgery can be applied to medical treatment, meaning that the health professional treating the child must assess maturity. This could be a doctor, nurse or lay counsellor, depending on the facility and

type of treatment. The additional responsibility placed on health professionals to determine the maturity of children will contribute to their already heavy workload. They will need training and additional capacity to meet this new requirement.

Allowing younger children, caregivers and others to consent to medical treatment and HIV testing will ensure that more children can receive treatment, and that children’s health needs are not delayed while tracing parents or guardians for consent. The new consent provisions also respond directly to evidence of earlier sexual debut in teenagers. The Department of Health has acknowledged research indicating that some children are engaging in sex well before the age of 14.⁸ Removing barriers to children’s access to contraceptives and medical treatment for STIs will reduce the incidence of teenage pregnancies, HIV and other sexually transmitted diseases.

The Child Care Act did not prescribe specific forms to be completed when reporting child abuse or neglect, but the Children’s Act regulations include a standardised form that must be completed by health professionals (and others). The introduction of this form sets a higher standard of record-keeping and includes a detailed description of the full circumstances of the child to ensure adequate protection.

Prevention of and Treatment for Substance Abuse Act

The Prevention of and Treatment for Substance Abuse Act⁹ was signed by the President and published in the *Government Gazette* on 21 April 2009, but is not yet in operation. It provides for a co-ordinated strategy and services to reduce the supply of and demand for substances which can be abused, such as drugs and alcohol.

The Act provides for prevention and early intervention services that are specifically aimed at children and families. It complements the Children’s Act by identifying a range of supportive measures such as parenting, peer education, sports and leisure, and educational programmes to increase children’s and youth’s “capacity to make informed healthy choices”. It refers to the Children’s Act in relation to the reporting of children who abuse substances, and the placement and treatment of such children, and provides that children and adults must be treated separately.

A major weakness in this Act is that it does not explicitly provide for all children to participate in decisions on their admission to a treatment centre. Voluntary admissions can be processed in two ways: Either the child can submit him/herself for treatment, or a parent can apply for the child to be admitted.

In accordance with the Children's Act, *only* children 12 years or older and mature enough to consent to treatment should be able to admit themselves voluntarily.

However, the Prevention of and Treatment for Substance Abuse Act also allows parents to apply for admission of a child of any age. The Act provides no guidance on what should happen if there is a conflict between a parent and a child who is at least 12 and mature enough to understand the risks and benefits of the treatment. Yet such a child has the right to refuse treatment. If the child unreasonably refuses treatment that is deemed in his/her best interests, the provisions of the Children's Act can be invoked, and the parents can apply to the Children's Court for an involuntary admission.

Another weakness of the Prevention of and Treatment for Substance Abuse Act is the procedure for the involuntary admission of a child, which states that section 152 of the Children's Act should be used to admit a child to a treatment or child and youth care centre. Yet, section 152 was designed to provide for the removal of a child to temporary safe care without a court order in emergencies. It is a measure of last resort and should be invoked only when it is absolutely necessary to protect the child from immediate danger and if "delay in obtaining a court order for the removal of the child and placing the child in temporary safe care may jeopardize the child's safety and well-being". If there is no immediate danger, the child has a right to have the matter considered by a court.

The General Principles of the Children's Act guide the implementation of all legislation applicable to children, including the Prevention of and Treatment for Substance Abuse Act. The General Principles provide that all proceedings, actions or decisions concerning a child must respect, protect, promote and fulfil the child's constitutional rights, including the rights to physical integrity and dignity. The child must be treated fairly and equitably and must be informed of any action or decision taken in any matter concerning him/her. Depending on the child's age, maturity and stage of development, s/he has the right to participate in the decision-making process.

The Department of Social Development needs to issue a directive to clarify how these two Acts should be interpreted and implemented when the child falls under the ambit of both laws.

Tobacco Products Control Amendment Acts

Parliament amended the Tobacco Products Control Act¹⁰ in 2007 and 2008; both the Amendment Acts¹¹ came into force on 21 August 2009. They introduce child-specific amendments to the principal Act.

Whereas the original Act prohibited the sale or supply of tobacco products to children under 16, the amendment raises this age threshold to 18. The owner or person in charge of a business must now also ensure that employees under the age of 18 do not sell or supply anyone with tobacco products. The Act also outlaws the supply and sale of tobacco products in places where persons under 18 receive education or training. The restrictions even apply to the use of cigarette vending machines – these must be located out of the reach of children.

Anyone who fails to comply with these provisions will be guilty of an offence and could be fined up to R100,000. Smoking a tobacco product in a "motor vehicle when a child under the age of 12 years is present in that vehicle" is now prohibited and punishable by a fine of up to R500.

These amendments protect the general health and well-being of the child by covering different settings in which a child's health could be compromised.

Provincial health legislation

The Constitution provides that the national and provincial governments share responsibility for health care. This means provincial parliaments can pass laws to regulate the health system in their province, as long as these laws are not in conflict with the National Health Act. In 2009, both KwaZulu-Natal¹² and the Free State¹³ provinces passed health Acts. The Free State Act has commenced; the KwaZulu-Natal Act is not yet in force. Both Acts aim to bring provincial health laws in line with the National Health Act and the Constitution. The Western Cape¹⁴ and the North West¹⁵ provinces have recently prepared legislation that is still to be considered by their parliaments.

In keeping with the National Health Act, the KwaZulu-Natal and Free State Acts oblige health users to treat health care *providers* with dignity and respect. However, none of these Acts emphasise the right of health *users* to be treated with dignity and respect.

The National Health Act establishes a district health system and requires provinces to pass legislation to set up district health councils and committees for clinics and community health centres. The councils and committees are mechanisms for public participation in health decision-making. Guidance from the United Nations Committee on the Rights of the Child makes it clear that children's right to participate includes decisions about policy and service delivery.¹⁶ Therefore, these health councils and committees should facilitate the active partici-

pation of children. Both the Free State and KwaZulu-Natal Acts provide for these committees and councils but are silent on the issue of children's participation.

Basic Conditions of Employment Act regulations

The general rule in terms of the Basic Conditions of Employment Act¹⁷ is that children can only be employed from the age of 15 (certain exceptions apply to children below this age who are allowed to perform labour for advertisements, sport or in artistic or cultural events). New regulations on Hazardous Work by Children¹⁸ came into effect on 7 February 2010 to prevent exploitation and abuse of children at work, and to ensure that they work in a safe environment and are not exposed to risks. A 'child worker' is defined as a person under 18 years who works for an employer and who receives or is entitled to receive remuneration.

The regulations detail the risk factors that an employer must consider when a child is employed. These include children's biological sensitivity to chemicals, increased vulnerability to sleep disruption, reduced ability to perceive danger correctly, and relative lack of experience and maturity in making safety judgements. Employers may not allow children to do work that requires them to wear respiratory protection. Employers of child workers must display a summary of these regulations in the workplace to ensure that children and their co-workers are fully aware of the protection that they are entitled to.

The regulations set out guidelines and conditions for employers of child workers who work in elevated positions; lift heavy weights; work in a cold, hot or noisy environment; or use power tools, grinding and cutting equipment. These regulations assume that employers will have the skills and equipment necessary to keep noise and temperatures within the recommended limits.

Where the regulations have been contravened, labour inspectors are required to refer cases to a child protection organisation in terms of the Children's Act. A person found guilty of breaking the regulations shall be liable to a fine or 12 months imprisonment. However, it will be difficult to detect such violations of children's rights as most contraventions are only picked up through complaints or routine inspections. Only a small proportion of labour inspectors' time is dedicated to child labour – and most children are employed where law enforcement is virtually absent: in the informal sector, on farms, as seasonal workers in the hospitality industry, or in domestic service.

Social Assistance Act regulations

In December 2009 the Minister of Social Development published an amendment¹⁹ to the regulations of the Social Assistance Act²⁰. The regulations relate to eligibility for the Child Support Grant (CSG) and came into force on 1 January 2010. A second amendment²¹ was published on 12 March 2010 but was back-dated to apply from 1 January 2010.

Age threshold

The Department of Social Development has removed the age restriction on the grant after a decade of advocacy by civil society, which included legal challenges to the constitutionality of the regulations.²² The second amendment to the regulations states that caregivers of children born on or after 31 December 1993 are eligible for the CSG with effect from 1 January 2010, and shall continue to receive the grant until the child turns 18. This means that up to 2 million more vulnerable teenagers will benefit from the grant. There is evidence that the extra income will enable families to provide nutrition and pay for transport for children to access a range of government services including education, health, social services and home affairs.²³

Additional requirements – school attendance

The new regulations require caregivers to provide proof of school enrolment and attendance for children between seven and 18 years to the South African Social Security Agency within one month of approval of a new CSG application. Caregivers must send the child's school report, signed by the principal, to the national Director-General of Social Development every six months. If the child is not enrolled or fails to attend school, the caregiver must give reasons in writing. The regulations require the Department of Education to notify the Department of Social Development of any child who is not enrolled or fails to attend school.

The additional requirements are not conditions that caregivers need to meet when applying for the CSG, and the grant cannot not be withdrawn if a caregiver fails to provide proof of enrolment and attendance. Instead, a social worker will be sent to investigate and support the family to keep the child in school.

However, there are questions on how these regulations will be implemented. For example, it is not clear how school principals will know if children are not enrolled, as the children may have moved to another school. Similarly, where will the Department of Social Development find social workers to assign to these cases, given current shortages? Thankfully these additional requirements are not punitive to the caregiver.

Whatever problems the two departments have in implementing these regulations, they shall not affect caregivers' eligibility for the CSG.

Conclusion

To obtain the highest standard of health, children need access to health care services, healthy environments and access to basic necessities such as food, water and social assistance. The Children's Act provides that children have greater access to information that will help them to lead healthy lives, including information about sexual and reproductive health. The Act also ensures greater access to health care services by allowing more people to consent to the treatment of children. The extension of the CSG will enable poor families to provide basic necessities, and keep teenagers in school.

If effectively enforced, the regulations on Hazardous Work by Children should lead to healthier working conditions. The amendments to the Tobacco Products Control Act should protect children from the health risks associated with smoking.

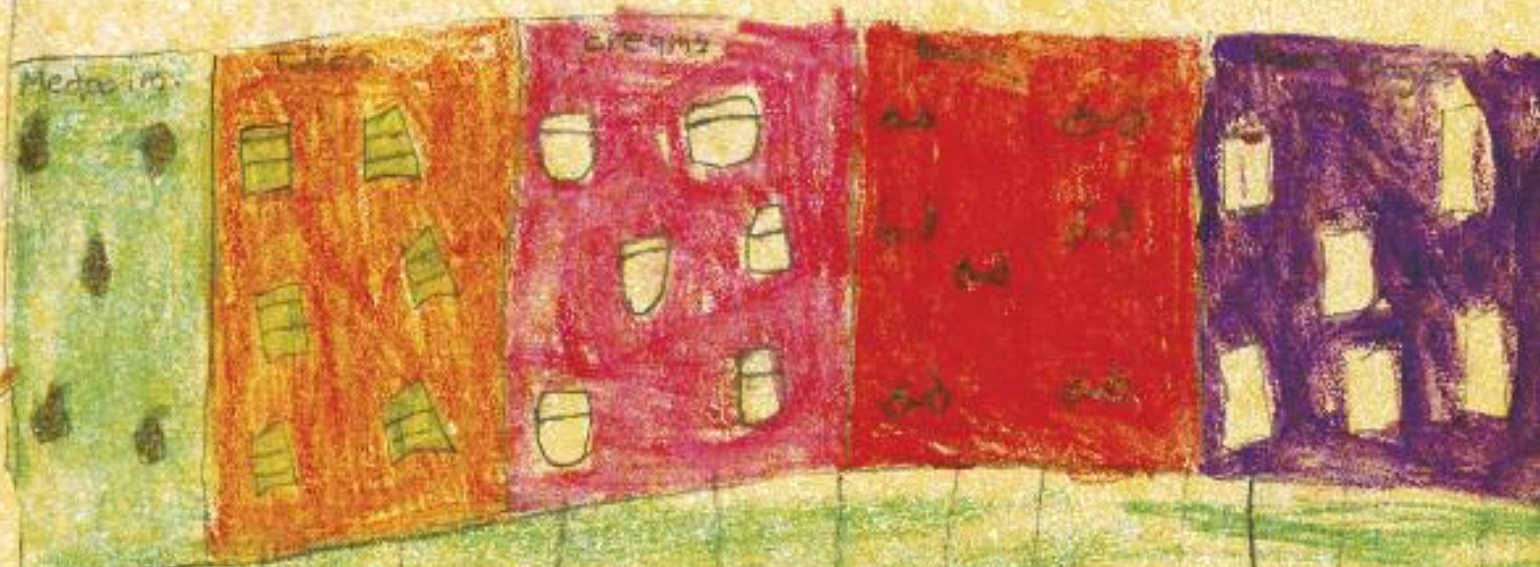
All the above laws require large-scale budgets and investment in human resources. Parliament now has the power to amend national budgets and, with input from civil society, determine priority spending areas. However, budgets alone are not sufficient to implement laws. There is a critical shortage of skilled workers to provide the services required by the new legislation. The services discussed require additional health practitioners, social workers, labour inspectors, police officers and other professionals. The government needs to invest in the training and development of these practitioners if these services are to be delivered to all the children who need them.



References

- 1 United Nations Committee on Economic, Social and Cultural Rights (2000) *International Covenant on Economic, Social and Cultural Rights. General comment 14: The right to the highest attainable standard of health (article 12 of the Covenant)*, E/C.12/2000/4. Geneva: UN, par. 11.
- 2 Children's Act 38 of 2005, as amended by the Children's Amendment Act 41 of 2007.
- 3 Department of Social Development (2010) Children's Act, 2005. General regulations regarding children. *Government Gazette* 33076, regulation 261, 1 April 2010; Department of Justice and Constitutional Development (2010) Children's Act, 2005. Regulations relating to Children's Court and international child abduction. *Government Gazette* 33067, regulation 250, 1 April 2010.
- 4 Child Care Act 74 of 1983.
- 5 Choice on Termination of Pregnancy Act 92 of 1996.
- 6 Criminal Law (Sexual Offences and Related Matters) Amendment Act 32 of 2007.
- 7 National Health Act 61 of 2003.
- 8 Department of Health (2001) *Policy guidelines on youth and adolescent health*. Pretoria: DoH.
- 9 Prevention of and Treatment for Substance Abuse Act 70 of 2008.
- 10 Tobacco Products Control Act 83 of 1993.
- 11 Tobacco Products Control Amendment Act 23 of 2007 and Tobacco Products Control Amendment Act 63 of 2008.
- 12 KwaZulu-Natal Health Act 1 of 2009.
- 13 Free State Provincial Health Act 3 of 2009.
- 14 Western Cape Department of Health (2009) District Health Councils draft bill. *Provincial Gazette* 6597, provincial notice 25, 30 January 2009.
- 15 North West Department of Health (2008) North West Health Bill. *Provincial Gazette* 6538 of 2008, provincial notice 559, 29 September 2008.
- 16 United Nations Committee on the Rights of the Child (2009) *United Nations Convention on the Rights of the Child. General comment 12: The right of the child to be heard (article 12 of the Convention)*, CRC/C/GC/12. Geneva: UN.
- 17 Basic Conditions of Employment Act 75 of 1997.
- 18 Department of Labour (2010) Basic Conditions of Employment Act, 75/1997. Regulations on hazardous work by children in South Africa. *Government Gazette* 32862, regulation 7, 15 January 2010.
- 19 Department of Social Development (2009) Social Assistance Act, 13/2004. Amendment: Regulations relating to the application for and payment of social assistance and the requirements or conditions in respect of eligibility for social assistance. *Government Gazette* 32853, regulation 9218, 31 December 2009.
- 20 Social Assistance Act 13 of 2004.
- 21 Department of Social Development (2010) Social Assistance Act, 13/2004. Amendment: Regulations relating to the application for and payment of social assistance and the requirements or conditions in respect of eligibility for social assistance. *Government Gazette* 32917, regulation 193, 12 March 2010.
- 22 Proudlock P (2009) *Submissions on draft regulations: Extension of the Child Support Grant and proposed introduction of a new school enrolment and attendance condition*. Submission to the Department of Social Development. Cape Town: Children's Institute (UCT), Black Sash, Alliance for Children's Entitlement to Social Security, Childline South Africa, Disabled Children's Action Group, National Association of Child and Youth Care Workers, Yezingane Network, Children's Rights Centre & the Caring Schools Network.
- 23 Seyisi K & Proudlock P (2009) "When the grant stops, the hope stops." *The impact of the lapsing of the Child Support Grant at age 15: Testimonies from caregivers of children aged 15 to 18*. Report for Parliament. Children's Institute (UCT), Black Sash and the Alliance for Children's Entitlement to Social Security.

The Clinic!!!



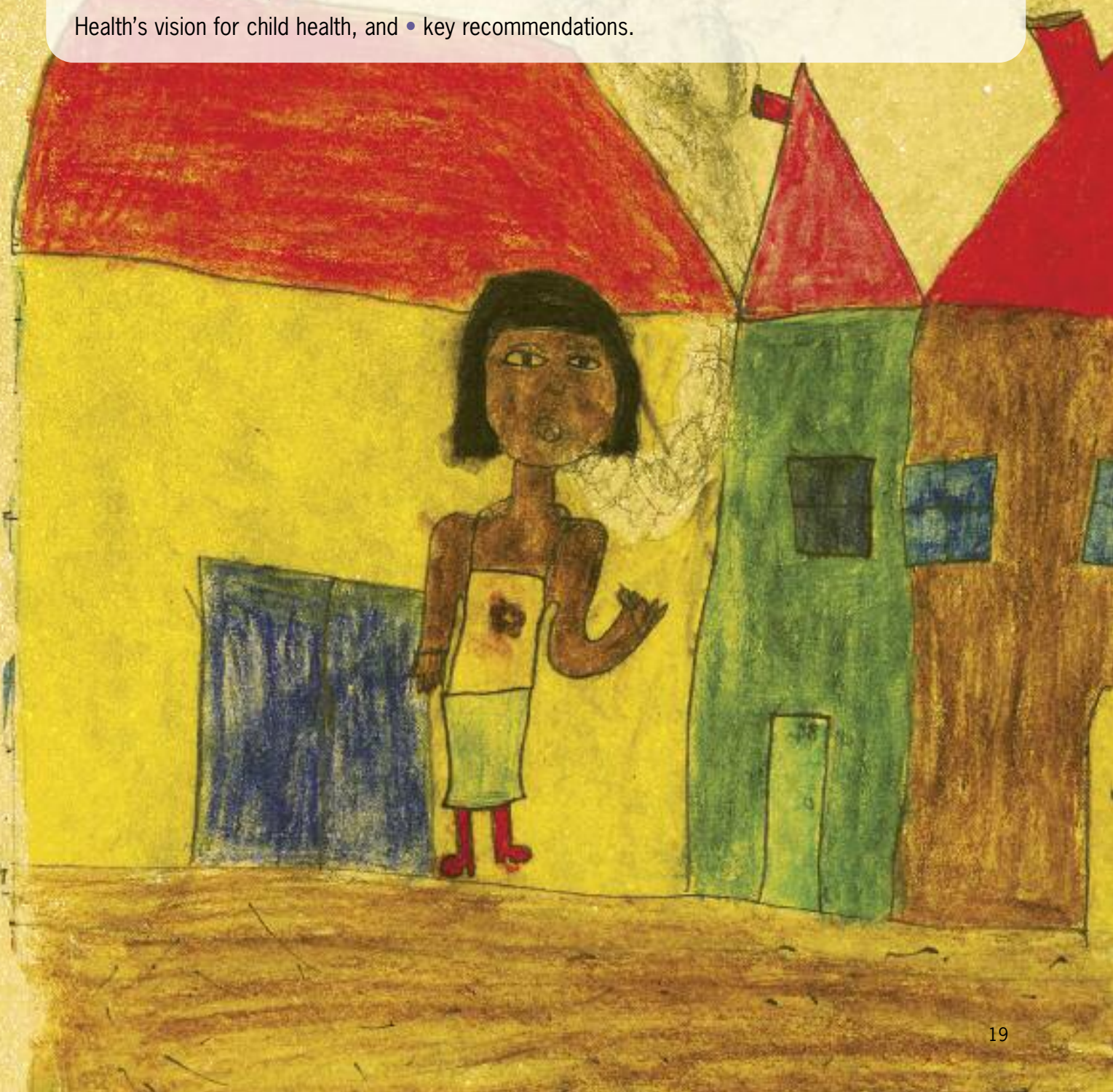
Nurses Trolley



2 Healthy children:

From survival to optimal development

Part two presents a series of twelve essays that explore what needs to be done within, and outside of, the health care system to realise children's rights to health in South Africa. The essays focus on: children's rights to health • the status of child health in South Africa • HIV and tuberculosis • malnutrition • mental health and risk behaviour • basic health care services for children • managing resources and building capacity • child- and family-friendly services • community-based health care • the social determinants of health • the Minister of Health's vision for child health, and • key recommendations.



Overview

Part two contains 12 essays reflecting on progress towards realising children's rights to health in South Africa. The essays identify some critical issues that must be addressed both within and outside the health care system to ensure the survival, health and optimal development of all children in South Africa.

Introduction

Children's rights to health

(pages 22 – 28)

Children's rights to health are broadly defined in international law and extend beyond access to health care services to include a range of other services – such as water, sanitation, nutrition, education and social services – that are necessary to promote children's survival, health and optimal development. Although a number of laws, policies and programmes give effect to these rights in South Africa, these have not yet translated into improved health outcomes for children.

Status of child health in South Africa

(pages 29 – 40)

Children under five account for 80% of child deaths in South Africa. These deaths result from neonatal causes and childhood infections (HIV, diarrhoea and lower respiratory infections). Injury is the leading cause of death amongst older children. Most childhood deaths are rooted in poverty, which impairs children's immunity and increases their exposure to infection and injury.

Critical issues in child health

HIV, tuberculosis and child health

(pages 41 – 45)

HIV is the leading cause of death for children under five and TB rates are alarmingly high, and climbing. Preventative strategies include the promotion of safe sex and improved delivery of prevention of mother-to-child transmission treatment. Treatment guidelines should be regularly updated to align with international best practice. HIV and TB programmes of prevention and treatment must be integrated in order to optimise service delivery.

An integrated approach to malnutrition in childhood

(pages 46 – 52)

Malnutrition impairs children's growth, health and development. Sixty percent of children who died in South African hospitals were underweight for their age. The Integrated Nutrition Programme provides a comprehensive framework for addressing the causes of malnutrition, but additional staff, training and support are required to improve the coverage of key nutrition interventions. Access to social assistance and improved household food security are essential for achieving better childhood nutrition.

Mental health and risk behaviour

(pages 53 – 57)

Unsafe sex, interpersonal violence and alcohol abuse are leading drivers of death and disability in South Africa. These risk behaviours have their roots in childhood and adolescence and have a significant impact on children's physical and mental health. There is a need for integrated programmes that promote mental health and prevent risk behaviours in a variety of settings including the family, school, community and mass media.

Health services for children

Basic health care services for children

(pages 58 – 63)

While the Constitution provides for children's access to basic health care services, the content of this right has yet to be defined by the legislature or the courts. This essay outlines a potential package of services for children from conception to adolescence and stresses the need for vertical and horizontal integration of health services to enable universal access to, and continuity of, care.

Managing resources and building capacity in the context of child health

(pages 64 – 70)

South Africa is failing to deliver quality care to children despite high national expenditure on health. This essay examines some of the systemic problems that hamper the delivery of health care services for children and proposes a range of potential solutions to improve leadership, accountability, efficiency and communication within public health care system.

Child health and community-based services

(pages 71 – 76)

Community health workers play an essential role in extending the reach of formal health services and in promoting health and preventing illness. Despite a proliferation of community-based services in response to the HIV and TB pandemics, few of these programmes focus specifically on child health. The sector is also largely unregulated and poorly integrated with the formal health care system.

Two draft frameworks offer potential solutions: standardising the management, training, supervision and financing of community-based programmes across the health and social development sectors; and defining a basic package of community-based maternal, child health and nutrition services.

Child- and family-friendly services

(pages 77 – 81)

Child-friendly services go far beyond painting children's wards in bright colours. Under the new Children's Act, health professionals have a legal obligation to facilitate children's informed consent and active participation in decision-making about health care. Actively involving parents and caregivers in children's health care also helps reduce unnecessary stress and trauma. As is evidenced by best practice in southern Africa, implementing child- and family-friendly services requires a shift in thinking, rather than additional resources.

A healthy environment

The social and environmental determinants of health

(pages 82 – 89)

The underlying causes of childhood illness and injury lie outside the formal health care system. Poverty and poor delivery of essential services such as housing, water and sanitation put children's health at risk. Unsafe sex, alcohol abuse and violence against women and children also have a significant impact on children's health. This essay calls on the Department of Health to initiate partnerships at national and district level to address deep-rooted inequalities, reduce poverty and improve living conditions so that all children in South Africa have the opportunity to develop their full potential.

The way forward

A vision for child health in South Africa

(pages 90 – 91)

In this essay, the Minister of Health provides a clear vision for child health in South Africa. The essay identifies the need to strengthen key programmes such as HIV/AIDS, immunisation and the Integrated Management of Childhood Illnesses. It calls on health workers to bridge the gap between policy and implementation and urges all South Africans to work together to ensure that mothers and children not only survive, but thrive.

Recommendations

(pages 92 – 93)

This essay draws on the key findings of the preceding essays to outline key recommendations, including four essential steps towards realising children's right to health in South Africa: address deep-rooted poverty and inequality; improve the quality and coverage of child health services; strengthen community-based services; and build partnerships to create a safe and healthy environment for children.



Children's rights to health

Paula Proudlock and Prinslean Mahery (Children's Institute)

Children's rights to health are protected in international and national law. These laws place an obligation on the State to realise children's rights by delivering a range of services.

It is important for policy-makers, planners, administrators and health professionals who design, plan and deliver these services to understand their international and constitutional obligations. In order to advocate for improved service delivery, it is also important for health professionals, caregivers, children and civil society to have a clear understanding of children's rights, and the State's obligations in realising these rights.

This essay assesses South Africa's progress in realising children's rights to health by examining the following questions:

- What is the meaning of children's rights to health in international law?
- What is South Africa's progress in realising children's rights to health?
- What are the recommendations and conclusions?

What is the meaning of children's rights to health in international law?

The main human rights treaties in relation to children's rights to health are the International Covenant on Economic, Social and Cultural Rights (ICESCR),¹ the United Nations Convention on the Rights of the Child (CRC),² and the African Charter on the Rights and Welfare of the Child (ACRWC)³. As the relevant articles of the ACRWC are almost identical to the CRC, they are not referred to separately in this essay.

Article 12 of the ICESCR provides that "everyone has the right to the highest attainable standard of physical and mental health". The United Nations Committee on Economic, Social and Cultural Rights (CESCR) has interpreted the right to health broadly as:

... an inclusive right extending not only to timely and appropriate health care, but also to the underlying determinants of health, such as access to safe and potable water and adequate sanitation, an adequate supply of safe food, nutrition and housing, healthy occupational and

*environmental conditions, and access to health related education and information, including on sexual and reproductive health. A further important aspect is the participation of the population in all health related decision-making at the community, national and international levels.*⁴

The CRC provides more detail on children's rights to health. Article 24(1) recognises "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" and obliges the State to "strive to ensure that no child is deprived of his or her right of access to such health care services". Article 24(2) elaborates on the content of the State's obligation (see box 1).

Box 1: Article 24(2) of the Convention on the Rights of the Child

Article 24(2) obliges the State to "pursue full implementation" of children's right to the highest attainable standard of health. It in particular obliges the State to take appropriate measures to:

1. diminish infant and child mortality rates;
2. ensure the provision of necessary medical assistance and health care to all children, with an emphasis on primary health care;
3. combat disease and malnutrition through the provision of primary health care, the use of technology, and the provision of adequate nutritious foods, clean drinking water and basic sanitation;
4. ensure appropriate pre- and postnatal health care for mothers;
5. ensure that parents and children have a basic knowledge of child health and nutrition; the advantages of breastfeeding, hygiene and environmental sanitation; and the prevention of accidents; and
6. develop preventative health care, guidance for parents, and family planning education and services.

Source: Office of the High Commissioner of Human Rights (1989) *Convention on the Rights of the Child*, UN General Assembly resolution 44/25. Geneva: UN.

Similar to article 12 of the ICESCR, article 24 of the CRC emphasises a comprehensive primary health care approach by recognising the importance of the provision of water, food and sanitation, and by stressing health promotion education. It also makes the essential link between mothers' and children's health by requiring the State to provide appropriate pre- and postnatal care to mothers.

The United Nations Committee on the Rights of the Child (UN committee) has written two general comments on the topics of Adolescent Health and Development⁵ and HIV/AIDS⁶. States are obliged to provide health services which are sensitive to the particular needs and rights of adolescents and to ensure that they have access to information on tobacco, alcohol and drugs, sexual and reproductive health, family planning, contraceptives, the dangers of early pregnancy, and the prevention and treatment of sexually transmitted diseases (including HIV/AIDS). Adolescents must also be given the opportunity and skills to participate fully in decisions affecting them, and their rights to privacy and confidentiality must be respected.

The general comment on HIV/AIDS requires the State to put children at the centre of all its responses to the pandemic and to ensure that HIV-related services are provided to the maximum extent possible to all children without discrimination.

Article 6 obliges the State to ensure the survival and development of children. This is one of the CRC's four General Principles and was included in the convention to highlight the importance of realising children's socio-economic rights – especially the rights to health, water and sanitation, nutrition, housing, an adequate standard of living, and social security.

The concept of 'progressive realisation' that applies to everyone's rights to health in article 12 of the ICESCR also applies to children's socio-economic rights in the CRC, including the right to health.⁷ 'Progressive realisation' has been interpreted to mean that the State must move "as expeditiously and effectively as possible" towards the goal of full realisation of the right⁸ and that the State must satisfy the following immediate obligations:

- It must report regularly on its progress to the treaty monitoring committees. This accountability mechanism is aimed at keeping the State focused on meeting its obligations.
- The State must have a well-designed plan that describes the steps it will take to progressively realise the right. This plan must contain goals and timeframes and must specify which spheres and government departments are responsible for implementation.
- The plan must prioritise the delivery of the minimum core of the right to health (see box 2).

Box 2: Minimum core of the right to health

Minimum core obligations that the State must realise are to:

1. ensure the right of access to health facilities, goods and services on a non-discriminatory basis, especially for vulnerable and marginalised groups;
2. ensure access to the minimum essential food which is nutritionally adequate and safe to ensure freedom from hunger for everyone;
3. ensure access to basic shelter, housing and sanitation, and an adequate supply of safe and potable water;
4. provide essential drugs, as defined by the World Health Organisation Action Programme on Essential Drugs;
5. ensure equitable distribution of all health facilities, goods and services;
6. ensure reproductive, maternal and child health care;
7. provide immunisation against major infectious diseases;
8. take measures to prevent, treat and control epidemic and endemic diseases;
9. provide education and access to information on the main health problems, including how to prevent and control them; and
10. provide appropriate training for health personnel, including education on health and human rights.

Source: United Nations Committee on Economic, Social and Cultural Rights (2000) *The right to the highest attainable standard of health. General comment 14 E/C.12/2000/4*. Geneva: UN.

- The plan must pay special attention to children, especially the most disadvantaged groups.⁹ Article 24(2) of the CRC provides express instructions to the State to prioritise child health within the health plan for the general population (box 1).
- The State must be able to show that it is making progress in implementing the plan. The treaty monitoring bodies assess progress by comparing quantitative and qualitative data to standards that they have set based on evaluating various country reports over a number of years. For assessing progress on children's rights to survival, development and health, the under-five mortality rate is the most important indicator.¹⁰

The United Nations Millennium Declaration¹¹ is the most recent global commitment to revive efforts to improve child health. States that have signed the declaration have agreed to work towards achieving the Millennium Development Goals (MDGs) by 2015. Many of the goals have a direct impact on child health (see pp. 30 – 31).

What is South Africa's progress in realising children's rights to health?

South Africa's progress can be assessed by answering the following questions.

Has South Africa ratified the key international laws?

South Africa's ratification of both the CRCⁱ and the ACRWCⁱⁱ demonstrates the State's commitment to realising children's rights at the highest political level.

However, South Africa has not yet ratified the ICESCRⁱⁱⁱ – the leading international treaty on socio-economic rights, including everyone's right to health. The failure to ratify this treaty has negative implications for child health and well-being, as children's health is dependent on that of their caregivers. Civil society organisations who are leading a campaign to ratify the covenant attribute the failure to a lack of political will.¹²

Another barrier has been the lack of clarity over which government department is responsible for overseeing the implementation of the ICESCR.¹³ The Department of International Relations and Co-operation has indicated that the intention is for South Africa to ratify the covenant by September 2010, and that the new Ministry in The Presidency: Monitoring, Evaluation and Administration shall be responsible for ensuring the ICESCR's implementation.¹⁴

Is South Africa complying with its reporting obligations?

South Africa submitted its first report on the CRC in 1997,¹⁵ but has failed to submit second and third reports that were due in 2002 and 2007 respectively.¹⁶ It has not submitted any reports on the ACRWC since ratification in 2000.¹⁷ The lack of reporting prevents the treaty monitoring committees from evaluating South Africa's progress, and from providing recommendations for improvements. South Africa has therefore lost out on valuable guidance from international child rights experts. It has also lost the political momentum that could have been provided through this accountability mechanism.

The Office on the Rights of the Child in the Presidency indicated that a combined second and third report on the CRC has been finalised and is awaiting Cabinet approval, and that the same report will also be used as a basis for reporting on the ACRWC.¹⁸

South Africa submitted a report on the MDGs in 2005.¹⁹ The next report is due in 2010 and Statistics South Africa, who is co-ordinating the evaluation of the country's progress

towards the MDGs, is hosting provincial workshops in 2010 to assist the report's completion.

Are children's international rights to health included in the Bill of Rights?

The ICESCR and the CRC had a key influence on the drafting of the Bill of Rights in the Constitution.²⁰ The Bill of Rights therefore recognises the broad meaning of health by incorporating a full range of socio-economic rights. It also includes additional protection for children, as illustrated in figure 1.

The rights for everyone include rights to have access to health care services; social security, including social assistance; sufficient food and water; adequate housing; and to live in an environment that is not harmful to health or well-being. Children have additional rights to basic nutrition, shelter, basic health care services, social services, protection from abuse and neglect and to have their best interests considered of paramount importance in every matter that affects them.

The one international right that is not included in the Bill of Rights is children's right to participate in matters that affect them – but this has now been included in the new Children's Act²¹ (see *Part one: Children and law reform*, pp. 12 – 17).

The State has an obligation to "take reasonable legislative and other measures, within its available resources, to achieve the progressive realisation"²² of each of the socio-economic rights that apply to everyone in sections 26 and 27 of the Bill of Rights. In contrast, children's socio-economic rights, defined in section 28 of the Bill of Rights, do not have this qualification. This textual difference, together with the best interests principle, and children's right to be protected from neglect and abuse, have been interpreted by constitutional experts to mean that children have a priority claim on state resources for the prompt delivery of a basic package of socio-economic goods and services.²³ However, this interpretation has not been given full effect by Constitutional Court judgments (discussed on p. 27).

Has South Africa adopted appropriate laws, policies and programmes to enable the realisation of the rights?

Since the advent of constitutional democracy in 1994, South Africa has put a comprehensive range of laws, policies and programmes in place to enable the realisation of children's socio-economic rights. These laws place statutory duties on government to provide and budget for socio-economic services, and to clarify the roles and responsibilities of government spheres, departments and officials.

i Ratified by South Africa in 1995.

ii Ratified by South Africa in 2000.

iii Signed in 1994 but not yet ratified.

Figure 1: How the Constitution and the Children's Act give effect to children's international rights to health

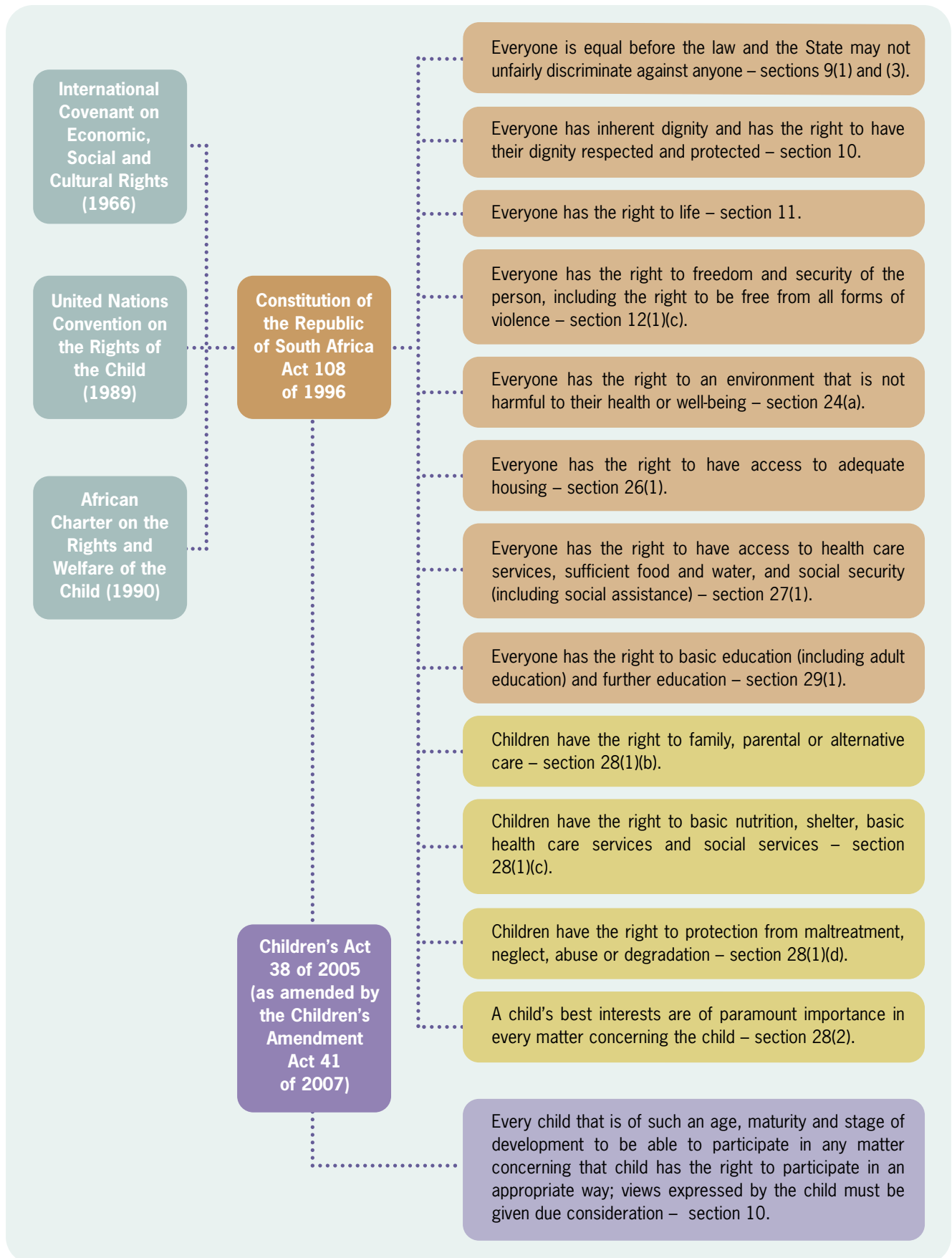


Table 1: Primary laws and key programmes for the realisation of children's socio-economic rights

Right	Law	Key programmes
Health care services	National Health Act 61 of 2003	<ul style="list-style-type: none"> • Free primary health care for everyone • Free health care for pregnant women and children under six years • Free health care for social grant recipients • Integrated Management of Childhood Illnesses • Prevention of mother-to-child transmission of HIV (PMTCT)
Water (including basic sanitation)	Water Services Act 108 of 1997 (and various local government laws and by-laws that regulate local government service delivery)	<ul style="list-style-type: none"> • Free basic water
Social assistance	Social Assistance Act 13 of 2004	<ul style="list-style-type: none"> • Child Support Grant • Foster Child Grant • Care Dependency Grant • Old Age Pension • Disability Grant • Social Relief of Distress
Housing	Housing Act 107 of 1997	<ul style="list-style-type: none"> • Housing subsidies
Social services and protection from abuse and neglect	Children's Act 38 of 2005 (as amended by the Children's Amendment Act 41 of 2007)	<ul style="list-style-type: none"> • Crèches • Early childhood development • Parenting skills training • Child and family counselling • Home- and community-based care • Protection services • Foster care • Child and youth care centres
Food and nutrition	These rights do not have their own express legislative framework.	<ul style="list-style-type: none"> • Social grants • National School Nutrition Programme • Vitamin A supplementation • Food fortification • Integrated Food Security and Nutrition Programme

Table 1 illustrates the primary laws and a selection of key programmes aimed at realising children's socio-economic rights.

The National Health Act²⁴ entrenches the entitlements to free health care services for pregnant women and children under six years, and free primary health care for everyone. However, it fails to give further substance to the State's obligation to prioritise children's rights to basic health care and basic nutrition.

In particular the Act fails to define the package of services that the State should provide to realise the rights to "basic health care services" and "basic nutrition" for children. Defining the package of services that children are entitled to under these rights by amending the law, regulations or through a policy process could help ensure that health managers and personnel always consider children's best interests in planning, budget allocation and service delivery decisions (see the list of proposed basic health care services for children on p. 60).

In keeping with the recommendations of the CESCR to

ensure public participation in health services,²⁵ the National Health Act promotes the participation of the public in health service delivery decision-making by legislating for the establishment of provincial and district health councils and clinic committees. However, the clinic committees section is not yet in operation, and some provinces have not yet passed or implemented the provincial legislation needed to give life to the provincial and district councils (see *Part one: Children and law reform*, pp. 12 – 17).

Effective participatory structures will enable parents and children to influence health care services planning and delivery at a local level. This will not only give effect to democratic participation rights but will also help ensure that the services are accessible and responsive to a community's particular health needs. While the National Health Act and several provincial Health Acts do not specifically mention children's participation in these structures, section 10 of the Children's Act can be used to motivate for the participation of children, especially adolescents.

Is the State implementing its laws and programmes reasonably and is it prioritising children's health rights?

It is outside the scope of this essay to provide a definitive answer to this question. However, readers can consider the following questions while reading other essays to assess whether laws and programmes are being reasonably implemented:

1. Is the State allocating the necessary budget and human resources to enable the progressive realisation of everyone's socio-economic rights (including everyone's right to health care services)?
2. Is the State applying the best interests of the child principle when making decisions about budget and human resource allocations and other implementation strategies? This would require the State to consider children's needs proactively when making all budget and human resource allocation decisions and to ensure that children's best interests are considered of paramount importance in the final decision.^{iv}
3. Is South Africa making progress with regards to the key child health indicators, in particular the infant and under-five mortality rates? (See pp. 29 – 40.)

What is the courts' track record in enforcing children's health rights?

Socio-economic rights in the Bill of Rights are justiciable, which means that they can be enforced by a court of law. The courts have delivered a number of significant judgments on socio-economic rights. The most notable judgment in the area of child health is *Minister of Health and Others v Treatment Action Campaign and Others*²⁶ where the Constitutional Court considered the State's policy of restricting PMTCT to a few pilot sites. The court declared this to be a violation of mothers' and children's constitutional rights to life and health care services, and ordered the State to ensure that PMTCT was available at all health facilities. This judgment and the resultant roll-out of comprehensive PMTCT have saved thousands of babies' lives. This progress would not have happened without the activism of health professionals and civil society.

On the negative side, the Constitutional Court has been criticised for failing to give content to the meaning of socio-economic rights and for failing to hold the State to the delivery of a minimum core, despite the wealth of international law jurisprudence and expert evidence available.²⁷ The court has instead adopted a procedural approach ("the reasonableness test") that promotes a process of justification and accountability and that

leaves defining the content of socio-economic rights to the Executive and the legislature.

In its most recent judgment on the right to have access to sufficient water, *Mazibuko and Others v City of Johannesburg and Others*,²⁸ the Constitutional Court found against the Phiri community who were asking for an increased amount of free basic water per month, and ruled that the core content of the right to sufficient water should be defined by Parliament and the Executive, not the judiciary.

While the High Court judgment in this case made express reference to the State's obligation to children in article 24 of the CRC to "take appropriate measures to combat disease and malnutrition ... including the provision of clean drinking-water",²⁹ the Constitutional Court made no reference to children's international or constitutional rights in its judgment. This is despite section 39 of the Bill of Rights obliging the courts to consider international law when interpreting rights and despite the fact that diarrhoea is a leading cause of child mortality in South Africa, especially in communities, like Phiri, with poor access to clean water and sanitation and high levels of poverty and HIV.

What are the recommendations and conclusions?

South Africa's tardy reporting record for the two international child rights treaties, delay in ratifying the ICESCR, and high infant and under-five mortality rates indicate that there has been a lack of political leadership in the area of children's health rights.

The new Minister of Health, together with fellow national and provincial ministers, now face the challenge of leading the country in an approach that puts the best interests of children at the forefront of all decisions. The following steps are recommended to pave the way for this child-centred approach:

- Submit the long-outstanding country reports on the CRC and the ACRWC, and publicly debate and implement the recommendations of the treaty monitoring committees.
- Ratify the ICESCR in 2010 and publicly debate the implications of giving effect to this treaty.
- Promote public participation in health care services. This requires sections of the National Health Act to be put into effect, provincial health laws to be passed and put into effect, and participatory structures established and adequately funded. It is important to ensure that children, especially adolescents, can participate in these structures.
- Define and prioritise the delivery of a package of basic health care services and nutrition for children through a

^{iv} Article 4 of the CRC, read with section 28(2) of the Constitution, and sections 6, 7 and 9 of the Children's Act.

consultative legislative or policy process. Regularly review the package to enable progressive expansion beyond the minimum core, and to ensure that it is responsive to the current health challenges facing children, and the latest developments in medical science.

- Educate government planners, policy-makers, members of Parliament, health service managers, and health professionals on children's rights so that they can actively contribute to the realisation of children's rights in policy and practice.

The Constitutional Court judgment in the *Treatment Action Campaign* case shows the power of having justiciable socio-economic rights. However, the *Mazibuko* case shows a lack of consideration of children's rights and best interests. While it can be argued that adults have the ability to use political processes to engage with Parliament and the Executive to advocate for improvements to socio-economic services, children lack such political power and opportunity. The Constitutional Court should therefore take a more pro-active role as the upper guardian of children and actively consider children's rights and best interests, even if children are not direct litigants in the case, and even if the parties before the court do not raise children's rights in their arguments.

References

- 1 Office of the United Nations High Commissioner for Human Rights (1966) *International Covenant on Economic, Social and Cultural Rights. General Assembly resolution 2200A (XXI) of 16 December 1966*. Geneva: UN.
- 2 Office of the High Commissioner of Human Rights (1989) *Convention on the Rights of the Child, UN General Assembly resolution 44/25*. Geneva: UN.
- 3 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*. Addis Ababa: OAU.
- 4 United Nations Committee on Economic, Social and Cultural Rights (2000) *The right to the highest attainable standard of health. General comment 14, E/C.12/2000/4*. Geneva: UN, par. 11.
- 5 United Nations Committee on the Rights of the Child (2003) *Adolescent health and development in the context of the Convention on the Rights of the Child. General comment 4, CRC/GS/2003/4*. Geneva: UN.
- 6 United Nations Committee on the Rights of the Child (2003) *HIV/AIDS and the rights of the child. General comment 3, CRC/GC/2003/3*. Geneva: UN.
- 7 United Nations Committee on the Rights of the Child (2003) *General measures of implementation of the Convention on the Rights of the Child. General comment 5, CRC/GC/2003/5*. Geneva: UN.
- 8 United Nations Committee on Economic, Social and Cultural Rights (1990) *The nature of states parties obligations (art. 2, par. 1): 12/14/1990. CESCR general comment 3, E/1991/23*. Geneva: UN, par. 9.
- 9 Hodgkin R & Newell P (2007) *Implementation handbook for the Convention on the Rights of the Child*. Geneva: UNICEF.
- 10 See no. 9 above.
- 11 United Nations General Assembly (2000) *Resolution adopted by the General Assembly [without reference to a Main Committee (A/55/L.2)]: 55/2. United Nations Millennium Declaration*. New York: UN.
- 12 Black Sash (2010) *Campaign for ratification*. Accessed on 18 February 2010: www.blacksash.org.za/index.php?option=com_content&task=view&id=1410&Itemid=187.

- 13 Personal communication. Chanwi L, Socio-Economic Rights Project, Community Law Centre, University of the Western Cape, 18 February 2010.
- 14 Personal communication. Directorate: Human Rights and Humanitarian Affairs, Department of International Relations and Co-operation, 6 April 2010.
- 15 United Nations Committee on the Rights of the Child (1999) *Initial reports of States parties due in 1997: South Africa. 05/22/1999, CRC/C/51/Add.2. (State Party report)*. Geneva: UN.
- 16 Mahery P (2009) *The United Nations Convention on the Rights of the Child: Maintaining its value in international and South African law*. In: Boezaart T (ed) *Child law in South Africa*. Claremont, South Africa: Juta.
- 17 Viljoen F (2009) *The African Charter on the Rights and Welfare of the Child*. In: Boezaart T (ed) *Child law in South Africa*. Claremont, South Africa: Juta.
- 18 Personal communication. Office on the Rights of the Child, 13 October 2009. [Follow-up e-mail communication on 10 May 2010 indicated that the situation had not changed.]
- 19 South Africa (2005) *South Africa: Millennium Development Goals: Mid-term country report*. [South Africa: s.n, 2005]
- 20 Skelton A & Proudlock P (2007) *Interpretation, objects, application and implementation of the Act*. In: Davel CJ & Skelton A (eds) *Commentary on the Children's Act*. Cape Town: Juta.
- 21 Children's Act 38 of 2005.
- 22 Constitution of the Republic of South Africa. Act 108 of 1996, sections 26(2) and 27(2).
- 23 Stewart L (2008) *Interpreting and limiting the basic socio-economic rights of children in cases where they overlap with the socio-economic rights of others*. *South African Journal on Human Rights*, 24(2008): 472-498.
- 24 National Health Act 61 of 2003.
- 25 See no. 4 above.
- 26 *Minister of Health and Others v Treatment Action Campaign and Others 2002 (10) BCLR 1033*.
- 27 Bilchitz D (2007) *Poverty and fundamental rights: The justification and enforcement of social and economic rights*. Oxford: Oxford University Press; Brand D (2003) *The proceduralisation of South African socio-economic rights jurisprudence or "What are socio-economic rights for?"* In: Botha H, van der Walt A & van der Walt J (eds) *Rights and democracy in a transformative constitution*. Stellenbosch: Sun Press.
- 28 *Mazibuko and Others v City of Johannesburg and Others Case CCT 39/09 2009 ZACC 28*. [Not yet reported]
- 29 *Mazibuko and Others v City of Johannesburg and Others (Centre on Housing Rights and Evictions as amicus curiae) (2008) 4 All SA 471 (W)*, par. 38.



The status of child health in South Africa

David Sanders (School of Public Health, University of the Western Cape),
Debbie Bradshaw (Burden of Disease Research Unit, Medical Research Council), and Ngashi Ngongo (UNICEF, New York)

The Millennium Development Goals (MDGs) aim to reduce poverty, hunger, disease, illiteracy, environmental degradation and discrimination against women by 2015 and are regarded as an historic step to address human rights gaps and to ensure children's rights to survive, grow up healthy and develop to their full potential. Not only are many of the MDGs related to health, but many of the goals are also directly or indirectly related to *child* health.

MDG 4 commits countries to reduce the under-five mortality rate – a key indicator of child health – by two-thirds between 1990 and 2015. Child mortality trends in South Africa, however, show no signs of improvement over the past 15 years, which is a cause for great concern. This essay examines the burden, pattern and determinants of childhood disease in South Africa. It evaluates progress towards MDGs pertaining to child health and calls on the government to improve the delivery of

child health services and to address the underlying social determinants of health – both central pillars of the United Nations Convention on the Rights of the Child.

The essay examines the following questions:

- What are the levels and trends in child mortality in South Africa?
- What are the leading causes of child mortality in South Africa?
- What are the risk factors and determinants of the dominant childhood disease pattern?
- How does inequity impact on child health?
- How is South Africa performing in comparison with selected other African countries?
- What are the recommendations and conclusions?



What are the levels and trends in child mortality?

There is considerable uncertainty about the current levels of child mortality in South Africa. Despite efforts to improve vital registration, and investment in census and surveys, the actual mortality rates remain elusive. Registered deaths of children under 18 years increased from 41,288 in 1997 to a peak of 78,566 in 2006, followed by a slight drop.¹ It is not clear how much of the increase is a result of improved registration. The majority of these deaths (81%) occurred in children under the age of five years.² Data from various surveys indicate that the downward trend in childhood mortality of the 1980s was reversed in the early 1990s.³

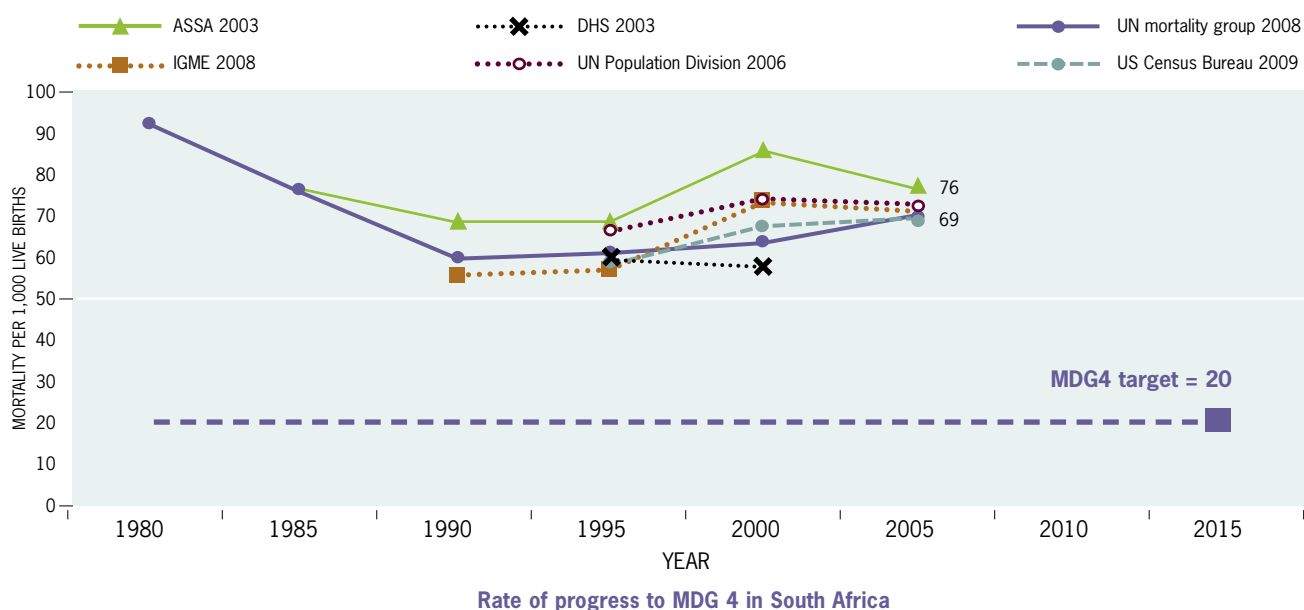
Under-five mortality

In 1990 the estimated under-five mortality rate (U5MR) for South Africa was about 60 deaths per 1,000 live births.⁴ South Africa's MDG 4 target is to reduce under-five deaths to

20 per 1,000 live births by 2015. Yet South Africa is one of the few countries globally where the U5MR is stagnant or increasing. By 2005 there was no sign of improvement in the U5MR, as shown by several estimates from different data sources in figure 2. While the US Census estimates are highly improbable, there are clear indications that child mortality in South Africa has not improved.

Projections by UNICEF (part of the UN mortality group),⁵ which follow the same trend as estimates from the Actuarial Society of South Africa's 2003 model,⁶ suggest that after a steady increase from 56 deaths per 1,000 live births in 1990 to 73 in 2000, South Africa has been experiencing a slow decline in under-five deaths, reaching 67 deaths per 1,000 live births in 2008 respectively.⁷ While most of the increase in child deaths has been attributed to the deteriorating quality of care and a maturing HIV pandemic, the declining trend seems to coincide with the introduction and roll-out of the national programme for preventing mother-to-child transmission (PMTCT) of HIV.

Figure 2: MDG 4 trend, with various under-five mortality rate estimates

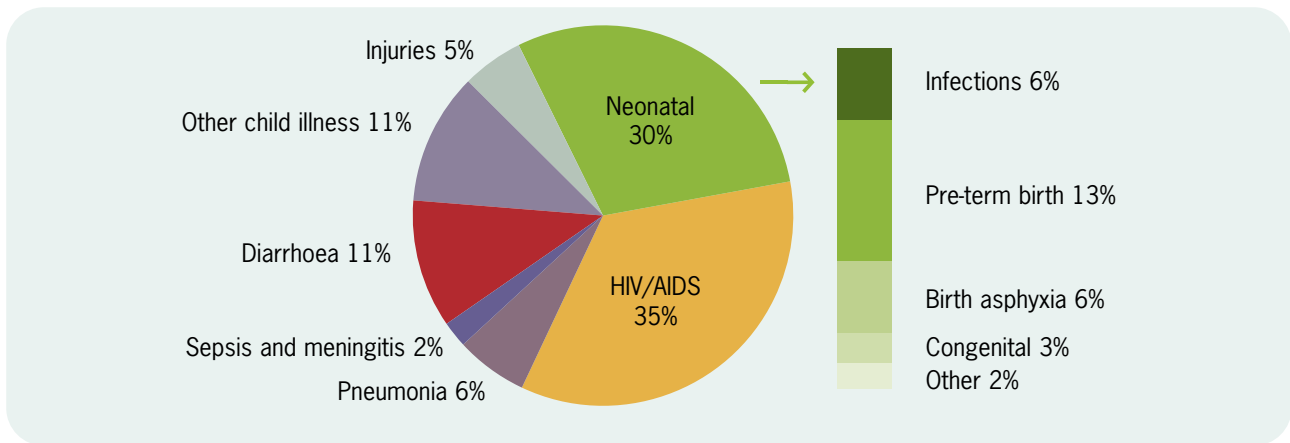


Source: Adapted from: South Africa Every Death Counts Writing Group (2008) Every death counts: Use of mortality audit data for decision making to save the lives of mothers, babies, and children in South Africa. *The Lancet*, 371: 1294-1304.

Data sources:

- ASSA 2003** (Actuarial Society of South Africa): Dorrington R, Bradshaw D, Johnson L & Daniel L (2006) *The demographic impact of HIV/AIDS in South Africa: National and provincial indicators 2006*. Cape Town: Centre for Actuarial Research, Medical Research Council & Actuarial Society of South Africa.
- IGME 2008**: Interagency Group for Child Mortality Estimation (2008) *Child mortality database*. Accessed 19 June 2010: www.childmortality.org/cmeMain.html.
- DHS 2003** (South African Demographic and Health Survey): Department of Health, Medical Research Council & Measure DHS (2002) *South African Demographic and Health Survey 1998*. Calverton, MD: Measure DHS.
- UN POPULATION DIVISION 2006**: United Nations Department of Economic and Social Affairs, Population Division (2007) *World population prospects: The 2006 revision, highlights*. Working paper ESA/P/WP.202. New York: UN.
- UN MORTALITY GROUP 2008** (UN Interagency Group for Child Mortality Estimation): UNICEF (2008) *State of the world's children 2008*. New York: UNICEF.
- US CENSUS BUREAU 2009**: US Census Bureau (2009) *International database*. Accessed 19 June 2010: www.census.gov/ipc/www/idb/.

Figure 3: Causes of death in newborns and children under five years, 2000 – 2005



Source: South Africa Every Death Counts Writing Group (2008) Every death counts: Use of mortality audit data for decision making to save the lives of mothers, babies, and children in South Africa. *The Lancet*, 371: 1294-1304.

Data source: Norman R, Bradshaw D, Schneider M, Pieterse D & Groenewald P (2006) *Revised burden of disease estimates for the comparative risk factor assessment, South Africa 2000*. Cape Town: Medical Research Council.

What are the leading causes of death?

The cause of death profile changes with age group. Data from multiple sources were used in figure 3 to estimate the underlying causes of death for children under five for the period 2000 – 2005. The extent of HIV/AIDS was based on a modelled estimate, as the official death notifications consistently under-represent HIV as a cause.

Deaths in the neonatal periodⁱ contribute substantially to under-five deaths – the majority of these deaths are attributed to pre-term birth, birth asphyxia and infections. Outside the neonatal period, HIV/AIDS and childhood infections (most commonly diarrhoea and lower respiratory infections) are the major causes of deaths, and responsible for the majority of childhood illness in South Africa.

A Child Healthcare Problem Identification Programme (CHIP) audit of child deaths in participating hospitals found that about 60% of under fives who died were underweight for age and one-third were severely malnourished.⁸ The vast majority of children with severe malnutrition who died were also HIV infected.⁹ Undernutrition and HIV both result in immune deficiency, and play an important synergistic role in diarrhoea and respiratory infections. CHIP and the Perinatal Problem Identification Programme (which audits perinatal deaths that occur in participating hospitals)¹⁰ have both identified ways to reduce child deaths by addressing avoidable health systems and patient-

related factors. These include improved clinical management, better administration of health services and community actions.

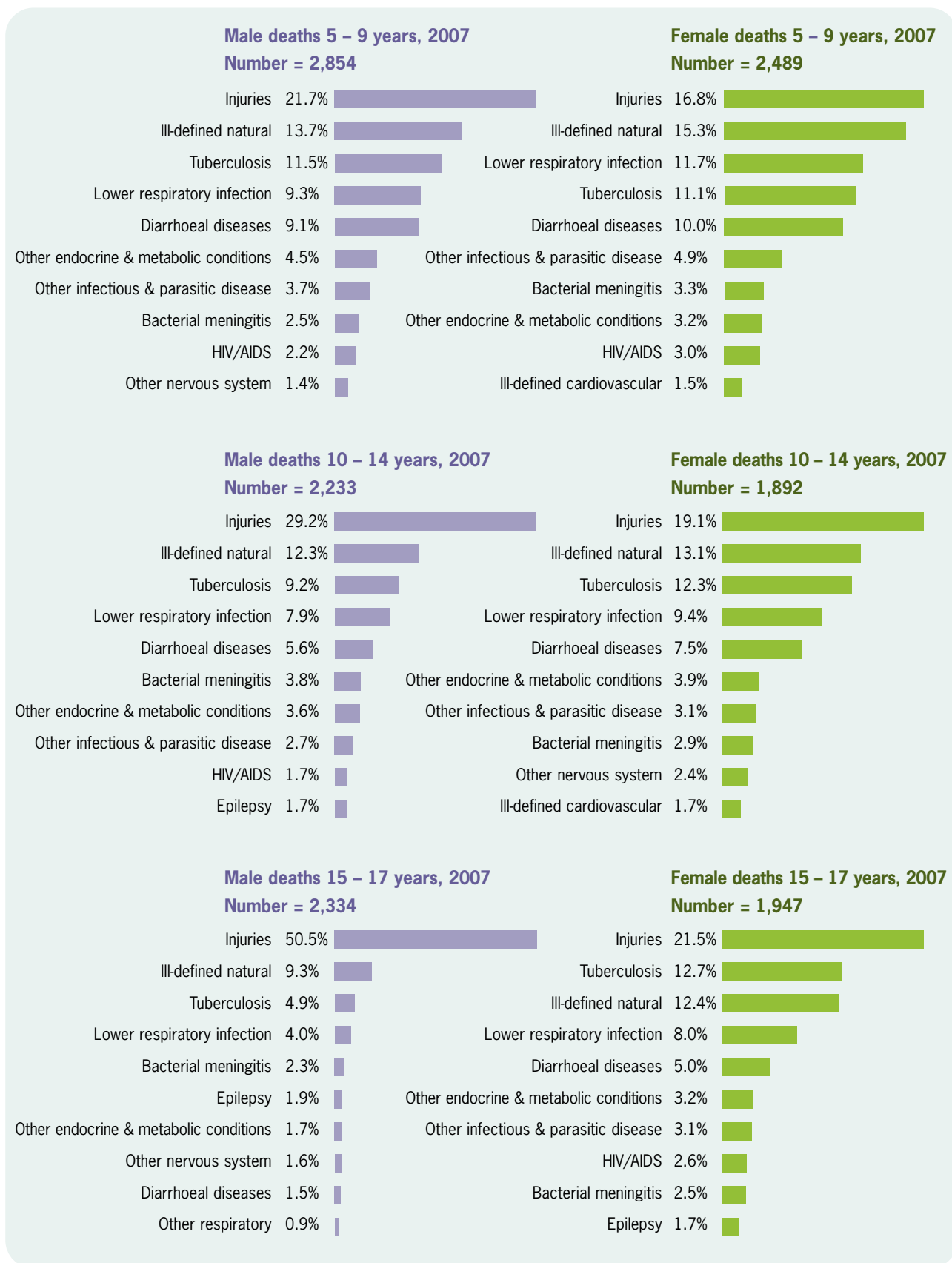
Figure 4 on the next page shows the leading causes of death among older children, based on the information reported on the death notifications.¹¹ These statistics do not take into account the misclassification of causes including HIV, ill-defined causes and unregistered deaths.

The data shown in figure 4 highlight the extensive role of infectious diseases among older children – such as tuberculosis (TB), diarrhoea and lower respiratory infections – much, but not all, of which would be related to HIV/AIDS. The appearance of “other endocrine and metabolic conditions” is a result of AIDS being reported as “immune suppression”. Aside from infections, epilepsy and other nervous system disorders appear among the leading causes of death for children 10 years and older. This may reflect inadequate access to health services.

Injuries account for a growing proportion of the total deaths as children grow older, and accounted for 50% of the deaths of 15 – 17-year-old boys. A study of the causes of fatal injuries in selected cities shows that the leading causes were road traffic injuries, drowning, burns and, in some cities, firearm injuries.¹² It found that many more boys died from drowning than girls. It also found that road traffic injuries involved pedestrians more than passengers. Adolescent suicide rates increased with age, were twice as high for males as females, and hanging was the most common method used.¹³

ⁱ The first four weeks (28 days) after birth.

Figure 4: Leading causes of death among older children, by age group and by sex, 2007



Source: Statistics South Africa (2009) *Mortality and causes of death in South Africa, 2007: Findings from death notification*. Statistical release P0309.3. Pretoria: StatsSA. Calculations by the Burden of Disease Unit, Medical Research Council.

The mortality burden does not give a full picture of ill-health and disability related to chronic conditions and mental illness; these are difficult to quantify due to paucity of data. Furthermore, poor environments limit children’s ability to reach their developmental potential because both nutritional deficiencies and psycho-social deprivation affect brain development in the long term.¹⁴

Interventions to reduce the alarming levels of childhood mortality and morbidity in children under five must prioritise HIV, childhood infections, neonatal causes and undernutrition and should include treatment, preventive actions (such as vaccination) and social and environmental measures. In the case of older children, injury prevention is a priority.

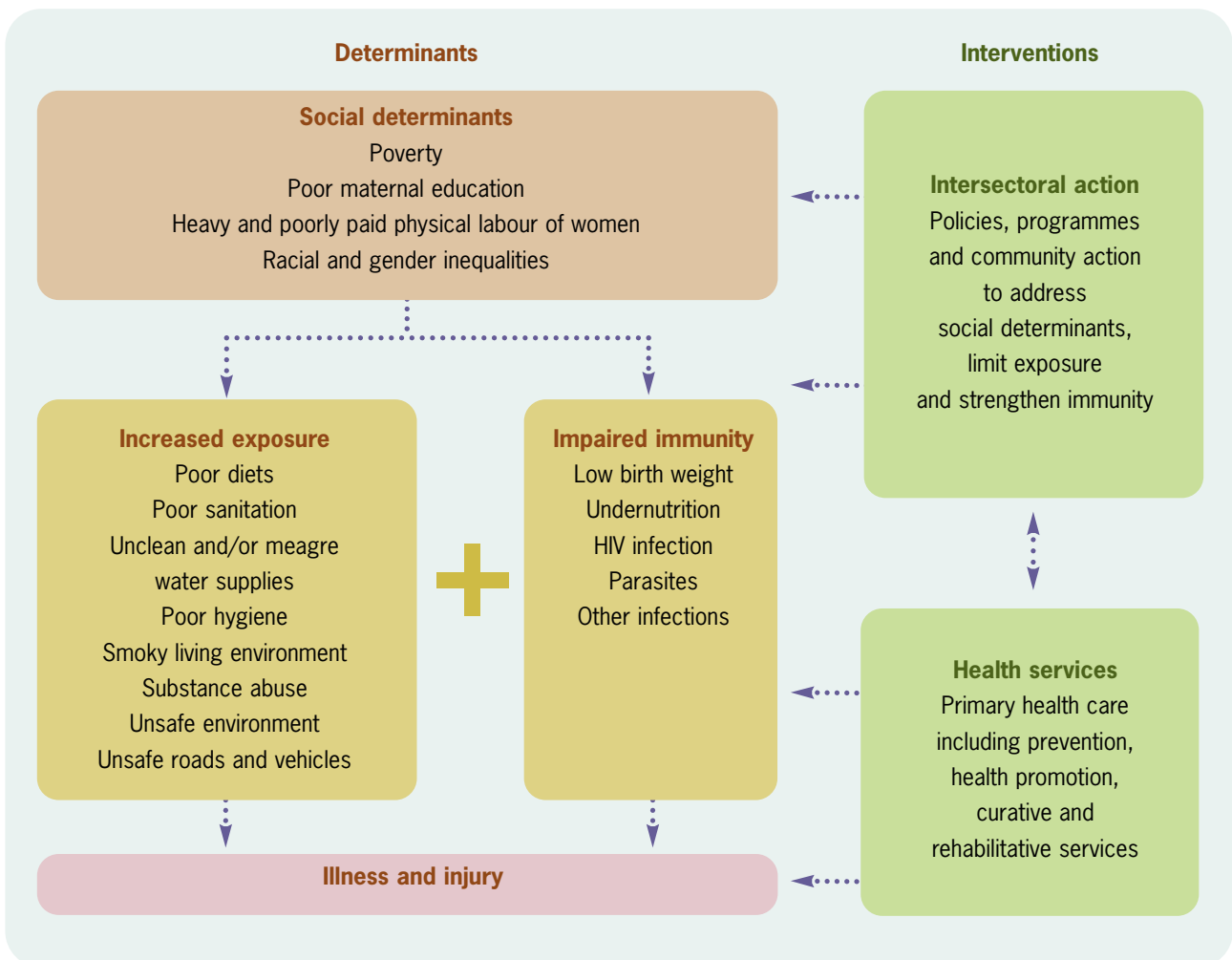
A rational, effective and sustainable approach to reducing the burden of childhood disease must address not only the effects and the immediate causes, but also the underlying and basic determinants (or causes) of childhood illness. These include a

range of factors that result in increased exposure and impaired immunity, as illustrated in figure 5. Such a comprehensive and integrated response is embodied in the primary health care approach. While the health sector’s role in health promotion, disease prevention, treatment and rehabilitation is vital, many of the determinants of children’s health lie outside the direct control of the health system (see the essay on pp. 82 – 89).

What are the risk factors and determinants of childhood illness?

This section draws on an analysis of the burden of childhood disease in the Western Cape province, which is the only in-depth study of the burden of disease in South Africa.¹⁵ Although there are provincial differences, the same general pattern of childhood disease exists in all provinces, with the same social and environmental determinants.

Figure 5: Key interventions to address the determinants of child illness and injury



Impaired immunity

The major causes of impaired immunity are low birth weight, undernutrition and HIV infection.

Low birth weight is a common risk factor for neonatal mortality and often associated with subsequent child undernutrition. Low birth weight is linked to short gaps between pregnancies and maternal hypertension, undernutrition and infection – especially HIV. These causes are themselves affected by underlying determinants like inadequate dietary intake (for mothers and children), excessive physical labour during pregnancy, low levels of maternal education, and smoking tobacco and/or drinking alcohol during pregnancy.

Undernutrition, including micronutrient deficiencies, is often a result of frequent illness and insufficient and poor quality food (see pp. 46 – 52). These two immediate risk factors for undernutrition are created by household food insecurity, inadequate child care practices (especially sub-optimal breastfeeding), and poor health and environmental services (especially access to safe sanitation and sufficient clean water). The association between the nutritional status of children and their school achievement is well established.¹⁶ The persistent high level of stunting among children 1 – 9 years old (18% in 2005),¹⁷ which is due to chronic malnutrition, threatens the government's efforts to reduce poverty and improve human development, especially among marginalised groups. Actions to address both acute and chronic malnutrition should be integral to maternal and child health interventions because of the short- and long-term effects of malnutrition on child survival, growth and development.

Unsafe sex increases the risk of HIV and other sexually transmitted infections and, combined with the current poor coverage and functioning of the PMTCT programme, results in transmission of HIV from mothers to children. More basic determinants of HIV infection include gender inequality and financial dependency of women, and embedded practices such as 'sexual networking', itself entrenched as part of the migrant labour system that enforced lengthy separation of marital partners.¹⁸

HIV in children is predominantly acquired from an infected mother during pregnancy, childbirth or through breast milk (see pp. 41 – 45). The PMTCT programme aims to reduce new infections and HIV-related morbidity and mortality in children. Programme data indicate that, by the end of 2009, 73% of HIV-infected pregnant mothers and only 59% of their HIV-exposed babies were receiving antiretroviral treatment.¹⁹

This is of concern in a country where AIDS is the leading cause of maternal and child death.

The 2003 South African Demographic and Health Survey (DHS) found that only 12% of infants under four months were exclusively breastfed, despite most infants being delivered in health institutions by a skilled attendant.²⁰ This extremely low rate of exclusive breastfeeding is cause for concern and suggests that an urgent review of policies on health worker training in infant feeding, and on the continuing, unrestricted promotion of infant formula milk, including provision through clinics. Failure to promote this key intervention to improve nutrition and boost immunity is contributing to the high burden of diarrhoeal disease. These missed opportunities clearly indicate weaknesses of the health system that need to be addressed to improve maternal and child health preventive and treatment interventions.

Vaccination can provide immunity against specific childhood infections. Although vaccination coverage has increased with the Expanded Programme on Immunisation, coverage levels are still too low to prevent outbreaks of highly infectious diseases, such as the recent measles epidemic – itself a cause of undernutrition and impaired immunity (see the essay on p. 46). A 2009 study documented low coverage of DPT3ⁱⁱ (55%), polio (59%), hepatitis B3ⁱⁱⁱ (50%) and Hib3^{iv} (40%).²¹

Increased exposure

Environmental risk factors increase exposure to infectious and toxic agents. These include inadequate sanitation and water supply, poor hygiene practices (especially hand washing), and poorly ventilated, crowded and smoky living spaces.

Underlying risk factors are common to both impaired immunity and increased exposure. These tend to be clustered within households affected by poverty and their lack of access to a range of resources – financial, physical, educational, organisational, etc.

The most basic risk factors are structural. They operate at local, national and, increasingly, at a global level. They include but are not limited to: social and labour policies (that affect employment and welfare), housing policies, environmental health policies, land and agricultural policies, and micro- and macro-economic policies, including trade policy. At a global level trade policies and patterns – including trade in food, services and intellectual property – play a significant role in shaping diets, affecting food security and the nature of work, as well as access to basic services. Dominant conservative

ii DPT = diphtheria (a highly infectious and potentially fatal respiratory infection), pertussis (whooping cough) and tetanus (a disease that results in severe muscle spasms and carries a high risk of mortality).

iii Hepatitis B causes liver damage, which is often irreversible.

iv Hib = haemophilus influenzae type B, which causes severe pneumonia and meningitis.

macro-economic policies that emphasise, amongst others, fiscal stringency, limit state investment in those services most important for child health.

How does inequity affect child health?

South Africa has discrepantly poor child health outcomes for a middle-income country. These outcomes and the distribution and pattern of morbidity and mortality are shaped by persisting inequalities. In 1998,^v child mortality was higher in non-urban settings, and four times higher among Africans than Whites.²² Undernutrition is also associated with poor socio-economic status, with stunting rates six times higher in the poorest quintile compared with the richest (38% vs. 6%).²³

Table 2 uses the Eastern Cape as an example of a predominantly rural province to show that children living in such provinces have higher rates of stunting than children living in more urban and racially mixed provinces, like the Western Cape. Eastern Cape residents are also nearly two times more likely to be unemployed than those in the Western Cape. Eastern Cape households have five times less access to safe sanitation, 60 times less access to safe drinking water, and use indoor pollutants such as firewood and paraffin for cooking and heating nearly six times more often than those in the Western Cape.

These inequalities are aggravated by growing inequalities in employment and income. From 1996 to 2001 unemployment amongst Africans increased from 42.5% to over 50%, compared to a rise from 4.6% to 6.3% among Whites. The recent economic recession has significantly worsened unemployment. Eighty-seven percent of the bottom 40% of South Africa's households had no or one working family member and relied heavily for their livelihoods on pensions or remittances in 2001.²⁴

The level of income disparity between the richest and poorest in South Africa is measured by the Gini coefficient,^{vii} which rose from 0.665 in 1994 to 0.666 in 2008,²⁵ making South Africa one of the most unequal societies in the world.

Inequalities in coverage and quality of health care are also marked. Only 47% of paediatricians work in the public health

Table 2: Socio-economic indicators with a critical impact on child health

Indicators	Eastern Cape %	Western Cape %
Unemployment	30	20
Stunting	18	12
Inadequate sanitation	19	4
Inadequate water supply	25	0.4 ^{vi}
Use firewood or paraffin	41	7

Source: Statistics South Africa (2010) *Quarterly Labour Force Survey, Quarter 1, 2010*. Pretoria: StatsSA; Labadarios D (ed) (2007) *The National Food Consumption Survey – Fortification Baseline (NFCS-FB): The knowledge, attitude, behaviour and procurement regarding fortified foods, a measure of hunger and the anthropometric and selected micronutrient status of children aged 1 – 9 years and women of child bearing age: South Africa, 2005*. Pretoria: Directorate: Nutrition, Department of Health; Statistics South Africa (2010) *General Household Survey 2009*. Pretoria: StatsSA.

sector, which caters for about 85% of children in South Africa. Further inequalities exist between the provinces. The Western Cape boasts a ratio of one paediatrician to 9,500 children, while in the Eastern Cape there is one paediatrician for every 102,500 children.²⁶ The quality of child care at health facilities is also problematic. Severe childhood malnutrition, a common and often fatal condition, is often poorly managed in hospitals, especially in rural districts, despite the fact that international guidelines can reduce fatality dramatically if properly applied.²⁷ The highest case fatality rates were linked to poor leadership and management by staff at various levels within these hospitals.²⁸

There are large differences between districts in coverage of key interventions for maternal, neonatal and child health: With few exceptions, coverage is better in better resourced districts and provinces.²⁹ Only 71% of women deliver their babies in facilities in the Eastern Cape, whereas 98% of births take place in facilities in the Western Cape.³⁰ Full immunisation of children under one year shows a similar pattern: 84% coverage in the Eastern Cape, and 104% in the Western Cape^{viii}.³¹

v The 1998 South African Demographic and Health Survey is the most recent, reliable data source for child mortality.

vi Access to sanitation and drinking water on site may be lower than indicated by these provincial statistics, as recent data from the City of Cape Town suggest that: "Only 52.6% Black African households had piped water by 2007. In some areas up 90 to 100 households, or 300 to 400 people share a single standpipe. 6.9% of Black African households used bucket toilets, 9.1% had none." Small K (2007) *Community Survey analysis*. Department of Strategic Development, Information and Geographic Information, City of Cape Town.

vii The Gini coefficient is a measure of national income equality. It ranges from 0 (no inequality) to 1 (complete inequality).

viii The Western Cape results suggest problems with data quality, as the recent measles outbreak in the province is related to poor coverage of the measles vaccine.

How is South Africa performing in relation to other African countries?

While sub-Saharan African countries are amongst the poorest performers globally in terms of child health, there are a number of low income African countries whose progress in child survival is impressive.

Progress in child survival in South Africa is poor in comparison with countries where the U5MR is falling progressively.³² In 2006, the South African government spent seven times more money on health than Malawi, and 17 times more than Madagascar³³ – two countries that have reduced child mortality by more than one-third between 1990 and 2008.

Recent analyses have implicated South Africa's high HIV prevalence as a major factor in its poor health performance, with mother-to-child transmission contributing to significant infant and young child morbidity and mortality.³⁴ However, it is clear that other health problems, such as undernutrition and common infections, also play a role.

The following description of the main success factors in Madagascar and Malawi may assist South Africa's policy-makers and child health practitioners in redirecting efforts for child survival and development.

Madagascar³⁵

The Madagascar Family Health Programme, a comprehensive child survival programme, focuses on mobilisation of communities and linking them with quality reproductive and child health services.

The programme includes routine childhood immunisation; a package of 'essential nutrition actions'; reproductive health, including family planning and adolescent reproductive health; sexually transmitted infections; and prevention and case management of sick children using the Integrated Management of Childhood Illnesses (IMCI) framework.

The technical interventions were implemented through a scaling-up strategy; community mobilisation; strengthening health systems; and information, education and communication.

Key factors that appear to have contributed to success include:

- Consistent action on community mobilisation and systems strengthening. The programme was integral to national strategies for immunisation, nutrition, reproductive health, and care of sick children. This helped sustain the programme's focus long enough to achieve impact.
- These community interventions were supported by improved

management and quality of services, including a focus on better skills and performance by health providers, systematic use of data and reliable supplies. Volunteers from existing community networks were enrolled to reach families.

- Effective communication was used. Health information messages to individuals were repeated through other communication channels such as radio, press, and television. Community volunteers were actively linked with health providers.
- The core content of all interventions was simplified for rapid expansion, and interventions were sequentially introduced to assure that families eventually received a full package of services.
- An effective monitoring process was developed. Ongoing evidence of progress, or lack thereof, helped tailor programme components to achieve results, and helped craft the most effective approaches.

'Champions' and partnerships were key in effecting changes in policies and processes, and increased the resources available for health development.

Malawi³⁶

As a country with a very low gross national income^{ix} per capita (\$280)³⁷ and high HIV prevalence (14%), Malawi is performing much better than would be expected. Despite an extreme shortage of paediatricians, doctors and midwives, Malawi has achieved high coverage of key child survival interventions and a sharp drop in under-five mortality.

Key factors that appear to have contributed to success include:

- The use of (predominantly male) community-based health surveillance assistants, whose numbers have been greatly increased. They are attached to fixed health posts but operate at community level. They administer antiretroviral drugs, supervise the directly observed treatment short course for TB and undertake key actions in maternal, newborn and child health care, including, importantly, postnatal visits. Skilled birth attendance is high at 60% coverage and mid-level workers, who are placed at health centres and small hospitals, are adept at key obstetric procedures, including caesarean section.
- All donor assistance is channeled through Malawi's sector-wide approach whereby donor funding for health is pooled to enable alignment of funding with health policies, and to reduce fragmentation of health programmes.

Malawi has also strengthened district management skills and drug supplies.

ix Gross national income is the income earned by a country, including labour and capital investment in a given year. South Africa's GNI was \$5,820 in 2008, according to the World Bank development indicators database.

What are the recommendations and conclusions?

Focused and concerted action is required to ameliorate the current, disturbing situation. Young child death, in addition to being a family tragedy, also often imposes a heavy financial burden on families and the health services. Young child morbidity – notably low birth weight, malnutrition and HIV/AIDS – negatively influence physical and mental development and contribute to the emergence of non-communicable diseases in adult life. These longer-term impacts have adverse consequences for both the human and economic development of South Africa and require interventions both within and outside of the health care system.

The coverage and quality of health care in South Africa are sub-optimal, especially at community and primary levels and in more peripheral (rural and peri-urban) areas. Key steps for improving health services for children include:

- establishing a well-functioning, standardised community health worker programme that achieves high community-level coverage of the priority child care interventions;
- a rapid improvement both in staffing ratios and staff performance in child care activities in clinics and health centres, with support for mid-level workers and nurses central to such efforts;
- greatly improved child care in district hospitals, key procedures embedded through focused training and support – especially from regional paediatricians, whose numbers and training need to be urgently enhanced; and
- a focus on the districts and communities with the poorest living conditions and highest rates of malnutrition and HIV infection to reduce inequities and improve health outcomes.

Priority must be given to the leading causes of child mortality:

1. HIV is the top killer of children under five and the major contributor to South Africa's poor mortality rates. Increasing the coverage of PMTCT to 100% should virtually eliminate childhood HIV.
2. Neonatal causes, the second leading cause of child death, require early antenatal care, improved maternal nutrition, reduction in tobacco and alcohol use in pregnancy, more deliveries at institutions, better referral and better maternal care at peripheral facilities like small district hospitals and community health centres, and improved coverage and quality of PMTCT.
3. Diarrhoea is the third leading cause of death for children

under five. Despite significant improvements in access to safe drinking water, access to sanitation is lagging. Community-based IMCI is essential to promote good hygiene practices, exclusive breastfeeding, and oral rehydration therapy.

4. Community-based practices account for nearly a third of all modifiable causes of death for children under five.³⁸ While many structural barriers contribute to delays in seeking care, community-based IMCI enables caregivers to recognise the danger signs and seek medical care. It is therefore critical to expand the number of community-based workers undertaking these essential child health interventions.^x
5. The nutrition of pregnant mothers and children needs to be improved, including the promotion of exclusive breastfeeding for the first six months, regular growth monitoring, the appropriate introduction of micronutrients and complementary foods, and referral and improved management of children with severe malnutrition.
6. Injuries amongst older children need to be prevented through an intersectoral approach. This includes integrating injury prevention within primary health care programmes and engaging with other departments to reduce burns, drowning, road traffic injuries and violence. The latter two are often associated with drug or alcohol abuse – addressing these will require legislation and more focused community development efforts, and, in the longer term, reductions in unemployment and inequality.

The imperative to improve socio-economic conditions, especially of the poor, is pressing.

The Millennium Development Goals provide a useful tool for tracking South Africa's progress in addressing key determinants of child health such as poverty, hunger, water and sanitation. Table 3 on the next page presents a summary of the country's progress towards reaching the MDGs. It shows that South Africa has made little or no progress in reducing poverty and malnutrition, despite succeeding in improving access to safe drinking water.

All those concerned with child health – practitioners, policy-makers, researchers, teachers, and communities themselves – need to advocate for greater equity in the social and environmental determinants as well as improved coverage and quality of child health care, especially at community and primary levels. Advocacy is more likely to succeed when it is based on robust evidence. The need to improve data and health information systems thus remains a priority.

^x Policy discussions are currently taking place regarding the standardisation of the conditions of service of community caregivers and expansion of their role to include child care activities.

Table 3: South Africa's progress toward the Millennium Development Goals: A summary of key indicators

(For some indicators, data across the different years are not directly comparable as they are derived from different sources)

Goal 1: Eradicate extreme poverty and hunger				
Target	Indicators	Baseline	Latest data	Overall trend in available data
Target 1A: Halve, between 1990 and 2015, the proportion of people whose income is less than \$1 a day.	% of population below \$1 per day	24.3% (1993) ^x	26.2% (2000)	Target: 12.2% Apparent reversal of progress prior to mid-point; insufficient data for post-mid-point assessment. Credible data are sparse.
Target 1C: Halve, between 1990 and 2015, the proportion of people who suffer from hunger.	% of underweight children under five years of age ^{xi}	9.3% (1994)	11.5% (2003)	Target: equal to or less than 5%. No improvement is evident. Regular, reliable data are sparse.
Goal 2: Achieve universal primary education				
Target	Indicators	Baseline	Latest data	Overall trend in available data
Target 2A: Ensure that, by 2015, children everywhere are able to complete a full course of primary schooling.	Net enrolment ratio in primary education (both sexes)	91.7 (1991)	91 (2007)	Target: 95% Enrolment stood at 99% in 1999, followed by a reversal of progress. The current ratio is close to the target.
Goal 3: Promote gender equality and empower women				
Target	Indicators	Baseline	Latest data	Overall trend in available data
Target 3A: Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.	Gender Parity Index (GPI): primary level enrolment	0.99 (1991)	0.97 (2007)	Target: 1 The GPI for primary schools has remained constant over the 1999 – 2007 period, with slightly more boys than girls at primary school. There are higher proportions of female students at secondary and tertiary levels (GPI > 1). The primary and secondary GPIs are close to target, but failed to meet the 2005 deadline.
	GPI: secondary level enrolment	1.18 (1991)	1.05 (2007)	
	GPI: tertiary level enrolment	0.83 (1991)	1.24 (2006)	
Goal 4: Reduce child mortality				
Target	Indicators	Baseline	Latest data	Overall trend in available data
Target 4A: Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate.	Children under-five mortality rate per 1,000 live births	66 (1990)	73 (2006)	Target: 20 per 1,000 live births The under-five mortality rate has climbed steadily since 1990. Urgent intervention is needed to reverse the current trend. Updated, credible data are vital.
	Infant mortality rate (0 – 1 year) per 1,000 live births	48 (1990)	48 (2006)	Target: 15 per 1,000 live births The IMR shows no signs of improvement. Intervention is urgently needed. Updated, credible data are vital.


x The income poverty national estimates are derived from the 1993 KwaZulu-Natal Income Dynamics Study (KIDS) and the 2000 October Household and Income and Expenditure Surveys.

xi Underweight refers to the moderate measure (<2 SD). Data for 1994 refer to children aged 6 months – 6 years.

Goal 5: Improve maternal health				
Target	Indicators	Baseline	Latest data	Overall trend in available data
Target 5A: Reduce by, three-quarters, between 1990 and 2015, the maternal mortality ratio.	Maternal mortality ratio (MMR) per 100,000 live births	230 (1990)	400 (2005)	Target: 58 per 100,000 live births The MMR has increased since 2000, ranging between 270 and 530. A more conservative facility-based estimate of 147 excludes women dying at home. Credible, national data are sparse.
Goal 6: Combat HIV/AIDS, malaria and other diseases				
Target	Indicators	Baseline	Latest data	Overall trend in available data
Target 6A: Have halted by 2015, and begun to reverse, the spread of HIV/AIDS.	% of people living with HIV, 15 – 49 years old living with HIV	0.12% (1990)	18.9% (2009)	Modelled estimates suggest that HIV prevalence has increased by more than 150 times the 1990 rate. Since the mid-2000s, the rate has slowed down. More needs to be done to meet the stated target.
Target 6C: Have halted by 2015, and begun to reverse, the incidence of malaria and other major diseases.	Tuberculosis (TB) incidence rate per year per 100,000 population	300 (1990)	950 (2007)	The TB incidence rate has steadily climbed since 1990, and has more than tripled over the 1990 – 2007 period.
Goal 7: Ensure environmental sustainability				
Target	Indicators	Baseline	Latest data	Overall trend in available data
Target 7C: Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.	% of the total population using improved drinking water sources	81% (1990)	93% (2006)	Target: 91% This indicator shows a steady increase in access to improved drinking water. The 2015 target has already been surpassed. However, progress is slow in rural areas and informal housing settlements.
	% of the population using improved sanitation	55% (1990)	59% (2006)	Target: 78% There has been a gradual increase in access to improved sanitation, but current progress is insufficient to meet the target.

 Progress on track

 Insufficient progress

 Reversal or no progress

Source: United Nations (2010) *Millennium Development Goals indicators*. Accessed on 18 May 2010: <http://mdgs.un.org/unsd/mdg/Data.aspx>.

Data sources:

CHILD NUTRITION: Baseline – Labadarios D & van Middlekoop A (1995) *Children aged 6 – 71 months in South Africa, 1994: Their anthropometric, vitamin A, iron and immunisation coverage status*. Johannesburg: South African Vitamin A Consultative Group.

Latest data – Department of Health, Medical Research Council & OrMacro (2007) *South African Demographic and Health Survey 2003*. Pretoria: DoH.

EDUCATION: Baseline – United Nations (2010) *Millennium Development Goals indicators*. Accessed on 18 May 2010: <http://mdgs.un.org/unsd/mdg/Data.aspx>. Latest data – UNESCO Institute for Statistics (2009) *Statistics database*; UNICEF (2009) *Progress for children. A world fit for children statistical review. December 2007, no. 6*. New York: UNICEF.

CHILD MORTALITY AND HIV PREVALENCE: Actuarial Society of South Africa, ASSA2003 modelled estimates.

MATERNAL MORTALITY: Baseline – United Nations Development Programme (2010) *Millennium Development Goals*. Accessed on 18 May 2010: www.undp.org/mdg/. Latest data – Hill K, Thomas K, AbouZahr C, Walker N, Say L, Inoue M & Suzuki E (2007) Estimates of maternal mortality worldwide between 1990 and 2005: An assessment of available data. *The Lancet*, 370: 1311-1319. [Data accessed at: www.hst.org.za]

TB INCIDENCE: Baseline and latest data – World Health Organisation (2009) *TB data*. Accessed on 7 June 2010: www.who.int/tb/country/data/download/en/index.html.

IMPROVED WATER AND SANITATION: Baseline and latest data – World Health Organisation & United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation (2008) *Progress on drinking water and sanitation: Special focus on sanitation*. Geneva: WHO & New York: UNICEF.

References

- 1 Statistics South Africa (2009) *Mortality and causes of death in South Africa, 2007: Findings from death notification. Statistical release P0309.3*. Pretoria: StatsSA.
- 2 See no. 1 above.
- 3 South Africa Every Death Counts Writing Group (2008) Every death counts: Use of mortality audit data for decision making to save the lives of mothers, babies and children in South Africa. *The Lancet*; 371: 1294-1304.
- 4 United Nations Children's Fund (2007) *Progress for children: A world fit for children statistical review*. New York: UNICEF. Accessed on 14 June 2010: www.unicef.org/progressforchildren/2007n6/index_41854.htm; ChildInfo (2010) *Monitoring the situation of children and women: Trends in under-five mortality rates (1960 – 2008)*. Accessed on 12 June 2010: www.childinfo.org/mortality_ufrmcountrydata.php; Dorrington R, Johnson L & Budlender D (2005) *ASSA2003 AIDS and Demographic models, user guide*. Cape Town: Centre for Actuarial Research (University of Cape Town) & AIDS committee of the Actuarial Society of South Africa.
- 5 See no. 4 above (ChildInfo).
- 6 See no. 4 above (Dorrington et al).
- 7 See no. 4 above (ChildInfo).
- 8 Stephen CR, Mulaudzi MC, Kauchali S & Patrick ME (eds) (2009) *Saving children 2005 – 2007: A fourth survey of child healthcare in South Africa*. Pretoria: University of Pretoria, Medical Research Council & Centers for Disease Control and Prevention.
- 9 See no. 1 above.
- 10 Maternal and Infant Health Care Strategies Unit, Medical Research Council, PPIP users & the Saving Babies Technical Task Team (2005) *Saving babies 2003 – 2005: Fifth Perinatal Care Survey of South Africa*. Pretoria: University of Pretoria.
- 11 See no. 1 above.
- 12 Burrows S, van Niekerk A & Laflamme L (2010) Fatal injuries among urban children in South Africa: Risk distribution and potential for reduction. *Bulletin of the World Health Organization*, 88(4): 267-272.
- 13 Burrows S & Laflamme L (2008) Suicide among urban South African adolescents. *International Journal of Adolescent Medicine and Health*, 20(4): 519-528.
- 14 Grantham-McGregor S, Cheung YB, Cueto S, Glewwe P, Richter L, Strupp B & the International Child Development Steering Group (2007) Child development in developing countries: Developmental potential in the first 5 years for children in developing countries. *The Lancet*, 369(9555): 60-70.
- 15 Sanders D, Reynolds L, Eley B, Kroon M, Zar H, Davies MA, Westwood A, Nongena P & van Heerden T (2007) *Decreasing the burden of childhood disease. Final report of the Childhood Diseases Workgroup, Western Cape Burden of Disease Reduction Project*. Accessed on 25 May 2010: www.capegateway.gov.za/eng/pubs/reports_research/W/157844.
- 16 Themane MJ, Monyeki KD, Nthangeni ME, Kemper HCG & Twisk JWR (2003) The relationship between health (malnutrition) and educational achievements (Maths and English) in the rural children of South Africa. *International Journal of Educational Development*, 23: 637-643.
- 17 Labadarios D (ed) (2007) *The National Food Consumption Survey – Fortification Baseline (NFCS-FB): The knowledge, attitude, behaviour and procurement regarding fortified foods, a measure of hunger and the anthropometric and selected micronutrient status of children aged 1 – 9 years and women of child bearing age: South Africa, 2005*. Pretoria: Directorate: Nutrition, Department of Health.
- 18 Hargrove J (2007) *Migration, mines and mores: The HIV epidemic in southern Africa*. Inaugural address, South African Centre for Epidemiological Modelling and Analysis, University of Stellenbosch.
- 19 World Health Organisation (2009) *Towards universal access: Scaling up priority HIV/AIDS interventions in the health sector: Progress report 2009*. Geneva: WHO.
- 20 Department of Health, Medical Research Council & OrcMacro (2007) *South African Demographic and Health Survey 2003*. Pretoria: DoH.
- 21 Shisana O, Simbayi LC, Rehle T, Zungu NP, Zuma K, Ngogo N, Jooste S, Pillay-van-Wyk V, Parker W, Pezi S, Nwanyanwu O, Dinah T & SABSSM III Implementation Team (2009) *The health of our children in South Africa: Results from a national HIV prevalence population survey*. Cape Town: HSRC Press.
- 22 Department of Health, Medical Research Council & Measure DHS (2002) *South African Demographic and Health Survey 1998*. Pretoria: DoH.
- 23 Sanders D & Chopra M (2006) Key challenges to achieving health in an inequitable society: The case of South Africa. *American Journal of Public Health*, 96(1): 73-79.
- 24 Statistics South Africa (2003) *The People of South Africa Population Census, 2001. Census in brief*. Pretoria: StatsSA. Accessed on 17 June 2010: www.statssa.gov.za/publications/CinBrief/CinBrief2001.pdf.
- 25 Office of the President (2009) *Development indicators 2009*. Pretoria: The Presidency.
- 26 Personal communication. Saloojee H, President of the College of Paediatricians, 14 June 2010.
- 27 Ashworth A, Khanum S, Jackson A & Schofield C (2003) *Guidelines for the in-patient treatment of severely malnourished children*. Geneva: World Health Organisation.
- 28 Puoane T, Cuming K, Sanders D & Ashworth A (2008) Why do some hospitals achieve better care of severely malnourished children than others? Five-year follow-up of rural hospitals in Eastern Cape, South Africa. *Health Policy and Planning*, 23: 428-437.
- 29 Day C, Barron P, Monticelli F & Sello E (eds) *District Health Barometer 2008/09*. Durban: Health Systems Trust.
- 30 See no. 26 above.
- 31 Department of Health (2009) District Health Information System database. In: Day C, Barron P, Monticelli F & Sello E (eds) *District Health Barometer 2008/09*. Durban: Health Systems Trust.
- 32 United Nations Children's Fund (2004) *The state of the world's children 2005*. New York: UNICEF.
- 33 United Nations Development Programme (2009) *Human Development Index 2009*. New York: UNDP.
- 34 Chopra M, Daviaud E, Pattinson R, Fonn S & Lawn JE (2009) Saving the lives of South Africa's mothers, babies, and children: Can the health system deliver? *The Lancet*, 374(9692): 835-846.
- 35 Basic Support for Institutionalising Child Survival (no date) *Improving child health in Madagascar: BASICS III*. Accessed 1 June 2010: www.basics.org/reports/FinalReport/Madagascar-FinalReport_BASICS.pdf.
- 36 Rohde J, Cousens S, Chopra M, Tangcharoensathien V, Black R, Bhutta ZA & Lawn JE (2008) 30 years after Alma-Ata: Has primary health care worked in countries? *The Lancet*, 372(9642): 950-961.
- 37 World Bank Development Indicators database (2008) *GNI per capita, Atlas method (current US\$)* Accessed on 16 June 2010: data.worldbank.org/indicator/NY.GNP.PCAP.CD/countries/latest?display=default.
- 38 See no. 8 above.



HIV, TB and child health

Brian Eley (Paediatric Infectious Diseases Unit, Red Cross Children's Hospital and School of Child and Adolescent Health, University of Cape Town)

HIV infection and tuberculosis (TB) are common diseases that adversely affect the health and survival of many children in South Africa. HIV/AIDS-related complications are the main cause of death in children under five.¹ Children acquire HIV infection mainly through mother-to-child transmission during pregnancy, at the time of birth, or after birth from infected breast milk.

Children are largely infected with TB by airborne spread of the TB bacteria, usually from close contact with an adult with active TB. Adults are often highly infectious, coughing up large numbers of TB organisms from open cavities in the lungs. In contrast, children rarely pass the infection on to others when they first become infected with TB because they seldom develop cavities that can release large numbers of organisms.

HIV infection and TB in children are strongly linked to the pandemics in adults. More than 95% of HIV-infected children contract the virus through mother-to-child transmission and there is a strong correlation between childhood TB and adult TB contacts, emphasising the family context in which children frequently acquire both HIV and TB.

There is a strong relationship between HIV and TB. HIV-infected children have weakened immune systems, which substantially increase their risk of becoming infected with TB. As both HIV infection and TB are very common in South Africa, a high proportion of HIV-infected patients will develop TB. Children infected with both HIV and TB are regarded as having HIV-TB co-infection.

This essay focuses on five key questions:

- What is the current situation in South Africa?
- What are the national strategic objectives for HIV, AIDS and TB?
- What is needed to ensure the integration of HIV and TB services?
- What are the latest treatment guidelines for children?
- What are the recommendations for improving South Africa's response to the dual pandemics?

What is the current situation in South Africa?

HIV

South Africa has been disproportionately affected by the HIV/AIDS and TB pandemics. Although the country has a relatively small population, it has one of the largest HIV pandemics and the biggest paediatric HIV pandemic in the world.

In 2009, 5.21 million people were HIV positive in South Africa; of these, 280,000 were children under 15 years. Despite 83% of HIV-infected pregnant women receiving antiretroviral therapy (ART) in 2009 to prevent HIV transmission to newborns, the annual number of newly infected children (59,000 in 2009) remains very high and contributes substantially to under-five mortality.²

In 2006, the World Health Organisation (WHO) estimated that 57% of under-five mortality in South Africa was associated with HIV infection, and recent information from the Child Health-care Problem Identification Programme showed that HIV/AIDS causes at least 30% of all child deaths in South Africa.³ In recent years access to ART has escalated for both mothers and children. At the end of 2008, South Africa had the largest paediatric ART programme in the world: More than 57,000 children were receiving ART, with an estimated coverage of 61%.⁴

Despite intensive ongoing research, no vaccine is yet available to prevent HIV infection.

Tuberculosis

South Africa also has one of the world's largest TB pandemics. In 2008, South Africa was ranked third after India and China in terms of the burden of new cases of TB, with an estimated 480,000 new cases, and second after Swaziland in terms of TB incidence, with an incidence rate of 960 cases per 100,000 population per year.⁵ The cure rates for all new (74%) and re-treated TB cases (67%) remain low – below the 2005 global target of 85%.⁶

Table 4: TB rates in a Cape Town community

Setting	Period	Rates
Prospective surveillance of children under 15 years in a single peri-urban township (population: 13,000).	1997 – 2007	<ul style="list-style-type: none"> Child TB-notification rate ranged from 315 per 100,000 to 1,105 per 100,000. Adult rates increased from 629 per 100,000 to 2,106 per 100,000. Childhood TB was statistically linked to adult TB prevalence.

Source: Middelkoop K, Bekker L-G, Morrow C, Zwane E & Wood R (2009) Childhood tuberculosis infection and disease: A spatial and temporal transmission analysis in a South African township. *South African Medical Journal*, 99: 738-743.

The emergence of multi-drug resistant TB (MDR-TB) and extreme drug resistant TB (XDR-TB) is of particular concern. South Africa ranks among the top five countries with the highest number of MDR-TB cases. Amongst new TB cases, 1.8% had MDR-TB. In patients who were previously treated for TB, the proportion with MDR-TB (6.7%) was more than three times higher.⁷ These resistant forms of TB are associated with major treatment and infection control challenges. As standard TB drugs are not effective, treatment consists of specialised drugs which are expensive and associated with many side-effects. The treatment of drug-resistant TB is less successful than that of drug-susceptible TB.

Specific childhood TB frequencies were not included in the global reports from which these statistics were extracted.

Case 1: The South African Tuberculosis Vaccine Initiative

Linda Rhoda, SATVI, University of Cape Town

Research into finding new and more effective TB vaccines is gathering momentum globally. At the forefront of TB vaccine research is the South African Tuberculosis Vaccine Initiative (SATVI) of the University of Cape Town. Established in 2001, SATVI has grown into the most advanced and experienced TB-vaccine research site in the world, having conducted a number of large-scale epidemiological as well as TB-vaccine trials involving thousands of participants.

SATVI is currently conducting clinical trials on four potential new TB vaccines, including a preliminary efficacy trial of a new TB vaccine for infants. The research site is in the Boland district of the Western Cape, which has one of the highest TB rates in the world, and where SATVI enjoys an effective partnership with the Department of Health, non-governmental organisations and the community.

Table 4 captures the results of a recent study that calculated the frequency of TB in children in a Cape Town community. It shows a strong association between childhood TB and contact with adult cases of smear-positive TB. Another study from Cape Town recorded a progressive increase in prevalence of MDR-TB, from 2.3% in 2005 to 6.7% in 2007.⁸ While these studies show that childhood TB is a significant public health problem in Cape Town, an accurate assessment of the impact of TB on children in South Africa requires regular surveillance in all nine provinces, with adequate rural representation.

The BCG vaccine, which is currently administered to all infants after birth, is only partially effective in lessening the risk of invasive forms of TB, and does not prevent primary infection. Following BCG vaccination, there is an added risk of HIV-infected children developing disseminated BCG infection, which may be difficult to treat.⁹ Case x describes the promising development of new vaccines to prevent more invasive forms of TB.

HIV-TB co-infection

South African paediatric studies have reported TB infection to be present in more than 40% of HIV-infected children, and that these children are 24 times more likely to develop TB than children not infected with HIV during the first year of life.¹⁰ Predictably, ART significantly reduces susceptibility to TB in HIV-infected children. A recent paediatric study reported that ART reduces the risk of developing TB by 70%.¹¹

Recent evidence suggests that isoniazidⁱ administration does not reduce the risk of TB in HIV-infected children younger than 12 months as it does in older children. Therefore, the WHO now recommends that all HIV-infected children over 12 months should receive routine isoniazid therapy for six months. However, infants younger than 12 months should not receive routine isoniazid as part of a comprehensive package of HIV care.¹² This is a recent recommendation and still has to be considered for implementation in South Africa.¹³

i An antibiotic used to prevent TB in adults and children.

Table 5: Progress towards child-specific targets set by the HIV and AIDS and STI National Strategic Plan (2007 – 2011)

Objective/indicator	2008 target	2011 target	2008 progress and comments
Proportion of pregnant women in need of PMTCT interventions who received these services	70%	95%	86%
Increase in the number of children starting ART for the first time	24,000	40,000	25,168
Proportion of HIV-positive or exposed children receiving cotrimoxazole	75%	100%	No estimate for South Africa in 2008 global report

Sources: Republic of South Africa (2010) *Country progress report on the declaration of commitment on HIV/AIDS. 2010 report*. Pretoria: Republic of South Africa; UNICEF (2009) *Children and AIDS: Fourth stocktaking report. November 2009*. New York: UNICEF; World Health Organisation (2008) *Towards universal access – Scaling up priority HIV/AIDS interventions in the health sector: Progress report*. Geneva: WHO.

What are the national strategic objectives for HIV and AIDS?

South Africa's response to the dual HIV/AIDS and TB pandemics is described in two strategic plans which cover the period 2007 – 2011.¹⁴ The HIV and AIDS and STIⁱⁱ National Strategic Plan 2007 – 2011 (NSP) defines four priority areas (prevention; treatment, care and support; research, monitoring and surveillance; and human rights and access to justice) and 19 goals. Fifteen of these goals have objectives that mention or affect children. Annual targets are specified for each objective for the period 2007 – 2011.

Table x draws on recent global reports to illustrate progress towards three of the NSP objectives. It seems that South Africa is meeting or exceeding its targets for the prevention of mother-to-child transmission (PMTCT) and the initiation of ART. However, progress in the use of cotrimoxazole prophylaxisⁱⁱⁱ in HIV-exposed and -infected children in South Africa was not reported on in 2008. The NSP was drafted before the extreme vulnerability of HIV-infected infants (0 – 12 months) in resource-limited settings was fully appreciated, and therefore it does not include objectives and targets that specifically address the care needs of these infants. Specific care targets and monitoring indicators should be developed to track the national response to this important patient sub-group.

Recent research indicates that HIV-infected children are at a high risk of progressing to advanced HIV infection or death during the first two years of life, and that early intervention with ART can prevent these adverse outcomes.¹⁵ Consequently, the WHO recommends that all HIV-positive children younger than 12 months should commence ART as soon as possible following diagnosis, irrespective of clinical severity or CD4^{iv} count.¹⁶

The guidelines for the management of HIV-infected children, published in 2005, do not prioritise the care needs of HIV-infected infants.¹⁷ A recent review of seven large paediatric treatment programmes in the country showed that the median age of children starting ART before March 2008 was 42.7 months, and only 28.9% were less than 18 months old.¹⁸ These results confirm that young children have not been adequately prioritised for ART in South Africa.

On World AIDS Day 2009, President Jacob Zuma announced that children under 12 months will be prioritised for ART, and the treatment guidelines for HIV-infected children were updated accordingly.¹⁹ To give greater effect to this important decision, which will hopefully lead to a greater proportion of young, HIV-infected children accessing ART, it is urgent to:

- communicate this policy shift to all child health professionals;
- implement appropriate training for front-line health professionals;
- develop care indicators for HIV-infected infants; and
- revise ART targets for infants and children within the context of the NSP.

What are the national strategic objectives for TB?

Both the NSP and the draft Tuberculosis Strategic Plan for South Africa, 2007 – 2011 (TBSP) describe aspects of the national response to the TB pandemic. The NSP includes objectives for the effective management of HIV-TB co-infection, while the TBSP provides a comprehensive description of the national TB strategy. The TBSP acknowledges the importance of treatment guidelines, political and managerial support, adequate resources and effective programme management.

ii Sexually transmitted infections.

iii Treatment with cotrimoxazole prevents *pneumocystis jiroveci* pneumonia (PCP) – a leading cause of death in HIV-infected children.

iv CD4-positive cells bind to the HI-virus and a diminished number of these cells indicate severe HIV infection – hence the term 'CD4 count'.

The listed indicators and targets address TB diagnosis, treatment (including MDR-TB and XDR-TB), HIV-TB co-infection, and cure rates. Although the TBSP provides “standards of care” for childhood TB, drug regimens for mild and severe forms of childhood TB are not clearly differentiated. The plan also acknowledges the need to strengthen collaboration between TB and HIV/AIDS programmes to ensure better management of co-infected patients, and recommends the integration of HIV/AIDS and TB activities at health facilities.

What is needed to ensure the integration of HIV/AIDS and TB services?

Integration of HIV/AIDS and TB services should be an essential component of the overall response to the dual pandemics. In 2006, the WHO published a framework for integration, which included objectives for reducing the burden of TB in people with HIV/AIDS, and the burden of HIV in TB patients.²⁰ Currently, HIV/AIDS and TB are largely managed as separate vertical programmes in South Africa. Consequently, patients infected with either disease and dual-infected patients are often treated in separate HIV/AIDS and TB clinics. This system has created inherent inefficiencies. For example, only 15 – 49% of TB patients in South Africa are screened for HIV infection.²¹

Integration should improve the management of both conditions. As ART services are relatively new in South Africa, the Department of Health implemented an accreditation system in 2004 to ensure that clinics deliver an acceptable standard of care. This has limited the number of ART treatment centres in the country. The HIV-site accreditation system has recently been withdrawn, permitting the extension of ART services to many more primary health care clinics. This may in future facilitate the functional integration of HIV/AIDS and TB services. However, joint national and provincial HIV-TB co-ordinating committees are needed to drive integration at health facilities.

What are the latest treatment guidelines for children?

Global treatment guidelines have been updated regularly during the past 5 – 10 years, due to the rapid evolution of HIV/AIDS and TB research. This trend is likely to persist during the next decade. Revision of the national Guidelines for the Management of HIV in Children has not kept pace, and many clinicians are still using outdated 2005 guidelines. However, updated guidelines were published in March 2010, which should improve the treatment response to paediatric

HIV infection in South Africa. In addition, the 2004 Tuberculosis Control Programme Practical Guidelines remain in use. Although draft HIV and TB Guidelines for Paediatric Practice were produced in 2009, they have not yet been finalised or disseminated nationwide.

The WHO convened a series of meetings during 2009 to update existing global guidelines. These resulted in several new recommendations for improving and refining clinical practice relating to the use of antiretroviral drugs for preventing perinatal^v transmission; infant feeding practice; ART for children, adolescents and adults; and the treatment of HIV-TB co-infection.²² The revised ART guidelines for children are in the process of being finalised and are likely to result in further review of the South African guidelines. An efficient system needs to be developed to ensure that research findings and global recommendations are rapidly reviewed and, where appropriate, incorporated into the national clinical response.

What are the recommendations for improving South Africa’s response to the dual pandemics?

This overview has raised several recommendations that health professionals and administrators should consider for improving the collective response to the dual paediatric HIV/AIDS and TB pandemics:

- Place greater emphasis on HIV testing and prevention because heterosexual transmission remains the major driver of HIV. Scaling up of care and treatment for HIV-infected patients can be sustained only if the number of new infections is reduced. The development of effective vaccines remains a priority. The Minister of Health recently launched a massive HIV counselling and testing campaign to test 15 million South Africans for HIV over the next year. This is a significant development which should boost prevention initiatives.
- Strengthen PMTCT services. The number of new HIV infections in children remains unacceptably high and an effective PMTCT programme is essential to reverse the HIV pandemic in children.
- Prioritise the care needs of young HIV-infected children because of the increased mortality risk during the first two years of life.
- Evaluate current use of TB medication. Research indicates that current TB-drug dosing instructions are sub-optimal for both HIV-infected and uninfected children, leading to the recent revision of the dosages of antitubercular drugs

^v Period immediately before and after the birth of a baby.

by the WHO. Furthermore, some TB-drug formulations are not appropriate for children.

- Clearly define and formalise the process of updating and disseminating treatment guidelines. The Department of Health should be more responsive to clinical advances and ensure that reasonably up-to-date standards of care are practised. This can be done by the prompt revision of treatment guidelines.
- Harmonise HIV/AIDS and TB treatment guidelines to ensure that they promote service integration.
- Establish national and provincial co-ordinating committees in line with the WHO's Stop TB strategy to promote functional integration of HIV/AIDS and TB services at all health care facilities.

Conclusion

This essay has highlighted limitations in the management of childhood HIV/AIDS and TB. A systematic review is required to identify all the prevention, care and treatment gaps, and formulate a comprehensive national response. The response to the dual paediatric HIV/AIDS and TB pandemics should be carefully monitored to ensure that the rights of affected children are protected. Anticipated revisions to global guidelines will include several recommendations for improving the response to childhood HIV infection, including extending early ART to all children younger than two years and simplifying the management of HIV-TB co-infection.

South Africa should not delay adopting these recommendations, which are to the benefit of all affected and infected children.

References

- 1 World Health Organisation (2006) *Mortality country fact sheet*. Accessed on 19 April 2010: www.who.int/whosis/mort/profiles/mort_afro_zaf_southafrica.pdf.
- 2 Republic of South Africa (2010) *Country progress report on the declaration of commitment on HIV/AIDS. 2010 report*. Pretoria: Republic of South Africa; Statistics South Africa (2009) *Statistical release P0302: Mid-year population estimates 2009*. Pretoria: StatsSA.
- 3 See no. 1 above; South Africa Every Death Counts Writing Group (2008) Every death counts: Use of mortality audit data for decision making to save the lives of mothers, babies and children in South Africa. *The Lancet*, 371: 1294-1304.
- 4 United Nations Children's Fund (2009) *Children and AIDS: Fourth stocktaking report. November 2009*. New York: UNICEF.
- 5 World Health Organisation (2009) *Global tuberculosis control: A short update to the 2009 report*. Geneva: WHO.
- 6 World Health Organisation (2009) *Global tuberculosis control – epidemiology strategy, financing. WHO report 2009*. Geneva: WHO.
- 7 See no. 5 above; see no. 6 above.

- 8 Schaaf HS, Marais BJ, Hesselting AC, Brittle W & Donald PR (2009) Surveillance of antituberculosis drug resistance among children from the Western Cape province of South Africa – An upward trend. *American Journal of Public Health*, 99: 1486-1490.
- 9 Hesselting AC, Johnson LF, Jaspán H, Cotton MF, Whitelaw A, Schaaf HS, Fine PEM, Eley BS, Marais BJ, Nuttall J, Beyers N & Godfrey-Faussett P (2009) Disseminated bacilli Calmette-Guerin disease in HIV-infected South African infants. *Bulletin of the World Health Organisation*, 87: 505-511.
- 10 Hesselting AC, Cotton MF, Jennings T, Whitelaw A, Johnson LF, Eley B, Roux P, Godfrey-Faussett P & Schaaf HS (2009) High incidence of tuberculosis among HIV-infected infants: Evidence from a South African population-based study highlights the need for improved tuberculosis control strategies. *Clinical Infectious Diseases*, 48: 108-114; Jeena PM, Pillay P, Pillay T & Coovadia HM (2002) Impact of HIV-1 co-infection on presentation and hospital-related mortality in children with culture proven pulmonary tuberculosis in Durban, South Africa. *International Journal of Tuberculosis and Lung Disease*, 6(8): 672-678; Madhi SA, Huebner RE, Doedens L, Aduc T, Wesley D & Cooper PA (2000) HIV-1 co-infection in children hospitalised with tuberculosis in South Africa. *International Journal of Tuberculosis and Lung Disease*, 4(5): 448-454.
- 11 Martinson NA, Moultrie H, van Niekerk R, Barry G, Coovadia A, Cotton M, Violari A, Gray GE, Chaisson RE, McIntyre JA & Meyers T (2009) HAART and risk of tuberculosis in HIV-infected South African children: A multi-site retrospective study. *International Journal of Tuberculosis and Lung Disease*, 13(7): 862-867.
- 12 Madhi SA, Nachman S, Violari A, et al (2008) *Lack of efficacy of primary isoniazid (INH) prophylaxis in increasing tuberculosis (TB) free survival in HIV-infected (HIV+) South African children*. 48th Interscience Conference on Antimicrobial Agents and Chemotherapy, 25 – 28 October 2008, Washington, Abstract G2-1346a; Zar HJ, Cotton MF, Strauss S, Karpakis J, Hussey G, Schaaf HS, Rabie H & Lombard C (2007) Effect of isoniazid prophylaxis on mortality and incidence of tuberculosis in children with HIV: Randomised controlled trial. *British Medical Journal*, 334(7585): 136.
- 13 WHO & International Union against Tuberculosis and Lung Disease (in press) *Guidance for national tuberculosis and HIV programmes on the management of tuberculosis in HIV-infected children: Recommendations for a public health approach, March 2010*.
- 14 South African National AIDS Council (2007) *HIV and AIDS and STI National Strategic Plan 2007 – 2011*. Pretoria: SANAC; Department of Health (no date) *Draft Tuberculosis Strategic Plan for South Africa, 2007 – 2011*. Pretoria: DoH.
- 15 Violari A, Cotton MF, Gibb DM, Babiker AG, Steyn J, Madhi SA, Jean-Phillipe P & McIntyre JA, for the CHER study team (2008) Early antiretroviral therapy and mortality among HIV-infected children. *New England Journal of Medicine*, 359: 2233-2244.
- 16 World Health Organisation (2008) *Report of the WHO technical reference group, paediatric HIV/ART care guideline group meeting, WHO headquarters, Geneva, Switzerland, 10 – 11 April 2008*. Geneva: WHO.
- 17 Department of Health (2005) *Guidelines for the management of HIV-infected children*. Pretoria: Jacana Media.
- 18 Davies MA, Keiser O, Technau K, Eley B, Rabie H, van Cutsem G, Giddy J, Wood R, Boule A, Egger M & Moultrie H (2009) Outcomes of the South African national antiretroviral treatment programme for children: The leDEA Southern Africa collaboration. *South African Medical Journal*, 99: 730-737.
- 19 Department of Health (2010) *Guidelines for the management of HIV in children*. 2nd edition. Pretoria: DoH.
- 20 World Health Organisation (2006) *The stop TB strategy: Building on and enhancing DOTS to meet the TB-related Millennium Development Goals*. Geneva: WHO.
- 21 See no. 6 above.
- 22 World Health Organisation (2009) *Rapid advice: Use of antiretroviral drugs for treating pregnant women and preventing HIV infection in infants*. Geneva: WHO; World Health Organisation (2009) *HIV and infant feeding: Revised principles and recommendations. Rapid advice*. Geneva: WHO; WHO (2009) *Rapid advice: Antiretroviral therapy for HIV infection in adults and adolescents*. Geneva: WHO.

An integrated approach to malnutrition in childhood

Michael Hendricks (School of Child and Adolescent Health, University of Cape Town)
and Lesley Bourne (Environment and Health Research Unit, Medical Research Council)

Nutrition plays a critical role from early fetal life into adulthood. It is essential for survival, health, growth, mental and physical development, performance and productivity. Malnutrition compromises children's rights to survival and development and perpetuates a cycle of inter-generational poverty. Focusing on adequate nutrition for mothers and children will contribute to achieving the Millennium Development Goals (MDGs) that relate to improving child survival (MDG 4), reducing undernutrition (MDG 1) and ensuring maternal health (MDG 5).¹

This essay focuses on undernutrition and seeks to answer the following questions:

- How does malnutrition impact on child health?
- What are the causes of malnutrition?
- How can the nutritional status of children be improved?
- What are the recommendations?

How does malnutrition impact on child health?

'Malnutrition' commonly refers to undernutrition (poor growth) rather than overnutrition (overweight and obesity). Anthropometryⁱ is used to determine if children are wasted, stunted or underweightⁱⁱ. 'Wasting' indicates acute malnutrition; 'underweight' usually indicates both acute and chronic malnutrition, while 'stunting' indicates chronic malnutrition and may be used as a proxy for poverty as it reflects the health and nutritional status of children over a long period, and of the mother during pregnancy.

Globally, maternal and child malnutrition contributes to 3.5 million deaths annually and to 35% of the disease burden in children under five years. Malnutrition in these groups accounts for 11% of the disability adjusted life years (DALYs).ⁱⁱⁱ Most of these deaths are due to stunting, severe wasting, intra-uterine growth restriction^{iv}, sub-optimum breastfeeding (no breastfeeding or non-exclusive breastfeeding in the first six months of life) and

micronutrient deficiencies (especially vitamin A and zinc deficiencies).²

The South African National Burden of Disease study showed that underweight contributed to 12.3% (11,808) of deaths and 10.8% of DALYs in children under five years.³ Furthermore, iron deficiency anaemia accounted for 7.3% of perinatal deaths,⁴ while vitamin A deficiency accounted for 28% of deaths from diarrhoeal disease, 23% of deaths from measles and 21% of deaths from malaria⁵.

In 2005, the National Food Consumption Survey-Fortification Baseline (NFCS-FB) showed that 9.3% of children aged 1 – 9 years were underweight, 18% were stunted and 4.5% were wasted.⁶ Rates were higher among rural children. Based on World Health Organisation (WHO) criteria, these indicate a medium prevalence of underweight and stunting. However, in one study among HIV-infected children before starting anti-retroviral therapy, 57% were underweight, 66% were stunted and 20% were wasted.⁷ The NFCS-FB showed that despite implementation of a national vitamin A supplementation programme and mandatory fortification of maize meal and wheat flour, 64% of children aged 1 – 6 years were vitamin A deficient. Among children aged 1 – 9 years, 45% were deficient in zinc, 25% had iron deficiency and 15% had iodine deficiency. Once again, the rates of deficiency of these micronutrients were higher in HIV-infected children.⁸

On the other hand, a secondary analysis of the 1999 NFCS data found that 17% of 1 – 9-year-old children were overweight and obese. The highest rate (23%) was found in urban children aged 1 – 3 years, indicating that South Africa's children are affected by a double burden of under- and overnutrition.⁹

What are the causes of malnutrition?

Many complex, interacting factors contribute to malnutrition in children. Figure 6 illustrates the immediate, underlying and basic

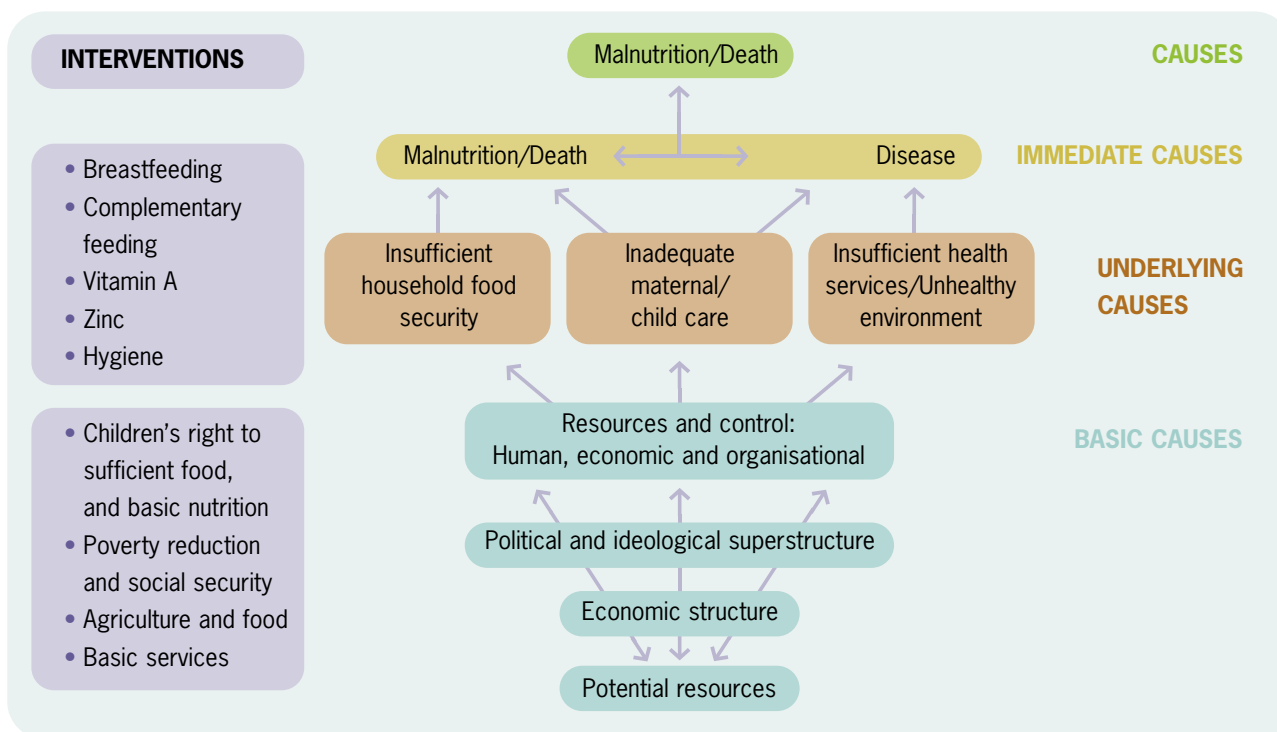
i Anthropometry includes assessment of weight, height/length, weight-for-height and head circumference.

ii These use standard deviation (SD) scores with cut-offs of <-2SD for weight-for-height (wasting), height-for-age (stunting) and weight-for-age (underweight).

iii DALY is a composite index of years lived with a disability and years lost due to premature mortality.

iv 'Intra-uterine growth restriction' refers to babies born at term but with a birth weight of less than 2.5 kilograms.

Figure 6: The causes of malnutrition and proposed interventions



Sources: Ruel MT (2008) Addressing the underlying determinants of undernutrition: Examples of successful integration of nutrition in poverty-reduction and agriculture strategies. In: Engesveen K (ed) *SCN News*, 36: 21-29. United Kingdom: Lavenham Press; United Nations Children's Fund (1990) *The nutrition strategy*. New York: UNICEF Programme division.

causes of malnutrition as outlined in the United Nations Children's Fund (UNICEF) conceptual framework. It is important that policy-makers and community leaders take into account the causes of malnutrition when planning and prioritising health and nutrition interventions.¹⁰

Immediate causes

The most significant immediate causes of malnutrition are inadequate food intake and illness.¹¹ In 2000, the main cause of under-five mortality in South Africa was HIV/AIDS (40%), while low birth weight, diarrhoea, lower respiratory infections and malnutrition accounted for 30% of all under-five deaths.¹² Low birth weight is an important predictor of malnutrition in childhood, and is estimated to be 15.5% nationally.¹³

The malnutrition-infection cycle is a key driver of child mortality because children who are underweight are at an increased risk of infectious diseases such as diarrhoea and pneumonia. The simultaneous presence of malnutrition and infection greatly increases the risk of child mortality.¹⁴

In terms of dietary intake, only 12% of infants younger than four months were exclusively breastfed in 2003, while 20% were never breastfed.¹⁵ In older children, less than half consumed the recommended energy and micronutrient intakes. These intakes were significantly lower for rural children, compared to urban children.¹⁶

Underlying causes

Some of the underlying factors which result in poor food intake and illness include poor household food security, inadequate maternal and child care, poor access to basic health services and an unhealthy environment with limited access to clean water and safe waste disposal. In South Africa, there are a number of contradictions regarding food security. While studies have indicated that there is sufficient food available nationally, large sectors of the population experience hunger and food insecurity.

The NFCS-FB survey showed that 52% of children aged 1 – 9 years experienced hunger, 28% were at risk of hunger and 20% were food secure.¹⁷ This pattern was relatively unchanged from the previous survey in 1999.¹⁸ Households experiencing hunger were mainly in the Eastern Cape (66.7%), Northern Cape (65.3%) and Limpopo (63.2%) provinces.

The extent of household food insecurity nationally is consistent with recent estimates that 80% of households could not afford to buy an average nutritionally adequate food basket.¹⁹ The high levels of food insecurity in the country are exacerbated by the increase in food prices of staples such as maize meal and bread due to unfavourable climatic conditions, rising fuel prices, biofuel production and trade restrictions. The price increases have a major effect, especially on the urban poor who spend a greater share of household income on food.²⁰

Regarding children's access to basic services, data for 2008

showed that 71% of children lived in formal dwellings,²¹ 80% had access to electricity,²² 64% had access to drinking water on site,²³ and 61% had access to basic sanitation²⁴. The lack of access to adequate sanitation exposes almost 8 million children to the risk of diarrhoeal disease and malnutrition.

Basic factors

Poverty and lack of resources are basic factors that contribute to malnutrition. In 2008, 64% of children lived in income-poor households^v.²⁵ This reflected a decline in income poverty since 2002. There was also an increase in the Gini coefficient^{vi} from 0.665 in 1994 to 0.666 in 2008, making South Africa one of the countries with the greatest degree of income inequality in the world.²⁶

In summary, the multiple causes of malnutrition among South Africa's children require a multi-sectoral approach and collaboration between the Departments of Health; Basic Education; Agriculture, Forestry and Fisheries; and Social Development at local, provincial and national levels.

How can the nutritional status of children be improved?

The UNICEF conceptual framework provides a basis for countries and communities to implement short- and long-term nutrition interventions aimed at reducing malnutrition and improving child survival. Short-term, targeted interventions (short routes) address the immediate causes of malnutrition. Long-term interventions (long routes) include interventions that address the underlying and basic causes of malnutrition.²⁷

The government's Integrated Nutrition Programme (INP) focuses on children under six years, pregnant and lactating women and all people with chronic diseases of lifestyle. It has seven main focus areas, which are summarised in table x, and are extensively described and critiqued in a previous publication.²⁸ The INP was modelled on the UNICEF conceptual framework and integrates both short and long route interventions (figure 6 on the previous page).

v Households with a per capita income of less than R570 per month in 2008.

vi The Gini coefficient is a measure of national income equality. It ranges from 0 (no inequality) to 1 (complete inequality).

Table 6: Focus areas of the Integrated Nutrition Programme

Focus areas	Policies and programmes
Disease-specific nutrition support, treatment and counselling	<ul style="list-style-type: none"> • Nutrition Supplementation Programme: <ul style="list-style-type: none"> – Children with faltering growth, or underweight – At-risk pregnant and lactating women • Guidelines for children with undernutrition, overnutrition, tuberculosis and HIV • Department of Health guidelines on the management of children with severe undernutrition
Growth monitoring and promotion	<ul style="list-style-type: none"> • Growth monitoring and promotion guidelines and training manuals
Control of micronutrient deficiencies	<ul style="list-style-type: none"> • Vitamin A Supplementation Policy • Iodisation of salt • Food fortification • Dietary diversification • Parasite control (including deworming) • Immunisation
Promotion, protection and support of breastfeeding	<ul style="list-style-type: none"> • South African Breastfeeding Guidelines for Health Workers • Baby-Friendly Hospital Initiative
Nutrition education, promotion and advocacy	<ul style="list-style-type: none"> • Nutrition and health promotion materials
Contribution to household food security	<ul style="list-style-type: none"> • Integrated Food Security and Nutrition Programme • National School Nutrition Programme
Food service management	<ul style="list-style-type: none"> • Meals in public institutions • Technical support for dieticians in public institutions

Source: Hendricks MK, Eley B & Bourne L (2006) Nutrition. In: Ijumba P & Padarath A (eds) *South African Health Review*. Durban: Health Systems Trust.

Addressing the basic and underlying causes of malnutrition

South Africa has ratified the United Nations Convention on the Rights of the Child and is committed to realising children's right to adequate nutrition²⁹ and an adequate standard of living³⁰. The Constitution requires the State to introduce measures to realise children's right to basic nutrition.³¹ This means the State must ensure that parents and family members caring for children are adequately supported to provide for children's nutritional needs. Parents and family members who are unable to provide for their children's nutritional needs should receive financial support or food aid from the State.

In realising children's right to basic nutrition, the State must ensure the availability of food (national food security), and access or entitlement to food (household food security). Policies therefore need to address the problem of hunger and household food security.³²

Household Food Security

The Integrated Food Security and Nutrition Programme (IFSNP) aims to eradicate hunger, undernutrition and food insecurity by 2015. The main strategic objectives are to increase household food production, improve income generation and job opportunities, improve nutrition and food safety, provide safety nets and food emergency management systems, and improve information systems.³³

The programme distributes food parcels as a temporary measure to assist vulnerable and food-insecure households. Beneficiaries include children and child-headed households, orphaned children, HIV-affected households and people with disabilities.

Agriculture is a central and sustainable component of the IFSNP. Agricultural initiatives can contribute to a reduction in malnutrition through increased food production for own consumption, increased household income, lower food prices and macro-economic growth particularly in rural communities.³⁴ Within the Department of Agriculture, Forestry and Fisheries is the sub-programme for Land Redistribution for Agricultural Development, which provides grants to beneficiaries to access land. The Comprehensive Agricultural Support Programme (CASP) facilitates support after land transfer to previously disadvantaged owners or communities. Some main areas of support are information and knowledge management, capacity development, advisory services, finance and infrastructure. Additionally, the LandCare Programme promotes and supports the sustainable use of natural resources.³⁵

To date less than 5 million hectares of a targeted 25 million

hectares of land have been transferred. Reasons for the slow progress include the 'willing seller, willing buyer' model, limited budgets and poor institutional co-ordination.³⁶ Also, the roll-out of the CASP has been uneven and support has concentrated mainly on on-farm infrastructure.

It is estimated that 2.5 million households engage in small-scale agricultural production and that there are 300,000 – 400,000 full-time subsistence farmers. It seems that the main reason for engaging in small-holder farming is to supplement household food; its success varies across the country and is determined by the support that is provided, the quality of natural resources and access to markets. Most people who engage in small-scale farming are women, farmers 15 – 19 years old, and those located in the former 'homeland' areas. These groups need greater support, and constraints such as access to agro-food markets that cater for small-scale producers need to be addressed. Further research is also needed to determine the success factors in household food production and the contribution that it makes to addressing household food security.³⁷

The National School Nutrition Programme (NSNP) also addresses household food security. It was implemented primarily to improve school attendance and learning. The programme has had a number of positive outcomes: In 2006/07 it reached 6 million learners in 18,039 schools and 4,000 schools had vegetable gardens. Targets set for the NSNP to reach 95% of targeted schools and learners by 2007 were reached as early as 2003/04.³⁸ A major challenge to the NSNP is its transformation from a feeding programme to an anti-poverty strategy that will involve the broader community.

Food price stabilisation aims to subsidise foods that are consumed by populations that are vulnerable to food insecurity. In South Africa access to basic foods is facilitated by zero-rating Value Added Tax (VAT) on food such as maize meal, samp, maize rice, brown bread, and unprocessed fruit and vegetables.³⁹ However, poor households spend a disproportionate portion of their income on food, and can be thrown into a state of chronic food insecurity with increases in food prices, fuel and electricity.

In summary, while the IFSNP hosts several initiatives aimed at improving household food security and alleviating poverty, evaluation and monitoring of the sub-programmes are needed to assess their effectiveness and impact on improving children's nutritional status.

Social assistance and poverty alleviation

Research has shown that social assistance grants can lift households out of poverty and improve access to food, education and basic services.⁴⁰ However, at least 50% of seriously hungry households do not receive grants for which they are

eligible.⁴¹ In May 2010, the Child Support Grant – which is one of the government's most successful poverty alleviation programmes – reached more than 9.7 million children under the age of 16.⁴² The grant will be extended in phases to all eligible children under 18 years between 2010 and 2012.

Addressing the immediate causes of malnutrition

The INP focus areas (table x) that address the immediate causes of malnutrition include the promotion, protection and support of breastfeeding; disease-specific support, treatment and counselling; growth monitoring and promotion; and the control of micronutrient deficiencies such as vitamin A, iron, iodine and zinc deficiencies.⁴³ Several of these interventions are delivered through the Integrated Management of Childhood Illness (IMCI) strategy at primary health care facilities. Evidence shows that the promotion of breastfeeding and complementary feeding (with or without food supplementation), vitamin A and zinc supplementation, and the appropriate management of severe malnutrition are able to reduce child mortality by a quarter, and stunting by a third when implemented at scale.⁴⁴

Successes of the INP

Certain aspects of the INP have been successful. Folic acid fortification of staple foods such as maize meal and wheat flour has reduced the prevalence of neural tube defects,^{vii} thereby reducing the costs of morbidity and mortality in affected children. There has been a significant increase in the dietary intake of iodine following mandatory iodisation of salt and reductions in goitre and intellectual disability in children who were iodine deficient. However, children's iodine intake was excessive in six of the provinces, which underlines the importance of monitoring the levels of salt iodisation.⁴⁵ Targets set for 2007 that have been achieved include a reduction in stunting from 21.6% to 18% and the number of baby-friendly hospitals, which currently stands at 42% – well above the 15% target that was set for 2007 nationally.⁴⁶

The Department of Health, in collaboration with academic institutions, has also developed food-based dietary guidelines for adults and children over seven years to prevent undernutrition, overnutrition and nutrition-related chronic diseases of lifestyle. Guidelines have also been developed for children under seven years and published as a series of articles.⁴⁷ These guidelines, which still need to be finalised, are consistent with recommendations of the joint Food and Agricultural Organisation/World Health Organisation, the South African National Burden

of Disease study and the IMCI strategy.⁴⁸ Attention needs to be given to the promotion of key nutrition messages contained in the guidelines to the broader public and especially to children of school-going age.

Challenges to the INP

The 2005 NFCS-FB survey showed an increase in vitamin A deficiency in children aged 1 – 5 years. Contributing to this is poor implementation of the Vitamin A Supplementation Programme among children aged 12 – 59 months, with coverage of only 20.5%.⁴⁹ A decline in clinic attendance following the completion of immunisations may be one of the factors accounting for the poor coverage. Other factors that have been implicated in missed opportunities for vitamin A supplementation include lack of mothers' awareness of the programme and benefits of supplementation, lack of vitamin A capsules and difficulties in implementing the programme.⁵⁰ The implementation of outreach initiatives such as national child health days will ensure the provision of vitamin A supplements and immunisations at least twice a year to this group of children.

While almost half the hospitals nationally are considered baby-friendly, this has not translated into improvements in exclusive breastfeeding rates.⁵¹ Contributing to this is the delay in legislating the WHO International Code of Marketing of Breast Milk Substitutes, which was adopted locally but is implemented on a voluntary basis. Violations of the code by infant food companies have been reported. While the payment of maternity benefits to working mothers is protected by international labour legislation, working mothers in South Africa who choose to breast-feed are forced to use their unemployment benefits.⁵² Achieving higher rates of exclusive breastfeeding also requires a more comprehensive strategy that will provide health workers at all levels with the necessary skills to counsel and support breastfeeding mothers effectively. A communication strategy using the mass media could also contribute positively to improving rates of exclusive breastfeeding.

Poor implementation of guidelines on the management of severe malnutrition has resulted in high fatality rates. Contributing factors are high turnover of hospital staff, errors in management and lack of supervision.⁵³ While the in-patient treatment of severely malnourished children requires improvement, attention should also be given to the early identification and rehabilitation of these children in the community by using ready-to-use therapeutic food. This approach has been effectively implemented in resource-poor settings.⁵⁴

In summary, while the INP has been designed to address the causes of malnutrition comprehensively, it has had limited

vii Neural tube defects are congenital abnormalities of the brain and spinal cord in which folic acid deficiency and other causes have been implicated.

success. There are several challenges that impede the effective implementation of the programme and compromise children's nutritional status and survival. A key factor is the lack of human resources: 40% of professional nurses' posts and 35% of medical practitioners' posts are vacant in the public health sector.⁵⁵ Incentives are needed to attract and retain nurses and doctors in the public sector. Also, there is a need for innovative ways to improve coverage of the key nutrition interventions by strengthening community IMCI and by developing posts for nutritionists to support community-based nutrition interventions.

Other factors limiting the effectiveness of the INP include the lack of both pre- and in-service training of primary health care (PHC) workers; poor implementation of policies and guidelines largely due to lack of support and supervision; poor quality of care; lack of leadership; low staff morale; the increased burden of and focus on HIV/AIDS; and the absence of a nutritional surveillance system which provides information on the impact of interventions on children's nutritional status.⁵⁶

What are the recommendations?

Strengthening the health system and improving implementation of existing programmes such as the IMCI could improve the outcome of the focus areas of the INP. To achieve this, the following are recommended:

Improve delivery of the INP

- Provide effective leadership and a clear vision of the nutrition goals and targets, which may require a restructuring of the INP and its focus areas.
- Develop capacity of PHC workers through adequate pre- and in-service training in nutrition.
- Employ adequate numbers of PHC workers and nutritionists so that the various nutrition interventions are not compromised.
- Provide incentives to attract and retain PHC workers skilled in nutrition.
- Support community health and nutrition programmes that focus on key nutrition interventions such as exclusive breastfeeding, complementary feeding, micronutrient supplementation and identification and referral of children with severe malnutrition.
- Market programmes such as vitamin A supplementation, immunisations, deworming, exclusive breastfeeding and food-based dietary guidelines.
- Consider distributing vitamin A supplements through crèches, pre-schools and community IMCI workers, and on child health days.⁵⁷

- Legislate and implement the South African code on marketing of breast milk substitutes, including the necessary provisions to protect working mothers who breastfeed.
- Integrate food-based dietary guidelines into the primary and secondary school curricula.
- Monitor and evaluate the INP on an ongoing basis by:
 - Establishing district nutritional surveillance sites;
 - Improving collection and use of health and nutrition information at district level;
 - Complying with regulations, eg the National Food Fortification Programme.
- Establish structures at district level that will monitor and take the necessary action in achieving desired nutrition outputs.

Improve household food security

- Devise a feasible food security monitoring system as part of the General Household Survey to identify vulnerable households.
- Improve the capacity of institutions to implement and evaluate programmes relating to land reform and development in rural areas effectively.
- Continue to fund, support and evaluate small-scale agricultural production and its links to improved food security.
- Consider zero-rating food coupled with increased tax on other commodities, or increase VAT on commodities or services used by high income households.

Improve access to social assistance, particularly for marginalised low income households.

Conclusion

The INP is designed to address the multiple causes of malnutrition in children comprehensively. However, the programme is not being effectively implemented at district level. There is inadequate coverage of many of the basic nutrition interventions that can positively impact on children's health and nutritional status and achieve the MDGs. These include the promotion of exclusive breastfeeding in the first six months, appropriate complementary feeding, vitamin A and zinc supplementation, and the management of severe malnutrition.

It is essential to strengthen the health system to implement and audit the INP focus areas that relate to these interventions. The broader problem of food insecurity needs to be addressed through more effective implementation, monitoring and evaluation of existing programmes as well as ensuring adequate social assistance for marginalised low income households.

References

- 1 United Nations Children's Fund (2009) *Tracking progress on maternal and child nutrition: A survival and development priority*. New York: UNICEF Programme division.
- 2 Black RE, Allen LH, Bhutta Z, Caulfield LE, de Onis M, Ezzati M, Mathers C & Rivera J, for the Maternal and Child Undernutrition Study Group (2008) Maternal and child undernutrition: Global and regional exposures and health consequences. *The Lancet*, 371(9608): 243-260.
- 3 Nannan N, Norman R, Hendricks M, Dhansay MA, Bradshaw D & South African Comparative Risk Assessment Collaborating Group (2007) Estimating the burden of disease attributable to childhood and maternal undernutrition in South Africa in 2000. *South African Medical Journal*, 97: 733-739.
- 4 Nojilana B, Norman R, Dhansay MA, Labadarios D, van Stuijvenberg ME, Bradshaw D & South African Comparative Risk Assessment Collaborating Group (2007) Estimating the burden of disease attributable to iron deficiency anaemia in South Africa in 2000. *South African Medical Journal*, 97: 741-746.
- 5 Nojilana B, Norman R, Bradshaw D, van Stuijvenberg ME, Dhansay MA, Labadarios D & South African Comparative Risk Assessment Collaborating Group (2007) Estimating the burden of disease attributable to vitamin A deficiency in South Africa in 2000. *South African Medical Journal*, 97: 748-753.
- 6 Labadarios D (2007) *National Food Consumption Survey-Fortification Baseline (NFCS-FB): South Africa 2005*. Pretoria: Directorate: Nutrition, Department of Health.
- 7 Eley BS, Davies M, Apolles P, Cowburn C, Buys H, Zampoli M, Finlayson H, King S & Nuttall J (2006) Antiretroviral treatment for children. *South African Medical Journal*, 96: 988-993.
- 8 See no. 7 above.
- 9 Steyn NP, Labadarios D, Maunder E, Nel J, Lombard C & Directors of the National Food Consumption Survey (2005) Secondary anthropometric data analysis of the National Food Consumption Survey in South Africa: The double burden. *Nutrition*, 21: 4-13.
- 10 United Nations Children's Fund (1990) *The nutrition strategy*. New York: UNICEF Programme division.
- 11 See no. 10 above.
- 12 Bradshaw D, Bourne D & Nannan N (2003) What are the leading causes of death among South African children? *MRC Policy Brief*, no. 3. Cape Town: Medical Research Council.
- 13 Day C & Gray A (2008) Health and related indicators. In: Barron P & Roma-Reardon J (eds) *South African Health Review*. Durban: Health Systems Trust.
- 14 Schroeder D (2008) Malnutrition. In: Semba RD & Bloem MW (eds) *Nutrition and health in developing countries*. 2nd edition. Totowa NJ: Humana Press.
- 15 Department of Health (2004) *South African Demographic and Health Survey. Preliminary report 2003*. Pretoria: DoH.
- 16 Labadarios D (2000) *The National Food Consumption Survey (NFCS): Children aged 1 – 9 years, South Africa, 1999*. Pretoria: Directorate: Nutrition, Department of Health.
- 17 See no. 6 above.
- 18 See no. 16 above.
- 19 Jacobs PT (2009) The status of household food security targets in South Africa. *Agrekon*, 48(4): 410-433.
- 20 International Monetary Fund (2008) *Food and fuel prices – Recent developments, macroeconomic impact and policy responses*. Washington DC: IMF Fiscal Affairs, Policy Development and Review & Research departments.
- 21 Statistics South Africa (2009) General Household Survey 2009. In: Hall K (2010) *Housing and services – Housing type*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 18 May 2010: www.childrencount.ci.org.za/indicator.php?id=2&indicator=10.
- 22 Statistics South Africa (2009) General Household Survey 2009. In: Hall K (2010) *Housing and services – Access to electricity*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 18 May 2010: www.childrencount.ci.org.za/indicator.php?id=3&indicator=43.
- 23 Statistics South Africa (2009) General Household Survey 2009. In: Hall K (2010) *Housing and services – Access to adequate water*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 18 May 2010: www.childrencount.ci.org.za/indicator.php?id=3&indicator=41.
- 24 Statistics South Africa (2009) General Household Survey 2009. In: Lake L & Hall K (2010) *Housing and services – Access to basic sanitation*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 18 May 2010: www.childrencount.ci.org.za/indicator.php?id=3&indicator=42.
- 25 Statistics South Africa (2009) General Household Survey 2008. In: Hall K (2010) *Income and social grants – Children living in poverty*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 18 May 2010: www.childrencount.ci.org.za/indicator.php?id=2&indicator=14.
- 26 Office of the President (2009) *Development indicators 2009*. Pretoria: The Presidency.
- 27 Ruel MT (2008) Addressing the underlying determinants of undernutrition: Examples of successful integration of nutrition in poverty-reduction and agriculture strategies. In: Engesveen K (ed) *SCN News*, 36: 21-29. United Kingdom: Lavenham Press.
- 28 Hendricks MK, Eley B & Bourne L (2006) Nutrition. In: Ijumba P & Padarath A (eds) *South African Health Review*. Durban: Health Systems Trust.
- 29 Office of the High Commissioner of the Rights of the Child (1989) *Article 24(2): Convention on the Rights of the Child*. UN General Assembly resolution 44/25. Geneva: United Nations.
- 30 Office of the High Commissioner of the Rights of the Child (1989) *Article 27: Convention on the Rights of the Child*. UN General Assembly resolution 44/25. Geneva: United Nations.
- 31 Constitution of the Republic of South Africa. Act 108 of 1996, section 28(1)(c).
- 32 Brand D (2004) Budgeting and service delivery in programmes targeted at the child's right to basic nutrition. In: Coetzee E & Streak J (eds) *Monitoring child socio-economic rights in South Africa*. Cape Town: Institute for Democracy in South Africa.
- 33 Kuzwayo P (2008) Food and nutrition security. In: Steyn NP & Temple N (eds) *Community nutrition textbook for South Africa: A rights-based approach*. Cape Town: Food and Agricultural Organisation & Medical Research Council.
- 34 See no. 27 above.
- 35 Friedman I & Bhengu L (2008) *Fifteen year review of income poverty alleviation programmes in the social and related sectors*. Durban: Health Systems Trust.
- 36 Jacobs PJ, Aliber M, Hart T & O'Donovan M (2008) *Review of rural development: A 15 year review of economic and social sector programmes*. Cape Town: Human Sciences Research Council.
- 37 Altman M, Hart TGB & Jacobs PT (2009) Household food security status in South Africa. *Agrekon*, 48(4): 345-361.
- 38 See no. 35 above.
- 39 See no. 33 above.
- 40 Samson M, Lee U, Ndebe A, Mac Quene K, Van Niekerk I, Gandhi V, Harigaya T & Abrahams C (2004) *The social and economic impact of South Africa's social security system*. Economic Policy Research Institute paper no. 37. Pretoria: Department of Social Development.
- 41 See no. 37 above.
- 42 Statistics South Africa (2010) SOCPEN database. In: Hall K (2010) *Current statistics on grants for children*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 20 May 2010: www.childrencount.ci.org.za/social_grants.php.
- 43 See no. 28 above.
- 44 Bhutta ZA, Ahmed T, Black RE, Cousens S, Dewey K, Giugliani E, Haider BA, Kirkwood B, Morris SS, Sachdev HPS, Shekar M, for the Maternal and Child Undernutrition Study Group (2008) What works? Interventions for maternal and child undernutrition and survival. *The Lancet*, 371 (9610): 417-440.
- 45 See no. 6 above.
- 46 Personal communication. Behr A, Department of Health, 23 February 2010.
- 47 Bourne LT (2007) South African paediatric food-based dietary guidelines. *Maternal and Child Nutrition*, 3: 227-229.
- 48 Hendricks MK, Goeiman H & Dhansay A (2007) Food-based dietary guidelines and nutrition interventions for children at primary healthcare facilities in South Africa. *Maternal and Child Nutrition*, 3: 251-258.
- 49 See no. 6 above.
- 50 Hendricks MK, Beardsley J, Bourne L, Mzamo B & Golden B (2007) Are opportunities for vitamin A supplementation being utilized at primary health care clinics in the Western Cape Province of South Africa? *Public Health Nutrition*: 10(10): 1082-1088.
- 51 See no. 28 above.
- 52 See no. 28 above.
- 53 Ashworth A, Chopra M, McCoy D, Sanders D, Jackson D, Karaolis N, Sogaula N & Schofield C (2004) WHO guidelines for management of severe malnutrition in rural South African hospitals: Effect on case fatality and the influence of operational factors. *The Lancet*, 363: 1110-1115.
- 54 See no. 1 above.
- 55 See no. 13 above.
- 56 See no. 13 above;
- 57 Harrison D (2010) *An overview of health and healthcare in South Africa 1994 – 2010: Priorities, progress and prospects for new gains, 2010*. A discussion document commissioned by the Henry J. Kaiser Family Foundation.

Mental health and risk behaviour

Alan J. Flisherⁱ and Anik Gevers (Division of Child and Adolescent Psychiatry and Adolescent Health Research Unit, University of Cape Town)

South Africa's high mortality rates are attributable to HIV, malnutrition and infectious diseases – so is it important to allocate scarce health resources to mental health interventions?

Unsafe sex, interpersonal violence, alcohol abuse and smoking tobacco account for over 50% of South Africa's total burden of disease.¹ Therefore, it is vital to address early manifestations of these problems in childhood and adolescence, not only to alleviate the burden of disease but also to alleviate the suffering of individuals and their families who are struggling with these problems.

This essay explains how child and adolescent mental health and risk behaviour pose significant problems for individuals and their families, and impact on the health, education, safety and economy of communities and society as a whole. Therefore, it is not only appropriate, but essential, to allocate resources to mental health programming in multiple settings.

The essay examines the following questions:

- Why is child and adolescent mental health important?
- Why is it important to address child and adolescent risk behaviour?
- What can be done to address these mental health and behavioural issues?
- What are some recommendations for action?

Why is child and adolescent mental health important?

Although national prevalence data of child and adolescent mental health disorders are unavailable, provincial data from the Western Cape can provide insight into the extent of the burden of disease. Approximately 17% of children and adolescents in this province suffer from psychiatric problems, such as attention deficit hyperactivity disorder (5%), major depressive disorder (8%) and post-traumatic stress disorder

(8%).² While the National Youth Risk Behaviour Survey does not provide information about the prevalence of clinical disorders, data from the latest survey of grades 8 – 11 learners indicate that, in the six months before the survey, 24% of youth had sad or hopeless feelings; 21% admitted to suicidal thoughts; 17% had a suicide plan; and 21% had made at least one suicide attempt.³

Mental health disorders are accompanied by a considerable amount of impairment, suffering, stigma and family financial strain. There is also a high degree of continuity between psychiatric disorders in childhood and adolescence and those in adulthood. Seventy-five percent of adults with mental health problems experience the first onset before the age of 24 years.⁴

Finally, mental ill-health is associated with physical ill-health. One good example of this is HIV infection. Young people with a psychiatric disorder are more likely to contract HIV infection than those without such a disorder.⁵ There are a number of possible reasons for this increased risk, such as inadequate sexual communication skills, susceptibility to negative peer norms, low self efficacy, decreased assertiveness, and reduced ability to negotiate safer sex. Being HIV positive can have mental health consequences, which can range from mild transient psychological distress on receiving the diagnosis, to dementia caused by the direct action of the virus on the brain.

Why is it important to address child and adolescent risk behaviour?

Risk behaviour can be defined as any behaviour that increases the risk of adverse psychological, social or physical outcomes in the short, medium or long term. The World Health Organisation estimates that up to 70% of premature deaths in adults can be attributed to behaviour initiated during adolescence.⁶ This essay highlights three specific risk behaviours that have a significant public health impact; but this is not a comprehensive list of risk behaviours.

ⁱ Sadly, Alan passed away while we were editing this essay. Alan's dedication to designing effective interventions and creating awareness about the issues highlighted in this essay were evident as he worked on early drafts of the essay from home while battling a lot of pain. Though he empowered many people to continue his valuable work, his passion, expertise, and guidance will be sorely missed.

Table 7: Prevalence of substance use among school children in Cape Town and South Africa

Substance use	Cape Town [#]		South Africa ⁺
	Girls %	Boys %	Girls and boys %
Cigarettes (in the month prior to the study)	25.8	33.1	21
Alcohol (in the month prior to the study)	24.5	32.1	35
Cannabis (in the month prior to the study)	8.7	21.1	10
Methamphetamine – ‘tik’ (ever)	11.9	13.3	–
Mandrax (ever)	–	–	7
Cocaine (ever)	–	–	7
Heroin (ever)	–	–	6

Sources:

Plüddemann A, Flisher AJ, Mathews C, Carney T & Lombard C (2008) Adolescent methamphetamine use and sexual risk behaviour in secondary school students in Cape Town, South Africa. *Drug and Alcohol Review*, 29: 1-6.

+ Reddy SP, James S, Sewpail R, Koopman F, Funani NI, Sifunda S, Josie J, Masuka P, Kambaran NS & Omardien RG (2010) *Umthente Uhlaba Usamila – The South African Youth Behavioural Survey 2008*. Cape Town: Medical Research Council.

Sexual risk behaviour

According to the National Youth Risk Behaviour Survey, 38% of South Africa’s youth have had sex, with 13% reporting being under the age of 14 years at sexual debut.⁷ There is considerable evidence that rates of sexual risk behaviour are high. According to the Human Sciences Research Council (HSRC), 8.5% of 15 – 24-year-olds reported having had sex before the age of 15 years; 14.5% had a partner who was more than five years older than themselves; and 30.8% of males aged 15 – 24 years had more than one sexual partner in the 12 months prior to the study.⁸

Among sexually active grades 8 – 11 learners, 41% reported more than two sexual partners in their lifetime and 52% reported more than one sexual partner in the three months before the survey.⁹ In addition, 12% of these learners reported using alcohol or drugs before having sex. While these behaviours are certainly cause for concern, young people also seem to engage in healthy sexual behaviours. For example, rates of condom use were high among the youth responding to the HSRC study, where 87.4% of males and 73.1% of females reported using a condom at last sex.¹⁰

Substance use

Table 7 presents substance use data from a Cape Town study (a representative sample of 4,605 grade 9 students at 15 high schools) and from the National Youth Risk Behaviour Survey. A further study involving 1,561 grades 8 – 10 learners in Cape Town reported that those using crystal methamphetamine (‘tik’) had higher rates of aggression, depression and generic mental health problems.¹⁰

Violence

More data are available for interpersonal violence. Tables 8 and 9 present data on prevalence of violent behaviour and bullying in schools, indicating that South Africa’s youth are engaging in very high levels of violent behaviour. In addition, a study among grades 8 and 11 students in Cape Town about intimate partner violence indicated that 20.7% reported perpetrating partner violence and 16.4% reported intending to do so (measured by survey items asking whether the respondent would use violence against a partner in the future, specifically if the partner angered the respondent).¹²

High levels of violence also emerged in the National Youth Risk Behaviour Survey, where 10% of learners reported being forced to have sex and 9% admitted to forcing someone to have sex. In the previous month, 27% of learners reported feeling unsafe at school and 15% admitted to carrying a weapon; while 31% reported being in a physical fight and 19% reported being a member of a gang in the previous six months.¹³

Table 8: National prevalence data on violent behaviour collected from 260 primary and high schools (number = 12,794)

Behaviour	Prevalence (%)
Threatened at school	14.5
Assaulted at school	4.3
Robbed at school	5.9
Sexual violence at school	3.1

Source: Burton P (2008) *Merchants, skollies and stones: Experiences of school violence in South Africa*. Cape Town: Centre for Justice and Crime Prevention.

Table 9: Prevalence of bullying among grades 8 and 11 learners from Cape Town and Durban schools (number = 5,074)

Behaviour	Prevalence (%)
Bully	8.2
Victim	19.3
Bully-victim	8.7

Source: Liang H, Flisher AJ, Lombard CJ (2007) Bullying, violence, and risk behaviour in South African school students. *Child Abuse & Neglect*, 31: 161-171.

Associations between risk behaviours

Involvement in one risk behaviour increases the chances of involvement in other risk behaviours. An earlier study among high school students in the Cape Peninsula found that, in comparison to learners who reported no risk behaviour, those who engaged in any one of the following risk behaviours were more likely to engage in some of the others: cigarette smoking; sexual intercourse; going out at night beyond the neighbourhood and walking home alone; attempting suicide; using cannabis; not wearing a seat belt.¹⁴ The existence of this co-variation between risk behaviours has been confirmed in several subsequent studies. For example, adolescents who had used methamphetamine in the past 30 days were more likely to have engaged in vaginal, oral, and anal sex.¹⁵ Thus, the health risks associated with engaging in risk behaviours are amplified by additional and simultaneous involvement in other risk behaviours.

Finally, there are strong grounds to conclude that mental ill-health and risk behaviour are associated with each other. A recent literature review identified 89 studies published between 1990 and 2007 that reported an association between substance use and psychopathology among adolescents.¹⁶ Similarly, a study among Cape Town high school students found that exposure to violence is associated with depression, anxiety and post-traumatic stress disorder.¹⁷

What can be done to address mental health and behavioural problems?

Clinical services are perhaps the most obvious response to child and adolescent mental ill-health and risk behaviour. Traditionally these services have generally served a treatment or rehabilitative purpose. In support of this type of response, there is a large and growing body of evidence that many child and adolescent psychiatric disorders can be effectively treated using psychotherapy and/or psychotropicⁱⁱ medication.¹⁸ These specialised services are essential and need to be strengthened.

However, mental health services for children and adolescents need to be broadened to include mental health promotion and primary prevention in order to support optimal development and well-being and to prevent the occurrence of mental health or risk behaviour problems. Interventions need to be integrated into multiple settings and remain consistent across individual, interpersonal, community, and socio-structural levels.¹⁹ As mental ill-health is associated with physical ill-health and risk behaviour, this implies that interventions should be as comprehensive as possible. It is, for example, ill-advised to focus on an adolescent's substance misuse without also addressing associated mood disorder or sexual risk behaviour.

There is a need for a multi-pronged approach that supports the implementation of services for different groups of youth, and for various groups of people who are influential in young people's lives.²⁰ Universal interventions are broad and provided to a general population (eg all pre-school children), whereas selected interventions provide services to particular groups (eg vulnerable or at-risk youth) or at critical stages of children's development). Indicated interventions are services aimed at people who are struggling with particular mental health and behavioural problems (eg youth with a psychiatric diagnosis). Parents, primary caregivers and youth service providers should also receive interventions that will support child and adolescent mental health. These interventions will strengthen the people and environments that are particularly influential in youth's lives and well-being.

Child and adolescent mental health care cannot only be confined to specialised mental health care settings. Indeed, a continuum of mental health services can and should be offered in various settings. This includes health promotion, prevention, treatment and rehabilitation services at primary health care clinics, schools, youth and community centres, faith-based centres, non-governmental organisations (NGOs), media outlets and homes. For example, the Healthwise programme described in case 2 on the next page implements a health promotion and primary prevention programme in schools and communities. Consistent messaging and support across these domains will ensure that youth are fully supported in their mental health and development and that problems are either prevented or detected early for intervention.

Interventions also need to address the economic and socio-cultural factors that continue to exacerbate mental health disorders and risk behaviour. For example, the culture of violence in South African society not only contributes to individual distress, but it also supports continued violent

ii Psychotropic medication is any pharmaceutical used primarily in the treatment of mental illnesses to improve emotional, perceptual, or behavioural symptoms of these illnesses through their action on brain functioning.

behaviour among children and adolescents. Exposure to corporal punishment, domestic violence, and community violence gives youth the message that violent behaviour is a normal response, particularly in conflict or discipline situations. Young people will only learn that violent behaviour is unacceptable when society stops condoning such violent behaviour and starts promoting pro-social behaviour, for example, by equipping parents and teachers with positive discipline strategies and enforcing non-violent policies and legislation (such as the South African Schools Act²¹).

Interventions do not need to be limited to workshop or traditional therapy formats. Indeed, creative ways to address mental health and risk behaviour among youth across traditional and non-traditional fields are essential. Below are some suggestions to help various role-players to begin thinking about actions they can take as individuals in their professional or personal capacity.

What are some recommendations for action?

It is important that all role-players stay informed of developments in child and adolescent mental health and participate in continuous training. Just as important are building connec-

Case 2: The Healthwise intervention

The Healthwise intervention seeks to reduce risk behaviours in youth by delivering the programme in life-orientation classes in schools and various complementary, health promoting activities in communities. These activities focus on providing youth with opportunities to engage in positive behaviours during leisure time, such as community service activities or playing games with friends in safe environments. Youth learn and practice various skills to aid them to make decisions, regulate their emotions, resolve conflict, and overcome boredom in healthy ways.

This programme was developed, monitored and evaluated with a multi-disciplinary team in the Western Cape in conjunction with collaborators in Pennsylvania, USA. Initial results from a study assessing the impact of the programme in Cape Town schools indicate positive effects of the intervention, but a full report is awaited before recommendations to scale up the programme can be made.

Source: Caldwell L, Smith E, Wegner L, Vergnani T, Mpofu E, Flisher AJ & Mathews C (2004) HealthWise South Africa: Development of a life skills curriculum for young adults. *World Leisure*, 3: 4-17.

tions and partnerships to co-ordinate efforts to support child and adolescent mental health, and to improve mental health services. The following recommendations outline how people from different groups can support child and adolescent mental health. Risk behaviour is conceptualised as a component of child and adolescent mental health, thus any mention of mental health interventions includes interventions that target sexual behaviour, substance use, and violent behaviour.

Mental health professionals

- Stay informed about developments in child and adolescent mental health interventions and continuously monitor and evaluate interventions and programmes that are being implemented.
- Integrate health promotion and illness prevention into treatment and rehabilitation services.
- Engage other key stakeholders and provide guidance on how to strengthen their roles in child and adolescent mental health interventions.

Other health care and social service professionals

- Integrate mental health screening into primary health care services.
- Integrate basic mental health promotion and illness prevention interventions.
- Liaise with mental health care professionals in providing comprehensive treatment to patients and make referrals for specialised care when appropriate.

Parents and primary caregivers

- Use positive parenting skills (eg positive reinforcement, behavioural modification) and build strong family relationships to support a child's development.
- Take care of own mental health as this will help with parenting and provide a good role model for the child.
- Seek help from social services, counsellors, or health care providers when concerned about a child and find out what can be done to support the child and the rest of the family.

Teachers and school administrators and youth leaders

- Build partnerships with NGOs, social services, community leaders, other schools, researchers, and mental health care professionals to create a health promoting environment at school.
- Understand how to detect and deal with or refer children or adolescents who are struggling with mental health, behavioural, and/or academic problems.
- Integrate universal mental health promotion and illness prevention programmes into school activities such as life-

orientation classes, school assemblies, extra-curricular clubs and other classes in the academic programme.

- Establish a wellness committee of staff and students who organise mental health promotion campaigns for the school community.
- Provide supportive services to youth who are struggling or have recently overcome mental health challenges.

Activists and advocates

- Create awareness about child and adolescent mental health and the need to integrate interventions at multiple levels.
- Advocate for the implementation of child and adolescent-friendly policies.
- Develop poster campaigns and self-help booklets with information, resources and activities that address pertinent youth mental health and risk behaviour.

Researchers

- Develop and evaluate programmes for a variety of settings and mental health issues along the full continuum of services.
- Disseminate information about child and adolescent mental health in accessible ways to all levels of stakeholders.
- Liaise and partner with multi-disciplinary service providers on the development, evaluation and dissemination of effective interventions and associated training.

Corporate entities, publishers and mainstream media

- Display brochures, magazines and adverts that promote child and adolescent mental health and suggest resources for difficulties with mental disorders or risk behaviour.
- Provide funding for child and adolescent mental health campaigns and interventions.
- Run advertising campaigns, develop self-help resources or publish stories or articles that address mental health and risk behaviour, and provide positive role models for children, adolescents, parents and teachers.

Policy-makers and legislators

- Integrate child and adolescent-friendly mandates and policies that support interventions in multiple settings and at individual, interpersonal, community and socio-cultural levels.
- Allocate resources for training, staff support, service delivery, monitoring and evaluation of evidence-based interventions along the full continuum of services for child and adolescent mental health.
- Develop a strategic plan that co-ordinates interventions.

References

- 1 Norman R, Bradshaw D, Schneider M, Joubert J, Groenewald P & Lewin S (2007) A comparative risk assessment for South Africa in 2000: Towards promoting health and preventing disease. *South African Medical Journal*, 97: 637-641.
- 2 Kleintjies S, Flisher AJ, Fick M, Railon A, Lund C, Molteno C & Robertson BA (2006) The prevalence of mental disorders among children, adolescents and adults in the Western Cape, South Africa. *South African Psychiatry Review*, 9: 157-160.
- 3 Reddy SP, James S, Sewpail R, Koopman F, Funani NI, Sifunda S, Josie J, Masuka P, Kambaran NS & Omdardien RG (2010) *Umthente Uhlaba Usamila – The South African Youth Behavioural Survey 2008*. Cape Town: Medical Research Council.
- 4 Kessler R, Berglund P, Demler O, Jin R, Koretz D, Merikangas KR, Rush AJ, Walters EE & Wang PS (2003) The epidemiology of major depressive disorder: Results from the National Comorbidity Survey Replication (NCS-R). *Journal of the American Medical Association*, 289: 3095-3105.
- 5 Patel V, Flisher AJ, Hertick S & McGorry P (2007) The mental health of young people: A global public health challenge. *The Lancet*, 369: 1302-1313.
- 6 World Health Organisation (2001) *The second decade: Improving adolescent health and development*. Geneva: WHO.
- 7 See no. 3 above.
- 8 Flisher AJ & Gevers A (2010) Adolescence. In: Petersen I, Bhana A, Flisher AJ, Swartz L & Richter L (eds) *Promoting mental health in scarce-resource contexts: Emerging evidence and practice*. Cape Town: HSRC Press.
- 9 See no. 3 above.
- 10 See no. 8 above.
- 11 Plüddemann A, Flisher AJ, McKetin R, Parry C & Lombard C (in press) Methamphetamine use, aggressive behavior and other mental health issues among high school students in Cape Town, South Africa. *Drug and Alcohol Dependence* (forthcoming).
- 12 Flisher AJ, Myer L, Marais A, Lombard C & Reddy P (2007) Prevalence and correlates of partner violence among South African adolescents. *Journal of Child Psychology and Psychiatry*, 48: 619-627.
- 13 See no. 3 above.
- 14 Flisher AJ, Kramer RA, Hoven CW, King RA, Bird HR, Davies M, Gould MS, Greenwald S, Lahey BB, Regier DA, Schwab-Stone M & Shaffer D (2000) Risk behaviour in a community sample of children and adolescents. *Journal of the American Academy of Child & Adolescent Psychiatry*, 39: 881-887.
- 15 Plüddemann A, Flisher AJ, Mathews C, Carney T & Lombard C (2008) Adolescent methamphetamine use and sexual risk behaviour in secondary school students in Cape Town, South Africa. *Drug and Alcohol Review*, 29: 1-6.
- 16 Saban A & Flisher AJ (in press) The association between psychopathology and substance use in young people: A review of the literature. *Journal of Psychoactive Drugs* (forthcoming).
- 17 Flisher AJ, Ward CL, Liang H, Onya H, Mlisa N, Terblanche S, Bhana A, Parry CDH & Lombard CJ (2006) Injury-related behaviour among South African high-school students at six sites. *South African Medical Journal*, 96: 825-830.
- 18 Brown RT & La Rosa A (2002) Recent developments in the pharmacotherapy of attention-deficit/hyperactivity disorder (ADHD). *Professional Psychology: Research and Practice*, 33: 591-595; Harrington R, Whittaker J & Shoebridge P (1998) Psychological treatment of depression in children and adolescents: A review of treatment research. *British Journal of Psychiatry*, 173: 291-298; The TADS Team (2007) The treatment for adolescents with depression study (TADS): Long-term effectiveness and safety outcomes. *Archives of General Psychiatry*, 64: 1132-1144.
- 19 See no. 9 above.
- 20 Patel V, Flisher AJ, Nikapota A & Malhotra S (2008) Promoting child and adolescent mental health in low and middle income countries. *Journal of Child Psychology and Psychiatry*, 49: 313-334.
- 21 South African Schools Act 84 of 1996.

Basic health care services for children

Anthony Westwood (School of Child and Adolescent Health, Faculty of Health Sciences, University of Cape Town),
 Maylene Shung King (DPhil candidate, Department of Social Policy and Social Work, University of Oxford)
 and Lori Lake (Children's Institute)

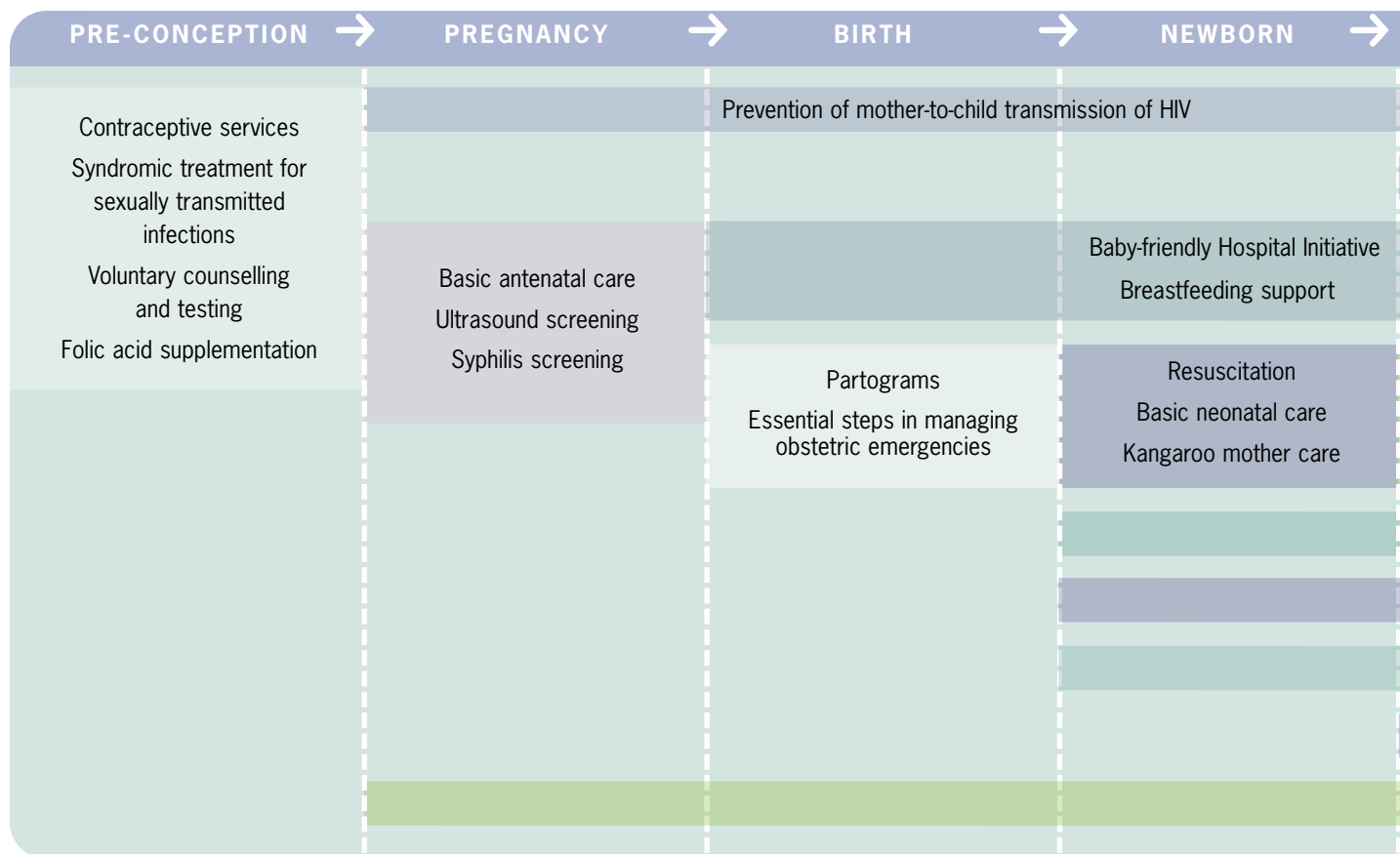
The Constitution¹ guarantees everyone the “right to have access to health care services”. In addition, every child has the right to “basic health care services”. Yet what is meant by ‘basic health care services’ has not been clarified by the courts or Parliament. This essay provides a starting point for defining ‘basic health care services’ for children in order to provide a benchmark to measure South Africa’s progress towards the realisation of this right. It does this by considering four questions:

- What might basic health care services be for children?
- Is South Africa equipped to deliver good quality basic health care services?
- How might these services for children be realised?

Many health problems that afflict children are primarily the result of poverty, hunger and unhealthy living conditions. Although political and community will are needed to address these problems, health care services play a key role in the prevention and treatment of childhood illness.

Traditionally health care covers all interventions and activities that relate to the health of individuals and communities and have significant input from health professionals and health services. While many role-players outside the health care system contribute to the health and well-being of children, this essay concentrates on the potential and actual roles of health care services in this endeavour. Health care covers a continuum of activities that are:

Figure 7: A continuum of care across a child's life



- promotive – to maintain good health;
- preventive – to prevent illness or worsening of disease;
- curative – to cure or ameliorate acute and long-term illness;
- rehabilitative – to improve the functioning of individuals with disability, birth defectsⁱ or chronic illness; and
- palliative – to provide physical and emotional comfort to persons with incurable conditions, including end-of-life care.

What might basic health care services be for children?

The term ‘basic’ as expressed in the Constitution requires interpretation because it is neither defined in the National Health Act,² regulations or policy documents, nor in legal case law. ‘Basic’ can be misconstrued to mean ‘the very minimum, the simplest and the cheapest’. This is unlikely to be the case here, given the right of children to the highest standard of health and medical care as outlined in article 24 of the United Nations Convention on the Rights of the Child,³ and the imperative for the progressive realisation of such a right.

A more accurate term would be ‘essential’ health care services. A comparable example is the essential drugs list for

primary health care services that sets down the basic set of medications and therapies that every primary health care facility in South Africa must carry.⁴ Based on this interpretation, children must receive those health care services that are essential to promote their health and well-being, to protect them from the commonest and greatest threats to their health, and to restore them to health when those threats produce disease or injury.

Basic health care services for children in South Africa should:

- address the key health challenges for children;
- cover the full continuum of care from promotive to palliative services; and
- be supported by an efficient health system that delivers *essential* child health services.

Cover the whole of a child's life

Basic health care services need to span the whole of the child's life. Figure 7 outlines a continuum of care from a woman's health at the moment of conception, through her pregnancy, the child's birth, infancy and childhood to adolescence, with the emphasis again on the health of the young man or woman who may in turn conceive a child.

ⁱ The term ‘habilitative’ is sometimes used for the processes of improving function of individuals with birth defects.

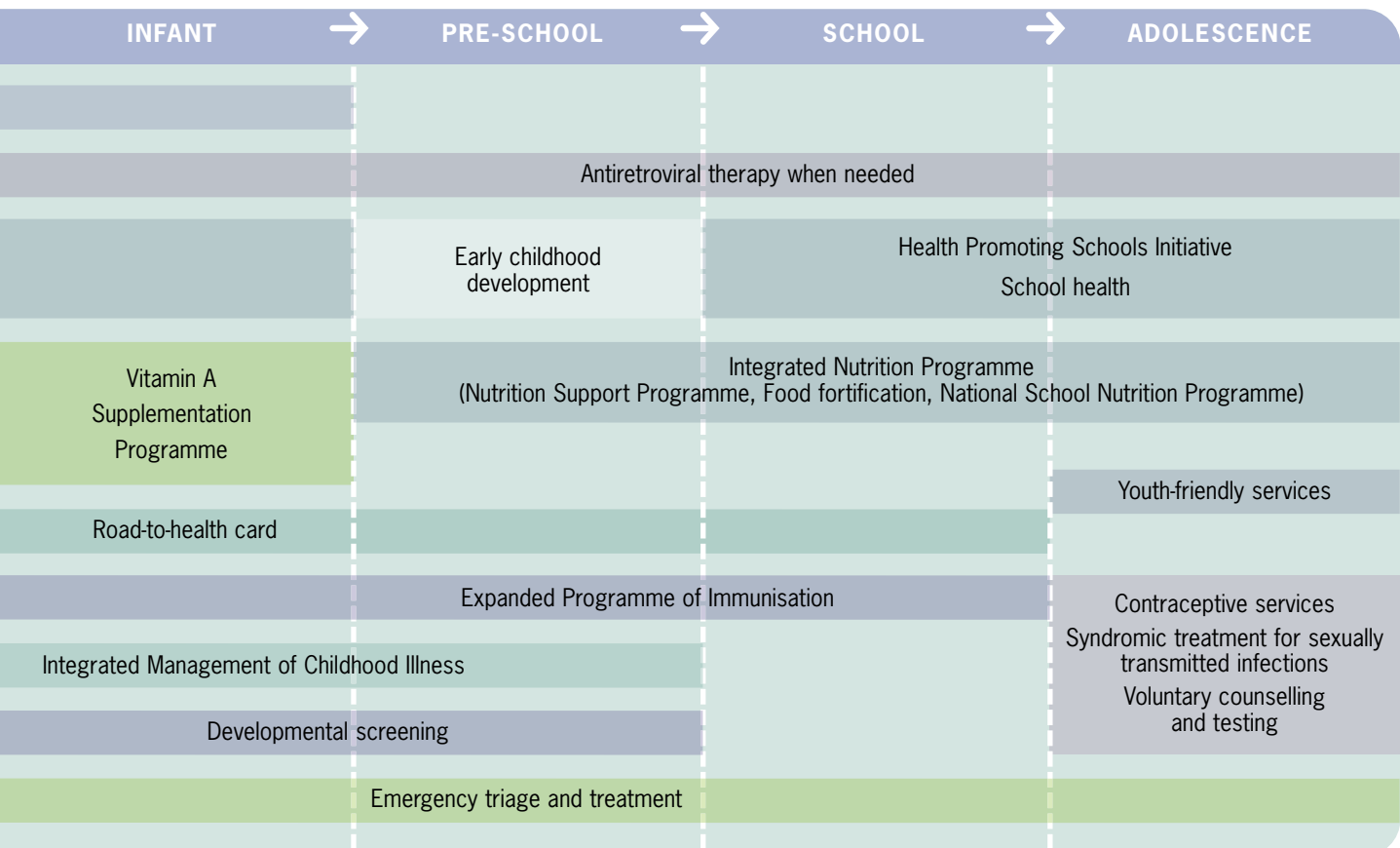


Table 10: As easy as ABC? An A to Z of basic health service interventions for child health

ABBR.	PROGRAMME	DESCRIPTION
ART	Antiretroviral therapy	Drug treatment against HIV/AIDS.
BFS	Breastfeeding support	Support for lactating mothers at community and facility level.
BANC	Basic antenatal care	A simplified pregnancy service at primary level.
BFHI	Baby-Friendly Hospital Initiative	A World Health Organisation initiative that accredits birthing units for breastfeeding promotion and newborn care.
DOTS	Directly observed treatment short course (for tuberculosis)	A programme that promotes completion of TB treatment courses.
ECD	Early childhood development	The orientation of services such as crèches that promote the cognitive and psychological development of pre-school children.
EDL	Essential drugs list	A nationally mandated list of drugs for common diseases that facilities must stock.
EPI	Expanded Programme of Immunisation	A timetable of vaccines (mostly given in early childhood) that protect against severe diseases.
ESMOE	Essential steps in managing obstetric emergencies	A training programme aimed at ensuring safe care for emergencies in pregnancy.
ETAT	Emergency triage and treatment	A programme that allows staff to identify sick children rapidly and initiate life-saving measures.
HPSI	Health Promoting Schools Initiative	A programme to make schools into places that improve and protect the health of learners.
IMCI	Integrated Management of Childhood Illness	A key strategy that brings together promotion, prevention, curative and rehabilitative care for children younger than five years in communities and at health facilities.
INP	Integrated Nutrition Programme	An umbrella programme of nutritional support for vulnerable citizens, especially pregnant women and children, including those with long-term health conditions.
KMC	Kangaroo mother care	Care of very small newborn babies through skin-to-skin contact with their mothers.
NSNP	National School Nutrition Programme	Part of the INP and aimed at children in schools in low income communities.
NSP	Nutrition Support Programme	Part of the INP aimed at malnourished children and pregnant women.
PMTCT	Prevention of mother-to-child transmission of HIV	A multi-faceted longitudinal programme encompassing pregnancy, birth and early infancy aimed at interrupting transfer of HIV from mother to fetus/infant.
RTHC	Road-to-health card	A patient-held record covering the first five years of a child's life.
VCT	Voluntary testing and counselling for HIV	A programme delivered at all points in the health system, encouraging adults and older children to know their HIV status.
Vit A	Administration of vitamin A supplements	A kind of nutritional 'immunisation', vitamin A given regularly in early childhood protects against common diseases such as diarrhoea and pneumonia.
YFS	Youth-Friendly Services	Like the BFHI for newborns, this initiative accredits youth services that meet certain standards.

Integrated across levels of care

Basic health care services for children must be integrated within the current District Health System, which is the delivery vehicle for the majority of child health interventions. This means that a comprehensive and co-ordinated approach across child health interventions is essential.

Basic health care also traverses all levels of care, from primary through to tertiary services, and is not, as is often mistakenly thought, confined to primary level services.ⁱⁱ The referral links between home- and community-based care, primary health care facilities and secondary and tertiary hospitals are essential in addressing a child's illness or disability, as well as dealing with complications and more sophisticated service needs.

Requires an efficient health system

In South Africa, key interventions for the majority of children are delivered through public sector health care facilities that are located in health districts. Child health services are thus an integral part of the District Health System and dependent on the smooth running of the overall system for their effective delivery. Important systemic elements such as staffing and infrastructure, competent management, proper referral systems and good support systems such as transport, procurement, supplies and information determine the ultimate quality, effectiveness and efficiency of child health services. These essential systemic elements must be in place for basic child health services to function optimally.

Includes a set of essential (basic) child health services

Table 10 presents a range of well established interventions designed to maximise children's health that could serve as a starting point for defining a package of basic child health services. This veritable 'alphabet soup' of activities is largely delivered in the health sector. Almost all these activities have proven to be cost-effective and have international standing as means to promote health and prevent or treat disease and disability. Even the relatively silent epidemics of iron deficiency and mild intellectual disability are addressed.

Is South Africa equipped to deliver good quality basic child health services?

Some essential programmes for children are included in the primary health care package for districts and have been in place for at least the past decade. The goal to deliver the package successfully in all districts is still elusive, with dire consequences for the realisation of the right to basic health care services.

Figure 8 on the next page provides estimates of the coverage of key interventions for maternal, infant and child health. That some interventions have achieved excellent coverage is encouraging, but they are in the minority. Coverage of HIV/AIDS interventions shows a decline in the use and delivery of services through pregnancy and child-birth to a low in the postnatal period when support to sustain optimal feeding choices is especially crucial. Coverage is also extremely low for exclusive breastfeeding and vitamin A.⁵ The recent outbreaks of measles, a disease that is preventable through immunisation in early childhood, in all the provinces demonstrate some of the weaknesses that remain.

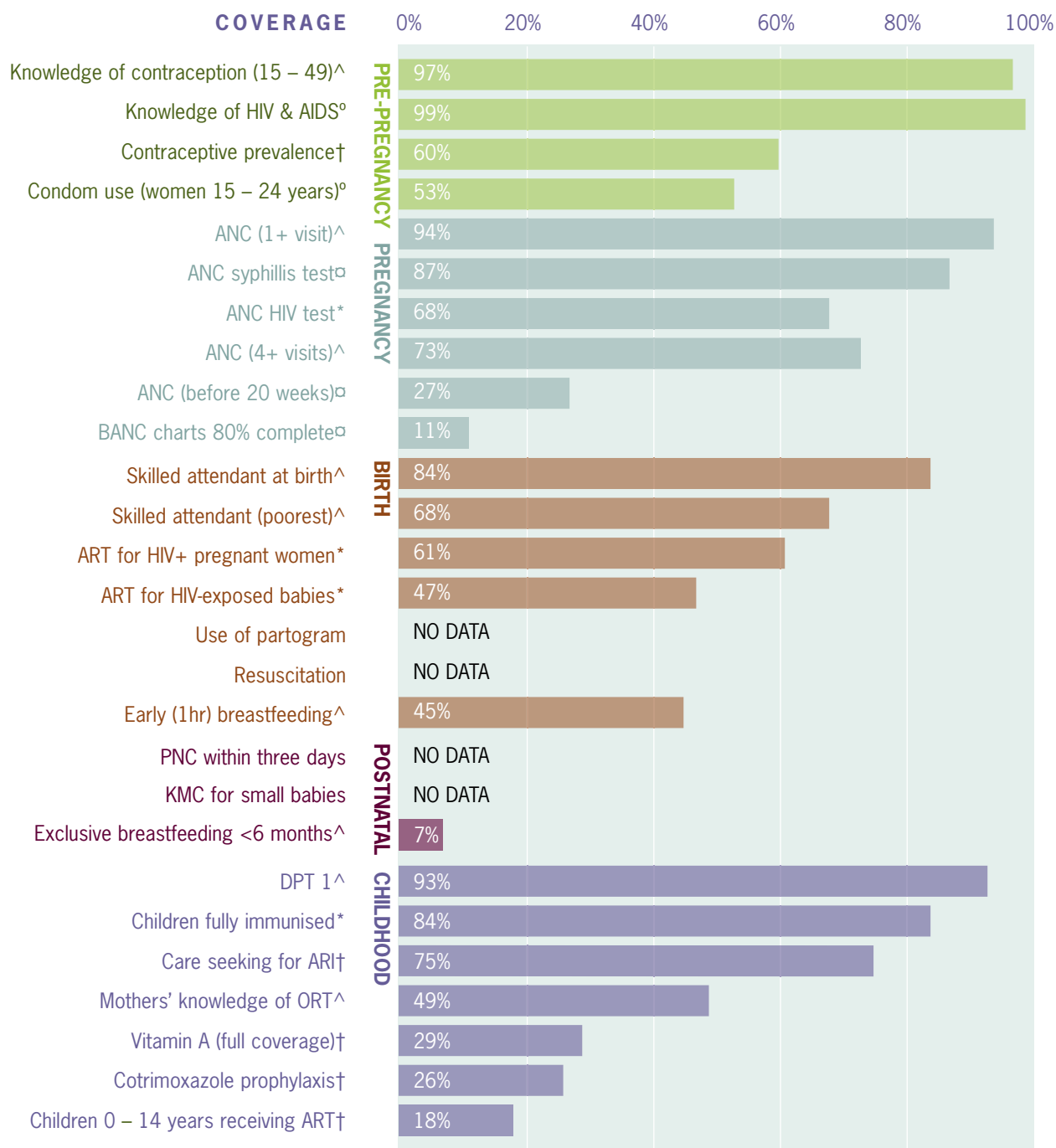
There are significant inequities in access to essential services for children between and within provinces, and between rural and urban areas. For example, some of the deficits shown in figure 8 relate to the patchy implementation and supervision of the Integrated Management of Childhood Illnesses (IMCI), especially the household and community component that deploys community workers to promote the health of children in homes and link them with local primary health care services. The IMCI has the potential to enhance the delivery of many other services such as vitamin A, the Expanded Programme of Immunisation and the case management of newborn and childhood illnesses such as pneumonia. However, provinces have often been slow to implement IMCI or have diluted its effect by using community workers who are also responsible for many other home-based care activities.

Likewise, the quality of health service delivery varies widely. Health worker training and supervision are not standard and comprehensive across the country.

Individuals and groups across the country are using imaginative means to address the extensive gaps illustrated in figure x. For example, the Limpopo Initiative for Neonatal Care has made great strides in improving basic neonatal care through a system of accreditation of neonatal units in health facilities.⁶ Such initiatives are heartening and their most effective elements require mainstreaming into basic health care services.

ii There are three levels of care in South Africa's public health system. Primary health care covers the health services closest to the community (eg clinics and community health centres). Secondary health care offers a greater range of services and some specialist care (eg regional hospitals). Tertiary health care provides an even broader range of specialist services and facilities (eg central hospitals). Patients in need of specialist services should be referred to secondary or tertiary levels.

Figure 8: Coverage of key interventions for maternal, newborn and child health



Abbreviations: ANC = Antenatal care • ARI = Acute respiratory infection • ART = Antiretroviral therapy • BANC = Basic antenatal care
 • DPT-Hib = Vaccination for diphtheria, pertussis, tetanus and haemophilus influenzae B • KMC = Kangaroo mother care

Source: Bradshaw D, Chopra M, Kerber K, Lawn J, Moodley J, Pattinson R, Patrick M, Stephen C & Velaphi S (2008) *Every death counts: Saving the lives of mothers, babies and children in South Africa*. Cape Town: Department of Health, Medical Research Council, University of Pretoria, Save the Children & UNICEF.

Data sources:

- [^] = Department of Health, Medical Research Council & Measure DHS (2002) *South African Demographic & Health Survey 1998*. Calverton, MD: Measure DHS.
- ^o = Department of Health & Measure DHS (2004) *South African Demographic & Health Survey 2003*. Preliminary report. Calverton, MD: ORC Macro.
- [†] = UNICEF (2008) *State of the world's children*. 2008. New York: UNICEF.
- ^{*} = Barron P, Day C & Monticelli F (2007) *The District Health Barometer 2005/06*. Durban: Health Systems Trust.
- ^o = Pattinson RC, Etsane E, Snyman JS, Bezuidenhout C, Sutton V, Ferreria V, Bergh AP, Makin JD (2007) *Report to UNICEF on the scaling-up of the basic antenatal care quality improvement programme in two sub-districts per province in South-Africa* (draft). Pretoria: Medical Research Council & University of Pretoria.

How might basic health care services for children be realised in the country?

While this essay has explored some concepts and practical possibilities related to basic health care services, defining what basic health care services are and which interventions should be part of basic health care services for children in South Africa is not a simple task, but it can be done.

Two recent country examples prove this. Malawi established and began implementing an Essential Health Package for children, which is now reaping benefits.⁷ In Chile, a country with a comparable income level to South Africa, a participatory process that included civil society produced a minimum, non-negotiable and legislated set of health guarantees for Chileans to which everyone has access, regardless of their ability to pay.⁸ A similar approach is required to define which essential child health services must be provided in South Africa. This has to be guided by what society agrees to and is willing to pay for, and the relative costs and benefits of different health care interventions and services.

The following recommendations are essential first steps in fulfilling children's right to basic health care services. They have to be addressed collectively by the Department of Health at national, provincial and district level, Parliament and provincial legislatures, the academic community involved in child health, and relevant organs of civil society:

Define a package of basic health care services

- Initiate a participatory process to define and spell out what basic health care services for children must be. This would involve:
 - defining the required activities along the life-cycle continuum of health care for children, and across levels of health care; and
 - identifying available, cost-effective, proven interventions, and selecting options most suitable to South Africa.

Deliver the package

- Define and quantify what is required to deliver this package.
- Develop a coherent long-term strategy for the provisioning of basic health care services for children in the context of the evolving District Health System and the broader health system. This requires:
 - integration of programmes, services and institutions;
 - a focus by each level on its entire catchment population and not only on those individuals who are able to access the health system;
 - mutual support between, and equitable access to, the different levels of care for ill children; and

- the identification and removal of obstacles to the provisioning of accessible good quality child health services.

Monitor the delivery and efficacy of the services

- Develop a system to monitor and evaluate interventions against changing contexts and health profiles.
- Conduct an annual child death enquiry at the highest government decision-making level, thus promoting inter-sectoral responsibility for mitigating the many 'upstream' factors that impact on child health outcomes. Without this high-level engagement with child mortality, the impact of child health services will be significantly diluted.

Maintain the services

Maintain sound child health management structures at national, provincial and regional levels that are able to respond appropriately and timeously to gaps and challenges.

Conclusion

Much ground must still be covered to ensure the effective delivery of quality basic health care services for children. A number of systemic factors impacting on child health services and the broader health system must be addressed. The Department of Health's strategy to step up the provision of essential health care interventions for mothers and children in 18 of the country's poorest districts is a step in the right direction.

However, providing basic health care services and addressing gaps in health care provisioning for children must be a systematic, sustained and comprehensive effort linked to a strategic long-term vision for child health in South Africa.

References

- 1 Constitution of the Republic of South Africa. Act 108 of 1996, sections 27 and 28(1)(c).
- 2 National Health Act 61 of 2003.
- 3 Office of the High Commissioner of Human Rights (1989) *Convention on the Rights of the Child, UN General Assembly resolution 44/25*. Geneva: United Nations.
- 4 Department of Health (2006) *Standard treatment guidelines and essential drugs list. Hospital level paediatrics*. Pretoria: DoH.
- 5 Bradshaw D, Chopra M, Kerber K, Lawn J, Moodley J, Pattinson R, Patrick M, Stephen C & Velaphi S (2008) *Every death counts: Saving the lives of mothers, babies and children in South Africa*. Cape Town: Department of Health, Medical Research Council, University of Pretoria, Save the Children & UNICEF.
- 6 Mashao PL, Malan AF, Greenfield D, Mzolo MC & Robertson BA (2006) Limpopo Initiative for Newborn Care (LINC), major achievements. *South African Medical Journal*, 96(8): 742.
- 7 Anderson T (2010) How can child and maternal mortality be cut? *British Medical Journal*, 340: 240-242.
- 8 Gacitúa-Marió E, Norton A & Georgieva SV (eds) (2009) *Building equality and opportunities through social guarantees. New approaches to public policy and the realization of rights*. Washington, DC: World Bank.

Managing resources and building capacity in the context of child health

Haroon Saloojee (Division of Community Paediatrics, University of the Witwatersrand)

Since 1994, South Africa has made significant progress in realising children's rights to health. Key achievements include the provision of free health care for children under six, pregnant women and people with disabilities, an increase in access to primary health care, the eradication of polio and reduction of measles (although there has been a recent resurgence), and the roll-out of highly active antiretroviral treatment and prevention of mother-to-child transmission programmes. Child health outcomes have also benefited from improved access to child social security grants and the provision of water, sanitation and electricity.

Despite these achievements, South Africa has failed to reduce infant and under-five mortality rates, childhood malnutrition, or improve neonatal health. Teenage pregnancy and HIV prevalence rates remain high. Access to secondary and tertiary services and the availability of laboratory services and drugs remain patchy.

Despite high national expenditure on health, South Africa is failing to deliver quality health care to its children. Inequalities in health spending, inefficiencies in the health system and a lack of leadership and accountability contribute to South Africa's poor child health outcomes.

This essay explores what needs to be done to improve quality and coverage of maternal and child health services by examining the following questions:

- Are there sufficient resources to support child health in South Africa?
- What are the systemic problems or challenges facing the health system?
- What are the recommendations to improve child health and services?

Are there sufficient resources to support child health in South Africa?

There is no simple way to answer this question. The usual starting response would be to deliberate on the country's under-five mortality rate (U5MR). The 2010 UNICEF *State of the world's children* quotes a figure of 67 per 1,000 live births for 2008.¹ This high under-five mortality rate places South Africa 141st out of 193 countries.

A more appropriate comparison would be to consider the U5MR in relation to the country's available wealth and resources. South Africa's gross national incomeⁱ (GNI) per capita in 2008 was \$5,820 – the 93rd highest in the world.² This raises an alert. Why is the U5MR in South Africa lagging behind its economic capability? South Africa's high U5MR is even more disconcerting when compared to poorer countries such as Sri Lanka and Vietnam. These two countries' U5MRs are roughly five times lower (15 and 14 per 1,000 live births respectively) despite having a GNI less than one half to a third of South Africa's GNI.³

Is the problem that South Africa is not spending enough on the health of its citizens? Between 1998 and 2006, annual public per capita health expenditure remained virtually constant in real terms (ie accounting for inflation), and small increases in expenditure have not kept pace with population growth, or the greatly increased burden of disease.⁴ Yet, the country spends 8% of the gross national product (GDP)ⁱⁱ on health,⁵ and easily meets the World Health Organisation's informal recommendation that so-called developing countries spend at least 5% of their GDP on health⁶. However, public health expenditure, which accounts for 11% of the national budget,⁷ was equivalent to only 3.5% of the GDP for 2008/09⁸.

Could it be that money is not being spent on children, or on only a few children? Or is it that the available money is being wasted or used inefficiently? Although the health of mothers and children has been a priority in government policy

i Gross national income is the income earned by a country, including labour and capital investment in a given year.

ii Gross domestic product is the market value of all final goods and services produced within a nation in a given year.

since 1994, including in the latest 10 Point Plan for Health,⁹ it has not translated into movements in fiscal and resource allocation. Children comprise nearly 40% of the population,¹⁰ but it is unlikely that a similar proportion of the health budget is spent on child health. (No reliable data exist, as government departmental budgets do not specifically delineate expenditure on children, easily allowing this constituency to be short-changed or ignored.)

What are the systemic problems facing the health system?

The World Health Organisation (WHO), in 2000, ranked South Africa's health care system as the 57th highest in cost, 73rd in responsiveness, 175th in overall performance, and 182nd by overall level of health (out of 191 member nations included in the study).¹¹ What explains this dismal rating?

Inequitable health care spending

Inequities and inequalities abound in South African health care spending generally, and specifically regarding children's health. Of the R192 billion spent on health care in 2008/09, 58% was spent in the private sector.¹² Although this sector only provides care to an estimated 15% of children, two-thirds of paediatricians service their needs.¹³ Furthermore, of the R81 billion public health sector budget, about 14% is spent on central (tertiary) hospital services,¹⁴ which primarily benefits children residing in urban settings and wealthier provinces such as the Western Cape and Gauteng. Similarly, marked inequities exist in the number of health professionals available to children in different provinces with, for example, one paediatrician servicing approximately 9,500 children in the Western Cape, but 200,000 children in Limpopo.¹⁵ This differential exists among most categories of health workers.

Poor leadership

Many of the problems resulting in the poor delivery of health care to children are issues that affect their parents and other adults too. These include limited access to secondary and tertiary care,ⁱⁱⁱ particularly in rural and remote areas, and poor quality of care at all levels (including limited drug and investigative ability). Much of the blame for this has been placed on lacklustre leadership within the health sector, lack of accountability within the public service, inefficiencies in health care service delivery, lack of skilled staff and poor management.

These deficiencies have been acknowledged by the Health Department itself.¹⁶

Few would disagree that the department has failed to exercise its stewardship role adequately since the advent of democracy in the country. Most blameworthy was its inexplicable denialist approach to HIV/AIDS. Fortunately, the approach has changed. Nevertheless politicians, policy-makers and programme managers at national, provincial and district levels are equally responsible, with few individuals displaying true leadership qualities in the health arena.

Poor accountability

A lack of accountability at all these levels has been the main explanation for why inept performance has been tolerated. Accountability requires public officials to be answerable for specific actions, activities or decisions to the public (from whom they derive their authority). Accountability also means establishing criteria to measure the performance of public officials, as well as oversight mechanisms to ensure that standards are met. Focusing on accountability is therefore important for promoting capacity development and performance.

By 2010, a decade after the target deadline, only a single one of the 14 child health goals set by the Department of Health for 2000 had been met.¹⁷ Despite this, no individual or department has been held accountable for the failure, making a mockery of the department's strategic planning and target-setting exercises. Much of this lack of accountability can be ascribed to the failure of the government to devolve health care responsibilities and budgets effectively to the district level, although this is the mainstay of the National Health Plan.

Thus, while responsibility for health care delivery primarily resides at a local (district) level, the control of resources and



iii There are three levels of care in South Africa's public health system. Primary health care is the health services closest to the community (eg clinics and community health centres). Secondary health care offers a greater range of services and some specialist care (eg district hospitals). Tertiary health care offers an even broader range of specialist services and facilities (eg teaching hospitals). Patients in need of specialist services should be referred to secondary or tertiary levels.

money remains at a central (provincial) level. Effectively, no one assumes responsibility. Much of the poor service delivery (at all levels) is ascribed to lack of skills and knowledge, but evidence to support this is difficult to collect.

Poor fiscal discipline

A lack of accountability extends throughout the health service, and includes a lack of fiscal discipline. Provincial departments frequently fail to budget adequately, resulting in the freezing of posts and the restriction of basic service provision (eg routine child immunisation services were seriously disrupted in the Free State province in 2009¹⁸). Every year, poor budgetary discipline results in critical shortages of drugs, food supplies and equipment in many provinces during the last financial quarter (January to March), and during April when new budgetary allocations are being released.

Non-clinical (central office) jobs are frequently preserved during freezes at the expense of health professional positions. Evidence of poor service delivery at hospitals is disputed, ignored, and mostly tolerated by readily accepting the excuse of low staff morale, staff or resource shortages and 'no money'. The consequences of this lack of accountability are predictable and inevitable for children – higher morbidity and death.

Limited child advocacy

Child health practitioners, including paediatricians, doctors and nurses, are not blameless. Few have assumed a strong advocacy role, demanding that children's rights to health as guaranteed by the Constitution are upheld. National bodies (such as the South African Medical Association or the South African Paediatric Association), university paediatric departments, and public and private practitioners have largely silently allowed the State to abrogate its responsibility. Efforts to influence change have mainly been through letters of concern and occasional meetings with authorities, but rarely followed up by sustained protest or other action. A notable exception was the efforts of Save Our Babies, an informal grouping of child health practitioners, who, together with the Treatment Action Campaign, successfully forced the State to change its prevention of mother-to-child transmission of HIV policy through a Constitutional Court challenge in 2002.¹⁹

Poor performance and delivery

Inefficiencies in health care delivery compound the crisis. Most primary health care services for children are only offered during office hours, with some clinics restricting access to services by new patients by early afternoon (a waste of available and expensive human resources). Transport to secondary level hospitals

is problematic, resulting in delays or non-arrival, increasing the severity of the disease and treatment costs when the child does arrive. District hospital services are the most dysfunctional,²⁰ patients often by-passing this level of care in settings where access to specialist services are available. Despite cut-backs in budgets, tertiary care settings continue to attempt to provide 'first-class' services, which although commendable, may result in over-investigation and treatment, and denial of essential care to children who reside outside their immediate catchment areas (because the hospital is 'full').

In the absence of any provincial or district level monitoring of deaths or quality of care, the poor or negligent performance of some health institutions continues unchecked. A 'culture of mediocrity' dominates. Only the occasional patient or problem attracts media attention, usually because of a calamity, sufficient to raise any major concern from health authorities (who usually act to punish the 'guilty party' rather than to correct or address the underlying causes and problems inherent in the system).

Promotive and preventive care, while high on the policy agenda, feature weakly in care offered by individual practitioners and health centres. Poor child growth, HIV exposure, contact with individuals infected with tuberculosis and inadequate caregiver practices are all examples of 'red flags' that demand health care practitioner action but are often neither sought nor responded to. Again, while the policies may be clear, appropriate action by professionals is often lacking.

Inability to translate policy to practice

Key national child health programmes are either misdirected or poorly implemented. The Integrated Nutrition Programme, lauded as the solution to child hunger at its launch in 1994, has mainly focused on feeding school children, while thousands of children younger than two years continue to die of under-nutrition (partly due to the failure to provide food and other support to children with overt 'failure to thrive' seen at clinics). Criticisms of the National School Nutrition Programme include the inappropriateness of the foods distributed, both in nutritional terms and in its potential to stimulate community job opportunities.²¹

The Integrated Management of Childhood Illness (IMCI) strategy is the preferred approach to providing primary health care to children under five years. While over 10,000 health practitioners were trained over the past decade, in some settings few return to practice IMCI at their own clinics after training,²² mainly because of rigid organisational routines preventing trainees implementing their newly acquired skills, and lack of ongoing supervision and support²³. The biggest deficit, however, has been the lack of leadership from national, provincial and district levels, and there has been no systematic

attempt to ensure that all IMCI trainees practise their newly acquired skills on their return to the health centre.

Distance and locally-based programmes of in-service training provide alternatives, such as the Perinatal Education Programme and Eduhealthcare, discussed in case 3.

What are the recommendations to improve child health and services?

It is always easy to find fault, but what about solutions? Many health professionals despair, not knowing how to influence or effect change in such a complicated system, and prefer to do nothing, hoping instead that some saviour (such as a new

Minister of Health) will fix everything. Yet, true change depends on remedies at both the macro and micro level. Table x offers some solutions to the described problems.

A review of 30 low and middle income countries that have successfully reduced their under-five mortality rates identified the following as success promoting factors:

1. Good governance;
2. Progress in non-health sectors;
3. Nationally agreed packages of prioritised interventions that all stakeholders were committed to implementing;
4. Attention to district management systems;
5. Consistent investment in community health workers linked to the health system.²⁴

Case 3: The Perinatal Education Programme and Eduhealthcare courses

David Woods (Perinatal Education Trust)

“I have forgotten most of what I have been taught but remember most of what I have learned.”

One of the main challenges facing the rebuilding of child health services in South Africa is the development of in-service training opportunities for primary care nurses. Traditional methods of centralised, tutor-based teaching are expensive, limited by inadequate numbers of skilled trainers, require participants to move from their place of employment, and often are not appropriate to the real needs in clinics and district hospitals.

What is required is an innovative method to empower nurses and doctors to take partial responsibility for their own professional growth and continuing education. This would provide an effective means of building clinical competence, self confidence, motivation and job satisfaction among health workers. The state and private sectors need to supply only limited funding, facilitation and learning materials to extend the project to large numbers of participants.

A successful and well-documented model of self-directed distance learning for health professionals in Southern Africa are the Perinatal Education Programme and Eduhealthcare courses.^{iv} This methodology is currently being used to restructure the Integrated Management of Childhood Illness course developed by the WHO/UNICEF.

Written by teams of paediatricians, obstetricians and nurses, the self-help courses address a wide range of maternal, neonatal and childhood problems. Using a blended approach of self study, peer learning groups and the support of local mentors, the learning material enables nurses and

doctors to manage their own training courses. Regular meetings of participants use the principles of co-operative learning and peer tuition to encourage and consolidate self study. More experienced local colleagues can assist by demonstrating clinical skills while a few day visits by a regional facilitator can add to the structure and content of the course through the use of additional electronic learning material. Multiple choice questions enable participants to monitor their own progress through the course. The major responsibility for learning and evaluating progress through the course is placed on the participant rather than a formal tutor.

A number of prospective, controlled studies in South Africa have demonstrated the success of this educational approach with nurses: It significantly improved their knowledge, clinical skills, attitudes and standard of patient care.²⁶ The results were similar when medical students were targeted. To date, over 60,000 participants have benefited from these programmes.

Courses in various aspects of maternal care, newborn care, mother- and baby-friendly care, perinatal mortality audit, birth defects, perinatal and childhood HIV and child health care are available while other topics are being prepared. With this innovative, cheap method, all nurses and doctors responsible for providing maternal and child care can have ready access to training opportunities. This approach provides a simple, practical way of addressing many of the current training obstacles hindering the roll-out of continuing health care education, and promises a reduced under-five mortality rate and improved primary care for all children.

^{iv} These were developed by not-for-profit organisations and are available in both paper and internet-based formats. See www.EBWhealthcare.com.

Table 11: Responses required to improve child health care in South Africa in the short and medium term

Problems	Required responses	Child health benefits (examples)
Leadership	Minister of Health and Ministry assume responsibility for addressing recognised deficiencies and creating an enabling environment for required changes.	Greater fiscal, human and other resources will be directed to children's health and well-being, leading to improved child survival.
	Provincial and district managers actively pursue child-friendly programmes and activities rather than favouring maintenance of the <i>status quo</i> .	This will lead to direct improvements in child health policy and programme delivery.
	Paediatricians, child health practitioners and activists develop and voice clear priorities and models for change.	These 'experts' can contribute to, and define, the child health agenda and its delivery.
Accountability	Clearly delineate and assume responsibilities for critical programmes by managers at national, provincial, district levels.	Good programmes, such as IMCI, will work.
	Establish norms and standards that support appropriate clinical care.	Individuals, health centres and the government held accountable if there are standards and norms to judge performance by.
	Introduce an accountable and operational management model.	Hospital and clinic managers will be held accountable for failure to deliver appropriate services.
	Relate performance to reward.	Linking performance evaluation of staff to health indicators in their institution or region may remove current inappropriate performance bonus allocations.
Limited capacity	Provide additional resourcing in numbers, motivation and expertise to strengthen a results-based health system.	More staff (particular nurses) may translate to less queuing and improved quality of care.
	Ensure nationwide availability of community health workers (one per 150 households) focusing on maternal and child health, with appropriate training, training materials, motivation and remuneration.	Preventive and promotive maternal and child health activities can actually happen, such as support for breastfeeding, infant nutrition and recognition, and early intervention in child illness.
	Shift tasks (allowing trained individuals to assume greater responsibilities) with training, support and appropriate adjustment of current 'first world' type legislation.	Use of available human capital is maximised, eg doctors are freed from performing tasks that could be done by other health professionals.
	Promote facility-based in-service training using local mentors and distance learning materials (when appropriate).	Improved training and delivery of child health services.
Poor information systems	Set up responsive national and provincial health structures to collect health data reliably and uniformly.	Data will enable the setting of appropriate national priorities, monitoring progress and easy identification of districts in need of support or intervention.

Problems	Required responses	Child health benefits (examples)
Inequity	Ensure a formal and deliberate focus on identifying and eliminating child inequities – including the allocation of, and access to, resources.	Greater human resources (eg paediatricians) are allocated to poorer settings; increased access to secondary and tertiary care services.
	Delineate and ring-fence budgets allocated to children by government departments.	Children would acquire an equitable share of government expenditure at programme level.
Inefficiencies and poor service quality	Promote quality, including measuring and benchmarking actual performance, quality assurance and audit.	Child mortality is reduced and better outcomes ensured at hospitals and clinics.
Resource allocation and fiscal discipline	Base health budgets on outcomes and not on existing costs.	Centres that use money wisely (cost-effectively) are rewarded rather than those that 'save' by cutting services.
	Provide service level agreements to define services, supported by appropriate budgets based on load indicators (such as case mix and patient day equivalents).	Resources are used effectively as intended rather than the current trend of overspending, followed by cutting of essential services.
	Curb overspending.	Budgets that are linked to the setting of norms and standards and performance outcomes are less likely to waste.
	Use appropriate new low-cost technologies.	Treatment compliance is promoted by, for example, using cell phone short message services (SMS).
Lack of ownership	Emphasise the development of community and family health practices.	Families are empowered to care for children, and to recognise and respond to illness appropriately.

While table 11 offers some suggestions about what should be done, it does not address many other critical issues such as how these responses should be prioritised, in what sequence, by whom and with what resources.

A reasonable first step would be to ensure greater resource allocation for children's health in a measurable and controllable manner. A recent exercise conducted in Gauteng estimated that an additional (marginal) investment of R4 billion over five years (or R70 per capita) in child health could save the lives of 14,283 children and reduce the U5MR by 50%, almost meeting the provincial Millennium Development Goal target for 2015. This additional investment would require less than 5% of the current provincial health budget.²⁵ Not all of this needs to be 'new' money – much, but not all, of the money could be obtained through reducing present inefficiencies.

Conclusions

Although there is a need for more efficient redistribution of national wealth to support child health, the poor health status of South Africa's children is less the consequence of resource constraints, and more the result of inefficient management and use of available resources, primarily due to poor leadership, poor organisation and the absence of accountability. The solutions are daunting, complex, involve multiple layers and components of the health service and individual practitioners, and require new and reallocated resources.

The challenge is to harness the country's resources, experience and talent in a manner that can effectively promote change. Ordinary people have an essential role to play and must become active citizens, not just in their demands for accountable

governance, but in their own contributions to ensuring that 'health for all children' becomes a reality. Many Thai, Vietnamese and Sri Lankans will confirm that this is possible.

References

- 1 UNICEF (2009) *State of the world's children 2010. Special report. Celebrating 20 years on the Convention on the Rights of the Child*. New York: UNICEF.
- 2 World Bank (2010) *Gross national income 2008, Atlas method*. World Development Indicators database, 19 April, 2010. Accessed on 12 May 2010: <http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNI.pdf>
- 3 See no. 1 and no. 2 above.
- 4 Cullinan K (2009) Zim crisis 'A threat to SA AIDS success'. *Saturday Argus*, 4 April 2009, p. 13.
- 5 Personal communication. McIntyre D, Health Economics Unit, University of Cape Town, March 2010.
- 6 World Health Organisation (2003) *How much should countries spend on health?* Discussion paper no. 2, 2003. EIP/FER/DP.3.2. Geneva: WHO.
- 7 National Treasury (2009) *Medium term budget policy statement 2009*. Pretoria: National Treasury.
- 8 See no. 5 above.
- 9 Department of Health (2010) *Strategic plan 2009/10 – 2011/12*. Pretoria: DoH.
- 10 Statistics South Africa (2009) *General Household Survey 2008*. In: Hall K (2010) *Demography – Children in South Africa*. Children Count – Abantwana Babalulekile website, Children's Institute, UCT. Accessed on 30 April 2010: www.childrencount.ci.org.za/indicator.php?id=1&indicator=1.
- 11 World Health Organisation (2000) *The world health report 2000*. WHO: Geneva.
- 12 See no. 5 above.
- 13 Colleges of Medicine of South Africa (2009) *Project: Strengthening academic medicine and specialist training*. [Unpublished data]
- 14 Financial and Fiscal Commission (2009) *Submission for the division of revenue 2010/11*. Accessed on 28 May 2010: [www.ffc.co.za/docs/submissions/dor/2010/FFC%20Report%202009\(Web\).pdf](http://www.ffc.co.za/docs/submissions/dor/2010/FFC%20Report%202009(Web).pdf)
- 15 See no. 13 above.
- 16 Department of Health (2009) *Annual National Health Plan (ANHP) 2009/10*. Pretoria: DoH.
- 17 Department of Health (1997) *Year 2000 health goals, objectives, and indicators for South Africa*. Pretoria: DoH.
- 18 Kok D (2009) Entstofkrisis in Vrystaat. *Volksblad*, 5 August 2009, p. 1.
- 19 Heywood M (2003) Current developments: Preventing mother-to-child HIV transmission in South Africa: Background, strategies and outcomes of the Treatment Action Campaign case against the Minister of Health. *South African Journal on Human Rights*, 19: 278-315.
- 20 Cullinan K (2006) *Health services in South Africa: A basic introduction*. Cape Town: Health-e News Service.
- 21 Sanders D & Chopra M (2006) Key challenges to achieving health in an inequitable society: The case of South Africa. *American Journal of Public Health*, 96(1): 73-79.
- 22 Thandrayen K (2008) *The quality of child health services offered at primary health care clinics in Johannesburg*. MMed research report, University of the Witwatersrand. [Unpublished]
- 23 Mazibuko N (2007) *A descriptive study on constraints faced by Gauteng IMCI trained health workers*. MSc research report, University of the Witwatersrand. [Unpublished]
- 24 Rohde J, Cousens S, Chopra M, Tangcharoensathien V, Black R, Bhutta ZA & Lawn JE (2008) 30 years after Alma-Ata: Has primary health care worked in countries? *The Lancet*, 372(9642): 950-961.
- 25 Gauteng Department of Health (2009) *Marginal budgeting for bottlenecks*. [Unpublished report]
- 26 Woods DL & Greenfield DH (2010) Teaching in under-resourced hospitals: Experience from South Africa. *NeoReviews*, 11: 5-11; Woods DL & Theron GB (2000) A distance learning programme in maternal and newborn care. *Perinatology*, 2(6): 283-285.



Strengthening community-based child health services in South Africa

Nomathemba Mazaleni (Integrated Primary Health Care Project, Management Sciences for Health)
and Lesley Bamford (Directorate: Child and Youth Health, national Department of Health and
School of Health Systems and Public Health, University of Pretoria)

South Africa has made significant progress in improving children's access to health care services through the expansion of primary health care (PHC) services and the introduction of free health care services for pregnant women and children under six years old. Despite these efforts, the country is not on track to meet Millennium Development Goals 4 and 5 which call for substantial reductions in maternal and under-five mortality.¹

Whilst the failure to reduce maternal and child mortality rates can largely be attributed to the impact of the HIV/AIDS pandemic, failure to engage with and empower communities to participate in improving their own health is another important gap. Maternal and child mortality audit processes have consistently identified community factors, such as failure to recognise the severity of illness and to access preventive and emergency care, as modifiable factors in approximately a third of deaths amongst pregnant mothers and young children.²

This essay examines the following key questions:

- What are community-based maternal and child health services?
- What is the current situation in South Africa?
- How can community-based maternal and child health services be strengthened?

What are community-based maternal and child health services?

Most child care, both during good health and illness, takes place at household level. There is good evidence that community interventions can play an important role in improving child health and survival.³ In South Africa, as in many developing countries, community health worker (CHW) programmes are regarded as the cornerstone of community-based health services, although it should be remembered that other health workers, including both mid-level and professional cadres, can and do provide services in the community. CHW programmes have been

shown to provide promising benefits in promoting immunisation and breastfeeding, improving tuberculosis (TB) treatment outcomes, and reducing child morbidity and mortality.⁴

CHWs are community members who should be selected in trust by the community to enter their homes and to assist them to improve their health status. CHW programmes are enormously diverse, with CHWs having been trained to perform a wide range of activities that include preventive, promotive and curative health as well as developmental activities. While some CHWs perform a wide range of different tasks, other CHWs are appointed for very specific interventions⁵ such as the directly observed treatment supporters in TB programmes, home-based carers for people living with AIDS, and community caregivers who support orphans and vulnerable children.

CHWs can play a variety of roles, outlined briefly below. It is important that the role of CHWs in a particular programme is clearly defined to prevent CHWs being overloaded with unrealistic expectations.

Community or social mobilisation

The early literature on CHWs tended to stress their role as community advocates and agents of social change.⁶ Whilst this focus has largely been replaced by a more technical approach that conceptualises CHWs as an extension of formal health services, CHWs in some programmes still play a role that extends beyond the delivery of basic health care services and includes actions that address the social determinants of health such as poor water, sanitation and infrastructure. Although there are local success stories (see case 5 on p. 73), CHW programmes have generally not been successful in promoting development on a large scale. CHW programmes can play an important developmental role in communities which are already organised and motivated to address the underlying causes of ill health, but that CHWs struggle when they themselves are responsible for motivating and mobilising communities to address these issues.

Health education and promotion

Health education and the promotion of healthy behaviours form the core of most CHW programmes. CHWs tend to function as a link between the formal health service and communities. Regular home (household) visits are generally regarded as the most effective strategy for delivering these interventions – routine visits are generally conducted with special priority given to households with high risk individuals such as pregnant and lactating mothers. Where health services are reasonably accessible (as in most parts of South Africa), CHWs can play an important role in ensuring that household members access these services, and in supporting adherence to recommended treatments.

Support groups are another powerful strategy, allowing mothers with similar problems to meet and share experiences. Case 4 gives an example of the effectiveness of support groups on positive behaviour change through the mothers2mothers (m2m) programme.

Case 4: Mothers2mothers

The m2m programme started in Cape Town in 2001 and has now spread to 634 sites in seven countries and enrolled more than 500,000 HIV-positive mothers since its inception. The design of the programme is simple but effective: Mothers who are HIV positive are trained and employed to educate other women who are also HIV positive through the prevention of mother-to-child treatment (PMTCT) programme.

The project helps to break social, emotional, cultural and psychological barriers that would be difficult for health personnel to overcome, as the education and information are provided to the pregnant mother by another mother who is also HIV positive and who has therefore been in the same situation. A study conducted in 2007 by the Population Council's Horizon Project in Pietermaritzburg, KwaZulu-Natal, found that 95% of the mothers on the project have been provided with the antiretroviral nevirapine and 88% of the babies received prophylaxis treatment. Ninety percent of the mothers opted for an exclusive method of infant feeding and 70% used contraception after giving birth.

Source: Mothers2mothers (2010) *Programmes*. Accessed on 3 March 2010: www.m2m.org/programmes/index.php; Personal communication. Besser M, Mothers2mothers 2010.

Providing curative services

Although CHWs have historically focused on preventive and promotive aspects of care, communities which do not have access to curative services have tended to demand these services from CHWs. The inability of CHWs to provide such services can lead to disappointment and a lack of confidence in the programme. Equipping CHWs with curative skills (such as management of ill newborns and childhood pneumonia with antibiotics) has not only been shown to be highly effective in reducing child mortality,⁷ but also gives CHWs more credibility⁸. Despite evidence of effectiveness, current regulatory systems in many countries, including South Africa, do not allow for CHWs to prescribe medication such as antibiotics.

Providing care and support

The role of CHWs has evolved and expanded in response to HIV/AIDS, with CHWs playing an increasing role in providing care to individuals and families. CHWs, especially home-based carers, play an important role in assisting and supporting families to care for dying relatives, and in providing support to orphans and child-headed households. These services often have a strong social support element, and are often provided under the auspices of, or in collaboration with, the Department of Social Development.

Task-shifting

The use of CHWs has also been identified as a strategy to address the growing shortage of health workers, especially in developing countries. CHWs may perform tasks within facilities (such as HIV counselling) or in the community. The process of CHWs taking on tasks that were previously undertaken by health professionals strengthens the argument that CHWs be formally recognised as public sector employees.

What is the current situation in South Africa?

South Africa's strategy to provide health services relies on the primary health care approach, which is based on the principles of equity, inter-sectoral collaboration and community participation, with community participation being seen as a means to increase people's control over the social, political, economic and environmental factors that determine their health. The practice of community members rendering certain basic health services in the spirit of volunteerism has a long history in South Africa.

A commitment to strengthening community participation in health has formed part of many national policy documents, most recently the Department of Health's 10 Point Plan, which

calls for “mass mobilisation for better health for the population”.⁹ Likewise, the National Health Act stipulates that provincial legislation should make provision for the establishment of clinic and community health centre committees¹⁰ (see *Part one: Children and law reform*, pp. 12 – 17). However, as in many other countries, sustained, wide-scale participation by communities has been difficult to achieve.

At a local level, community participation is one of the key determinants of successful community-based health care programmes. Community empowerment enables communities not only to accept and support community health workers, but also to address broader health issues that affect the welfare of the community. Case 5 illustrates this by giving a brief overview of the Mbabakazi community-based health care programme.

Yet community participation is often perceived as a challenge by health workers and health service managers, as they are used to providing a service rather than working in partnership with communities. Health professionals need to develop the skills and sensitivity to engage with communities

as equal partners. Similarly, communities require skills, information and confidence to engage with health professionals, and it is important to allocate sufficient time and resources to this capacity-building process.¹¹

Household and community IMCI

Recent efforts to strengthen child health and child health services at the community level have focused on the implementation of the household and community component (HHCC) of the Integrated Management of Childhood Illness (IMCI) strategy. The HHCC aims to initiate, reinforce and sustain household practices that are important for child survival, growth and development within an overall framework of community capacity development.¹² Sixteen key family practices have been adopted as a basis for planning interventions to improve family and community practices. The IMCI implementation framework identifies three key activities, namely: building partnerships between health services and the communities they serve; increasing the capacity of community-based

Case 5: The Mbabakazi community-based care programme

Mbabakazi is a cluster of remote villages in the Ngcobo sub-district of the Chris Hani Municipality in the Eastern Cape province. Ngcobo has poor health outcomes and is one of the 18 priority health districts in South Africa

Mbabakazi is located far from the referral clinic and other basic services. Pregnant mothers have to walk approximately 25 km to reach the clinic, which makes it difficult to adhere to 4 – 5 antenatal visits during pregnancy. The same difficulties apply to children's immunisations and growth monitoring. Mobile services from the sub-district have also been inconsistent due to transport and staffing challenges, and overflowing rivers during the rainy season. With a population of 2,589 scattered in eight villages on the mountainside, there is a strong need for community-based health care services.

A non-governmental organisation initiated a community-based health care programme in Mbabakazi. A steering committee, which included the sub-district health personnel and the community, was established. Eight volunteers, one from each village in Mbabakazi, were selected by the community, and trained in community-based health care and the household and community component of IMCI, as well as labour, delivery and PMTCT.

This was followed by a community empowerment process that involved the wider community and the community health workers to create an enabling environment for the programme. Three community workshops were held. One attended by the district, sub-district staff and provincial managers provided an opportunity for the community to share their problems and increased provincial commitment to provide on-going support to the community. The process used participatory approaches to identify strengths and resources within the community, and to enable the community to take the lead in responding to their own problems.

To date, the community has built a structure out of their own resources that can be used as a health post when the mobile clinic visits. Community health workers conduct door-to-door visits in their respective villages. They have collected antenatal, postnatal, child health and immunisation data using a simple data collection tool. They hold discussions with mothers on maternal and child health problems and encourage them to use the mobile clinic. They have also motivated mothers and the community to establish 99 food gardens. Since June 2009 to date, they have weighed over 90 children a month using Salter Scales. The health steering committee has also succeeded in getting the local council to improve the access road to Mbabakazi.

Source: Management Sciences for Health (2010) *Maternal, Neonatal and Child Health project – Final report. January 2010*. Pretoria: MSH Integrated Primary Health Care Project.

providers to give appropriate and accessible care and information; and promotion of the 16 key family practices, which include growth promotion and development, disease prevention, home management, care-seeking and compliance with treatment prescribed by health workers.¹³

However a recent review of HHCC implementation in South Africa concluded that, whilst the approach has been widely endorsed with evidence of good practice in a range of settings, implementation has been patchy and inconsistent. This situation is by no means peculiar to South Africa – an international evaluation concluded that most countries had expended considerably more effort on the first component of the IMCI strategy, which focuses on improving the case management skills of health care workers at the primary level, than on the implementation of the community components which received far less attention and resources.¹⁴

Despite a strong evidence base and a stated commitment to implement the HHCC, dedicated financial and human resources to drive the process have been lacking. This component has been implemented as a vertical programme under the auspices of the Maternal, Child and Women's Health units at national and provincial levels. Whilst national and provincial managers are able to provide technical input, implementation at district level depends on commitment and allocation of financial and human resources by already overstretched district and sub-district management structures. The articulation between vertical programmes, such as HHCC IMCI, and current CHW programmes, outlined below, has also proved challenging.

CHW programmes

At the same time, a range of CHW programmes have played an important role in the country's response to the HIV/AIDS and TB pandemics: There were nearly 65,000 such workers in the health and social development sectors across the country by 2005/06.¹⁵ Almost all the CHW programmes are currently funded and managed by the HIV/AIDS programme. Initially the main focus of the CHW programmes was to provide home-based care to terminally ill patients; this role has expanded over time to include other aspects of HIV and TB care, especially treatment adherence and support. While pregnant mothers and children benefit from these programmes in many instances (particularly from those with a more comprehensive approach), the majority of programmes do not explicitly provide maternal and child health services.

Although the State has funded and driven the recruitment and deployment of CHWs, they are not formally employed civil servants. Where they provide regular services, CHWs are supposed to receive stipends through contracted not-for-profit organisations (NPOs). However, a recent mapping exercise

illustrated a number of difficulties:¹⁶

- Unregulated and unco-ordinated proliferation of different cadres, functions, forms of training, remuneration and management.
- Failure to recognise CHWs as employees and to ensure appropriate and standardised systems of remuneration and employment benefits.
- Frequent reports of non-payment of stipends, and poor disbursement of funds to NPOs employing CHWs.
- Poor integration of CHWs into primary health care teams, problematic relationships with health professionals, and inadequate support and supervision.
- Lack of appropriate career pathways in the formal health system.

A package of services for mothers and children

In an effort to address the lack of articulation between CHW programmes and the current HHCC of IMCI and to speed up the implementation of community-based maternal, neonatal, child and women's health interventions, a draft framework for provision of these services has been developed.¹⁷ This framework builds on the existing HHCC of IMCI, but recognises the need to expand the focus of the current strategy to include more emphasis on the health and well-being of mothers and newborns. The framework also aims to maximise service coverage, quality and overall impact by expanding the interventions and packaging them into six main service delivery modes. These include structured home visits, community-based mother support groups, joint preventive and curative outreach services by professional nurses and CHWs, twice-yearly child health days and regular visits to early childhood development (ECD) centres; all of which are supported by an effective community mobilisation strategy.

The framework also defines a package of services which should ideally be made available to all mothers and children. This is shown in table 12.



Table 12: Package of community-based mother, child and women's health and nutrition services

Strategy	Pregnancy	Postnatal	Infancy/childhood
Key interventions	<ul style="list-style-type: none"> • Antenatal care, including maternal nutrition • PMTCT • Birth preparedness • Newborn and child care, including infant and young child feeding 	<ul style="list-style-type: none"> • Postnatal check, including family planning • Neonatal care • Infant and young child feeding (IYCF), including support for exclusive breastfeeding (EBF) • Early identification and management of HIV infection in HIV-exposed infants • Promote birth registration 	<ul style="list-style-type: none"> • Promote key family practices • Counselling on IYCF/EBF, family planning and maternal nutrition • Ensuring that preventative services are accessed, eg immunisation, HIV services, vitamin A, deworming, growth monitoring
Home visits by CHW	4 – 6 visits	Four visits: When child is two days, seven days, 14 days and six weeks old	<ul style="list-style-type: none"> • Monthly visits until six months of age • Nine months and 12 months: three monthly visits • 1 – 5 years: six monthly visits
Child health days	–	–	Should be conducted twice a year
Support groups	All facilities should have support groups for pregnant women and mothers. Counselling and sharing experiences of IYCF/EBF, family planning, PMTCT and maternal nutrition.		

Source: MCWH Cluster, Department of Health (2009) *Framework for accelerating community-based maternal, neonatal, child and women's health and nutrition interventions. Third draft.* Pretoria: DoH.

One of the benefits of defining a package of services is that the cost of providing it to all women and child in South Africa can be calculated. It has been estimated, for instance, that it would cost approximately R710 million during the first year to provide the package of services to 95% of the uninsured population in South Africa.¹⁸ However it is not envisaged that the package should be provided as a stand-alone programme, but that it be provided as part of a more comprehensive package of community-based services.

How can community-based maternal and child health services be strengthened?

It is clear that community-based health programmes have a central role to play in extending health care to communities. However there is an urgent need to overcome fragmentation and to ensure a more coherent approach based on realistic expectations regarding the roles that CHWs can play, and assessments of the costs associated with provision of large-scale programmes.

Ensure provision of maternal and child health services

There is good evidence to suggest that maternal and child health services should be at the core of community-based services. It makes more sense to incorporate maternal and child health services into existing CHW programmes, and to provide them as part of a comprehensive service, rather than to establish a parallel set of programmes. There is thus a need to ensure that the many small-scale initiatives undertaken as part of the HHCC of IMCI are incorporated into existing CHW programmes, and that the existing CHW infrastructure is used to provide these services at scale. A first step would be to establish the principle that all CHW programmes must provide at least a minimum basic package of services to mothers and children.

Develop a comprehensive policy framework

The Departments of Health and Social Development are currently developing a Community Care Worker Management Policy Framework¹⁹ which aims to provide a standardised approach to the organisational management, training, supervision and

financial structure of CHW programmes. The framework endorses the current role of NPOs in managing CHW programmes and outlines the relationship between the NPOs and the two departments. It defines the roles and responsibilities of care workers within the different health and social development fields, and advocates for a multi-skilled, generalist community care/health worker.

Whilst the policy framework contains detailed recommendations on many human resource management issues related to CHWs, less attention is paid to the goals and objectives of CHW programmes, and to the package of services that should be provided.

It is also important to ensure that the role and responsibilities of other cadres of health workers, including mid-level workers, health promoters and other health professionals, are clearly defined with regards to the provision of community-based services.

Strengthen organisational capacity

Whilst there are a number of policy issues which need to be addressed, it is also important to strengthen capacity to manage CHW programmes at all levels of the health system. Lehmann and Sanders argue that, “community health workers are not a panacea for weak health systems and will need focussed tasks, adequate remuneration, training, supervision, and the active involvement of the communities in which they work”.²⁰

Ultimately, districts need to take over the management and monitoring of CHW programmes in their districts and provide supervision, strengthen linkages with formal health services and, critically, ensure that CHWs are regarded as key members of a health care team. This can be achieved through the incorporation of these programmes into District Health Plans and the Integrated Development Plans of municipalities. This will not only ensure better co-ordination, but will also ensure sustainability of activities.

Ensure adequate funding

Implementation of effective CHW programmes is neither cheap nor easy, although it can be argued that such programmes represent a good investment.²¹ There are little data available in South Africa regarding the cost of providing community-based services at scale, and it will be important to ensure that implementation of proposed CHW programmes is adequately costed and funded.

Conclusion

Community-based maternal and child health services and particularly comprehensive CHW programmes have an important role to play in improving the survival and well-being of mothers and children in South Africa. Although some progress has been made in this regard, implementation at scale will require political will, greater clarity regarding how these services are structured and delivered, and improved capacity to implement and manage these programmes at all levels of the health service.

References

- 1 Chopra M, Daviaud E, Pattinson R, Fonn S & Lawn JE (2009) Saving the lives of South Africa's mothers, babies, and children: Can the health system deliver? *The Lancet*, 374: 835-846.
- 2 South Africa Every Death Counts Writing Group (2008) Every death counts: Use of mortality audit data for decision making to save the lives of mothers, babies, and children in South Africa. *The Lancet*, 371: 1294-1304.
- 3 Haines A, Sanders D, Lehmann U, Rowe AK, Lawn JE, Jan S, Walker DG & Bhutta Z (2007) Achieving child survival goals: Potential contribution of community health workers. *The Lancet*, 369: 2121-2131.
- 4 Lewin S, Munabi-Babigumira S, Glenton C, Daniels K, Bosch-Capblanch X, van Wyk BE, Odgaard-Jensen J, Johansen M, Aja GN, Zwarenstein M & Scheel IB (2010) Lay health workers in primary and community health care for maternal and child health and the management of infectious diseases. *Cochrane Database of Systematic Reviews 2010*, 3: CD004015. DOI: 10.1002/14651858.CD004015.pub3.
- 5 Lehmann U & Sanders D (2007) *Community health workers: What do we know about them? The state of the evidence on programmes, activities, costs and impact on health outcomes of using community health workers*. Geneva: World Health Organisation.
- 6 See no. 5 above.
- 7 See no. 3 above.
- 8 See no. 5 above.
- 9 Department of Health (2010) *Strategic plan 2009/10 – 2011/12*. Pretoria: DoH.
- 10 National Health Act 61 of 2003.
- 11 Muhinda A, Mutumba A & Mugarura J (2008) *Community empowerment and participation in maternal health in Kamwenge district, Uganda*. EQUINET PRA paper, HEPS Uganda, EQUINET Harare.
- 12 United Nations Children's Fund (1999) *IMCI household and community component: A resource manual on strategies and implementation steps*. Nairobi: UNICEF (ESARO).
- 13 Winch PJ, Leban K, Casazza L, Walker L & Pearcy K (2002) An implementation framework for household and community integrated management of childhood illness. *Health Policy and Planning*, 17(4): 345-353.
- 14 World Health Organisation (2003) *The analytic review of the Integrated Management of Childhood Illness*. Geneva: WHO.
- 15 Department of Health (2006) Social sector cluster media briefing (7 July 2006). Pretoria: DoH.
- 16 Lehmann U, Matwa P, Schneider H & Colvin C (2009) *A map of community care giver programme practices in provincial health departments: Report to the health systems sub-committee of the South African National AIDS Council*. [Unpublished]
- 17 Department of Health (2009) *Framework for accelerating community-based maternal, neonatal, child and women's health and nutrition interventions. Third draft*. Pretoria: MCWH cluster, DoH.
- 18 See no. 17 above.
- 19 Department of Health & Department of Social Development (2009) *Community Care Workers Management Policy Framework draft version 6.0*. Pretoria: DoH & DSD.
- 20 See no. 5 above.
- 21 See no. 5 above.

Towards child- and family-friendly health services

Minette Coetzee (Child Nurse Practice Development Initiative,
School of Child and Adolescent Health, University of Cape Town)



Child-friendly health care is about ensuring best care of children at every level of health care provision. It means quality care of children with no needless deaths, no needless injury, no needless waste, no needless waiting, no needless helplessness, and no-one left out¹ – not children, nor their families, nor health care providers.

This essay focuses on child- and family-friendly care. It proposes shifts towards more child- and family-friendly practice and provides some examples of health care services where these shifts have been made successfully.

The essay examines the following questions:

- Why are child- and family-friendly services important?
- What are the criteria for child- and family-friendly services?
- What are the challenges in implementing child- and family-friendly care?
- What are local examples of best practice?
- What are the recommendations?

Why are child- and family-friendly services important?

Child- and family-friendly services aim to provide the best possible health care by health workers who work together to respect children's rights, not only to survival and avoidance of morbidity, but also to their protection from unnecessary suffering and their informed participation in treatment.² Although progress has been made in the surgical, medical and nursing management of many childhood conditions, the emotional and psychological well-being of the child and family is not always

considered. Neglect of needs as basic as pain management and the reassuring presence of the mother results in unnecessary suffering, pain and anxiety.³

The United Nations Convention on the Rights of the Child (CRC) places the responsibility of a child's well-being on signatories and confirms the family as "the natural environment for the growth and well-being of all its members and particularly children".⁴ Yet prevailing socio-economic conditions such as poverty, violence, HIV/AIDS and changes in family structures impede the well-being of children and present major barriers to the protection of children's rights across most of Africa.

In South Africa, the Children's Act – which came into full force in April 2010 – contains several new provisions on child health supportive of the CRC. The most significant pertain to the child's right to participate in health decision-making (in line with their evolving capacities), and the inclusion of children's *de facto* caregivers in providing consent to medical treatment in addition to the biological parents (see *Part one: Children and law reform*, pp. 12 – 17).

The legal imperative to child participation poses a significant challenge in health care settings, where children are rarely asked their opinion and are still admitted to hospitals that make little provision for mothers and families outside of visiting hours.

The African ethic of *ubuntu* recognises that a person is a person through their relatedness to others and stresses the value of human dignity, compassion, respect and group solidarity. Children are very aware of this sense of belonging – to a family, school class, community or clan. Separation causes deep distress and affects children's ability to heal.

Table 13: Child- and family-friendly services

Age range	Initiatives	Characteristics
Newborn	Baby-Friendly Hospitals Initiative and kangaroo mother care	Baby-friendly hospitals are internationally accredited and all staff are trained to support breastfeeding and care.
Under fives	Integrated Management of Childhood Illnesses (IMCI)	IMCI aims to reduce childhood mortality and morbidity by improving family and community practices for the home management of illness.
Adolescents and youth	Youth-friendly services	Youth-friendly services are a joint initiative between LoveLife and the Department of Health to improve the quality of services for young people.
Newborn to 18 years	Child-Friendly Healthcare Initiative	This international programme was piloted in nine countries and established standards of care to improve the quality of child health services in various settings.

Sources: Bergman NJ, Linley LL & Fawcus SR (2004) Randomised controlled trial of skin-to-skin contact from birth versus conventional incubator for physiological stabilization in 1200- to 2199-gram newborns. *Acta Paediatrica*, 93: 779-783; Kirby S (2007) *Youth-friendly services toolkit*. Johannesburg: LoveLife; Naylor AJ (2001) Baby-Friendly Hospital Initiative: Protecting, promoting, and supporting breastfeeding in the twenty-first century. *Pediatric Clinics of North America*, 48(2):475-483; Southall DP, Burr S, Smith RD, Bull DN, Radford A, Williams A & Nicholson S (2000) The Child-Friendly Healthcare Initiative (CFHI): Healthcare provision in accordance with the UN Convention on the Rights of the Child. *Pediatrics*, 106(5): 1054-1064; World Health Organisation (2010) *Integrated Management of Childhood Illnesses*. Accessed on 25 May 2010: www.who.int/child_adolescent_health/topics/prevention_care/child/imci/en/index.html.

Recent research suggests that it is the presence of the mother, and what an infant or small child reads on her face, that allows the child to feel safe.⁵

What are the criteria for child- and family-friendly services?

Children, from newborns to adolescents, have different developmental needs that require health professionals to create a variety of environments of care. A child- and family-friendly ethic should therefore apply to health care contact with every pregnant woman, infant, child and adolescent, whether it is applied in the home, community, out-patient facility or hospital.

There are numerous initiatives that welcome children and support and involve families in hospital care settings. Table 13 summarises child- and family-friendly initiatives that allow for age-appropriate care at different developmental stages from birth to adolescence, including the increasing participation of the pre- and school-going child.

The Child-Friendly Healthcare Initiative (CFHI)ⁱ drew on the CRC to develop a system of care that focuses on the physical, psychological, and emotional well-being of children attending health care facilities. It aims to improve the quality of child health services with measurable criteria linked to the articles in the Convention. This set of 12 standards for child-friendly care is outlined in table 14.

What are the challenges to implementing child- and family-friendly care?

Health care professionals who work with children in poorly resourced settings face two key challenges.

Firstly, they often work with children and families whose resources are severely stretched. Despite wanting to provide quality care, the recovery of children with acute conditions is compromised by inadequate nutrition and insufficient material and emotional support. Facing waiting-rooms and wards full of children and families in this situation day after day is very taxing. These stresses are exacerbated by the shortage of nurses and doctors. In South Africa, 35.7% of health professional posts in the public sector were vacant in 2008; in some provinces, 50% of posts were vacant.⁶ This effectively doubles the workload, resulting in fatigued and demoralised health professionals who are unable or unwilling to make more effort.

Secondly, health professionals often don't know how to support child-friendly care. While brightly painted walls or toys and play opportunities may help with recovery, many think that they are too busy looking after very sick children to make these changes. The education of health professionals rarely includes learning to communicate with children and distraught families; so adding the imperative to involve children in decision-making is a daunting task. Other barriers to child- and family-friendly care are professionals' values and beliefs about

ⁱ Developed by Child Health Advocacy International in collaboration with the United Nations Children's Fund, the Child and Adolescent Health and Development department (World Health Organisation), the Royal College of Paediatrics and Child Health (UK) and the Royal College of Nursing (UK).

Table 14: Child-Friendly Healthcare Initiative – Standards for child-friendly care

Main focus areas	Standards for child-friendly care	Articles in the CRC
Care in the community, collaborative child health care	1. Keep children out of hospital unless admission is absolutely necessary.	Articles 3, 9, 24 & 25
Management and treatment	2. Support and give best possible care.	Articles 2, 6, 23, 24 & 37
Safety	3. Provide care safely in a secure and clean child-friendly environment.	Article 3
Care delivery	4. Child- and family-centred care in partnership with parents, in areas dedicated to children and young people, by trained and experienced paediatric staff who can enable parents/carers to stay for support during painful procedures.	Articles 5, 9, 14 & 37
Communication: Children are entitled to information, to be involved, to have opinions and be taken seriously	5. Keep parents and children fully informed and involved in all decisions affecting their care.	Articles 9, 12, 13 & 17
Rights, equity and respect for the evolving capacities of the child	6. Approach children without discrimination as individuals. Each child has his/her own age-appropriate and developmental needs and can be involved at his/her level of competence. Each has a right to privacy and dignity.	Articles 2, 5, 7, 16, 23, 27, 29 & 37
Pain management	7. Recognise and relieve pain and discomfort.	Article 19
Resuscitation	8. Give appropriate resuscitation, emergency and continuing care for very ill children.	Articles 6 & 24
Play and learning	9. Enable play and learning.	Articles 6, 28, 29 & 31
Child protection	10. Recognise, protect and support vulnerable and abused children.	Articles 3, 11, 19, 21, 20, 25, 32, 33, 34, 35, 36, 37 & 39
Health promotion	11. Monitor and promote health whenever a pregnant woman or child attends a health care facility.	Articles 6, 17, 23, 24 & 33
Breastfeeding and nutrition	12. Support best possible nutrition, including breastfeeding.	Articles 3, 24, 26 & 27

Source: Nicholson S & Clarke A (2007) *Child Friendly Healthcare: A manual for health workers*. Nottingham: Childhealth Advocacy International.

children, what they understand and can communicate, and how much children and families should be allowed to participate.⁷

What are local examples of best practice?

The following examples show that problems such as staff shortages and limited time and money do not have to hamper the introduction of child- and family-centred health care in resource limited settings such as those experienced in southern Africa.

Communication

- The *Phila Impilo* project, run in various settings in KwaZulu-Natal, provides children with the opportunity to participate in decisions about their own health care. The project has run workshops at a number of hospitals and uses art, drama and other creative forms of communication to provide a safe space for children's opinions to be heard.⁸
- The Child Nurse Practice Development Initiative is a participatory action-research project at the Red Cross War Memorial Children's Hospital in Cape Town, where nurse teams have

developed materials to improve communication with children and their families. These include multilingual family- and child-friendly signage, ward welcome and information brochures and sets of picture-based materials to communicate information about conditions. Families and children were intentionally involved in this process.

- Nurses participating in recent training initiatives, including values clarification exercises, at the same hospital have learnt to recognise stress in children, families and themselves, and to identify appropriate responses. A strengths-based approach to working with people, staff, children and families is also helping to shift the focus from what is wrong with the child and family to strengthening what works best for sick children.
- At Gertrude's Garden Children's Hospital in Nairobi, Kenya, a desk marked "Communication Nurse" welcomes questions from children and parents.

Organisation of care

- At a community clinic in Harare, Zimbabwe, a staff team has restructured adult and child HIV services as a family clinic. This enables parents and children to attend the clinic in one visit. The nurse-run structure ensures that each child has a specific nurse who is always responsible for his/her care – from greeting and weighing the child to assessing, prescribing and explaining medication. Families have fixed appointments and the waiting area is rarely over-crowded.
- At Parirenyatwa Hospital, also in Harare, each children's ward has a dedicated 'home room' where an auxiliary nurse (or 'aunty') trained in childhood development and needs offers comfort and support and welcomes children for meals, play and homework.
- At the Red Cross War Memorial Children's Hospital, parents can now accompany children into the operating theatre until they fall asleep. Parents also hold and reassure children during painful procedures.

Environment

- Some features of a child-friendly environment are fairly obvious, like being bright and colourful, but others are less so, such as the accessibility and cleanliness of toilets and wash basins. When asked what would help them feel more at home, child participants in the *Philo Impilo* project asked for access to mirrors, their own blankets and photos of their families.
- Children's participation in making a facility more welcoming is also important. Children do not always want walls covered

in Disney characters. When asked, children choose murals of green fields, forests and local animals. The *Philo Impilo* children liked "big windows to open for fresh air and to look out if we are too sick to get up".⁹

- Developmental needs also determine the type of accommodation and different adaptations required to ensure privacy for a breastfeeding mother, a toddler or adolescent.
- The waiting area at Gertrude's Garden is filled with clusters of chairs and low tables to encourage conversations and support amongst families, and offers a place to prepare a quick snack or place a bag. Wards are square rather than rectangular, and beds are arranged around a small carpeted play area so that children too sick to be out of bed can feel part of the conversation.
- The atmosphere created by staff is essential and goes beyond communication to appearance, friendliness and competence. A recent study in Iran found that colourful nursing clothing in paediatric wards reduced anxiety, hastened healing and helped promote quality nursing care.¹⁰

Creative use of support staff

- In the Parirenyatwa Hospital, Harare, a retired paediatric nurse is paid a stipend as a family counsellor who routinely sees all children and families. She also supports and oversees the 'home room aunts'. Two volunteers from the local church have been trained as child life specialists to assist children with their practical and psychosocial needs. They hold children during procedures and play lengthy games of pretend to help children through trauma associated with illness, treatment and separation from families. Recent studies acknowledge the significant role of faith communities in care and treatment and reconfirm the urgent need for partnerships with the public health sector to achieve better health outcomes.¹¹
- At the Red Cross War Memorial Children's Hospital, a non-governmental organisation recruits and trains volunteers and provides material support. Friends of the Children have worked with staff, children and families to develop a family resource centre that offers information, refreshments and space for facilitated parent and sibling support groups. The NGO also sources donations of toys. Mothers receive 'comfort packs' of toiletries, snacks and other practical support.
- Community initiatives like 'adopt a clinic' are increasing practical support for staff, children and families in other settings. Clinics are often offered a new coat of paint and children's play boxes in waiting areas are much appreciated.



What are the recommendations?

Achieving child- and family-friendly care is no longer an optional extra but an imperative. The Children's Act is a real step forward in providing legislation supporting the CRC in South Africa. The shift in health care will, however, not happen without passionate leadership at every level including policy, health care provision and education. A practice shift in all child health care facilities will require intentional capacity-building, with innovative training to challenge attitudes and provide professionals with skills in advocacy and sensitive communication.

The shift must be sustained by a culture of accountability:

- Policy-makers need to establish national guidelines that will require health facilities to provide child- and family-friendly services.
- Facilities need to identify champions to lead a shift in care and commit to a culture of inclusion.
- Health professionals should be assisted to evaluate their own practice in an inclusive and participatory process, including managers, doctors, nurses, cleaners and security staff working together. The CFHI offers practical tools that can assist health professionals to identify particular areas of change, guide implementation and measure progress.
- Training institutions need to ensure that health professionals are familiar with the CRC and current legislation and are taught how to recognise and minimise distress in children and families. Learning should also include how to engage and work *with* rather than just *for* children and parents and how to take account of their concerns and assist them in being heard among fellow professionals and in health care facilities.
- Facilities should actively seek and welcome community support in the form of parents' forums, volunteers and local business support.
- Health professionals and facilities need to engage children intentionally in planning and implementation, and facilitate the move towards child participation required by the Children's Act.

Conclusion

Children's opinions, once recognised and heard, can make a significant difference to practitioners who work with them. A staff recommendation from the *Philo Impilo* project best sums up who should work with children:

*Staff should only be allocated to the paediatric ward if they are interested in nursing children. Staff rotation should be limited to ensure continuity of care.*¹²

The challenge is to ensure quality health care and treatment within a spirit of increasing respect for the equality, dignity, protection and participation of children and their families.

References

- 1 Institute for Healthcare Improvement (2010) *About us*. Accessed on 25 May 2010: www.ihl.org/ihl/about.
- 2 Southall DP, Burr S, Smith RD, Bull DN, Radford A, Williams A & Nicholson S (2000) The Child-Friendly Healthcare Initiative (CFHI): Healthcare provision in accordance with the UN Convention on the Rights of the Child. *Pediatrics*, 106(5): 1054-1064.
- 3 Mulinge MM (2002) Implementing the 1989 United Nations' Convention on the Rights of the Child in sub-Saharan Africa: The overlooked socioeconomic and political dilemmas. *Child Abuse and Neglect*, 26(11): 1117-1130.
- 4 Office of the High Commissioner of Human Rights (1989) *Convention on the Rights of the Child*. UN General Assembly resolution 44/25. Geneva: United Nations.
- 5 Porges S (2007) The polyvagal perspective. *Biological Psychology*, 74: 116-143; Schore AN (2001) Effects of a secure attachment relationship on right brain development, affect regulation, and infant mental health. *Infant Mental Health*, 22: 7-66; Schore AN (2001) The effects of early relational trauma on right brain development, affect regulation, and infant mental health. *Infant Mental Health*, 22: 201-269.
- 6 Health Systems Trust (2008) *Health statistics. Percentage of health professional posts vacant*. Accessed on 23 April 2010: www.hst.org.za/healthstats/134/data.
- 7 Coetzee M, Verster A & Bramwell E (2007) *What challenges the shift to family-centered practice?* Proceedings of the School of Child and Adolescent Health annual research day, University of Cape Town.
- 8 De Wet T, Kruger J & Black V (2009) *Phila Impilo! Live life! Ways to healing, children as partners in health*. Overpoort: Young Insights for Planning; Kruger J (2008) *Phila Impilo! Live Life! Izingane ziveza ezingakuthanda ngokulashwa kwazo. Children advocate best practices for healing*. Overpoort: Young Insights for Planning.
- 9 See no. 8 above (Kruger J).
- 10 Roohafza H, Pirnia A, Sadeghi M, Toghianifar N, Talei M & Ashrafi M (2009) Impact of nurses' clothing on anxiety of hospitalised children. *Journal of Clinical Nursing*, 18(13): 1953-1959.
- 11 Karpf T (2007) Community realities in Africa show FBO partnership key to global scale-up. *AIDSLink*, 103, 1 July 2007. Accessed on 13 May 2010: www.globalhealth.org/publications/article.php?id=1667.
- 12 See no. 8 above (Kruger J).

Addressing the social determinants of health

Lori Lake (Children's Institute) and Louis Reynolds (School of Child and Adolescent Health, University of Cape Town)

Between January and March 2008, at least 78 babies died of diarrhoea-related deaths in the Ukhahlamba district of the Eastern Cape. These baby deaths point to failures both within and outside of the health care system, and to persistent structural social and economic injustice. While poor case management, lack of medication and delays in seeking health care were contributing factors, the underlying causes of the diarrhoea outbreak lay 'upstream'. Over 80% of the children who died in Ukhahlamba lived in poverty-stricken households with no sanitation, and local tap water was contaminated by *E. coli* following a breakdown at the local water treatment plant.¹

This essay examines the social determinants of health and explores how child health is shaped by the political, economic, physical and social environment in which children are born, live, grow and develop.

The essay focuses on two key questions:

- What are the social determinants of child health in South Africa?
- What needs to be done to address the social determinants and improve health equity?

What are the social determinants of child health in South Africa?

Children's health is shaped by a range of social determinants. The quality of care in the immediate home environment has a direct impact on child well-being. This in turn is influenced by the family's and community's access to resources and basic services. Ultimately, children's and families' living conditions are shaped by political, socio-economic, cultural and environmental forces in the wider society. Here, poverty and inequality remain major determinants of child health, and these problems are likely to be exacerbated by the global economic crisis and climate change.

The following analysis of child-centred data tracks children's access to a range of socio-economic entitlements and provides a picture of some of the key social determinants that need to be addressed to improve child health in South Africa.

Poverty and inequality

South Africa's poor health outcomes seem perverse in the face of good economic growth since 2000. Yet growth has come at the expense of job creation – with broad unemployment figuresⁱ standing at 33%,² and a Gini coefficientⁱⁱ of 0.666, pointing to inequalities between rich and poor.³

Table 15: Factors affecting infant mortality

Wealth	No. of deaths per 1,000 live births
Poorest 20%	87
Richest 20%	22
Population group	
African	64
White	15
Residence	
Rural	71
Urban	43
Mother's education	
None	84
Matric and higher	46
Province	
Eastern Cape	75
Western Cape	39

Source: Department of Health (2002) *South African Demographic and Health Survey 1998*. Pretoria: DoH; World Health Organisation (2007) *World health statistics 2007*. Geneva: WHO. Both in: Bradshaw D (2008) *Determinants of health and their trends. South African Health Review*. Durban: Health Systems Trust.

i The narrow (official) definition of unemployment includes the number of people who were without work and actively seeking work in the four weeks preceding the interview. The broad (unofficial) definition includes discouraged work seekers.
ii The Gini coefficient is a measure of national income equality. It ranges from 0 (no inequality) to 1 (complete inequality).

Table 16: Child poverty, hunger and access to services in the Western and Eastern Cape, 2008

Child poverty, hunger and access to services	Western Cape %	Eastern Cape %
Without drinking water on site	7	65
Without adequate sanitation	6	50
Without electricity	5	36
Without formal housing	20	50
Far to nearest to clinic	16	53
Reported child hunger	13	22
Living in income poverty	37	72
Without employed adult	11	39

Source: Statistics South Africa (2009) *General Household Survey 2008*. Pretoria: StatsSA. Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, UCT. See www.childrencount.ci.org.za.

These inequalities lie at the heart of South Africa's poor child health outcomes, some of which are illustrated in table 15. Income, race, education and urbanisation all have a clear impact on infant mortality; as does geographical location: Babies in the Eastern Cape (one of the poorest provinces) are almost twice as likely to die before their first birthday, compared with children in the Western Cape (one of the richest provinces).

South Africa's children are disproportionately affected by poverty. Nearly two-thirds of children live in the poorest 40% of households with a per capita monthly income of less than R570, and racial inequalities persist. More than 70% of African children live in poverty, while less than 5% of White children fall below this poverty line.⁴

Primary health care services and infrastructure remain poor in historically black areas, and the poorest populations are still concentrated in the previous 'homelands' where over-crowding and underdevelopment have led to huge backlogs in services. Table 16 illustrates the inequalities that persist between provinces – in this case the Eastern Cape, which includes former 'homelands', and the better resourced Western Cape.

Poverty not only shapes children's living conditions; it deprives them of access to food, housing, health care and other basic services and has a life-long cumulative impact on health.⁵ This in turn can affect children's school performance and opportunities for future employment (see figure 9). Failure to address social determinants not only keeps children in poor health, but may trap future generations in poverty.

Housing

While the majority of children (71%) live in formal housing, over 2.3 million children still live in shacks or backyard dwellings. Forty percent of children in informal housing are younger than five years, and case 6 on p. 85 shows how these children are particularly vulnerable to burns and paraffin poisoning. Despite the roll-out of the National Housing Subsidy Scheme, the proportion of children living in informal housing has remained relatively constant since 2002.⁶

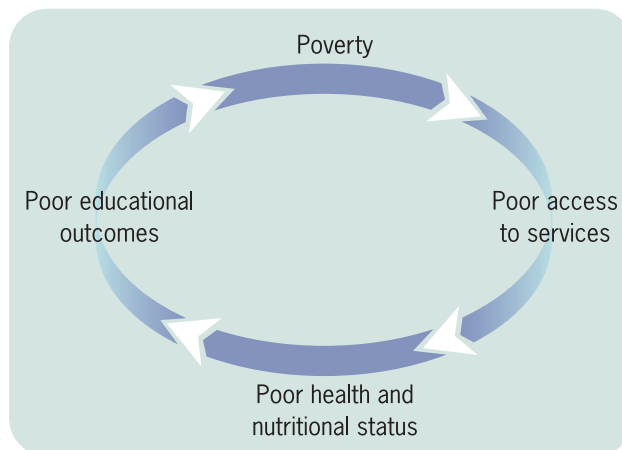
Over 5 million children (30%) live in over-crowded conditions.⁷ Over-crowding is most severe in informal housing and is associated with increased exposure to communicable diseases such as tuberculosis. Over-crowding may increase the risk of sexual abuse when children have to sleep in the same room or bed as other adults and children. It can also compromise children's access to other services, such as free water, which is allocated without taking into account household size.⁸

Water, sanitation and electricity

Government has made significant strides in improving access to basic services, but more needs to be done. Nearly 36% of children in South Africa still do not have access to drinking water on site.⁹

Although children's access to basic sanitation increased from 47% in 2002 to 61% in 2008, 8 million children still use unventilated pit latrines, buckets or open land.¹⁰ Overloaded sewerage systems, inadequate infrastructure and a lack of skilled staff raise serious concerns about water quality in many parts of the country.¹¹ Young children are especially vulnerable to illnesses such as diarrhoea and cholera, and local governments urgently need to invest in improving access to safe water and sanitation.

Figure 9: A cycle of poverty



While most children (80%) live in households with access to electricity,¹² many households cannot afford electricity or appliances, and continue to rely on unsafe energy sources such as paraffin, wood and coal, which are associated with an increased risk of acute respiratory infections and burns.¹³

Hunger and food security

The proportion of children living in households that reported child hunger fell from 30% to 18% between 2002 and 2008.¹⁴ Yet, malnutrition remains common and stunting affects one in five children.¹⁵ Malnutrition also increases the risk of acute respiratory infections, diarrhoeal disease and HIV infection – all major drivers of under-five mortality¹⁶ (see pp. 46 – 52).

Chronic malnutrition has a significant impact on child development, especially during the first three years of life when the brain is still developing. The high prevalence of stunting in this age group is therefore cause for concern,¹⁷ and is likely to have serious implications for future school performance.

Early childhood development

Early investments in children's health and education offer the greatest benefits, and the Global Commission on the Social Determinants of Health has called for greater investment in comprehensive early childhood development (ECD) that links families and young children to health, education and nutrition services.¹⁸ While the Children's Act¹⁹ and National Integrated Plan for ECD²⁰ provide a framework for the provision of services for children under five, delivery has tended to focus on formal grade R classes for older children. Gross enrolment for grade R currently stands at 52% and data are not available for younger children.²¹

Social security and enabling documents

The Child Support Grant (CSG) is a key programme for alleviating child poverty in South Africa, and may account for much of the decline in child poverty from 77% in 2002 to 64% in 2008.²² In May 2010, the CSG supported more than 9.7 million children aged 0 – 16 years,²³ and the grant is steadily being extended to include all eligible children under 18 by 2012. Grant beneficiaries are also entitled to free education and health care services.

Despite these benefits, data analysis estimates that the CSG reached only 71% of eligible children in mid-2008.²⁴ Difficulties accessing birth certificates and identity documents are a major barrier. Access to the CSG early in life leads to better growth and reduces stunting among children.²⁵ Therefore, the low take-up of grants for children younger than six months is of particular concern.²⁶

Birth registration is essential for accessing social grants and for the effective monitoring of child and infant mortality. While birth registration has increased significantly from 25% in 1998 to 82% in 2009,²⁷ more still needs to be done to improve access to enabling documents.

The recent acceptance of alternative forms of identification should help streamline applications for social grants. Access to enabling documents could also be improved by extending the reach of mobile 'one stop' units in rural areas, and by providing birth registration facilities at maternity units at clinics and hospitals.²⁸

Health services

South Africa has made good progress in providing free primary health care, and free health care for pregnant women, children under six, people with disabilities and recipients of social grants. Yet access to public health care services remains a problem, especially in remote rural areas: Over 7 million children (40%) need to travel more than 30 minutes to reach their nearest clinic.²⁹ This compromises access to key preventative services such as growth monitoring and immunisation, and high transport costs and long queues may lead to life-threatening delays in seeking treatment.

Education

Having a mother with secondary school education dramatically reduces the risk of child mortality and is associated with improved nutrition, birth spacing and the use of preventive health interventions.³⁰ In 2001, 48% of people over the age of 15 had not completed grade 9 and 12% had never attended school.³¹ However, the current gender parity in education is promising for future health outcomes, with equal numbers of girls and boys attending high school.³²

Concerns remain around the quality of education³³ and the high level of violence in schools. Recent initiatives to develop schools as centres of teaching, learning, care and support are promising and draw heavily on early efforts to establish health promoting schools.³⁴ Similarly, Education White Paper 6 focuses on inclusive education and calls for the establishment of multi-sectoral teams to support vulnerable learners and to address a range of barriers to education.³⁵

Psycho-social stressors

Child health is not only shaped by broad socio-economic conditions and access to services. Unsafe sex, alcohol harm, interpersonal violence and smoking are important drivers of mortality and morbidity in South Africa and contribute to the high burden of HIV, injury, violence and abuse in children.³⁶

Case 6: Addressing childhood burns

Ashley van Niekerk (*Crime, Injury and Violence Research Unit, Medical Research Council*)

In South Africa, burns are reported as a persisting threat especially to children in low income settings. It is estimated that up to 1,300 children die every year as a result of burn injuries.⁶⁴ These injuries are associated with the physical and social environments in which young children live.

Children most at risk are those living in informal settlements, where the lack of demarcated cooking areas and dangers associated with the storage and use of paraffin coincide with high numbers of children and high child-to-adult ratios. Infants and toddlers account for up to half of all childhood burns.⁶⁵ Caregiver testimonies highlight how work, household chores, child care, unexpected events and crises undermine their ability to supervise and protect children in hazardous home environments.⁶⁶

Towards good intervention and policy

The improvement of home and neighbourhood environments, through the provision of formal houses, electrification, and access to safe cooking and other home appliances, are key interventions in South Africa. Home environments can be created or modified to reduce the

likelihood of injury. Electrification, stricter building codes, improved construction materials, and the legislated reduction of tap water temperatures can significantly reduce child burns and scalds.⁶⁷

The separation of cooking areas from living areas, and other improvements to housing layout, could limit children's exposure to dangers in the kitchen, and reduce the likelihood of electrical fires and electrocution. Hazards in the home can also be reduced by changing the design of household appliances, such as cooking equipment, and using stove guards to isolate cooking areas.⁶⁸

In South Africa, the electrification of homes is a national priority; however, because of the escalating cost of both electricity and safe electrical appliances, low income families continue to rely on paraffin, coal or wood-fired stoves for cooking and heating, and low quality hot water cylinders for hot water.⁶⁹ In partial recognition of these energy usage patterns, South Africa has also instituted compulsory specifications for pressurised and non-pressurised paraffin stoves and heaters to promote the use of safer paraffin appliances, with their enforcement now considered a priority.

Children in poor communities are particularly vulnerable because poverty exacerbates psycho-social stress and low self-esteem, leaving caregivers and children relatively powerless within the family and wider community.³⁷

Tobacco and alcohol

Babies of mothers who smoke one or more packs of cigarettes a day during pregnancy have lower intelligence quotient (IQ) scores than children of non-smoking mothers.³⁸ Maternal smoking also increases the risk of acute respiratory infections such as pneumonia.³⁹

Increased taxes and the Tobacco Products Control Act,⁴⁰ which prohibited the advertising of tobacco products, contributed to a 40% drop in the prevalence of smoking between 1995 and 2003.⁴¹ A recent amendment to the Act⁴² increased the ban on sales to children from those aged 16 to 18 and should lead to a further decline in smoking.

Similar measures need to be taken to control alcohol misuse, which is implicated in homicide, domestic violence, rape, child abuse, road traffic and other injuries. The health and social costs of alcohol misuse are an estimated R9 billion per year;

yet there has been little concerted effort by the government to address the problem.⁴³ While the National Liquor Act⁴⁴ prohibits the sale and advertising of alcohol to children, and the blood alcohol limit for drivers has been lowered, these measures are actively flouted by both the industry and consumers. A recent survey found that 35% of high school learners used alcohol in the previous 30 days and that binge drinking had increased significantly⁴⁵ (see pp. 53 – 57).

Drinking during pregnancy can lead to permanent brain damage in the unborn child and the prevalence of fetal alcohol spectrum disorder (FASD) in some wine-farming districts of the Western Cape is amongst the highest in the world. FASD is associated with learning and behavioural problems that increase the risk of HIV, unemployment and criminal behaviour later in life.⁴⁶

To address these problems, the government must enforce current legislation and drive a concerted national programme to shift drinking norms.⁴⁷ The *Phuza Wize* media campaign initiated by the Soul City Institute for Health and Development Communication is a step in the right direction, using a television drama series and the accreditation of 'safe' shebeens to raise

awareness about the dangers of alcohol abuse and to encourage people to drink responsibly.⁴⁸ The Prevention of and Treatment for Substance Abuse Act⁴⁹ also provides for community and school-based prevention services specifically aimed at children and families, but this is not yet in operation (see *Part one: Children and law reform* on pp. 12 – 17).

Unsafe sex and violence against women and children

The past 10 years have seen positive developments with the roll-out of the prevention of mother-to-child transmission programme and antiretrovirals. But given escalating treatment costs, there is an urgent need to invest in other prevention strategies.⁵⁰

Unsafe heterosexual sex is the primary driver of HIV. A recent survey suggests a shift towards safer sexual behaviours amongst high school learners, with fewer being sexually active or having multiple partners.⁵¹ Yet at least two-thirds of those who were sexually active did not use condoms consistently and a fifth reported being pregnant or making someone pregnant. The new HIV-testing campaign is encouraging, but testing needs to be clearly linked to a broader prevention programme that empowers men and women, young and old, to make positive choices.

Unsafe sex should be viewed in the context of violence against women and children. In 2000, violence and injury were the second leading cause of death in South Africa.⁵² These high death rates are fuelled by interpersonal and gender-based violence. While young men (aged 15 – 29 years) are the main victims and perpetrators, at least half of female homicide victims were killed by their intimate partners. Police dockets on rape from Gauteng province indicate that 40% of victims are children, and that most child rapes are perpetrated by men known to the child.⁵³ These patterns of violence indicate an urgent need to challenge patriarchal norms that promote risk-taking, sexual entitlement and the use of violence to control women and children.

Children rely on adults for protection; yet child abuse and neglect are rife in South Africa. This feeds an ongoing cycle of violence as children who are exposed to trauma and violence – including the inordinate use of physical punishment – are more likely to become either victims or perpetrators later in life.⁵⁴

Positive developments in the criminal justice system and improved services for victims include the Domestic Violence Act,⁵⁵ which enables access to protection orders; the Sexual Offences Act,⁵⁶ which broadens the definition of sexual assault and introduces special protection measures for children; and

the development of one-stop *Thuthuzela* care centres designed to reduce secondary trauma for rape victims, and to improve conviction rates.

The Children's Act,⁵⁷ which came into force in April 2010, provides for a range of child protection and early prevention services to support vulnerable children and families. Yet these services will be effective only if sufficient resources are allocated to address the current shortfall of social service professionals and community care workers.⁵⁸ The prohibition on corporal punishment in schools (South African Schools Act)⁵⁹ cannot on its own overcome violent disciplinary practices. School- and community-based programmes are needed to introduce positive discipline in the home and at school.

Family and community networks

Families, neighbourhoods and communities play a key role in mediating the impact of poverty, protecting children, and promoting child health. While caregiver stress, depression, alcohol abuse and domestic violence have negative impacts on child health, good interpersonal relationships help build the confidence and resilience of both caregivers and children.⁶⁰

Case 7: Local partnerships for health – The Khayelitsha Task Team

Local action is also important. Whip- and roundworm are endemic in areas with poor water and sanitation services, and primary school children are most at risk. In 1999 academics and representatives from the Departments of Health, Education, the City of Cape Town and the Khayelitsha community came together to address the high prevalence of worms at 12 primary schools. School nurses administer deworming tablets; teachers have integrated health and hygiene education into the curriculum; and environmental health officers help address problems with school sanitation as there is no point teaching children to wash their hands if there is no soap and the taps and toilets are broken.

With support from the Departments of Health and Education the project now reaches over 120 schools in the Cape Town metropole.⁷⁰ This kind of partnership is essential in addressing the social determinants of child health and should be replicated in other parts of the country.

Source: Fincham JE, Dhansay MA, Adams VJ & Mayosi BN (2005) *Synchronised and regular deworming of children and women in South Africa: Policy and practice*. Research report. Cape Town: Nutrition Intervention Research Unit, Medical Research Council.

Community- and faith-based organisations continue to play a key role in identifying and supporting children and families at risk, and more needs to be done to support community care workers (see pp. 71 – 76).

Only 35% of South Africa's children live with both parents.⁶¹ Most (75%) live with their mothers, and 60% of children do not live with their biological fathers. High unemployment makes it hard for fathers to fulfil their traditional role as providers, but men still have an important role to play and should be encouraged to participate actively in the care and protection of children.⁶²

What needs to be done to address the social determinants and improve health equity?

The current crisis in child health will affect South Africa for decades to come. It is accompanied by an enormous toll of unnecessary human suffering and death and places a massive burden on the health system. It is essential to address the underlying determinants of the crisis, which are rooted in structural inequalities and social injustice. Dealing with these problems will require concerted action from the State, corporate sector and civil society:

Provide leadership

- Strong and concerted leadership is required to reduce and eliminate inequalities in service delivery and create a healthy environment for children.
- The Presidency should place child health at the centre of the development agenda and ensure cohesive action across all sectors of government including Treasury, Social Development, Agriculture, Trade and Industry, Energy, Transport, Basic Education and Public Works.
- Paediatricians, nurses and other champions of children's rights must play an active role in advocating for greater health equity and addressing the local determinants of child health (illustrated in case 7).

Ensure health equity

- Place health equity at the heart of local government planning and ensure that Integrated Development Plans (IDPs) prioritise children's access to safe housing, water, sanitation, energy and transport.
- Invest in programmes to improve rural livelihoods, services and infrastructure.
- Ensure economic growth does not come at the expense of job creation.

- Improve birth registration and systems to ensure that social grants reach children who are most vulnerable.
- Strengthen the delivery of integrated ECD programmes for children under five.
- Prioritise diseases of poverty such as diarrhoea, pneumonia and malnutrition by strengthening the delivery of community-based primary health care services.
- Ensure that health professionals, local government officials and policy-makers are educated about children's rights, health equity and the social determinants of health.

Build partnerships

- Strengthen inter-sectoral programmes and partnerships between health, law enforcement, schools, communities and the media to reduce alcohol consumption, drug abuse and violence.

Build capacity

- Improve the quality of basic education and access to employment and social grants.
- Strengthen health promotion and prevention programmes to equip communities, caregivers and children with the knowledge, skills and resources to take responsibility for their own health and well-being.
- Ensure the active and informed participation of children and families in health care decision-making to address not just the symptoms but the underlying causes of ill-health.

Conduct research and raise awareness

- Use child-centred data to monitor health equity and evaluate progress across a range of social determinants.

Conclusion

Children are entitled to an environment that nurtures them physically, emotionally, culturally and spiritually. While the family is primarily responsible for children's growth, well-being and development, the State has a duty to provide an enabling environment.⁶³ This includes access to housing, health care and basic services as well as policies and programmes that reduce inequality and promote dignity and respect for all.

It is time to honour the spirit of the Constitution and ensure that the government, donors and civil society work together to put children first, and invest in children's health and the well-being of future generations.

References

- 1 Further investigations into child deaths in Senqu sub-district, Ukhahlamba district municipality, April 2008. Accessed on 6 June 2010: images.dispatch.co.za/water1.pdf
- 2 Office of the President (2009) *Development indicators 2009*. Pretoria: The Presidency.
- 3 See no. 2 above.
- 4 Statistics South Africa (2009) General Household Survey 2008. In: Hall K (2010) *Income and social grants – Living in poverty*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 8 June 2010: www.childrencount.ci.org.za/indicator.php?id=2&indicator=14.
- 5 Noble M, Wright G & Cluver L (2006) Developing a child-focused and multi-dimensional model of child poverty for South Africa. *Journal of Children and Poverty*, 12 (1): 39-53.
- 6 Statistics South Africa (2009) General Household Survey 2008. In: Hall K (2010) *Housing and services – Housing type*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 8 June 2010: www.childrencount.ci.org.za/indicator.php?id=3&indicator=11.
- 7 Statistics South Africa (2009) General Household Survey 2008. In: Hall K (2010) *Housing and services – Over-crowding*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 8 June 2010: www.childrencount.ci.org.za/indicator.php?id=3&indicator=12.
- 8 Hall K (2010) *Housing and services – Access to adequate water*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 8 June 2010: www.childrencount.ci.org.za/indicator.php?id=3&indicator=41.
- 9 Statistics South Africa (2009) General Household Survey 2008. In: Hall K (2010) *Housing and services – Access to adequate water*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 8 June 2010: www.childrencount.ci.org.za/indicator.php?id=3&indicator=41.
- 10 Statistics South Africa (2009) General Household Survey 2008. In: Lake L & Hall K (2010) *Housing and services – Access to basic sanitation*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 8 June 8, 2010: www.childrencount.ci.org.za/indicator.php?id=3&indicator=42.
- 11 Department of Water Affairs (2010) *Green drop report 2009: South African waste water quality management performance*. Pretoria: DoWA.
- 12 Statistics South Africa (2009) General Household Survey 2008. In: Hall K (2010) *Housing and services – Access to electricity*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 8 June 2010: www.childrencount.ci.org.za/indicator.php?id=3&indicator=43.
- 13 Barnes B, Mathee A, Thomas E & Bruce N (2009) Household energy, indoor air pollution and child respiratory health in South Africa. *Journal of Energy in Southern Africa*, 20(1): 4-13.
- 14 Statistics South Africa (2009) General Household Survey 2008. In: Lake L, Marera D & Hall K (2010) *Nutrition – Child hunger*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 8 June 2010: www.childrencount.ci.org.za/indicator.php?id=4&indicator=32.
- 15 Labadarios D (ed) (2007) *The National Food Consumption Survey – Fortification Baseline (NFCS-FB): The knowledge, attitude, behaviour and procurement regarding fortified foods, a measure of hunger and the anthropometric and selected micronutrient status of children aged 1 – 9 years and women of child bearing age: South Africa, 2005*. Pretoria: Directorate: Nutrition, Department of Health.
- 16 Victora CG, Kirkwood BR, Ashworth A, Black RE, Rogers S, Sazawal S, Campbell H & Gove S (1999) Potential interventions for the prevention of childhood pneumonia in developing countries: Improving nutrition. *American Journal of Clinical Nutrition*, 70(3): 309-320.
- 17 See no. 15 above.
- 18 Global Commission on Social Determinants (2008) *Closing the gap in a generation: Health equity through action on the social determinants of health*. Geneva: World Health Organisation.
- 19 Children's Act 38 of 2005, as amended by the Children's Amendment Act 41 of 2007.
- 20 Department of Education, Department of Social Development, Department of Health & United Nations Children's Fund (2005) *National integrated plan for early childhood development in South Africa 2005–2010*. Pretoria: Government Printers.
- 21 Biersteker L, Gwele M & Dawes A (2010) *ACCESS ECD score card 2009*. Cape Town: ACCESS.
- 22 See no. 4 above.
- 23 Statistics South Africa (2008) SOCPEN database. In: Children Count – Abantwana Babalulekile statistics on children in South Africa (2010) *Current statistics on grants for children*. Accessed on 8 July 2010: www.childrencount.ci.org.za/social_grants.php.
- 24 Statistics South Africa (2008) SOCPEN database. In: Hall K (2010) *Income and social grants – Child Support Grants*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 10 June 2010: www.childrencount.ci.org.za/indicator.php?id=2&indicator=10.
- 25 Agüero JM, Carter MR & Woolard I (2006) *The impact of unconditional cash transfers on nutrition: The South African Child Support Grant*. Washington DC: Center for Global Development.
- 26 Delany A, Ismail Z, Graham L & Ramkissoon Y (2008) *Review of the Child Support Grant: Uses, implementation and obstacles, June 2008*. Johannesburg: Community Agency for Social Enquiry.
- 27 See no. 21 above.
- 28 See no. 26 above.
- 29 Statistics South Africa (2009) General Household Survey 2008. In: Hall K (2010) *HIV and health – Distance to the nearest clinic*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 8 June 2010: www.childrencount.ci.org.za/indicator.php?id=5&indicator=49.
- 30 Education for All (EFA) Global Monitoring Report Team (2008) *Education for all global monitoring report 2009*. Paris: United Nations Educational, Scientific and Cultural Organisation.
- 31 Baaitjes I (2008) Adult basic education and training. In: Kraak A & Press K (eds) *Human Resources Development Review 2008: Education, employment and skills in South Africa*. Pretoria: HSRC Press.
- 32 Department of Education (2010) *Education statistics at a glance in 2008*. Pretoria: DoE. In: De Lannoy A, Pendlebury S & Rudolph N (2010) *Education – Gender Parity Index*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 10 June 2010: www.childrencount.ci.org.za/indicator.php?id=6&indicator=45.
- 33 Pendlebury S (2009) Meaningful access to basic education. In: Pendlebury S, Lake L & Smith C (eds) *South African Child Gauge 2008/2009*. Cape Town: Children's Institute, University of Cape Town.
- 34 Department of Education (2009) *Care and support for teaching and learning (CSTL): Towards a framework for care and support*. Pretoria: DoE.
- 35 Department of Education (2006) *White paper 6: Special needs education: Building an inclusive education and training system*. Pretoria: DoE.
- 36 Norman R, Bradshaw D, Schneider M, Joubert J, Groenewald P, Lewin S, Steyn K, Vos T, Laubscher R, Nannan N, Nojilana B & Pieterse D (2007) A comparative risk assessment for South Africa in 2000: Towards promoting health and preventing disease. *South African Medical Journal*, 97: 637-641.
- 37 Global Commission on Social Determinants (2008) *Closing the gap in a generation: Health equity through action on the social determinants of health*. Geneva: World Health Organisation.
- 38 Kleinman JC & Madans JH (1985) The effects of maternal smoking, physical stature, and educational attainment on the incidence of low birth weight. *American Journal of Epidemiology*, 121(6): 843-855.
- 39 DiFranza JR, Aligne CA, MD & Weitzman M (2004) Prenatal and postnatal environmental tobacco smoke exposure and children's health. *Pediatrics*, 113(4): 1007-1015.
- 40 Tobacco Products Control Act 83 of 1993.
- 41 Harrison D (2009) *An overview of health and health care in South Africa 1994 – 2010: Priorities, progress and prospects for new gains*. Discussion document commissioned by the Henry J. Kaiser Family Foundation.
- 42 Tobacco Products Control Amendment Act 63 of 2008.
- 43 Seedat, M, van Niekerk A, Jewkes R, Suffla S & Ratele K (2009) Violence and injuries in South Africa: Prioritising an agenda for prevention. *The Lancet*, 374: 1011-1022.
- 44 National Liquor Act 59 of 1993.
- 45 Reddy SP, James S, Sewpail R, Koopman F, Funani NI, Sifunda S, Josie J, Masuka P, Kambaran NS & Omardien RG (2010) *Umthente Uhlaba Usamila – The South African Youth Behavioural Survey 2008*. Cape Town: Medical Research Council.

- 46 Davies L, Jacobs N, Jordaan E, London L, Marais S, Moodley S, Morojele N, Mwanza J, Olivier L, Parry C, Rendall-Mkosi K, Steyn K & Viljoen D (2008) *Fetal alcohol spectrum disorders in Cape Town, South Africa. A huge challenge requiring multi-faceted prevention strategies*. Cape Town: Medical Research Council.
- 47 See no. 43 above; Parry C (2005) A review of policy-relevant strategies and interventions to address the burden of alcohol on the individual and society in South Africa. *South African Psychiatry Review*, 8: 20-24.
- 48 Soul City Institute for Health and Development Communication (2010) *Phuzo Wize*. Accessed on 27 May 2010: www.phuzawize.org.za.
- 49 Prevention of and Treatment for Substance Abuse Act 70 of 2008.
- 50 See no. 41 above.
- 51 See no. 45 above.
- 52 See no. 43 above.
- 53 See no. 43 above.
- 54 See no. 43 above.
- 55 Domestic Violence Act 116 of 1998.
- 56 Criminal Law (Sexual Offences and Related Matters) Amendment Act 32 of 2007.
- 57 Children's Act 38 of 2005, as amended by the Children's Amendment Act 41 of 2007.
- 58 Budlender D, Proudlock P & Monson J (2008) Budget allocations for implementing the Children's Act. In: Proudlock P, Dutschke M, Jamieson L, Monson J & Smith C (eds) *South African Child Gauge 2007/2008*. Cape Town: Children's Institute, University of Cape Town;
- Loffell J, Allsopp M, Atmore E & Monson J (2008) Human resources needed to give effect to children's right to social services. In: Proudlock P, Dutschke M, Jamieson L, Monson J & Smith C (eds) *South African Child Gauge 2007/2008*. Cape Town: Children's Institute, University of Cape Town.
- 59 South African Schools Act 84 of 1996.
- 60 Richter L (2009) Psychosocial factors in child health. In: Kibel M, Saloojee H & Westwood T (eds) *Child health for all*. 4th edition. Cape Town: Oxford University Press.
- 61 Statistics South Africa (2009) General Household Survey 2008. In: Meintjes H (2010) *Demography – Children living with parents*. Children Count – Abantwana Babalulekile website, Children's Institute, University of Cape Town. Accessed on 8 June 2010: www.childrencount.ci.org.za/indicator.php?id=1&indicator=2.
- 62 Morrell R & Richter L (2006) Introduction. In: Morrell R & Richter L (eds) *Baba: Men and fatherhood in South Africa*. Pretoria: HSRC Press.
- 63 Constitution of the Republic of South Africa. Act 108 of 1996.
- 64 Bradshaw D, Bourn D & Nannan N (2003). What are the leading causes of death among South African children? *MRC Policy Brief no. 3*. Cape Town: Medical Research Council.
- 65 Van Niekerk A, Rode H & Laflamme L (2004) Incidence and patterns of childhood burn injuries in the Western Cape, South Africa. *Burns*, 30(4): 341-347;
- Van Niekerk A, Reimers A & Laflamme L (2006) Area characteristics and determinants of childhood burn injury in Cape Town. *Public Health*, 120(2): 115-124.
- 66 Van Niekerk A, Seedat M, Menckel E & Laflamme L (2007) Caregiver experiences, contextualisations and understandings of the burn injury to their child. Accounts from low-income settings in South Africa. *Child: Care, Health and Development*, 33(3): 236-245.
- 67 Van Niekerk A, Titi N, Lau A & Arendse A (in press) Flame and scalding burns in children. In: Van Niekerk A, Suffla S, Seedat M & Ratele K (forthcoming) *Crime, violence and injury in South Africa: Enabling child safety*. Tygerberg: Medical Research Council.
- 68 See no. 66 above.
- 69 Sustainable Energy Africa (2003) *State of energy report for Cape Town*. Accessed 6 March 2006: www.sustainable.org.za/SEEDDownloads.htm.
- 70 Lawrence E (2010) *School deworming report 2009*. [Unpublished].



A vision for child health in South Africa

The honourable Minister of Health, Dr Aaron Motsoaledi

South Africa has made children a priority and has signed the United Nations Convention on the Rights of the Child. Children also became the first beneficiaries of the first policy pronouncement by the first democratically elected President of South Africa, Dr Nelson Rolihlahla Mandela: that of free health care for pregnant and lactating women and for children under the age of six years.

Despite this, the mortality in South Africa is very high – an indication that children are still at the mercy of various conditions that rob them of their lives and development. Many children die from preventable conditions. This is because children are particularly sensitive to the environment and the deficiencies in the health system. Fortunately a great majority of the causes of death are preventable and unnecessary. Coverage of most key child survival interventions, including preventive strategies such as immunisation and treatment of common causes of childhood mortality such as diarrhoea and pneumonia, is high.

Lack of substantial progress in reducing under-five mortality, despite the implementation of these key child survival interventions, can be attributed to the effects of the HIV pandemic. An estimated 40 – 50% of childhood deaths are related to HIV infection. The prevention of childhood AIDS through primary prevention of HIV infection in the general population and the prevention of transmission from mother to child provide the key to improving the survival and well-being of children in South Africa. There are other contributing factors, such as the absence of mobilisation for the health of children at primary health care (PHC) level.



New HIV/AIDS initiatives

On World AIDS Day in 2009, his excellency President Jacob Zuma announced changes to the HIV and AIDS programme that aim to reduce mortality from HIV and AIDS by strengthening both prevention and treatment efforts. Preventive efforts focus on the encouragement of all people to know their status and thus take responsibility for their reproductive future, while the treatment component will focus on improving access to antiretroviral therapy (ART).

The new ART programme aims to achieve the best health outcomes in the most cost-efficient manner with decentralisation of service delivery to primary health care level. A commitment to ensuring that ART is available at all primary health care facilities, and that professional nurses are able to initiate and provide ART, will result in significant improvements in access to ART.

New interventions that specifically aim to improve outcomes for mothers and children include:

- Lowering the criteria for eligibility of pregnant women to have lifelong ART so that more women are placed earlier on the ART programme. This should significantly reduce the number of mothers who die from HIV infection during pregnancy or during the postnatal period.
- Providing more effective prophylaxis to prevent vertical transmission in pregnant women who do not qualify for lifelong ART.
- Making breastfeeding safer for HIV-exposed infants through the provision of prophylactic ART to these infants.

- Initiating ART in all HIV-infected infants younger than one year of age as this has been shown to significantly reduce mortality.

Other initiatives

There is nothing new in the *care of children*. However, there needs to be renewed commitment to *caring for children*. Immunisation and breastfeeding are still major and important components for the protection and nurturing of children. Immunisation against pneumococcal and rotavirus infections was introduced into the routine Expanded Programme of Immunisation (EPI) schedule in April 2009. These vaccines are expected to prevent many deaths amongst infants and young children from acute respiratory infections and diarrhoea respectively. The measles outbreak experienced in a number of provinces during 2009 and 2010 has also highlighted the need for ongoing strengthening and surveillance of routine immunisation programmes. Home-based interventions such as oral rehydration need to be used at community and household level to improve child survival.

There are other challenges that children face today. The levels of violence and neglect that are directed at children are not acceptable. There is also a need to address children left destitute by various causes such as motor-vehicle crashes. Children are also disproportionately affected by poverty, with profound effects on their development.

The Integrated Management of Childhood Illness (IMCI) strategy is the cornerstone of child health service provision at PHC level. The strategy, which incorporates key preventive and curative interventions to address the main causes of childhood mortality, has been implemented. However, successful high quality implementation requires sustained support and ongoing monitoring. The quality of care provided at hospital level (especially district hospitals) also requires improvement. This is of particular importance with regard to the care of newborn babies. Deaths during this period account for almost one third of all deaths in children younger than five years of age. In South Africa most babies are born in hospital, and improvements in the quality of care provided to mothers and their newborn babies would be expected to prevent a significant proportion of these deaths.

The Department of Health is also committed to addressing the social determinants of health, especially poverty, lack of access to clean water and sanitation, poor housing and lack

of household food security. Likewise, expansion and strengthening of school health services have been identified as important areas for collaboration between the Departments of Basic Education and Health.

The challenges involved in ensuring successful implementation of these policies and services should not be underestimated. The recent *Lancet* series on South Africa identified key requirements for improving maternal and child health including the need to strengthen leadership, accountability mechanisms and quality of care interventions. The need to improve the functioning, management and financing of the health system is accepted, and forms the basis for the Department of Health's 10 Point Plan.

Bridging the gap between policy and implementation requires determination. Just as addressing the HIV pandemic requires that all South Africans take responsibility for their actions, all South Africans need to work together to ensure that the country's mothers and children survive and thrive. Whilst policy-makers, health service managers and health care workers have a particular responsibility to ensure that all children have access to a full package of health services, parents, families, communities and civil society also need to define and fulfil their roles and responsibilities.

Academics and researchers have an important role to play in analysing and documenting the health status and needs of children, and the successes and failures of the country's response. It is hoped that this issue of the *South African Child Gauge* stimulates engagement and debate, and contributes towards our common goal of ensuring the survival and optimal development of the nation's children.

South Africa faces significant challenges in terms of achieving Millennium Development Goal (MDG) 4 which calls for a two-thirds reduction in under-five deaths between 1990 and 2015. It also faces major challenges in achieving the three-quarters reduction in maternal mortality (MDG 5). It is possible to overcome these challenges. We want to have an HIV-free generation. We need an HIV-free generation, protected from violence and neglect.

I call on all – communities and health workers, researchers and policy-makers – to place children first in all they say and do. A nation that neglects its children is a nation that forgets itself. By doing the simple things we can make great gains in achieving our goals as a nation. Doing what is best for children is doing what is best for the nation.

Recommendations

Maurice Kibel (Emeritus Professor of Child Health, University of Cape Town)

This issue of the *South African Child Gauge* outlines some of the key issues affecting children's health in South Africa. Described in simple lay terms, this information is designed to enable policy-makers, practitioners, educators and civil society to identify potential problems, draw on best practice and take action to realise children's rights to health in South Africa.

There were many challenges in putting this *Gauge* together. Recent and reliable data on child mortality are still not available, clinical problems could not be covered in scientific depth because of the diverse nature of the readership, and space restrictions demanded that some important causes of child mortality, such as neonatal deaths and malaria, could not be covered.

Nevertheless the essays indicate that, with commitment and focus, it is possible to address many of the key impediments to child health in South Africa. The following four steps are an essential part of the way forward.

Address the social determinants

As indicated in the previous essay, and indeed throughout this issue of the *Gauge*, the most profound influences on children's health in South Africa are environmental and social factors – household and child-rearing behaviours (pregnancy spacing, hygiene, breastfeeding), food and water supplies, sanitation, housing and long distances from health facilities. As a middle-income country, South Africa should be doing far better, and there remain huge disparities in health between the well-off and the poor. Therefore, the first priority is for policy-makers, health professionals, researchers, teachers, and communities themselves to advocate for greater equity in these social and environmental determinants.

Improve delivery of health care services

There is also much that can be done to improve the delivery of health care services in South Africa. The inequitable distribution of resources between the private and public health care system is part of the problem, but it is also essential to breathe new life into the public health services. Good governance, especially at district level, is essential to improve the quality and coverage of care. Children's health services also need to be prioritised, especially the promotion of exclusive breastfeeding and timely complementary feeding along with child spacing and the Integrated Management of Childhood Illnesses (IMCI).

Strengthen community-based care

South Africa's problems are typical of a developing country, and priority needs to be given to diseases of the poor. This requires a shift in focus from doctor-centred curative medicine to a primary health care approach that prioritises community-based and preventative services. Community health workers have an essential role to play in improving the coverage of essential maternal, child health and nutrition interventions.

Build partnerships

Ultimately, the health of South Africa's children is a collective responsibility. While the Department of Health has a key role to play in providing leadership and prioritising services for children; doctors, nurses and community health workers need to realise this vision through the provision of child-friendly services. Partnerships with other government departments and civil society are essential in addressing the underlying causes of childhood illness and injury. Communities, caregivers and children need to play an active role in promoting their own health and development. The following recommendations draw on the findings of the *South African Child Gauge 2009/2010* to point the way forward on how the Department of Health, together with other key role players, can help advance children's health in South Africa.

Policy-makers, planners and administrators

Set priorities

Work with child health practitioners to define a package of essential health care and nutrition services for children and their mothers.

Improve efficiency, accountability and quality of care

Develop norms and standards that are clearly linked to budgets and performance criteria. Assist those most lagging in achieving these standards.

Build capacity

Improve staffing ratios (especially community workers, nurses and paediatricians) and provide regular in-service training, using distance learning materials and local mentors.

Provide continuity of care

Strengthen integration across programmes, especially IMCI, family planning, nutrition, tuberculosis and HIV. Increase the number of regional paediatricians to promote a 'seamless transition' between tertiary, regional and local health services.

Eliminate inequities

Allocate more resources to districts, facilities and communities with the greatest need; prioritise services for children most at risk; and address the inequitable distribution of resources between private and public health care systems.

Promote child-friendly services

Provide child- and family-friendly services at all health facilities, so that there is no needless waiting, no needless suffering and no needless death.

Focus on prevention

Focus on health promotion and prevention to enable communities, caregivers and children to take responsibility for their health through enhanced knowledge and practices.

Invest in community health workers

Train and support community health workers, prioritise maternal, child health and nutrition services, and strengthen integration at district level.

Address the social determinants of health

Initiate inter-sectoral programmes to address the underlying causes of childhood illness and injury. Promote health equity at national, provincial and district levels.

Monitor progress

Strengthen routine reporting and surveillance systems and use child-centred data to set priorities, monitor progress and identify programmes in need of support at national, provincial and district level.

Doctors, nurses, community health workers

Support children and families

- Enable their participation in health care decision-making by educating them about their choices, encouraging them to ask questions and respecting their views.
- Work with families, communities and other service providers to address the underlying causes of childhood illness and injury through improved environmental conditions, accident prevention and conflict mediation.
- Initiate activities to improve coverage and quality of care, and strengthen links between tertiary, secondary and primary care.

Health educators and researchers

Promote best practice

- Include child-friendly and community-based practice in the training of all health care personnel.
- Develop and test interventions to address barriers to child health both within and outside of the health care system.
- Disseminate research findings to promote and incentivise proven best practices.

Parents and caregivers

Create a healthy home environment

- Learn how to prevent illness and promote good health, and when to seek help from health and social services.
- Use positive discipline and build strong family relationships to support children's development.

Schools

Develop health promoting schools

- Build partnerships with health, social services, parents and the wider community to promote health and provide care and support for learners.
- Address local risk factors and promote healthy behaviour through school assemblies, after-school programmes and across the curriculum.

The media

Promote health

- Challenge current social norms that promote alcohol abuse, unsafe sex, and violence against women and children.
- Portray positive role models for children, adolescents, parents and teachers.
- Promote healthy choices such as exclusive breastfeeding, vitamin A supplementation, deworming and HIV testing.

Civil society

Advocate for children's rights

- Lobby for a package of basic health care services for children and improved quality of care at all health facilities.
- Advocate for greater equity in the delivery of health and other essential services.

Key government departments

Create a healthy environment for children

- Place health equity at the heart of local government planning and prioritise children's access to safe housing, water, sanitation, energy and transport.
- Alleviate poverty by creating jobs, ensuring household food security and improving access to social assistance.
- Strengthen inter-sectoral programmes between health, social services, education and law enforcement, and build partnerships with the media and civil society to promote health and reduce alcohol abuse and violence against women and children.



3 Children Count – The numbers

Part three presents child-centred data to monitor progress and track the realisation of children's socio-economic rights in South Africa. This year it presents data from 2002 – 2008 and identifies main trends over this seven-year period. A set of key indicators track progress in the following domains:

- Demography of South Africa's children
- Income poverty, unemployment and social grants
- Child health: The general context
- Child health: HIV/AIDS
- Child health: Nutrition
- Children's access to education
- Children's access to housing
- Children's access to basic services

A full set of indicators and detailed commentary is available on www.childrencount.ci.org.za.



Introducing *Children Count – Abantwana Babalulekile*

Katharine Hall and Lori Lake (Children's Institute)

South Africa's commitment to the realisation of socio-economic rights is contained in the Constitution, the highest law of the land, which includes provisions to ensure that no person should be without the basic necessities of life. These basic necessities are specified in the Bill of Rights, and particularly section 26 (access to adequate housing); section 27 (health care, sufficient food, water and social security); section 28 (the special rights of children) and section 29 (education).

Children are specifically mentioned and, as well as the general rights, every child has the right to basic nutrition, shelter, basic health care services and social services. These form part of what are collectively known as socio-economic rights. While these rights are guaranteed by the Constitution, the question is: How well is South Africa doing in realising these rights for all children? In order to answer this question, it is necessary to monitor the situation of children, which means there is a need for regular information that is specifically about them.

A rights-based approach

Children Count – Abantwana Babalulekile, an ongoing data and advocacy project of the Children's Institute, was established in 2005 to monitor progress for children. It provides reliable and accessible child-centred information which can be used to inform the design and targeting of policies, programmes and interventions, and as a tool for tracking progress in the realisation of children's rights.

Child-centred data

Any monitoring project needs regular and reliable data, and South Africa is fortunate to be a fairly data-rich country. There



is an array of administrative data sets, and the national statistics body, Statistics South Africa, undertakes regular national population surveys which provide useful information on a range of issues. However most information about the social and economic situation of people living in South Africa does not focus on children, but rather counts all individuals or households. This is the standard way for central statistics organs to present national data, but it is of limited use for those interested in understanding the situation of children.

'Child-centred' data does not only mean the use of data about children specifically. It also means using national population or household data, but analysing it at the level of the child. This is important, because the numbers can differ enormously depending on the unit of analysis. National statistics describe the unemployment rate, but only a child-centred analysis can tell how many children live in households where no adult is employed. National statistics show what proportion of households are without adequate sanitation, but when a child-centred analysis is used, the proportion is significantly higher.

Counting South Africa's children

Children Count – Abantwana Babalulekile presents child-centred data on many of the areas covered under socio-economic rights. As new data become available with the release of national surveys and other data sources, it is possible to track changes in the conditions of children and their access to services over time. This year, *Children Count – The numbers* presents national survey data for each year from 2002 to 2008, and many of the indicators in this issue compare the situation of children over this seven-year period.

The tables on the following pages give basic information about children's demographics, care arrangements, income poverty and social security, education, health and nutritional status, housing and basic services. Each table is accompanied by commentary that provides context and gives a brief interpretation of the data. The data are presented for all children in South Africa and, where possible, by province.

The indicators in this *South African Child Gauge* are a subset of the *Children Count – Abantwana Babalulekile* indicators on demographics and socio-economic rights.

The project's website contains the full range of indicators and more detailed data, as well as links to websites and useful documents. It can be accessed at www.childrencount.ci.org.za.

Data sources

Children Count – Abantwana Babalulekile uses a number of data sources. Some are administrative databases used by government departments (Health, Basic Education, and Social Development) to record and monitor the services they deliver. Some of the HIV/AIDS data are from the ASSA model, a statistical model developed by the Actuarial Society of South Africa, which uses many different types of data sources to derive estimates of the incidence of HIV, and treatment needs. Most of the indicators presented are unique to the project, and are derived from the General Household Survey of Statistics South Africa. Data sources are carefully considered before inclusion, and the strengths and limitations of each are outlined on the website, and on pp. 132 – 134. Definitions and technical notes for the indicators are included in the accompanying commentary, and can also be found on the website.

Confidence intervals

Sample surveys are subject to error. The proportions or percentages simply reflect the mid-point of a possible range, but the true values could fall anywhere between the upper and lower bounds. The confidence intervals indicate the reliability of the estimate at the 95% level. This means that if independent samples were repeatedly taken from the same population, we would expect the proportion to lie between upper and lower bounds of the confidence interval 95% of the time.

It is important to look at the confidence intervals when assessing whether apparent differences between provinces or sub-groups are real: The wider the confidence interval, the more uncertain the proportion. Where confidence intervals overlap for different sub-populations or time periods, it is not possible to claim that there is a real difference in the proportion, even if the mid-point proportions differ. In the accompanying bar

graphs, the confidence intervals are represented by vertical lines at the top of each bar (∓).

Healthy children: From survival to optimal development

This issue of the *South African Child Gauge* focuses on child health and the data analyses on the following pages can be used to show how children's living conditions and access to services impact on their survival and optimal development. A series of 12 indicators speak directly to children's access to health care services including child and infant mortality, distance to clinics, immunisation coverage, adolescent sexual risk behaviour, HIV prevalence, coverage of antiretroviral therapy, reported child hunger, malnutrition and micronutrient deficiencies. Other indicators monitored by *Children Count – Abantwana Babalulekile* speak to the relationship between children's health and living conditions, such as income poverty and social grants, orphaning and child-headed households, housing quality and basic services.

Each domain is introduced below and key findings are highlighted.

Demography of South Africa's children

(pages 99 – 104)

This section provides child population figures and gives a profile of South Africa's children and their care arrangements, including children's co-residence with biological parents, the number and proportion of orphans, and children living in child-only households. There were 18.7 million children in South Africa in 2008. Twenty-one percent of children are orphans who have lost a mother, father or both parents; 23% of children do not live with either of their biological parents; 0.5% of children live in child-only households.

Income poverty, unemployment and social grants

(pages 105 – 109)

In 2008, nearly two-thirds of children (64%) lived in households with a per capita income of less than R569 per month, and about 34% lived in households where no adults were employed. Social assistance grants are therefore an important source of income for caregivers to meet children's basic needs. Just over 9 million children received the Child Support Grant in July 2009, almost 110,000 children received the Care Dependency Grant, and a further 511,000 children received the Foster Child Grant.

Child health: The general context

(pages 110 – 114)

This section monitors child health through a range of indicators. The most recent and reliable estimates for under-five mortality date back to 63 deaths per 1,000 live births, while infant mortality stood at 87 per 1,000 live births. Forty percent of children live far from their nearest primary health care clinic – this situation has worsened since 2002. Over the same period, immunisation coverage has increased to 90%. Adolescent sexual risk behaviour is an important measure of prevention programmes. In 2003, 43% of teenagers aged 15 – 19 years had had sex, and 73% of young men in this age group reported using a condom during high risk sex.

Child health: HIV/AIDS

(pages 115 – 119)

This section looks at indicators of HIV prevalence in pregnant women; access to prevention of mother-to-child transmission programmes (PMTCT); and access to antiretroviral therapy (ART) in pregnant women and children. 2008 data show that close to one-third of pregnant women (29%) who accessed antenatal clinics were found to be infected with HIV, and 81% of pregnant women received voluntary counselling and testing as part of PMTCT. While access to treatment has increased significantly since 2002, a large number of people are still not receiving treatment. Less than half of adults (43%) newly eligible for ART and 37% of children eligible for ART started treatment in 2008.

Child health: Nutrition

(pages 120 – 123)

This section focuses on children's nutritional status. While 18% of children lived in households that reported child hunger; 18% of children aged 1 – 9 years were found to be stunted in 2005, which indicates chronic undernutrition. Nine percent of children in this age group were underweight, and 5% were wasted. Micronutrient deficiencies are also a problem: In 2005, 64% of children aged 1 – 9 years had an inadequate vitamin A status, and 8% experienced iron deficiency anaemia.

Children's access to education

(pages 124 – 127)

Many children have to travel long distances to reach their nearest school. A fifth of children (21%) live far from their nearest primary school and this increases to a third of children (33%) in high school. Despite these barriers, South Africa has made significant strides in improving access to education with a gross attendance rate of 96% in 2008. However this does not necessarily translate into improved educational outcomes.

Children's access to housing

(pages 128 – 129)

This section presents data on children living in adequate housing and over-crowded dwellings. In 2008, 71% of children lived in formal housing, while almost 2.3 million children lived in backyard dwellings and shacks in informal settlements. Nearly a third of children (30%) lived in over-crowded households.

Children's access to basic services

(pages 130 – 131)

Without water and sanitation, children face substantial health risks. In 2008, less than two-thirds of children (64%) had access to drinking water on site, while children's access to adequate toilet facilities rose to 61%.

The Children Count monitor has been updated with the financial support of the Programme to Support Pro-Poor Policy Development (PSPPD), a partnership programme of the Presidency, Republic of South Africa and the Delegation of the European Union.



Demography of South Africa's children

Helen Meintjes^a and Katharine Hall^b (Children's Institute)

The UN General Guidelines for Periodic Reports on the Convention on the Rights of the Child¹, paragraph 7, says that reports made by states should be accompanied by “detailed statistical information ... Quantitative information should indicate variations between various areas of the country ... and between groups of children ...”.

The number and proportion of children living in South Africa

In mid-2008, South Africa's total population was estimated at 48.7 million people, of whom 18.7 million were children (under 18 years). Children therefore constitute 39% of the total population. The child population has grown by about 7% (1.2 million) over the seven-year period from 2002 to 2008.

Half of all children live in three of South Africa's nine provinces: KwaZulu-Natal (22%), Eastern Cape (15%) and Limpopo (13%). A further 18% of children live in Gauteng, a mainly metropolitan province, and 10% in the Western Cape. It is not uncommon in South Africa for children to live separately from their biological parents, due to labour migration and care arrangements that involve extended families.

The distribution of children across provinces is slightly different to that of adults, with a greater proportion of children living in provinces with large rural populations (Limpopo, the Eastern Cape and KwaZulu-Natal) and greater proportions of adults in the largely metropolitan provinces. Despite being the smallest province on the map, Gauteng accommodates nearly a quarter (24%) of all adults, and 24%

of households, but only 18% of children. This is because of the relatively large number of adult-only households in the province.

There have been striking changes in the provincial child populations since 2002. While there are slight decreases in the number of children living in the Eastern Cape, Limpopo and the North West provinces, the number of children living in Gauteng has risen by 25%. This may be partly the result of in-migration of children to join existing households, or new births within the province.

Either way, the increase suggests a more permanent migration pattern. An increase in the child population in the Northern Cape since 2002 is very pronounced due to the relatively small population in that province.

Children are fairly equally distributed across the age groups, with on average just over one million children in each year under 18. The gender split is fairly equal too – 51% boys and 49% girls – while that in the adult population is slightly skewed towards women (54%).

Table 1a: Distribution of households, adults and children in South Africa, 2008

Province	Households		Adults		Children		% change 2002 – 2008
	No.	%	No.	%	No.	%	
Eastern Cape	1,678,000	13	3,802,000	13	2,773,000	15	-2.2
Free State	824,000	6	1,825,000	6	1,049,000	6	6.0
Gauteng	3,109,000	24	7,040,000	24	3,440,000	18	25.5
KwaZulu-Natal	2,347,000	18	5,994,000	20	4,093,000	22	6.8
Limpopo	1,310,000	10	2,882,000	10	2,393,000	13	-4.3
Mpumalanga	895,000	7	2,067,000	7	1,517,000	8	16.2
North West	948,000	7	2,135,000	7	1,292,000	7	-9.7
Northern Cape	293,000	2	698,000	2	426,000	2	41.5
Western Cape	1,411,000	11	3,473,000	12	1,789,000	10	12.4
South Africa	12,815,000	100	29,916,000	100	18,771,000	100	7.1

Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002*; *General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall, Children's Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ See www.childrencount.ci.org.za for more information.

The number and proportion of children living with their biological parent(s)

South Africa has a long history of children not living consistently with their biological parents as a result of poverty, labour migration, educational opportunities or cultural practice, and many children experience a sequence of different caregivers or are brought up without fathers.

This indicator shows the number and proportion of children in South Africa who are living in the same household as both their biological parents; their mother only; their father only; or who are not living with either of their biological parents.

The General Household Survey 2008 indicates that 35% of children (0 – 17 years) in South Africa lived with both their biological parents. Forty percent of all children – more than 7 million children – live with their mothers but without their fathers. Only 3% of children live in households where their fathers are present and their mothers absent. Twenty-three percent of children live with neither biological parent. Yet only 19% of these children are double orphans.

In both the Western Cape and Gauteng provinces, the proportion of children living with both parents was significantly higher than the national average, with more than half of children resident with both parents

(54% and 52% respectively). Similarly, the number of children living with neither parent was low in these two provinces (11% and 12%). In contrast, nearly a third of children (32%) in the Eastern Cape lived with neither parent. These patterns are consistent from 2002 to 2008.

Less than one third of African children were living with both their parents in July 2008; yet the vast majority of Indian and White children (86% and 81% respectively) were resident with both biological parents. One quarter (25%) of all African children do not live with either parent and a further 43% of African children live with their mothers and without their fathers. These figures indicate an absence of fathers in the domestic lives of large numbers of African children.

Younger children (0 – 5-year-olds) are more likely to be living with their mothers (whether their fathers are present or not) than older children (6 – 17-years), who are more likely than younger children to be living with neither parent. While 15% of children aged 0 – 5 years were not resident with either parent in 2008, this situation applied to more than a quarter of children aged 6 – 17 years.



Table 1b: Number and proportion of children living with biological parents, 2008



Table 1c: Number and proportion of children living with biological parents, 2002



Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002; General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ The confidence intervals, shown on the graph as a vertical line at the top of each bar, represent the range into which the true value may fall. See p. 97 for more details on confidence intervals. ⑤ See www.childrencount.ci.org.za for more information.

The number and proportion of orphans living in South Africa

An orphan is defined as a child under the age of 18 years whose mother, father, or both biological parents have died (including those whose living status is reported as unknown, but excluding those whose living status is unspecified). For the purpose of this indicator, we define orphans in three mutually exclusive categories:

- A maternal orphan is a child whose mother has died but whose father is alive.
- A paternal orphan is a child whose father has died but whose mother is alive.
- A double orphan is a child whose mother and father have both died.

The total number of orphans is the sum of maternal, paternal and double orphans. This definition differs from those commonly used by United Nations agencies and the Actuarial Society of South Africa (ASSA), where the definition of maternal and paternal orphans includes children who are double orphans. As the orphan definitions used here are mutually exclusive and additive, the figures differ from orphan estimates provided by the ASSA models.

The 2008 General Household Survey indicates that there were approximately 3.95 million orphans in South Africa. This includes children without a living biological mother, father or both parents, and is equivalent to 21% of all children in South Africa. The total number of orphans has increased substantially, with nearly one million more orphaned children in 2008 than in 2002. This equates to an increase of four percentage points in the total orphan population since 2002.

Orphan numbers do not say anything about the nature or extent of care that children are receiving: Child-rearing in South Africa has long been characterised by the presence of multiple caregivers and the

involvement of broad kinship networks in the lives of children both with and without living parents. It is important to disaggregate the total orphan figures because the death of one parent may have different implications for children than the death of both parents, and the death of a mother is likely to have a greater impact on children's lives than the absence of a father.²

In 2008, 13% of children were paternal orphans (whose mothers were still alive), 3% of children (approximately 624,000 children) were documented to be maternal orphans (with living fathers); and a further 5% of children (860,000) were recorded as double orphans. In other words, the majority (63%) of all orphans in South Africa are paternal orphans. The numbers of paternal orphans are high because of the higher mortality rates of men in South Africa, as well as the frequent absence of fathers in children's lives (1%, or 185,000 children, have fathers whose vital status is reported to be "unknown").

The figures illustrate notable increases in the number and proportion of double orphans over a seven-year period: The number of children who have lost both a mother and a father has more than doubled since 2002 (from approximately 350,000 to 850,000), indicating an increase of nearly three percentage points in double orphans as a proportion of all children in South Africa (2002: 2%; 2008: 4.6%). These increases are likely to be driven primarily by the AIDS pandemic.

Roughly half of all orphans in South Africa are resident in KwaZulu-Natal and the Eastern Cape. These orphans account for 27% of the child population in each of these provinces. The orphaning rate is also high in the Free State, where 26% of children are orphans.

In 2008, 76% of all child orphans were of school-going age (between seven and 17-years-old) and half were 12 years or older.



Table 1d: Number and proportion of orphans, 2008

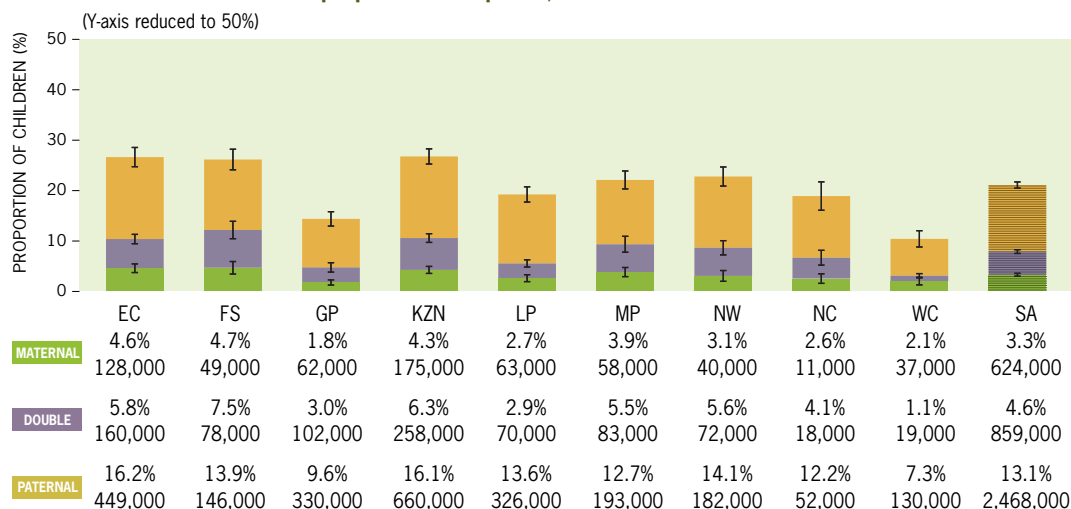
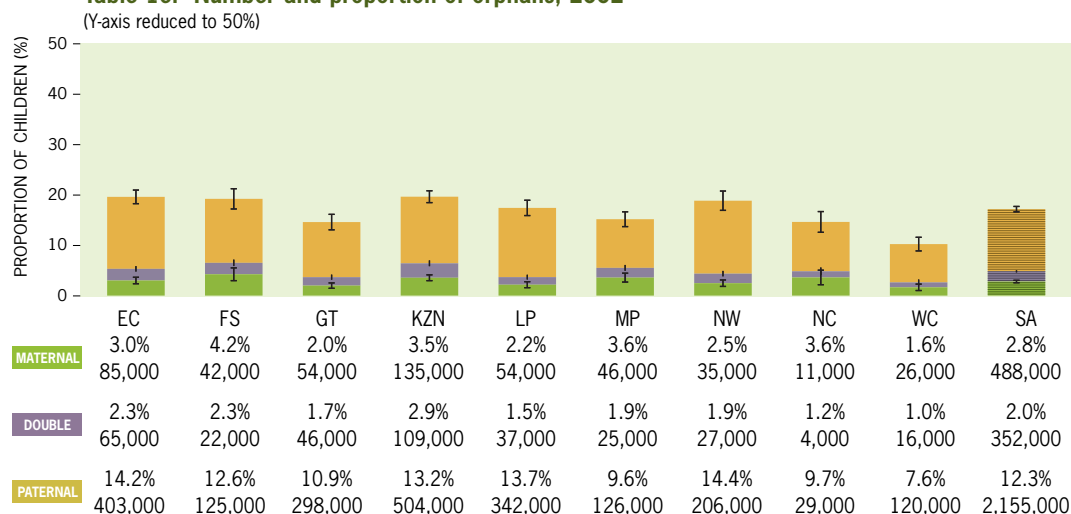


Table 1e: Number and proportion of orphans, 2002



Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002; General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ The confidence intervals, shown on the graph as a vertical line at the top of each bar, represent the range into which the true value may fall. See p. 97 for more details on confidence intervals. ⑤ See www.childrencount.ci.org.za for more information.

Number and proportion of children living in child-only households

A child-only household is defined as a household in which all members are younger than 18 years. These households are also commonly known as 'child-headed households'.

Government and civil society are concerned that the numbers of children living in child-only households will increase as the numbers of orphaned children increase due to the HIV/AIDS pandemic. Many argue that kinship networks are "stretched to their limits" and are struggling to support orphaned children. While there is limited evidence that this is the case,³ it is important to monitor the prevalence of child-headed households as the HIV/AIDS pandemic continues.

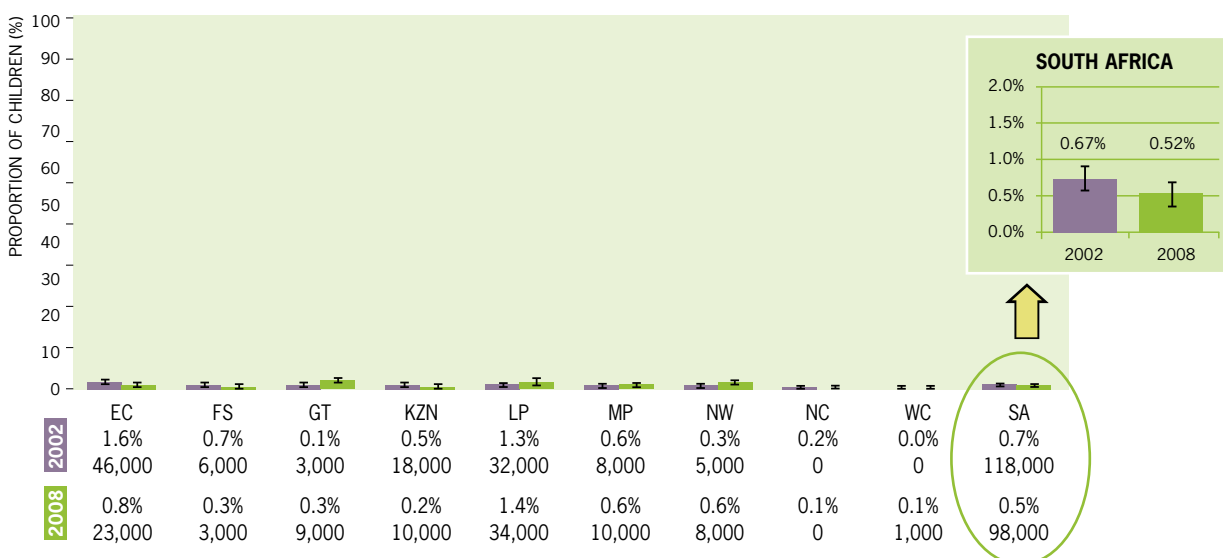
In 2008, there were 100,000 children living in a total of 56,000 child-only households across South Africa. This equates to 0.5% of all children and 0.4% of all households. There has been no significant change in the proportion of children living in child-only households from 2002 to 2008.

While it is not ideal for any child to live without an adult present, it is positive that half (48%) of all children living in child-only households are over 14 years old. Most children living in child-only households (77%) live in four provinces: Limpopo (35%), Eastern Cape (24%), KwaZulu-Natal and Mpumalanga (10% each).

Research suggests that child-only households often exist for a short period, for example after the death of an adult and prior to other child care arrangements being made.⁴

There is no robust data on child-only (or 'child-headed') households in South Africa to date. The figures should be treated with caution as the number of child-only households forms just a very small sub-sample of the General Household Survey. In particular, we caution against reading too much into the provincial breakdowns, or into any differences noted between the 2002 and 2008 estimates.

Table 1f: Number and proportion of children living in child-headed households, 2002 & 2008



Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002; General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ The confidence intervals, shown on the graph as a vertical line at the top of each bar, represent the range into which the true value may fall. See p. 97 for more details on confidence intervals. ⑤ See www.childrencount.ci.org.za for more information.

References

- Children living with their biological parents; orphans; child-only households.
- Number and proportion of children living in South Africa.
- United Nations Children's Fund (1990) *First call for children. World declaration and plan of action from the World Summit for Children*. New York: UNICEF.
- Ardington C (2007) *Orphanhood and schooling in South Africa: Trends in the vulnerability of orphans between 1993 and 2005*. Cape Town: South African Labour Department Research Unit, University of Cape Town; Case A, Paxson C & Ableidinger J (2004) Orphans in Africa: Parental death, poverty and school enrollment. *Demography*, 41(3): 483-508; Cluver L, Gardner F & Operario D (2007) Psychological distress amongst AIDS-orphaned children in urban South Africa. *Journal of Child and Psychology and Psychiatry and Allied Disciplines*, 48(8): 755-763.
- Meintjes H & Giese S (2006) Spinning the epidemic: The making of mythologies of orphanhood in the context of AIDS. *Childhood: A global journal of child research*, 13(3): 407-430.
- See no. 3 above; Hill C, Hosegood V & Newell M-L (2008) Children's care and living arrangements in a high HIV prevalence area in rural South Africa. *Vulnerable Children and Youth Studies*, 3(1): 65-77.

Income poverty, unemployment and social grants

Katharine Hall (Children's Institute)

The Constitution of South Africa¹, section 27(1)(c), says that “everyone has the right to have access to ... social security, including, if they are unable to support themselves and their dependants, appropriate social assistance”.

The UN Convention on the Rights of the Child,² article 27, states that every child has the right “to a standard of living adequate for his or her development” and obliges the State “in case of need” to “provide material assistance”. Article 26 guarantees “every child the right to benefit from social security”.

Number and proportion of children living in income poverty

This indicator shows the number and proportion of children living in households that are income-poor. The poverty line is set at the 40th percentile, which means that in 2000, 40% of the population had incomes below R350 per person per month.³ The poverty line increases with inflation and, in 2008, the real value of the poverty line is R569 per month. Per capita income is calculated by adding all reported income for household members older than 15 years, including from social grants, and dividing the total household income by the number of household members. Both income and social grants are known to be under-reported in the General Household Survey. Child poverty is therefore likely to be over-estimated.

Using a single income measure tells nothing about how resources are distributed between family members, or how money is spent, but it does give an indication of how many children are living with severely constrained resources. Money is needed to access a range of services, and income poverty often compromises children's rights to nutrition, education and health care services.

International law and the South African Constitution recognise the link between income and the realisation of basic human rights, and acknowledge that children have the right to social assistance (social grants) when families cannot meet children's

basic needs. Income poverty is therefore an important measure of people in need of social assistance, and of the State's progress in realising the right to social assistance.

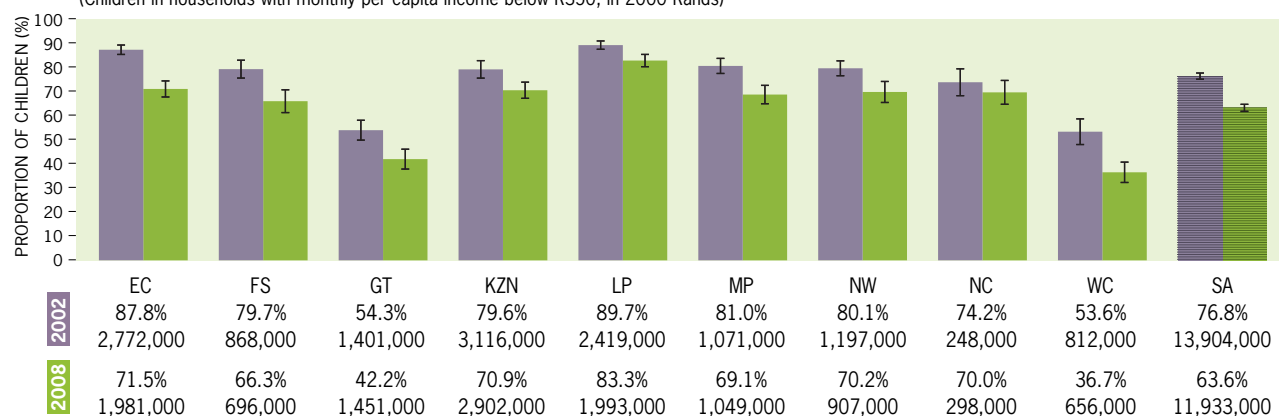
South Africa has very high rates of child poverty. In 2008, nearly two-thirds of children (64%) lived in households below this poverty line. There are substantial differences across the provinces: Over 80% of children in Limpopo live in income poverty. Seven out of 10 children in the Eastern Cape, KwaZulu-Natal, Mpumalanga, North West and the Northern Cape provinces live in households below the poverty line. The Western Cape and Gauteng have the lowest child poverty rates – calculated at 37% and 42% respectively.

There has been a significant decline in child poverty between 2002 and 2008 – in all provinces except the Northern Cape. These decreases are largely the result of a massive expansion in the reach of the Child Support Grant (see p. 107) over the same period.

There are glaring racial disparities in income poverty: While nearly three-quarters (71%) of African children lived in poor households in 2008, only 4% of White children lived below the poverty line. Poverty rates for Coloured and Indian children were 37% and 11% respectively.

Table 2a: Number and proportion of children living in income poverty, 2002 & 2008

(Children in households with monthly per capita income below R350, in 2000 Rands)



Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002; General Household Survey 2008*. Pretoria: Stats SA.
Analysis by Katharine Hall, Children's Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ The real value of the per capita poverty line is R402 in 2002, and R569 in 2008. ④ Income includes earnings and income from social grants. ⑤ Strengths and limitations of the data are described on pp. 132 – 137. ⑥ The confidence intervals, shown on the graph as a vertical line at the top of each bar, represent the range into which the true value may fall. See p. 97 for more details on confidence intervals. ⑦ See www.childrencount.ci.org.za for more information.

The number and proportion of children living in households without an employed adult

This indicator gives the number and proportion of children who live in households where no adults are employed in either the formal or informal sector. Adults are defined as people aged 18 years and older; so economically active children are excluded from the analysis. The definition of ‘employment’ is derived from the General Household Survey and includes regular or irregular work for wages or salary, as well as various forms of self-employment, including unpaid work in a family business, subsistence agriculture, construction and home maintenance. The indicator measures unemployment from a children’s perspective, and shows the proportion of children in “unemployed” households where it is unlikely that any household members derive income from labour or income-generating activities.

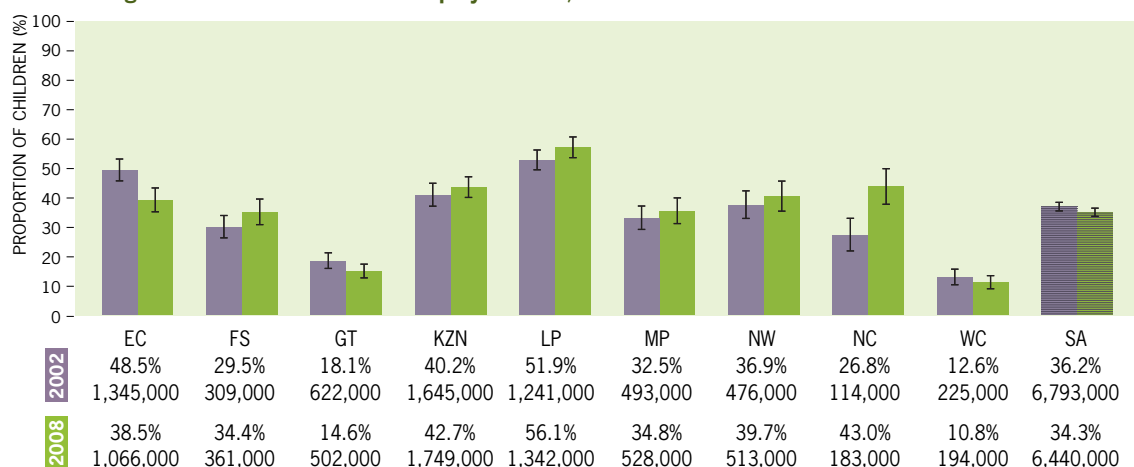
In September 2008, the official unemployment rate in South Africa was 23%.⁴ This is based on a narrow definition of unemployment that includes only those adults who are defined as economically active (i.e. they are not studying or retired or for some other reason voluntarily at home) who had actively looked but failed to find work in the four weeks preceding the survey.⁵ An expanded definition of unemployment, which includes “discouraged work-seekers” who were unemployed but not actively looking for work in the month preceding the survey, gives a higher, and more accurate, indication of unemployment, at 30%. Importantly for children, unemployment rates remain considerably higher for women than for men. Apart from providing regular income, an employed adult may bring other benefits to the household, including health insurance, unemployment insurance, and maternity leave, that can contribute to children’s health, development and education.

In 2008, 66% of children in South Africa lived in households with at least one working adult. The other 34% (nearly 6.5 million children) lived in households where no adults were working. There has been little change from 2002 to 2008, with the proportion of children who live in unemployed households hovering in the mid-30s, despite a decrease in the official unemployment rate from 30% to 23% over the same period.

While 89% of children in the Western Cape and 85% in Gauteng are co-resident with at least one working adult, only 53% of children in KwaZulu Natal and 44% in Limpopo have an adult income-earner living with them. Interestingly, the child-centred analysis shows a significant decrease in unemployment levels in the Eastern Cape: While the proportion of children living in unemployed households in that province fluctuated between 49% and 56% between 2002 and 2007, there is a significant drop from 50% in mid-2007 (95% CI: 44.8%-54.2%) to 39% in mid-2008 (95% CI: 34.5%-42.5%). Conversely, in the Northern Cape the proportion of children living in unemployed households increased suddenly to 43% in 2008, after remaining below 30% between 2002 and 2007. Statistics South Africa’s quarterly Labour Force Survey reported a 3.3 percentage point decrease in the official unemployment rate for the Eastern Cape in the second quarter of 2008, while unemployment rates in other provinces remained stable.

As with other indicators, racial inequities are evident in the child-centred data on employment: while 39% of African children have no working adult at home, only 3% of white children live in these circumstances.

Table 2b: Number and proportion of children living in households without an employed adult, 2002 & 2008



Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002*; *General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall & Double-Hugh Marera, Children’s Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ The confidence intervals, shown on the graph as a vertical line at the top of each bar, represent the range into which the true value may fall. See p. 97 for more details on confidence intervals. ⑤ See www.childrencount.ci.org.za for more information.

The number and proportion of eligible children receiving the Child Support Grant

This indicator shows the number of children receiving the Child Support Grant (CSG), as reported by the South African Social Security Agency (SASSA), which disburses social grants on behalf of the Department of Social Development.

The right to social assistance ensures that people living in poverty are able to meet their basic subsistence needs. Government is obliged to support children directly when their parents or caregivers are too poor to do so. Income support is provided through social assistance programmes, such as the CSG, which is an unconditional cash grant paid to the caregivers of eligible children.

From April 2010 the CSG has a value of R250 per month per child. Introduced in 1998 with a value of R100, the CSG has become the single biggest programme for alleviating child poverty in South Africa. Take-up of the CSG has increased dramatically over the past decade, and in July 2009, a monthly CSG of R240 was paid to just over 9 million children aged 0 – 14 years.

There have been two important changes in eligibility criteria related to the age and income thresholds. At first the CSG was only available for children 0 – 6 years old. Later it was slowly extended to children up to 14 years. In January 2009 the age threshold increased to children under 15 years, and from January 2010 to children under 16 years (so that 15-year-old children may apply). The age threshold will be extended annually until the under-18 threshold is reached, at which stage all qualifying poor children will be eligible.

From 1998, children were eligible for the CSG if their primary caregiver and his/her spouse had a joint monthly income of R800 or less and lived in a formal house in an urban area. For those who lived in rural areas or informal housing, the income threshold was R1,100 per month. This threshold remained static for 10 years until August 2008 when a formula was introduced for calculating income threshold – set at 10 times the amount of the grant. Therefore the 2010 income threshold is R2,500 per month for a single caregiver (and R5,000 per month for the joint income of the caregiver and spouse, if the caregiver is married).

Using the 2004 General Household Survey, Budlender calculated that 65% of all children under the age of 14 were eligible for the CSG based on the old means test.⁶ Following the adjustment of the means test in 2008, Budlender repeated the calculation using the new means test and the 2007 General Household Survey, which suggested that around 82% of children aged 0 – 13 years were eligible for the grant.⁷ Applying this eligibility rate to the most recent available population data (mid-2008), it is estimated that 71% of eligible children are accessing the CSG, although the actual take-up rate would be lower due to errors of inclusion.

There is substantial evidence that grants, including the CSG, are being spent on food, education and basic goods and services. This evidence shows that the grant not only helps to realise children's right to social assistance, but also improves their access to food, education and basic services.⁸

Table 2c: Number of children receiving the Child Support Grant, 2005 – 2009

Number of child beneficiaries					
Province	2005	2006	2007	2008	2009
Eastern Cape	1,078,442	1,413,830	1,497,736	1,491,223	1,605,479
Free State	361,318	417,076	441,397	457,169	494,433
Gauteng	723,432	862,346	926,179	969,267	1,067,729
KwaZulu-Natal	1,338,045	1,746,944	1,963,944	2,128,967	2,344,413
Limpopo	990,194	1,200,185	1,253,794	1,278,711	1,392,140
Mpumalanga	489,663	613,008	645,565	662,316	717,075
North West	465,242	604,525	613,002	637,557	682,991
Northern Cape	101,728	121,332	175,250	184,183	209,818
Western Cape	365,655	431,514	458,980	480,394	557,784
South Africa	5,913,719	7,410,760	7,975,847	8,289,787	9,071,862
CSG amount	R180	R190	R200	R220	R240

Sources: South African Social Security Agency (2005 – 2009) SOCPEN database. Pretoria: SASSA.

Notes: ① SOCPEN figures are taken from mid-year to coincide with data collection for the annual General Household Survey. ② For the years 2005 to 2008, the Child Support Grant was only available to children aged 0 – 13 years (under 14). In 2009, the grant was extended to include children aged 14 years (under 15). ③ Strengths and limitations of the data are described on p. 132 – 134. ④ See www.childrencount.ci.org.za for more information. Social grant statistics are updated each month.

The number of children receiving the Foster Child Grant

This indicator shows the number of children who are accessing the Foster Child Grant (FCG) in South Africa, as recorded in the SOCPEN administrative data system of the South African Social Security Agency.

The FCG is available to foster parents who have a child placed in their care by an order of the court. It is a non-contributory cash grant valued at R710 per month in 2010. The grant was initially intended as financial support for children removed from their families and placed in foster care for protection in situations of abuse or neglect. However, it is increasingly used to provide financial support to caregivers of children who have lost their biological parents because of the AIDS pandemic. The appropriateness and effectiveness of this approach have been questioned.⁹

At the end of July 2009, caregivers of over 500,000 children were receiving the FCG, then valued

at R680 per month. The number of grants has doubled since 2004, with figures increasing by more than 100% in the Eastern Cape, KwaZulu-Natal, Limpopo, Mpumalanga and North West provinces. Take-up of the FCG varies substantially between provinces, and nearly half of all grants go to just two provinces: KwaZulu-Natal (137,463) and Eastern Cape (86,176).

It is not possible to calculate a take-up rate for the FCG as there is no accurate record of how many children are eligible for placement in foster care. However, it is clear that a large proportion of children are not receiving the FCG even though, under current policy, they would be eligible for the grant, based on their orphan status alone. For example: 473,000 children received the FCG in July 2008; yet the double orphan figures for the same period came to 859,000 (see p. 102 – 103).

Table 2d: Number of children receiving the Foster Child Grant, 2005 – 2009

Number of child beneficiaries					
Province	2005	2006	2007	2008	2009
Eastern Cape	53,383	68,197	81,404	92,556	86,176
Free State	33,653	40,712	45,122	48,685	49,030
Gauteng	34,647	40,576	51,719	59,405	64,047
KwaZulu-Natal	57,351	81,420	111,582	113,459	137,463
Limpopo	25,615	36,020	44,201	50,709	55,689
Mpumalanga	12,662	18,252	21,813	25,664	29,293
North West	19,000	27,737	31,821	38,351	43,656
Northern Cape	9,480	11,462	14,494	15,376	16,307
Western Cape	26,026	27,326	28,735	28,955	29,818
South Africa	271,817	351,702	430,891	473,160	511,479

Sources: South African Social Security Agency (2005 – 2009) SOCPEN database. Pretoria: SASSA.

Notes: ① SOCPEN figures are taken from mid-year to coincide with data collection for the annual General Household Survey.

② Strengths and limitations of the data are described on pp. 132 – 134.

③ See www.childrencount.ci.org.za for more information. Social grant statistics are updated each month.

References

- 1 Constitution of the Republic of South Africa. Act 108 of 1996.
- 2 Office of the High Commissioner of Human Rights (1989) *Convention on the Rights of the Child, UN General Assembly resolution 44/25*. Geneva: United Nations.
- 3 Woolard I & Leibbrandt M (2006) *Towards a poverty line for South Africa: Background note*. Cape Town: Southern Africa Labour and Development Research Unit, University of Cape Town.
- 4 Office of the President (2009) *Development indicators 2009*. Pretoria: The Presidency.
- 5 Statistics South Africa (2009) *General Household Survey metadata*. Pretoria: StatsSA.
- 6 Budlender D, Rosa S & Hall K (2005) *At all costs? Applying the means test for the Child Support Grant*. Cape Town: Children's Institute & Centre for Actuarial Research, University of Cape Town.
- 7 Budlender D (2008) *Feasibility and appropriateness of attaching behavioural conditions to a social support grant for children aged 15 – 17 years*. Commissioned by the Department of Social Development. Johannesburg: Community Agency for Social Enquiry. [Unpublished]

The number of children receiving the Care Dependency Grant

This indicator shows the number of children who are accessing the Care Dependency Grant (CDG) in South Africa, as recorded in the SOCPEN administrative data system of the South African Social Security Agency.

The CDG is a non-contributory monthly cash transfer to caregivers of children with severe disabilities who require permanent care. It excludes those children who are cared for in state institutions, because the purpose of the grant is to replace lost earnings of the caregiver looking after the child. It also excludes infants under one year because young babies have full-time care needs, whether or not they have disabilities. To qualify for the CDG, the child needs to undergo a medical assessment and the parent must pass an income or means test.

The value of the CDG increased to R1,080 in April 2010. Although the grant is targeted at children with severe disabilities, children with chronic illnesses are eligible for the grant once the illness becomes disabling, for example children who are very sick with AIDS-related illnesses.

As children with severe disabilities and chronic illnesses need substantial care and attention, a parent may need to stay at home or employ a caregiver to tend to the child. Children with health conditions may need medication, equipment or to attend hospital often. These extra costs can put strain on families that are already struggling to make ends meet. Poverty and chronic health conditions are therefore strongly related.¹⁰

It is not possible to calculate a take-up rate for the CDG because there are little data on the number of children living with disability in South Africa, or who are in need of permanent care. In July 2009, nearly 110,000 children were receiving the CDG, then valued at R1,010 per month.

The provincial distribution of CDGs is fairly consistent with the distribution of children. The provinces with the largest numbers of children, KwaZulu-Natal and the Eastern Cape, receive the largest share of CDGs. There has been a consistent and gradual increase in access to the CDG over the five-year period since 2005.

Table 2e: Number of children receiving the Care Dependency Grant, 2005 – 2009

Number of child beneficiaries					
Province	2005	2006	2007	2008	2009
Eastern Cape	19,925	20,367	20,253	19,269	19,452
Free State	3,401	3,679	3,924	4,187	4,325
Gauteng	11,468	12,140	12,667	12,740	13,020
KwaZulu-Natal	20,994	24,098	27,855	30,878	32,798
Limpopo	9,609	10,553	11,396	12,004	12,475
Mpumalanga	4,273	4,532	5,018	5,449	5,758
North West	6,961	7,791	7,795	8,542	9,022
Northern Cape	2,186	2,582	3,403	3,642	3,873
Western Cape	6,881	7,111	7,310	7,503	8,365
South Africa	85,698	92,853	99,621	104,214	109,088

Sources: South African Social Security Agency (2005 – 2009) SOCPEN database. Pretoria: SASSA.

Notes: ① SOCPEN figures are taken from mid-year to coincide with data collection for the annual General Household Survey.

② Strengths and limitations of the data are described on pp. 132 – 134.

③ See www.childrencount.ci.org.za for more information. Social grant statistics are updated each month.

- 8 Budlender D & Woolard I (2006) *The impact of the South African child support and old age grants on children's schooling and work*. Geneva: International Labour Office; Case A, Hosegood V & Lund F (2005) The reach and impact of Child Support Grants: Evidence from KwaZulu-Natal. *Development Southern Africa*, 22(4), October 2005; Samson M, Lee U, Ndlebe A, Mac Quene K, Van Niekerk I, Ghandi V, Harigaya T & Abrahams C (2004) *The social and economic impact of South Africa's social security system*. Commissioned by the Department of Social Development. Cape Town: Economic Policy Research Institute.
- 9 Meintjes H, Budlender D, Giese S & Johnson L (2003) *Children 'in need of care' or in need of cash? Questioning social security provisions for orphans in the context of the South African AIDS pandemic*. Joint working paper of the Children's Institute and the Centre for Actuarial Research, University of Cape Town.
- 10 Berry L (2002) *The social assistance needs of children with chronic health conditions: The application and comparison of two international instruments in the South African context*. Masters thesis, University of Cape Town. [Unpublished]

Child health: The general context

Katharine Hall^a (Children's Institute), Nadine Nannan^b (Burden of Disease Research Unit, Medical Research Council) and Maylene Shung King^c (DPhil candidate, Department of Social Policy and Social Work, University of Oxford)

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 number and proportion of children living far from the nearest clinic

This indicator reflects the distance from a child's household to the nearest clinic. Distance is measured through a proxy indicator: length of time travelled to reach the nearest clinic, by whatever form of transport is usually used. The nearest clinic is regarded as ‘far’ if a child would have to travel more than 30 minutes to reach it, irrespective of mode of transport.

Primary health care clinics provide important preventative and curative services, and increased access to clinics could substantially reduce child illness and mortality. Children therefore need access to good and reliable health services in clinics to ensure that they receive their immunisations and other life-saving health interventions.

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.⁴ In 1996, primary health care was made free to everyone in South Africa, but the availability and physical accessibility of public health care services remain a problem, particularly for people living in remote areas.

In South Africa, four in every 10 children live far from their

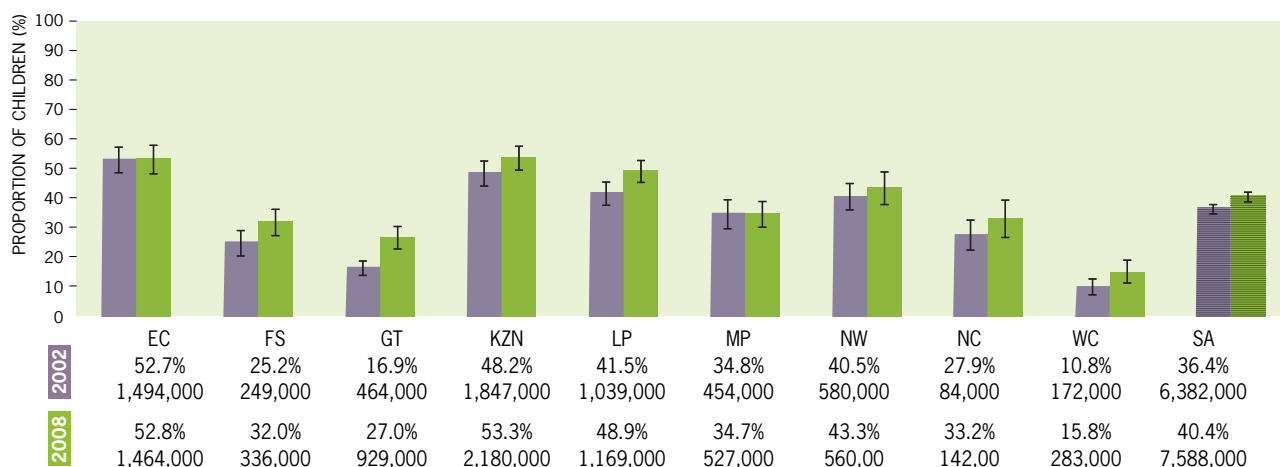
nearest primary health care facility. That means 7.6 million children need to travel more than 30 minutes to reach the nearest clinic.

There is considerable variation between provinces. While around 50% of children in the Eastern Cape, KwaZulu-Natal and Limpopo do not have a clinic within 30 minutes travel of their homes, this proportion is much lower for other provinces, and lowest in the largely metropolitan provinces of Gauteng (27%) and the Western Cape (16%).

There are also significant differences between population groups. A total of 44% of African children would have to travel far to the nearest clinic in comparison with only 16% – 19% of Coloured, Indian and White children.

Nationally, there has been little improvement in access to clinic services between 2002 and 2008. The situation has worsened across the country as a whole, and significantly in Gauteng. This may be related to in-migration of children, and a backlog in health infrastructure to provide services to an expanding population. While table 3a suggests undesirable shifts in other provinces such as the Free State, Limpopo and the Northern and Western Cape, these cannot be regarded as significant at present.

Table 3a: Number and proportion of children living far from the nearest clinic, 2002 & 2008



Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002; General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ The confidence intervals, shown on the graph as a vertical line at the top of each bar, represent the range into which the true value may fall. See p. 97 for more details on confidence intervals. ⑤ See www.childrencount.ci.org.za for more information.

The infant mortality rate and under-five mortality rate

South Africa relies on survey data to measure infant and child mortality because the vital registration and health information systems are not adequate for this purpose. The last empirical estimates of childhood mortality thought to be reliable were collected from the 1998 South African Demographic and Health Survey. The quality of the 2001 Census and the 2003 South African Demographic and Health Survey data were compromised to such an extent that it was not possible to derive a plausible trend consistent with the estimates from the previous enquiries. South Africa urgently needs nationally representative information that will inform provincial and population group child mortality indices. In the meantime, the Centre for Actuarial Research at the University of Cape Town is revising the Actuarial Society of South Africa (ASSA) model which, once finalised, will play a role in monitoring infant and child mortality trends.

Infant and under-five mortality rates are the most 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. In 1998 the IMR was 63 deaths per 1,000 live births.

The under-five mortality rate (U5MR) is defined as the probability of dying between birth and the fifth birthday. It is an overall measure of child mortality that encompasses the probability of dying during infancy and before 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. It was measured at 87 deaths per 1,000 live births in the 1998 South African Demographic and Health Survey.

A child's growth and development are heavily dependent on the living conditions of the family, and on the services and resources in the surrounding community. These conditions generate the biological risk factors that act directly on the child's health through the occurrence of disease and its prognosis, of which death is the most extreme outcome. The infant and under-five mortality rates in developing countries are therefore associated with a broad range of bio-demographic, health and related

social factors. These include maternal and child health care services such as the number of antenatal care visits; maternal nutrition status, breastfeeding and infant feeding; environmental health factors such as safe drinking water and hygiene and sanitation provision in households; socio-economic factors such as women's education and available energy sources for cooking and heating; social security and protection. 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.

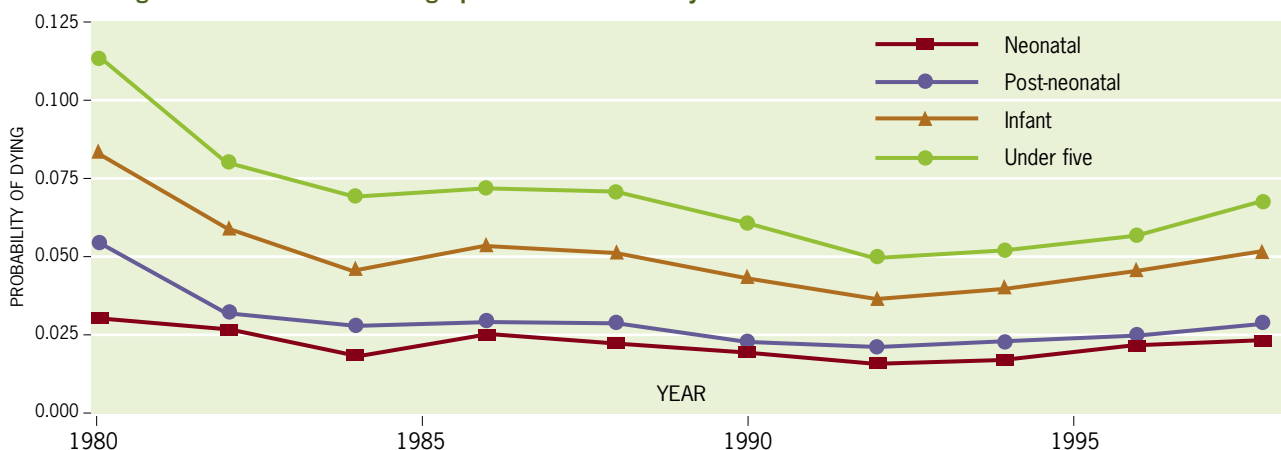
Reducing child mortality is one of the eight Millennium Development Goals (MDGs) for reducing poverty and inequality in the world. The target for MDG 4 is to reduce under-five mortality by two-thirds between 1990 and 2015. However measuring this indicator and monitoring progress towards this goal are proving a challenge for South Africa and other developing countries.

The most reliable estimates of child mortality in South Africa are for the mid-1990s – and in 2010 are extremely out of date. The trend in the age pattern of child mortality, illustrated in the figure below, shows a substantial drop in child mortality during the 1980s. But mortality rates started to rise from 1992, when infant mortality was about 32 per 1,000 live births, and increased to about 63 per 1,000 live births in 1998.

South Africa is one of the few countries in the world that has experienced an increase in infant mortality over this period. Over the same period (1992 – 1998) the HIV-prevalence rate in pregnant women increased from 7.6% to 22.8%. Given the limited treatment available to HIV-positive women during pregnancy during the 1990s, most of the actual rise in infant mortality can be attributed to AIDS.

South Africa's infant mortality has for decades been characterised by inequalities based on population group, urban/rural residence, province and socio-economic status. Estimates for the period 1988 – 1997 highlight perverse provincial and racial inequalities. This indicates a need to investigate and monitor inequalities in health status and socio-economic conditions. In light of the aggressive HIV pandemic that South Africa has experienced, the IMR takes on new meaning and importance in assessing the impact of vertical transmission and PMTCT programmes.

Figure 3a: Age pattern of child mortality trends in South Africa, 1980 – 1998 using 1998 South African Demographic and Health Survey



Source: Nannan N, Timæus I, Laubscher R & Bradshaw D (2006) Levels and differentials in childhood mortality in South Africa, 1977 – 1998. *Journal of Biosocial Science*, 39(4): 613-632.

Proportion of children under one year who have been fully immunised

This indicator shows the percentage of children under one year who are fully immunised. 'Full immunisation' refers to children having received all the required doses of vaccines given in the first year of life.

Immunisation is one of the most effective preventative health care interventions for young children. It involves giving injections or drops to young children that protect them against potentially life-threatening illnesses such as tuberculosis, polio, hepatitis and measles. Immunisation has a significant impact on morbidity and mortality rates and has a critical role in efforts to achieve Millennium Development Goal 4 and reduce child mortality rates by two-thirds between 1990 and 2015.

Effective immunisation requires high levels of coverage to achieve a certain level of immunity within the broader community. This is known as 'herd immunity' and it means that, if immunisation coverage has reached a high enough level, even children who have not been immunised in that community will also be protected.

Immunisation coverage serves as a good indicator of the extent to which young children utilise and access primary health care services. Immunisation coverage is also a proxy for the extent to which children access other preventative services, as the immunisation schedule provides the 'hook' for scheduling many other preventative child health interventions. Examples of these are the vitamin A supplementation programme, developmental screening, and prophylaxis for babies born to HIV-positive mothers.

South Africa has an up-to-date immunisation programme, in keeping with world standards. Three new vaccines were added to the schedule in the past year to improve the Expanded Programme for Immunisation. These are not yet included in calculating the immunisation compliance rate.

The 2008/09 District Health Information System statistics demonstrate good national immunisation coverage of 89.5% and an overall increase in coverage of 13 percentage points in the five years since 2003/04. The provincial coverage rates range from 72% in Mpumalanga to over 100% coverage in Gauteng and the Western Cape. Immunisation coverage rates have fluctuated in many of the provinces, with no plausible explanation.

The challenge of national and provincial aggregates is that they may mask differences between districts and hide areas with low coverage. District coverage is available in the latest District Health Barometer for 2008/09,⁵ where 30 of the 52 districts show coverage below the national average. Although coverage for all districts is above 60%, coverage for individual districts demonstrates a wide range – from 61% to 124%. This highlights two issues: significant inequities in service access for young children between districts, and poor quality data (as immunisation coverage exceeds 100% in some districts).

Clearly, great improvements have been made in the provision of immunisation to children. But inequities still persist, and coverage is the least in areas where poverty and health needs are greatest.

Table 3b: Proportion of children under one year who have been fully immunised, 2003/04 – 2008/09

Province	2003/04 %	2004/05 %	2005/06 %	2006/07 %	2007/08 %	2008/09 %
Eastern Cape	68.9	67.9	73.4	75.7	78.9	84.3
Free State	74.8	78.9	86.8	88.1	86.6	90.4
Gauteng	79.2	78.6	88.9	91.1	91.6	101.5
KwaZulu-Natal	76.9	77.0	82.6	84.5	82.1	85.3
Limpopo	74.9	74.4	79.5	84.9	78.6	84.3
Mpumalanga	73.9	79.2	83.4	81.4	78.5	72.4
North West	71.1	70.6	78.2	73.5	77.9	88.7
Northern Cape	83.2	87.5	92.9	96.2	82.6	93.2
Western Cape	91.2	90.0	91.6	101.8	100.5	103.9
South Africa	76.4	76.8	82.9	85.4	84.2	89.5

Sources: Department of Health (2009) District Health Information System database. In: Day C, Barron P, Monticelli F & Sello E (eds) *District Health Barometer 2008/09*. Durban: Health Systems Trust.

Notes: ① Reporting periods run from mid-year to mid-year. ② The immunisation rate is the percentage of all children in the target area under one year who complete their primary course of immunisation during the month (annualised). A primary course includes BCG, OPV 1, 2 & 3, DTP-Hib 1, 2 & 3, HepB 1, 2 & 3, and 1st measles. ③ Strengths and limitations of the data are described on pp. 132 – 134.

④ See www.childrencount.ci.org.za for more information.

Proportion of adolescents engaging in sexual risk behaviour

Heterosexual sex is the most common means of HIV transmission in South Africa.⁶ High HIV-prevalence rates among pregnant women mean that many babies are at risk of becoming infected, and their mothers may become sick as the virus progresses. Older children who are sexually active are also at risk of sexually transmitted diseases, including HIV. A strong focus of HIV campaigns has been to increase awareness and reduce risk behaviour. Youth have been particularly targeted by national campaigns such as LoveLife, Soul City and the Health Department's *Khomanani* campaign, and through life-skills programmes in schools. Programmes have sought to promote abstinence or delay of sexual debut, sexual monogamy, and condom use.

This section uses data from the South African Demographic and Health Survey (DHS), undertaken by Statistics South Africa in 2003. This followed an earlier DHS survey in 1998, and another is planned for 2010. The DHS was not restricted to youth, but this section on adolescent sexual behaviour refers only to the results for the 15 – 19 age group. In 2008 the Medical Research Council undertook its second Youth Risk Behaviour Survey,⁷ which was conducted in schools and included learners in grades 8 – 11, irrespective of age. Just over 10,000 learners in nearly 200 schools returned self-completed questionnaires. Although many of the questions in the MRC study are not directly comparable with the DHS, some of the results of this study are also cited.

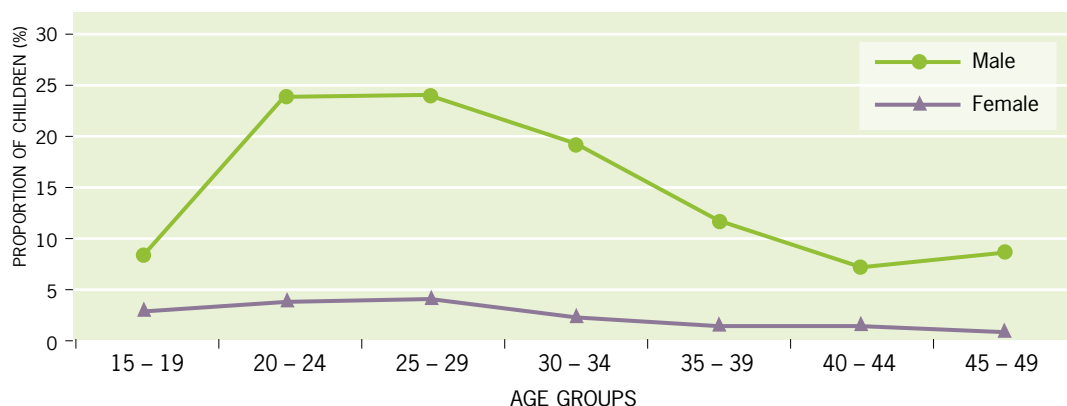
Sexual debut Early sexual debut increases young people's vulnerability to HIV infection, and females in particular are a high risk group.⁸ The age of sexual debut is therefore an important indicator of risky sexual behaviour. Seven percent of young women (15 – 19 years) in the DHS reported having had sex by the age

of 15, compared with 12% of young men. This suggests that boys become sexually active earlier than girls. By the end of their childhood (18 years), 42% of girls and 63% of boys had become sexually active. The MRC study similarly found that boys were more likely than girls to have had sex at a young age, with the difference being even more striking: 21% of males and 4% of females reported having had sex before the age of 14.

Multiple partners Multiple sexual partnerships are regarded as indicative of high risk sexual behaviour because they substantially increase the risk of HIV transmission through sexual networks.⁹ In the DHS, only 3% of all young women in the 15 – 19 year age group reported having more than one sexual partner in the previous year, as opposed to 8% of males.¹⁰ Just under half of adolescents in the 15 – 19 age group were sexually active (ever had sex), with similar proportions for males and females. Multiple partnerships were more frequently reported in the MRC study, where 52% of sexually active male learners and 26% of females reported multiple partnerships. The difference is partly attributable to different formulations of the question and to different ways of deriving the proportions: While the DHS frames the question within the last year and includes all respondents in the denominator, the MRC study limits the denominator to sexually active people and asks whether they have had two or more sexual partners in their lifetime.

It is worth noting that for males, the reported rate of multiple partnerships increases dramatically from the age of 20, so that the relatively low incidence of multiple partnerships amongst teenage boys is only achieved again after the age of 40. Across all age groups, men are much more likely than women to have multiple sexual partners within a year, as illustrated below.

Figure 3b:
Proportion of men and women reporting multiple sexual partnerships within a year, by age group
(Y-axis reduced to 30%)



Source: Department of Health, Medical Research Council & OrcMacro (2007) *South African Demographic and Health Survey 2003*. Pretoria: DoH.

Condom use Consistent and correct condom use is considered a highly effective strategy for the prevention of HIV.¹¹ In the DHS analysis, condom use is expressed as a proportion of those who have had “high risk sex” (outside of marital/co-habiting unions), since condom use would understandably be lower amongst married partners or those in permanent co-habiting partnerships. In addition, those who are actively trying to conceive would not be using condoms. However, few people in the 15 – 19 age group are married or co-habiting, so sexual relationships outside of marriage are common. Of the teenagers (15 – 19) who were sexually active in the year preceding the survey, 95% of females and 99% of males were not married or co-habiting with their partner – ie having “high risk” sex.

Of those teenagers who had “high risk” sex in the previous 12 months, 49% of girls and 73% of boys reported using a condom at their last sexual encounter. In the MRC study, on the other hand, the difference

between girls and boys was less pronounced, with 33% of sexually active girls and 29% of boys reporting that they “always” used condoms. Where condoms were included as one of a number of categories in a question about contraceptive methods, 42% of sexually active female learners and 47% of males reported using condoms.

Teenage pregnancy In 2003, 12% of teenage girls aged 15 – 19 years had ever been pregnant or were pregnant at the time of the DHS.¹² This is lower than the reported teenage pregnancy rate of 16% in the 1998 DHS. The proportion of teenagers who have been pregnant rises rapidly with each year of age from 15 years (2%) to 19 years (27%). The teenage pregnancy rate for girls reported in the MRC study appears much higher (24% when expressed as a proportion of sexually active learners), but is in fact much lower (7%) when calculated as a proportion of all female learners in the sample.

Table 3c: Proportion of teenagers (aged 15 – 19 years) engaged in sexual risk behaviour, 2007

Sexual risk behaviour	Male %	Female %
Ever had sex	43	43
First sexual intercourse before 15 years	12	7
Sexually active in last 12 months	35	34
More than one sexual partner in last 12 months	8	3
Condom use at last sex (as proportion of sexually active)	74	49
Females ever pregnant	–	12

Sources: Department of Health, Medical Research Council & OrcMacro (2007) *South African Demographic and Health Survey 2003*. Pretoria: DoH.

Notes: The denominator in the above indicators is all males and females in the 15 – 19 age group, with the exception of reported condom use, where the denominator is males and females who are sexually active and have engaged in “high risk sex” (ie sex with a non-marital/non-cohabiting partner) in the past 12 months.

References

- a Children living far from the nearest clinic; adolescent sexual risk behaviour
 - b Infant and under-five mortality
 - c Immunisation
- 1 Constitution of the Republic of South Africa. Act 108 of 1996.
 - 2 Secretary General of the African Union (1990) *African Charter on the Rights and Welfare of the Child*. OAU resolution 21.8/49. Addis Ababa: OAU.
 - 3 Office of the High Commissioner of Human Rights (1989) *Convention on the Rights of the Child*. UN General Assembly resolution 44/25. Geneva: United Nations.
 - 4 United Nations Economic and Social Council (2000) *International Covenant on Economic, Social and Cultural Rights, article 12: The right to the highest attainable standard of health: General comment no. 14*. Geneva: Committee on Economic, Social and Cultural Rights.
 - 5 Department of Health (2009) District Health Information System database. In: Day C, Barron P, Monticelli F & Sello E (eds) *District Health Barometer 2008/09*. Durban: Health Systems Trust.
 - 6 Shisana O, Rehle T, Simbayi LC, Zuma K, Jooste S, Pillay-van-Wyk V, Mbelle N, Van Zyl J, Parker W, Zungu NP, Pezi S & the SABSSM III Implementation Team (2009) *South African national HIV prevalence, incidence, behaviour and communication survey 2008: A turning tide among teenagers?* Cape Town: HSRC Press.
 - 7 Reddy SP, James S, Sewpail R, Koopman F, Funani NI, Sifunda S, Josie J, Masuka P, Kambaran NS & Omandien RG (2010) *Umthente Uhlaba Usamila – The South African Youth Behavioural Survey 2008*. Cape Town: Medical Research Council.
 - 8 See no. 7 above.
 - 9 See no. 7 above.
 - 10 Department of Health, Medical Research Council & OrcMacro (2007) *South African Demographic and Health Survey 2003*. Pretoria: DoH.
 - 11 See no. 7 above.
 - 12 See no. 11 above.

Child health: HIV/AIDS

Leigh Johnson (Centre for Actuarial Research, University of Cape Town), updated by Katharine Hall (Children's Institute)

Section 27 of the South African Constitution¹ 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, basic health care services, and social 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 possible state of physical, mental and spiritual health”.

Article 24 of the UN Convention on the Rights of the Child says that State Parties³ 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”.

HIV prevalence in pregnant women

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).

HIV prevalence is measured in the National HIV and Syphilis Prevalence Survey of the Department of Health, which targets pregnant women aged 15 – 49 years who attend a public health facility. The most recent estimate (2008) of HIV prevalence in pregnant women is 29%. Prevalence rates increased steadily from 25% in 2000 to 30% in 2005 and have remained at around this level. 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 40% in 2008) followed by those in their late 20s (38%).

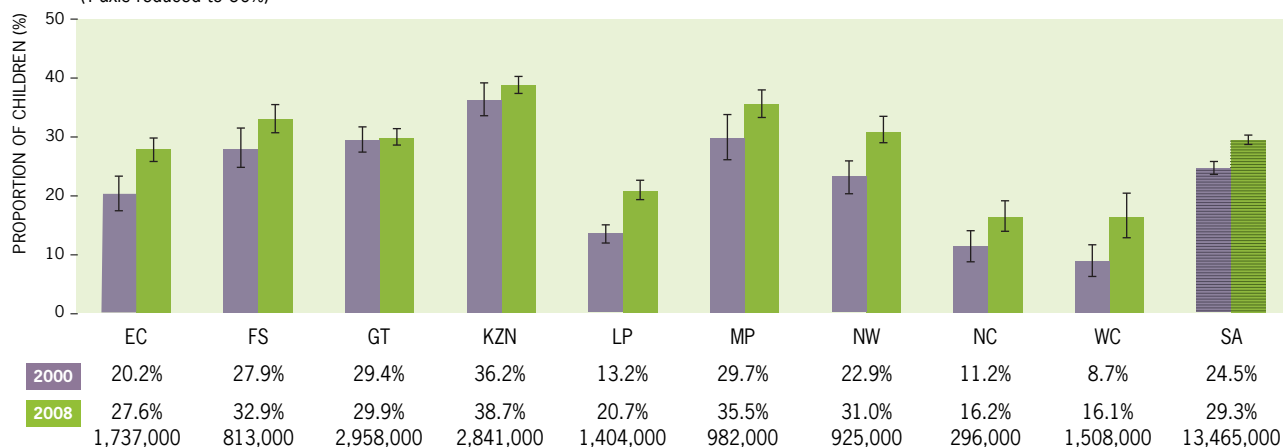
There are substantial differences in HIV prevalence between South Africa's provinces. KwaZulu-Natal has consistently had the highest HIV rates, with prevalence in excess of 35% since 2002.

In contrast, the Western Cape has had an HIV prevalence of around 15% in recent years. Other provinces with relatively low HIV prevalence are the Northern Cape and Limpopo, with HIV-prevalence levels at 16% and 21% respectively in 2008.

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,⁴ and its prevalence differs substantially between South Africa's provinces.⁵ 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.

The 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 seeking antenatal care in the private health sector have a relatively low prevalence of HIV.⁶ Thus the surveys over-estimate HIV prevalence in pregnant women generally.

Table 4a: HIV prevalence in pregnant women attending public antenatal clinics, 2000 & 2008
(Y-axis reduced to 50%)



Sources: Department of Health (2001; 2009) *National HIV and Syphilis Prevalence Survey 2000*; *National HIV and Syphilis Prevalence Survey 2008*. Pretoria: DoH.

Access to prevention of mother-to-child transmission programmes (PMTCT)

This indicator reflects the proportion of women attending public antenatal clinics who receive voluntary counselling and testing for HIV, as part of the PMTCT programme.

The roll-out of PMTCT has expanded dramatically in recent years, with the proportion of pregnant women receiving HIV counselling and testing increasing from approximately 7% in 2001/02 to 81% in 2007/08. It is only in the last two years that estimates have been reported for all provinces.

In 2001, the Department of Health introduced two pilot PMTCT sites in each province, although there were many additional sites already providing PMTCT in the Western Cape and Gauteng provinces at this time.⁷ Following legal action by the Treatment Action Campaign in 2001 and 2002, the department was ordered to make PMTCT services available to all pregnant women; since that time, access to PMTCT has improved steadily in all provinces.

Access to PMTCT remains variable between provinces. The Western Cape, which began its PMTCT programme in 1999, had achieved a take-up rate of 44% in 2002/03 compared to a national average of 15.6% for the same period. The Northern Cape expanded its PMTCT provision dramatically in recent years and is now the province with the second highest proportion of pregnant women who are tested for HIV. Mpumalanga has consistently had one of the lowest

levels of PMTCT roll-out, although its performance has improved substantially in recent years.

The proportion of pregnant women who receive HIV testing and counselling is a measure of three factors: First, the proportion of antenatal clinics that provide PMTCT services; second, the proportion of women who are offered HIV testing at PMTCT facilities; and third, the proportion of women who agree to be tested for HIV. Although it is often assumed that PMTCT facilities would offer HIV testing to all pregnant women, recent qualitative evidence suggests that a significant proportion of women attending PMTCT services are not offered testing due to shortages of counsellors, testing supplies and relevant forms.⁸ Early experience suggested that 25 – 50% of women would decline the offer to be tested for HIV⁹ but other evidence suggests that less than 10% of women decline the offer to be tested if there is individual counselling and if lay counsellors have been recruited¹⁰.

A number of different data sources have been used for the years prior to 2005, and differences between data sets might therefore account for some of the changes observed from one year to the next. Estimates from provinces that experienced data problems have been omitted in the table below, but attempts were made to correct these problems for the purpose of estimating the national averages.

Table 4b:
Proportion of booked women attending public antenatal clinics who receive HIV testing, 2001 – 2008

Province	2001/02 %	2002/03 %	2003 %	2004 %	2005/06 %	2006/07 %	2007/08 %
Eastern Cape	1.7	6.7	–	–	–	75.3	88.3
Free State	4.6	15.8	31.1	33.7	40.4	66.9	80.1
Gauteng	–	20.0	17.6	39.0	47.4	60.6	73.3
KwaZulu-Natal	7.2	13.6	–	–	43.8	58.5	70.7
Limpopo	1.0	8.4	26.0	37.6	46.5	77.5	90.1
Mpumalanga	0.6	0.0	10.9	12.9	31.4	58.2	74.6
Northern Cape	5.0	4.6	18.2	16.4	59.1	81.5	88.5
North West	2.2	30.7	–	34.7	47.9	74.3	85.6
Western Cape	–	43.9	–	–	–	93.7	95.7
South Africa	6.9	15.6	25.3	37.3	49.1	69.2	81.0

Sources:

- McCoy D, Besser M, Visser R & Doherty T (2002) *Interim findings on the national PMTCT pilot sites*. Durban: Health Systems Trust.
- Ramkissoon A, Kleinschmidt I, Bekinska M, Smit J & Hlazo J & Mabude Z (2004) *National baseline assessment of sexually transmitted infections and HIV services in South African public health facilities 2002/2003*. Durban: Reproductive Health Research Unit, University of the Witwatersrand.
- Reagon G, Irlam J & Levin J (2004) *National Primary Health Care Facilities Survey 2003*. Durban: Health Systems Trust.
- Barron P, Day C, Loveday M & Monticelli F (2005) *The District Health Barometer: Year 1*. Durban: Health Systems Trust.
- Barron P, Day C, Monticelli F, Vermaak K, Okorafar O, Moodley K & Doherty T (2006) *The District Health Barometer: 2005/06*. Durban: Health Systems Trust.
- Barron P, Day C & Monticelli F (2007) *The District Health Barometer: 2006/07*. Durban: Health Systems Trust.
- Barron P, Day C & Monticelli F (2008) *The District Health Barometer: 2007/08*. Durban: Health Systems Trust.

Analysis by Leigh Johnson, Centre for Actuarial Research, UCT.

Access to antiretroviral treatment (ART) in adults

This indicator is defined as the proportion of HIV-infected adults progressing to AIDS in a particular year who initiate antiretroviral treatment (ART). It is calculated as the number of adults starting ART in a particular year, divided by the number of new adult AIDS cases over the same year. Adult access to ART is important for children because it has a direct impact on the health and survival of parents and other caregivers.

Prior to 2004, access to ART was limited mainly to beneficiaries of medical schemes and individuals receiving treatment through workplace treatment programmes. Towards the end of 2003, the Department of Health announced a comprehensive HIV/AIDS care, management and treatment plan, which included the provision of ART to all patients with a CD4+ count <200/ μ l, or an AIDS-defining illness, attending public health facilities.¹¹ New treatment guidelines published in 2010 additionally prioritise antiretrovirals for HIV patients co-infected with tuberculosis and initiation of lifelong ART for pregnant women with CD4+ counts below 350/ μ l.¹²

The implementation of the comprehensive HIV/AIDS plan led to a sharp increase in the proportion of newly eligible adults initiating treatment, from 4% in 2002/03, to 43% in 2007/08 (or roughly 200,000 individuals). The speed and extent of scale-up of the

ART programme is unprecedented in the history of the health system in South Africa. However, despite progress in making ART available in the public health sector, there remains a vast unmet need for treatment.

There are substantial differences in access to ART across the provinces. Following the announcement of the comprehensive HIV/AIDS plan in 2003, the Western Cape introduced antiretroviral treatment much more rapidly than other provinces, with an estimated 68% of newly eligible adults starting treatment between mid-2007 and mid-2008. Over the same period, an even higher rate of coverage (90%) was achieved in the Northern Cape. Free State has had the lowest rate of antiretroviral coverage in recent years (28%).

There are several barriers to the expansion of the ART programme. Most critical are the lack of infrastructure and the shortage of trained health workers in many public health facilities, which make it difficult to devolve the provision of ART to the primary care level. It is also likely that a large proportion of individuals who are eligible for ART are either not aware of their HIV status or have not received a recent CD4 assessment. Stigma and confusion regarding the effectiveness of ART are likely to result in individuals avoiding diagnosis and treatment.

Table 4c: Proportion of adults newly eligible for ART who initiate treatment, 2002 – 2008

Province	2002/03 %	2003/04 %	2004/05 %	2005/06 %	2006/07 %	2007/08 %
Eastern Cape	4.3	7.0	19.1	31.8	36.4	43.8
Free State	3.0	3.2	8.7	13.2	21.5	27.5
Gauteng	3.7	8.3	16.7	28.1	29.3	36.6
KwaZulu-Natal	4.0	4.6	15.3	30.1	36.3	46.6
Limpopo	3.0	3.8	11.7	26.9	33.2	40.4
Mpumalanga	3.1	4.1	7.9	18.5	33.3	42.6
Northern Cape	4.0	6.6	28.9	43.2	74.4	90.4
North West	2.7	3.5	17.6	33.4	33.8	42.6
Western Cape	9.0	33.1	43.0	57.6	56.5	68.2
South Africa	3.8	6.6	16.1	28.9	34.0	42.8

Sources:

- Department of Health (2008) *National comprehensive HIV and AIDS plan statistics*. [Unpublished]
- Adam MA & Johnson LF (2009) Estimation of adult antiretroviral treatment coverage in South Africa. *South African Medical Journal*, 99: 661-667.
- Dorrington RE, Johnson LF, Bradshaw D & Daniel T (2006) *The demographic impact of HIV/AIDS in South Africa. National and provincial indicators for 2006*. Centre for Actuarial Research (UCT), Medical Research Council & Actuarial Society of South Africa.
- Barron P, Day C & Monticelli F (2007) *The District Health Barometer 2006/07*. Durban: Health Systems Trust.

Analysis by Leigh Johnson, Centre for Actuarial Research, UCT.

Note: Reporting periods run from mid-year to mid-year.

Access to antiretroviral treatment (ART) in children

This indicator is defined as the proportion of newly infected children starting antiretroviral treatment (ART). It is calculated as the number of children starting in a particular year, divided by the estimated number of new paediatric HIV infections over the same year. It is crucial for HIV-positive children to receive ART early. Without treatment, more than 30% of children who were infected at birth will die before their first birthday.¹³

Access to ART for children has improved substantially over the past six years, with the proportion of newly infected children starting treatment increasing from 2% between mid-2002 and mid-2003, to 37% between mid-2007 and mid-2008. More than 21,000 children started treatment during the 2007/08 period, approximately 5,000 more than in the previous year.

Antiretroviral coverage for children varies significantly between provinces, from 22% in the Free State to 97% in the Western Cape over the 2007/08 period. The Western Cape, Northern Cape and North West are the only provinces where ART reached more than half of children acquiring HIV.

The exceptionally high coverage in the Western Cape is not only the result of antiretroviral roll-out to children, but also a reflection of the success of the prevention of mother-to-child transmission (PMTCT) programme, which has dramatically reduced the annual number of new HIV infections in that province. Northern Cape has also performed well in treating newly infected children (96% in 2007/08).

Although the indicators of antiretroviral coverage

suggest that adults have greater access to ART than children, the indicators for adults and children are not comparable because they reflect different definitions of antiretroviral eligibility. Recent guidelines recommend that antiretroviral treatment should be started in all HIV-infected children in the first year of life.¹⁴ The number of children newly eligible for treatment in a particular year has therefore been calculated as the number of new paediatric HIV infections. The Department of Health guidelines that have been used until now, however, did not recommend immediate initiation of ART in infancy.¹⁵ The calculations of antiretroviral coverage in adults are based on the assumption that adults are eligible only when they progress to AIDS, a relatively conservative assumption that is likely to lead to the over-estimation of adult ART coverage.

The numerator is the number of children starting ART between the middle of the stated year and the middle of the next year. This is derived from estimates of the cumulative numbers of children enrolled for treatment in the public health sector¹⁶ and estimates of the total number of individuals receiving treatment through disease management and non-governmental programmes.¹⁷

The denominator is calculated as the ASSA2003 estimate of the number of new HIV infections in children over the same period. The proportions were calculated prior to publication of the revised ASSA model (ASSA2008), but the ASSA2003 estimates were updated to take into account revised estimates of access to PMTCT services.

Table 4d: Proportion of newly infected children who start ART, 2002 – 2008

Province	2002/03 %	2003/04 %	2004/05 %	2005/06 %	2006/07 %	2007/08 %
Eastern Cape	1.2	2.3	7.7	13.1	18.6	26.8
Free State	1.4	1.7	4.9	11.7	19.5	22.1
Gauteng	2.1	6.9	14.8	31.1	28.3	46.0
KwaZulu-Natal	1.6	2.2	7.4	20.8	26.4	30.6
Limpopo	0.8	1.2	4.6	9.0	13.2	35.9
Mpumalanga	1.3	1.8	3.0	12.2	20.4	29.4
Northern Cape	1.5	3.9	27.2	51.8	79.6	96.1
North West	1.3	1.6	6.9	18.9	35.0	50.7
Western Cape	20.1	36.8	51.1	58.5	86.2	96.9
South Africa	2.1	3.9	9.4	20.8	26.5	36.9

Sources:

- Department of Health (2008) *National Comprehensive HIV and AIDS plan statistics*. [Unpublished]
- Adam MA & Johnson LF (2009) Estimation of adult antiretroviral treatment coverage in South Africa. *South African Medical Journal*, 99: 661-667.
- Dorrington RE, Johnson LF, Bradshaw D & Daniel T (2006) *The demographic impact of HIV/AIDS in South Africa. National and provincial indicators for 2006*. Centre for Actuarial Research (UCT), Medical Research Council & Actuarial Society of South Africa.
- Barron P, Day C & Monticelli F (2008) *The District Health Barometer 2006/07*. Health Systems Trust.

Analysis by Leigh Johnson, Centre for Actuarial Research, UCT.

Notes: ① Only children under 15 years are included. ② Reporting periods run from mid-year to mid-year.

References

- 1 Constitution of the Republic of South Africa. Act 108 of 1996.
- 2 Secretary General of the African Union (1990) *African Charter on the Rights and Welfare of the Child*. OAU resolution 21.8/49. Addis Ababa: OAU.
- 3 Office of the High Commissioner of Human Rights (1989) *Convention on the Rights of the Child*, UN General Assembly resolution 44/25. Geneva: United Nations.
- 4 Auvert B, Buvé A, Ferry B, Caraël M, Morison L, Lagarde E, Robinson NJ, Kahindo M, Chege J, Rutenberg N, Musonda R, Laourou M & Akam E (2001) Ecological and individual level analysis of risk factors for HIV infection in four urban populations in sub-Saharan Africa with different levels of HIV infection. *AIDS*, 15(Suppl 4): S15-30;
Williams BG, Lloyd-Smith JO, Gouws E, Hankins C, Getz WM, Hargrove J, de Zoysa I, Dye C & Auvert B (2006) The potential impact of male circumcision on HIV in sub-Saharan Africa. *PLoS Medicine*, 3(7): e262.
- 5 Connolly C, Simbayi LC, Shanmugam R & Nqeketo A (2008) Male circumcision and its relationship to HIV infection. *South African Medical Journal*, 98(10): 789-794.
- 6 Wilkinson D (1999) HIV infection among pregnant women in the South African private medical sector. *AIDS*, 13 (13): 1783.
- 7 McCoy D, Besser M, Visser R & Doherty T (2002) *Interim findings on the national PMTCT pilot sites: Lessons and recommendations*. Durban: Health Systems Trust.
- 8 Nkonki LL, Doherty TM, Hill Z, Chopra M, Schaay N & Kendall C (2007) Missed opportunities for participation in prevention of mother to child transmission programmes: Simplicity of nevirapine does not necessarily lead to optimal uptake, a qualitative study. *AIDS Research and Therapy*, 4: 27.
- 9 See no. 7 above;
Mseleku M, Smith TH & Guidozzi F (2005) HIV seropositive in pregnant South African women who initially refuse routine antenatal HIV screening. *British Journal of Obstetrics and Gynaecology*, 112(3): 370-371.
- 10 Abdullah M, Young T, Bitalo L, Coetzee N & Myers J (2001) Public health lessons from a pilot programme to reduce mother-to-child transmission of HIV-1 in Khayelitsha. *South African Medical Journal*, 91: 579-583;
Coetzee D, Hilderbrand K, Boule A, Draper B, Abdullah F & Goemaere E (2005) Effectiveness of the first district-wide programme for the prevention of mother-to-child transmission of HIV in South Africa. *Bulletin of the World Health Organization*, 83(7): 489-494;
Doherty T, Besser M, Donohue S, Kamoga N, Stoops N, Williamson L & Visser R (2003) *An evaluation of the prevention of mother-to-child transmission (PMTCT) of HIV initiative in South Africa: Lessons and key recommendations*. Durban: Health Systems Trust.
- 11 Department of Health (2003) *Operational plan for comprehensive HIV and AIDS care, management and treatment for South Africa*. Pretoria: DoH.
- 12 South African National AIDS Council (2010) *The South African antiretroviral treatment guidelines 2010*. Pretoria: Department of Health.
- 13 Newell ML, Coovadia H, Cortina-Borja M, Rollins N, Gaillard P & Dabis F (2004) Mortality of infected and uninfected infants born to HIV-infected mothers in Africa: A pooled analysis. *The Lancet*, 364(9441): 1236-1243.
- 14 Southern African HIV Clinicians Society (2008) Guidance for antiretroviral therapy in HIV-infected infants less than 1 year of age. *Southern African Journal of HIV Medicine*, 9(4): 34-35;
World Health Organisation (2008) *Report of the WHO Technical Reference Group, Paediatric HIV/ART Care Guideline Group meeting, WHO headquarters, Geneva, Switzerland, 10 – 11 April 2008*. WHO: Geneva.
- 15 Department of Health (2005) *Guidelines for the management of HIV-infected children – 2005*. Pretoria: DoH.
- 16 Department of Health (2008) *National Comprehensive HIV and AIDS plan statistics*. Pretoria: DoH. [Unpublished]
- 17 Johnson LF & McLeod HD (2007) Steady growth in antiretroviral treatment provision by disease management and community treatment programmes. *South African Medical Journal*, 97(5): 358-335.



Child health: Nutrition

Lizette Berry and Katharine Hall (Children's Institute)
and Michael Hendricks (Child Health Unit, University of Cape Town)

Section 28(1)(c) of the Constitution¹ of South Africa gives children the right to basic nutrition.

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”, and article 14(2)(c) says that State Parties shall take measures “to ensure the provision of adequate nutrition...”.

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 obliges the State to take measures “to combat disease and malnutrition... through, inter alia... the provision of adequate nutritious foods and clean drinking water...”.

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

This indicator draws on data from the General Household Survey and 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 undermines the reliability of estimates on the extent and frequency of hunger, but it is assumed that variation and reporting error will be reasonably consistent so that it is possible to report trends from year to year.

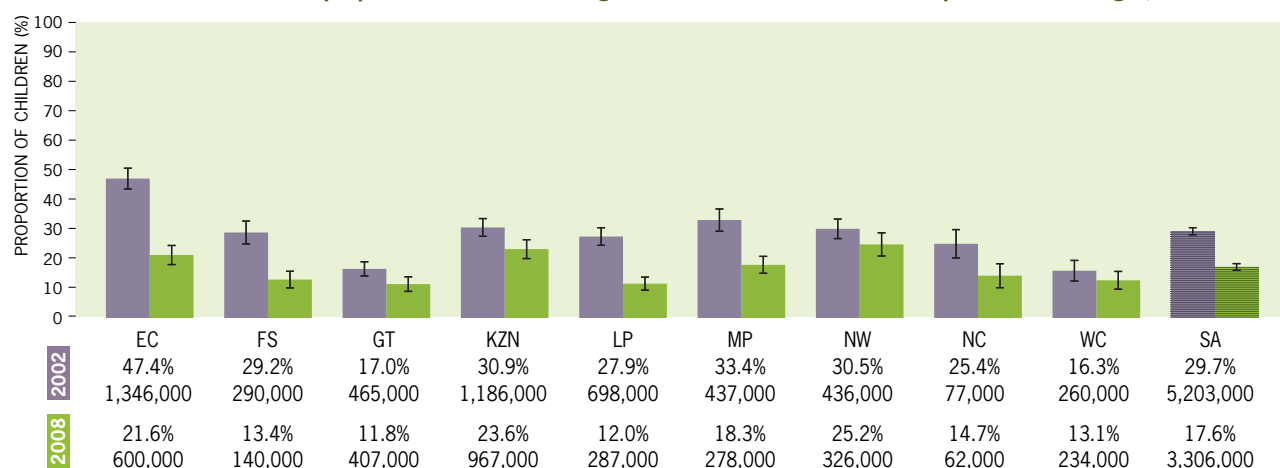
The government has introduced a number of programmes to reduce hunger, malnutrition and food insecurity; yet child hunger continues to be a problem. The 2008 General Household Survey indicated that 3.3 million children (18%) were living in households where child hunger was reported. Overall, there has been a significant drop in reported child hunger from 30% of children in 2002, but a slight increase from 15% of children in 2007.

There are large disparities in reported hunger between provinces and population groups. The provinces with the highest rates of

reported child hunger in 2008 were North West (where child hunger rates increased from 18% in 2007 to 25% in 2008) and KwaZulu-Natal (with an increase from 15% in 2007 to 24% in 2008). The Eastern Cape has particularly high rates of child poverty and unemployment, and child hunger rates have remained consistently high from 2007 to 2008 (21% – 22%), despite an overall drop in reported child hunger from 47% in 2002. Limpopo also experiences high rates of unemployment and income poverty; yet, along with Gauteng, it has the lowest proportion of reported child hunger (12%). In Limpopo, this may be related to greater food security in rural households as a result of access to land for subsistence agriculture.

Hunger, like poverty and unemployment, is most likely to be found among African children. In 2008, some 3.1 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 (10%), White (2%) and Asian (1%) children lived in households where child hunger was reported.

Table 5a: Number and proportion of children living in households where there is reported child hunger, 2002 & 2008



Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002; General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall and Double-Hugh Marera, Children's Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ See www.childrencount.ci.org.za for more information.

Proportion of children affected by stunting, wasting and underweight

Dietary intake and the prevalence of infectious diseases affect children's nutritional status,⁴ and adequate nutrition is vital for building children's immune systems and for their physical growth and motor and cognitive development.⁵ Severe forms of malnutrition could lead to death. In 2000 malnutrition was ranked as the fifth leading cause of death among children younger than five years of age in South Africa.⁶ Stunting, wasting and underweight are specific measures or thresholds that are internationally recognised standards for measuring children's nutritional status. The analyses use the most recent data from the National Food Consumption Survey 2005 (NFCS).⁷

Stunting A healthy child grows by 5 – 7 cm each year. Stunting is present when a child's height-for-age measurement is less than two standard deviations from the globally accepted reference cut-off point. A child whose height-for-age score is less than three standard deviations is severely stunted. Stunting in children is considered a consequence of chronic poor nutrition. It is associated with developmental delay and impaired cognitive function and is considered the strongest predictor of child mortality in children younger than five years.⁸

Stunting remains the most common nutritional disorder affecting children in South Africa, and the NFCS found that 18% of children aged 1 – 9 years were affected in 2005. Stunting prevalence rates had decreased since 1999, with the greatest improvement in rural areas. Nevertheless, the NFCS found that children living in formal rural areas (commercial farms) remained worst off, with one in four children stunted. One in five children living in "tribal" areas was stunted. Children in informal urban areas were slightly more likely to be affected (19%) than those in formal urban areas (16%). The provinces with the highest stunting rates were the Free State (28%), Northern Cape (28%), and Limpopo (24%). According to World Health Organisation criteria, these rates indicate a medium prevalence of stunting.⁹

Nationally, 5% of children showed signs of severe stunting, which is much more serious. Children living in "tribal" areas were most affected. Nearly a quarter of children in the 1 – 3-year age group (23%) were affected by stunting, and 6% were severely stunted. High rates of severe stunting (7% or more) are of concern in the Northern Cape, Limpopo and Free State provinces.

Wasting A healthy child gains approximately 2 – 3 kg of body weight each year. Wasting is present when the child's weight-for-height measurement is less than two standard deviations from the globally accepted reference cut-off point. A child whose weight-for-height or length score is less than three standard deviations is severely wasted. Children who are affected by wasting generally lack essential nutrients in their diet. The prevalence of wasting in South Africa is an indication of acute malnutrition or loss of weight, and of children's poor access to sufficient nutritious food.

In 2005, nearly one in every 20 children (5%) aged 1 – 9 years was wasted, while 1% of children in this age group were severely wasted. Equal proportions (5%) of 1 – 3-year-old and 4 – 6-year-old children were wasted. The Northern Cape (19%) had the highest proportions of children who were wasted, followed by the Western Cape (12%). Again, children living in formal rural areas (commercial farms) were more likely to be wasted than those in cities or rural areas under traditional authority.

The prevalence of children affected by wasting seems to have decreased in rural areas since 1999. However, it is of concern that the prevalence of wasting and severe wasting for children in urban areas was higher in 2005 than in 1999.

The 2005 NFCS report recommends that nutrition and health-related interventions accompany an increase in employment levels – and therefore household income – to ensure improvements in children's nutritional status in the long term.

Underweight Underweight below acceptable standards suggests undernutrition. A child is underweight if the child's weight-for-age measurement is less than two standard deviations from the globally accepted reference cut-off point. A child whose weight-for-age score is less than three standard deviations is severely underweight. The proportion of children in South Africa who are underweight is a good indication of whether all children are able to access sufficient nutritious food to enable them to grow and develop to their full potential.

Nationally, nearly one in 10 children aged 1 – 9 years (9.3%) was underweight in 2005. Although the national prevalence rate is considered low according to global standards, the rates for children living in formal rural areas (13%), and for children aged 1 – 3 years (11%) indicate that these children are particularly at risk. The prevalence rate for the Northern Cape province is particularly high (38%), followed by the Free State (14%), North West (12%) and Limpopo (12%). Overall, 1% of children aged 1 – 9 years were severely underweight.

Although the average prevalence rates are not extreme, underweight remains a grave concern, particularly for very young children and those living on commercial farms. Child nutrition should continue to be a national priority and the improvements in the nutritional status, and of health care services for young children, must be sustained.

Table 5b: Proportion of children affected by stunting, wasting and underweight, 2005

Province	Stunting %	Wasting %	Underweight %
Eastern Cape	18.0	4.1	7.8
Free State	28.2	2.8	14.1
Gauteng	16.8	3.3	6.4
KwaZulu-Natal	15.1	1.3	5.0
Limpopo	23.8	4.4	12.3
Mpumalanga	17.8	7.5	10.9
North West	15.1	3.2	12.4
Northern Cape	27.7	19.1	38.3
Western Cape	12.0	11.5	8.2
South Africa	18.0	4.5	9.3

Sources: Labadarios D (ed) (2007) *The National Food Consumption Survey – Fortification Baseline (NFCS-FB): The knowledge, attitude, behaviour and procurement regarding fortified foods, a measure of hunger and the anthropometric and selected micronutrient status of children aged 1 – 9 years and women of child bearing age: South Africa, 2005*. Pretoria: Directorate: Nutrition, Department of Health.

Notes: ① Stunting, wasting and underweight refer to children aged 1 – 9 years only. ② Strengths and limitations of the data are described on pp. 132 – 134. ③ See www.childrencount.ci.org.za for more information.

Proportion of children affected by micronutrient deficiency

Adequate nutrition is essential for optimal growth and development in children, and micronutrient deficiencies can lead to physical impairment, infections and even death. The following discussion focuses on selected micronutrient deficiencies: vitamin A deficiency, iron deficiency and iron deficiency anaemia, drawing on data from the 2005 NFCS. The implementation of promotive and preventive programmes that address these deficiencies and that target pregnant and breastfeeding mothers and young children is critical. The 2005 NFCS report emphasises the need for supplementation programmes and interventions to support and educate caregivers on the consumption of nutritious and fortified foods and appropriate breastfeeding practices. Equally important are efforts to alleviate household poverty and food insecurity.

Vitamin A deficiency This indicator refers to the percentage of children aged 1 – 9 years with a low serum retinol level (<20ug/dL), meaning that these children have marginal or inadequate levels of vitamin A. Children suffer from severe vitamin A deficiency if their serum retinol levels are significantly low (<10ug/dL).

Vitamin A is needed for a range of bodily functions and for protection from severe infections and resultant death. Deficiency usually occurs where diets contain insufficient amounts of vitamin A. Children with vitamin A deficiency have increased risk of infection and are more prone to diseases. Improvement of vitamin A status is considered one of the most cost-effective health and nutrition interventions for child survival.¹⁰

The 2005 NFCS found that nearly two-thirds (64%) of children aged 1 – 9 years had a marginal or inadequate vitamin A status, and about one in seven children (14%) was severely vitamin A deficient. Children living in “tribal” areas were most affected – 17% were severely vitamin A deficient. KwaZulu-Natal had the highest proportion (89%) of children with an inadequate vitamin A status, with nearly half of the 1 – 9-year-old population severely deficient. Similarly, large proportions of children in the Limpopo (76%), Gauteng (65%) and Eastern Cape (64%) provinces had inadequate vitamin A status.

A marked increase in the prevalence of inadequate vitamin A status in children aged 1 – 5 years is evident: The national rate has nearly doubled between 1994 (33%) and 2005 (65%). Children aged 3 – 5 years are most affected. The NFCS reports that, according to internationally accepted criteria, these high rates indicate that vitamin A deficiency is a serious public health problem in South Africa.

Iron deficiency and iron deficiency anaemia

Insufficient iron intake in children can lead to iron deficiency anaemia, which can inhibit children’s cognitive development and increase their vulnerability to infections and cardiac failure.¹¹ This indicator reflects the percentage of children aged 1 – 9 years who are iron deficient or who suffer from anaemia due to iron deficiency. (Children with a serum ferritin level less than 12 ug/dL are iron deficient. Children with a serum ferritin level less than 12 ug/dL and a haemoglobin level less than 11 g/dL for children aged 1 – 5 years (or 11.5 g/dL for older children) suffer from iron deficiency anaemia.)

The 2005 NFCS found 6% of children aged 1 – 9 years to be iron deficient. Children who lived in formal rural areas (13%) were worse off. The Free State province (19%) had the highest proportion of children with iron deficiency. Iron deficiency levels were highest for children aged 1 – 3 years. Overall, the iron status of children aged 1 – 5 years appears to have deteriorated since 1994.

The national prevalence rate of 8% for iron deficiency anaemia in children aged 1 – 9 years is considerably low according to international standards.¹² However, a prevalence rate of 17% in the 1 – 3 years age group – more than double the overall rate for children aged 1 – 9 years – is concerning. The Limpopo and Free State provinces share the highest prevalence rate for children aged 1 – 9 years, at 12%. Children living in formal urban areas (9%) were most affected by iron deficiency anaemia.

The causes of iron deficiency and iron deficiency anaemia are multi-faceted, and are described in the NFCS report. For example, worm infestations are known to cause blood loss. Infants are prone to iron deficiency because their iron requirements often outweigh their iron intake. As children younger than four years are most at risk, it is crucial to target interventions to this age group.



Table 5c: Proportion of children affected by vitamin A deficiency, iron deficiency and iron deficiency anaemia, 2005

Province	Inadequate vitamin A status %	Vitamin A deficiency %	Iron deficiency %	Iron deficiency anaemia %
Eastern Cape	64.2	8.2	1.2	4.8
Free State	61.7	11.3	18.9	11.6
Gauteng	65.2	11.2	4.8	7.1
KwaZulu-Natal	88.9	44.7	3.6	5.9
Limpopo	75.7	12.5	5.3	11.8
Mpumalanga	52.1	4.2	4.5	7.9
North West	49.6	5.8	6.9	5.2
Northern Cape	23.0	3.8	5.6	–
Western Cape	43.5	2.3	7.5	9.4
South Africa	63.6	13.7	5.7	7.6

Sources: Labadarios D (ed) (2007) *The National Food Consumption Survey – Fortification Baseline (NFCS-FB): The knowledge, attitude, behaviour and procurement regarding fortified foods, a measure of hunger and the anthropometric and selected micronutrient status of children aged 1 – 9 years and women of child bearing age: South Africa, 2005*. Pretoria: Directorate: Nutrition, Department of Health.

Notes: ① Micronutrient deficiency indicators refer to children aged 1 – 9 years only. ② Provinces where no data is available are indicated with a dash (-). ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ See www.childrencount.ci.org.za for more information.

References

- 1 Constitution of the Republic of South Africa. Act 108 of 1996.
- 2 Secretary General of the African Union (1990) *African Charter on the Rights and Welfare of the Child*. OAU resolution 21.8/49. Addis Ababa: OAU.
- 3 Office of the High Commissioner of Human Rights (1989) *Convention on the Rights of the Child, UN General Assembly resolution 44/25*. Geneva: United Nations.
- 4 Swart R, Sanders D & McLachlan M (2008) Nutrition: A primary health care perspective. In: Barron P & Roma-Reardon J (eds) *South African Health Review 2008*. Durban: Health Systems Trust.
- 5 United Nations (2009) *The Millennium Development Goals report 2009*. New York: UN.
- 6 Bradshaw D, Bourne D & Nannan N (2003) What are the leading causes of death among South African children? *MRC Policy Brief no. 3*. Tygerberg: Medical Research Council.
- 7 Labadarios D (ed) (2007) *The National Food Consumption Survey – Fortification Baseline (NFCS-FB): The knowledge, attitude, behaviour and procurement regarding fortified foods, a measure of hunger and the anthropometric and selected micronutrient status of children aged 1 – 9 years and women of child bearing age: South Africa, 2005*. Pretoria: Directorate: Nutrition, Department of Health.
- 8 Pelletier DL (1994) The relationship between child anthropometry and mortality in developing countries: Implications for policy, programs and future research. *The Journal of Nutrition*, 124 (supplement): 2047S-2081S.
- 9 World Health Organisation (1995) *Physical status: The use and interpretation of anthropometry*. Geneva: WHO.
- 10 Glasziou PP & Mackerras DEM (1993) Vitamin A supplementation in infectious diseases: A meta-analysis. *British Medical Journal*, 306: 366-370.
- 11 Schrimshaw NS (1991) Iron deficiency. *Scientific American*, 254(4): 46-52.
- 12 See no. 4 above.

Children's access to education

Katharine Hall and Ariane De Lannoy (Children's Institute)

Section 29(1)(a) of the South African Constitution¹ states that “everyone has the right to a basic education”, and section 29(1)(b) states that “everyone has the right to further education” and that the State must make such education “progressively available and accessible.”

Article 11(3)(a) of the African Charter on the Rights and Welfare of the Child² says “States Parties to the present Charter shall take all appropriate measures with a view to achieving the full realisation of this right and shall in particular ... provide free and compulsory basic education”.

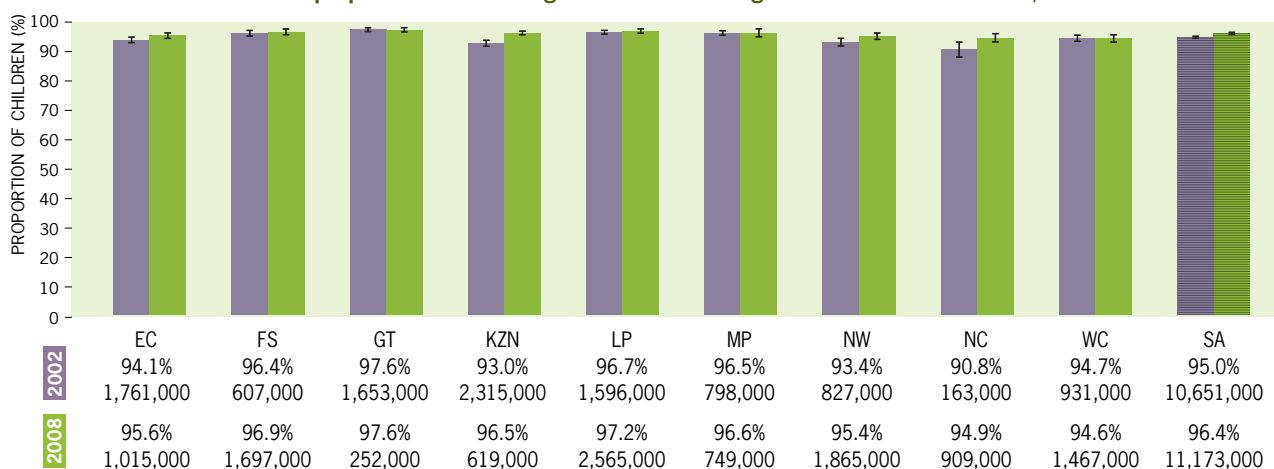
Article 28 of the UN Convention on the Rights of the Child³ recognises “the right of the child to education” and also obliges the State to “make primary education compulsory and available free to all”.

Number and proportion of children attending an educational institution

This indicator reflects the number and proportion of children aged 7 – 17 years who are reported to be attending a school or educational facility. This is different from ‘enrolment rate’, which reflects the number of children enrolled in educational institutions, as reported by schools to the national department early in the school year.

Education is a central socio-economic right that provides the foundation for lifelong learning and economic opportunities. In South Africa, basic education is compulsory in grades 1 – 9, or for children aged 7 – 15. Children who have completed basic education also have a right to further education (grades 10 – 12), which government must take reasonable measures to make available.

Table 6a: Number and proportion of school-age children attending an educational institution, 2002 & 2008



Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002; General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, UCT.

Notes: ① School-age children are defined as people aged 7 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ The confidence intervals, shown on the graph as a vertical line at the top of each bar, represent the range into which the true value may fall. See p. 97 for more details on confidence intervals. ⑤ See www.childrencount.ci.org.za for more information.

South Africa has high levels of school enrolment and attendance. Amongst children of school-going age (7 – 17 years) the vast majority (96.4%) attended some form of educational facility in 2008. Since 2002, the national attendance rate has seen a one percentage point increase. Of a total of 11.6 million children aged 7 – 17 years, just over 400,000 are reported as not attending school in 2008.

At a provincial level, the Eastern Cape, Northern Cape and KwaZulu-Natal have all seen significant increases in attendance rates. In the Northern Cape, attendance increased by four percentage points from 91% in 2002 to 95% in 2008, while attendance in KwaZulu-Natal increased by over three percentage points and attendance in the Eastern Cape by nearly two percentage points. In July 2008, four provinces had attendance rates that were slightly lower than the national average: North West and the Eastern, Northern and Western Cape provinces.

There has been a small but real increase in reported attendance rates for African and Coloured children over the seven-year period from 2002, and by 2008 there were no significant differences between attendance rates for African and White children. Attendance rates for Coloured children remained slightly below the national average, while those for Asian children were slightly higher.

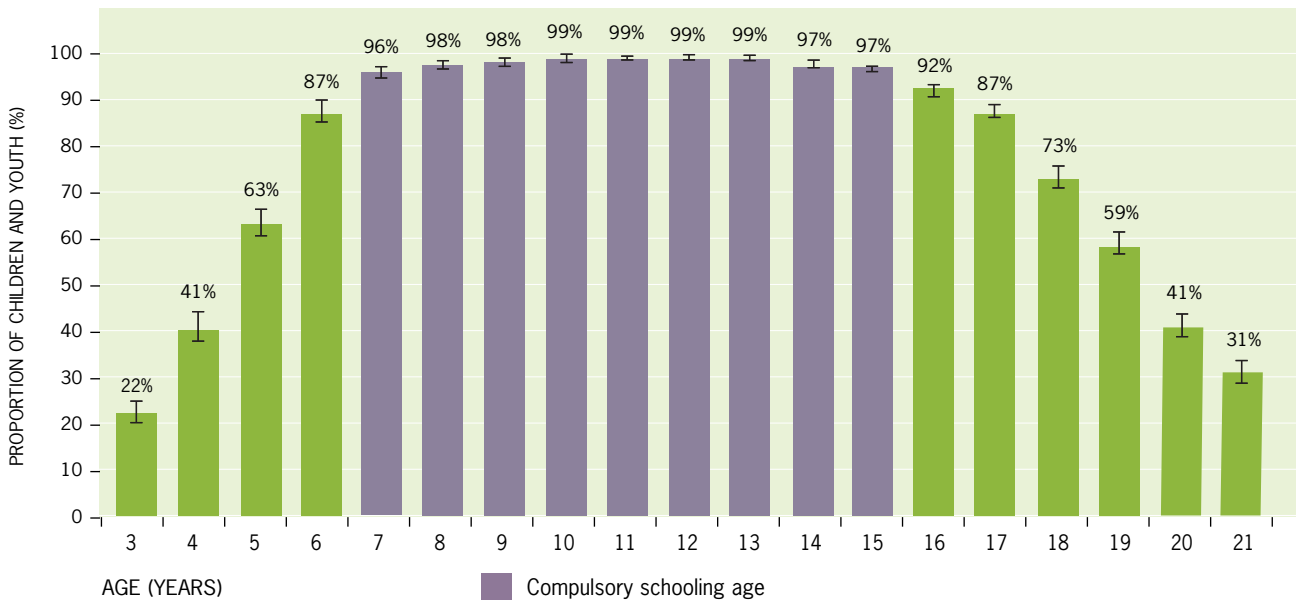
Overall attendance rates tend to mask the problem of drop-out among older children. Analysis of attendance among discrete age groups shows a significant drop in attendance amongst children older than 14. Whereas 99% of 13-year-olds were reported

to be attending an educational institution in 2008, the attendance rate dropped to 97% for 14- and 15-year-olds. As schooling is compulsory until the age of 15 or the end of grade 9, the attendance rate decreases more steeply from age 16 onwards, with 92% of 16-year-olds, 87% of 17-year-olds, and 73% of 18-year-olds reported to be attending school. There is no significant difference in drop-out rates between boys and girls. Cost of education is the main reason for non-attendance in the high school age group, followed by a perception that “education is useless”.⁴ Other reasons for drop-out are illness and exam failure. Pregnancy accounts for between 11% and 20% of drop-out amongst teenage girls not attending school.⁵

It is encouraging to note that 42% of children (just over 1.3 million) in the pre-school age group (3 – 5-year-olds) were attending some kind of educational institution in 2008.

Attendance rates alone do not capture the regularity of children’s school attendance, or their progress through school. Research has shown that children from more ‘disadvantaged’ backgrounds – ie with limited economic resources, lower levels of parental education, or who have lost one or both parents – are less likely to enrol in school and are more likely to drop out or progress slowly than their more advantaged peers.⁶ Similarly, school attendance rates tell us nothing about the quality of teaching and learning that takes place in school. Systemic evaluations by the Department of Education have recorded very low pass rates in numeracy and literacy amongst both grade 3 and grade 6 learners.⁷

Table 6b: Proportion of children reported to be attending an educational institution, by age, 2008



Sources: Statistics South Africa (2009) *General Household Survey 2008*. Pretoria: StatsSA.

The number and proportion of children living far from the nearest school

This indicator reflects the distance from a child's household to the nearest school. Distance is measured via a proxy indicator: length of time travelled to reach the nearest school. The nearest school is regarded as 'far' if a child would have to travel more than 30 minutes to reach it, irrespective of mode of transport. Distance is measured to the nearest primary school for children aged 7 – 13, and to the nearest secondary school for children aged 14 – 17.

Access to schools and other educational facilities is a necessary condition for achieving the right to education. The location of a school and the distance between school and home can pose a barrier to education. Access to schools is also hampered by poor roads, transport that is unavailable or unaffordable, and danger along the way. Risks may be different for young children, for girls and boys, and are likely to be greater when children travel alone.

For children who do not have schools near their homes, the cost, risk and effort of getting to school can influence decisions about regular attendance. Those who travel long distances to reach school may wake very early and risk arriving late or physically exhausted, which may affect their ability to learn.

Statistics South Africa's population estimates show that there were approximately 7.3 million children of primary school age (7 – 13 years) in South Africa in mid-2008. A fifth (21%) of these children would have to travel more than 30 minutes to reach the nearest primary school. The highest proportions of children living far from the nearest primary school are in KwaZulu-Natal (32%), the North West (22%) and the Eastern Cape (22%).

Around 4.3 million children in South Africa are of secondary school age (14 – 17 years). A third (33%) of these children do not have a high school within a 30-minute radius of their homes. KwaZulu-Natal (41%), the Eastern Cape (42%) and North West (36%) are provinces with particularly high proportions of teenage children who do not have schools within easy access of their homes.

Access to school thus remains a problem for many children in South Africa, particularly those living in rural areas. Rural schools tend to be merging or closing down, making the situation worse for children in these areas. It appears that the problem is greater for children of secondary school age than for younger children.

The greatest change over the seven-year period (2002 – 2008) is in Gauteng, where the proportion of children living far from the nearest school has increased significantly at both the primary and secondary levels. This may be related to rapid population growth and in-migration of children.

It is important to note that children do not necessarily attend the school closest to their home for many reasons, including over-crowding, poor facilities and quality of education. The school fee exemption policy aims to remove financial obstacles to education in fee-charging schools. In theory the exemption makes it possible for children living in poor areas to attend better schools in areas further away. The proportion of learners who actually travel far to school is therefore likely to be higher than reflected in this indicator.

References

- 1 Constitution of the Republic of South Africa. Act 108 of 1996.
- 2 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. Addis Ababa: OAU.
- 3 Office of the High Commissioner of Human Rights (1989) *Convention on the Rights of the Child*, UN General Assembly resolution 44/25. Geneva: United Nations.
- 4 Statistics South Africa (2009) *General Household Survey 2008*. Pretoria: StatsSA.
- 5 See no. 4 above.
- 6 Crouch L (2005) *Disappearing schoolchildren or data misunderstanding? Dropout phenomena in South Africa*. North Carolina, USA: RTI International;
Lam D & Seekings J (2005) *Transitions to adulthood in urban South Africa: Evidence from a panel survey*. Prepared for the International Union for the Scientific Study of Population (IUSSP) general conference, 18 – 23 July 2005, Tours, France.
- 7 Department of Education (2008) *2007 grade 3 systemic evaluation*. Pretoria: DoE. [Leaflet];
Department of Education (2005) *Grade 6 intermediate phase systemic evaluation report*. Pretoria: DoE.

Table 6c:
Number and proportion of children living far from the nearest primary school, 2002 & 2008

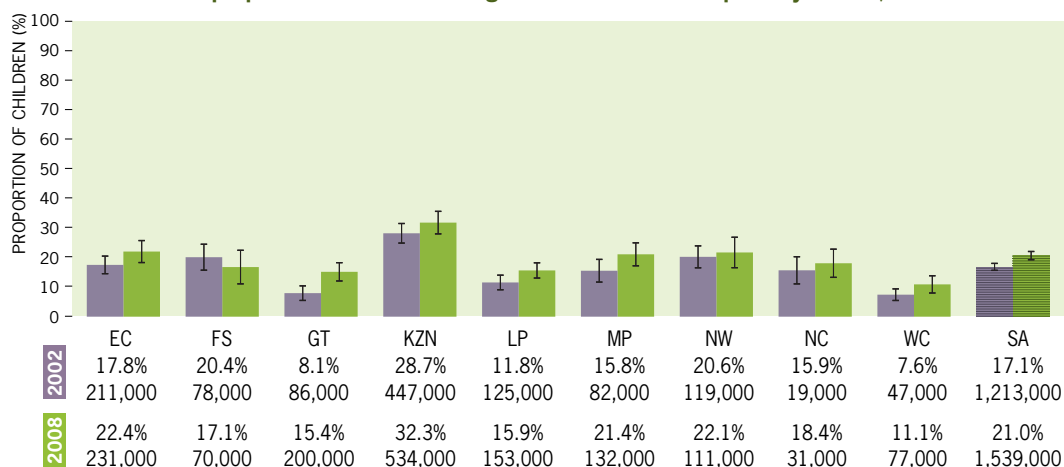
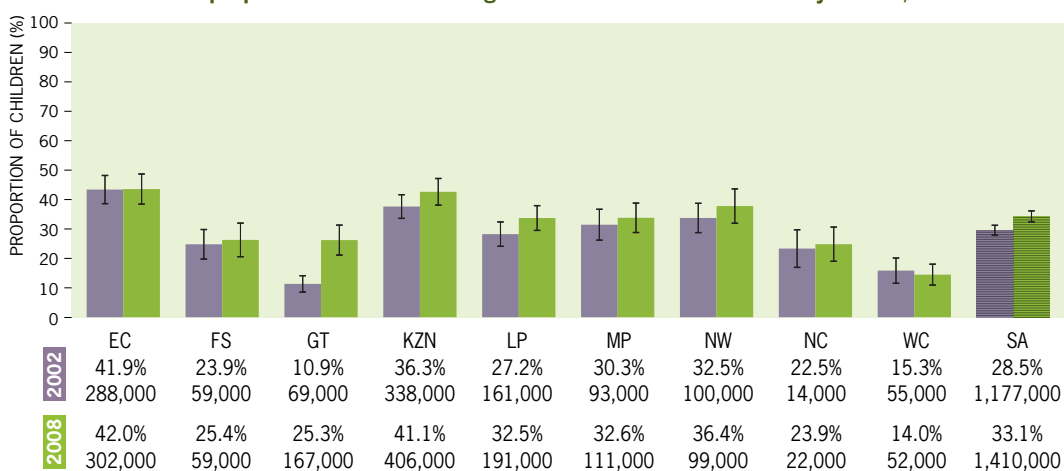


Table 6d:
Number and proportion of children living far from the nearest secondary school, 2002 & 2008



Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002*; *General Household Survey 2008*. Pretoria: Stats SA.
Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, UCT.

Notes: ① School-age children are defined as people aged 7 – 17 years. ② Population numbers are rounded off to the nearest thousand.
③ Strengths and limitations of the data are described on pp. 132 – 134. ④ The confidence intervals, shown on the graph as a vertical line at the top of each bar, represent the range into which the true value may fall. See p. 97 for more details on confidence intervals.
⑤ See www.childrencount.ci.org.za for more information.

Children's access to housing

Katharine Hall (Children's Institute)

Section 26 of the Constitution of South Africa¹ provides that “everyone has the right to have access to adequate housing”, and section 28(1)(c) gives children “the right to ... shelter”.

Article 27 of the UN Convention on the Rights of the Child² states that “every child has the right to a standard of living adequate for his/her development” and obliges the State “in cases of need” to “provide material assistance and support programmes, particularly with regard to ... housing”.

The number and proportion of children living in adequate housing

This indicator shows the number and proportion of children living in formal, informal and traditional housing. For the purposes of the indicator, ‘formal’ housing is considered a proxy for adequate housing and consists of: dwellings or brick structures on separate stands; flats or apartments; town/cluster/semi-detached houses; units in retirement villages; rooms or flatlets on larger properties. ‘Informal’ housing consists of: informal dwellings or shacks in backyards or informal settlements; dwellings or houses/flats/rooms in backyards; caravans or tents. ‘Traditional dwelling’ is defined as a ‘traditional dwelling/hut/structure made of traditional materials’. These dwelling types are listed in the General Household Survey, which is the data source.

The UN Committee on Economic, Social and Cultural Rights identifies ‘access to services’ as one of the key elements of adequate housing. Children living in formal areas are more likely to have services on site than those living in informal or traditional dwellings. They are also more likely to be close to social infrastructure like schools, libraries, clinics and hospitals.

Provinces with the largest proportions of children accommodated in ‘traditional’ dwellings are the Eastern Cape and KwaZulu-Natal, which together are home to 87% of all children living in traditional dwellings.

Adequate housing must also be ‘habitable’ (provide physical safety, protect from the elements, not over-crowded). Informal housing is generally not habitable in these terms, and makes up the bulk of the housing backlog in South Africa.

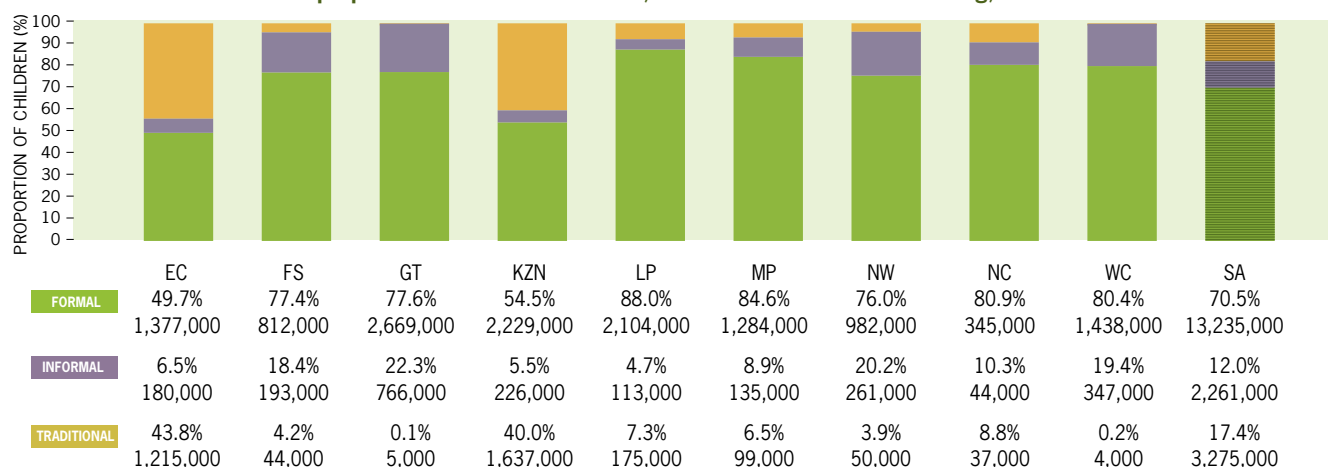
In 2008, nearly 2.3 million children in South Africa lived in backyard dwellings or shacks in informal settlements. Of these, nearly 80% are found in just four provinces: Gauteng (where 22% of children live in informal dwellings), North West (20%), the Western Cape (19%) and the Free State (18%). Limpopo has the lowest proportion (5%) of children in informal housing and the highest proportion in formal dwellings. The Eastern Cape and KwaZulu-Natal also have low proportions of children in informal housing. Forty percent of children in informal housing are in the 0 – 5-year age group. These young children are also more vulnerable to environmental hazards such as shack fires and paraffin poisoning.

The distribution of children in formal, informal and traditional dwellings has remained fairly constant over a seven-year period. This is surprising, given the delivery of over 2.5 million houses since the launch of the National Housing Subsidy Scheme in 1994.

The General Household Survey shows persistent racial inequalities. Ninety-eight percent of White children live in formal housing, compared with only 66% of African children.

Housing provides the context for family life. Many children live apart from their biological parents due to adult mobility and migrant labour. About a quarter of all children in South Africa live apart from their mothers (see *Demography* on pp. 99 – 104). It is possible that increased delivery and the prioritisation of women in the urban housing process would enable more children to live with one or both parents.

Table 7a: Number and proportion of children in formal, informal and traditional housing, 2008



Sources: Statistics South Africa (2009) *General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ See www.childrencount.ci.org.za for more information.

The number and proportion of children living in over-crowded households

Children are defined as living in over-crowded dwellings when there is a ratio of more than two people per room (excluding bathrooms but including kitchen and living room). Thus, a dwelling with two bedrooms, a kitchen and sitting-room would be counted as over-crowded if there were more than eight household members.

The UN Committee on Economic, Social and Cultural Rights defines 'habitability' as one of the criteria for adequate housing.³ Over-crowding is a problem because it can undermine children's needs and rights. For instance, it is difficult for school children to do homework if other household members want to sleep or watch television. Children's right to privacy can be infringed if they do not have space to wash or change in private. The right to health can be infringed as communicable diseases spread more easily in over-crowded conditions. Over-crowding also places children at greater risk of sexual abuse, especially where boys and girls have to share beds, or children have to sleep with adults. Analyses of the General Household Survey (2002 – 2008) show that children under the age of six years are more likely than older children to live in over-crowded households.

Over-crowding makes it difficult to target services and programmes to households effectively – for instance, urban households are entitled to six kilolitres of free water, but this household-level allocation discriminates against over-crowded households because it does not take account of household size.

In 2008, 5.6 million children lived in over-crowded households.

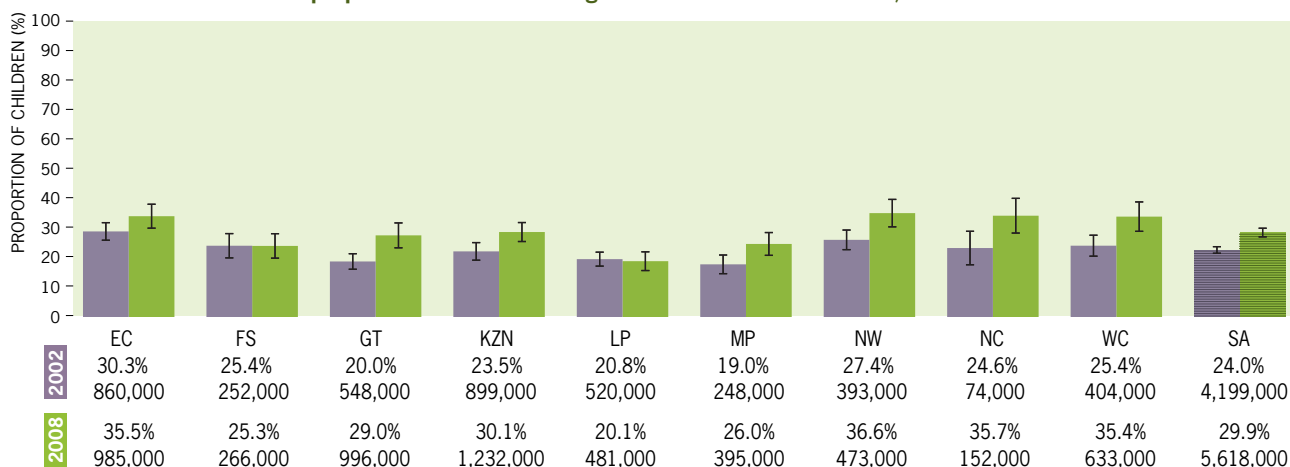
This represents 30% of the child population – much higher than the proportion of adults living in crowded conditions (20%). Over-crowding is associated with housing type: 63% of children who stay in informal dwellings also live in over-crowded conditions, compared with 23% of children in traditional dwellings and 4% of children in formal housing.

In Gauteng there has been a significant increase in the proportion of children living in over-crowded households between 2002 (20%) and 2008 (29%) – despite the massive roll-out of subsidy housing in the province. Significant increases in over-crowding are also found in the Western Cape (from 25% to 30% of children) and the North West province (from 27% to 37%). Over the same period, there have been slow but steady increases in over-crowding in the Northern Cape and KwaZulu-Natal.

There is a strong racial bias in children's housing conditions. Coloured children (29%) and African children (32%) are significantly more likely to live in crowded conditions than Indian and White children (3% and 4% respectively).

The average household size has gradually decreased from 4.5 in 1996 to around 4 in 2008, indicating a trend towards smaller households, which may in turn be linked to the provision of small subsidy houses. Households in which children live are much larger than the national average. The median household size for adult-only households is 2.7, while the median for households with children is 6.5 members.⁴

Table 7b: Number and proportion of children living in over-crowded households, 2002 & 2008



Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002*; *General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ The confidence intervals, shown on the graph as a vertical line at the top of each bar, represent the range into which the true value may fall. See p. 97 for more details on confidence intervals. ⑤ See www.childrencount.ci.org.za for more information.

References

- 1 Constitution of the Republic of South Africa. Act 108 of 1996.
- 2 Office of the High Commissioner of Human Rights (1989) *Convention on the Rights of the Child*, UN General Assembly resolution 44/25. Geneva: United Nations.
- 3 Office of the United Nations High Commissioner for Human Rights (1991) *The right to adequate housing (art.11 (1))*: 13/12/91. CESCR general comment 4 (general comments). Geneva: United Nations.
- 4 Statistics South Africa (2009) *General Household Survey 2008*. Pretoria: StatsSA. [Calculations by Hall K, Children's Institute, UCT]

Children's access to basic services

Updated by Katharine Hall and Double-Hugh Marera (Children's Institute)

Section 27(1)(b) of the Constitution of South Africa¹ provides that “everyone has the right to have access to ... sufficient ... water” and section 24(a) states that “everyone has the right to an environment that is not harmful to their health or well-being”.

Article 14(2)(c) of the African Charter on the Rights and Welfare of the Child² obliges the State to “ensure the provision of ... safe drinking water”.

Article 24(1)(c) of the UN Convention on the Rights of the Child³ says that State Parties should “recognise the right of the child to the enjoyment of the highest attainable standard of health ...” and to this end should “take appropriate measures to combat disease and malnutrition ..., including the provision of clean drinking-water”.

The number and proportion of children with access to adequate water supply

This indicator shows the number and proportion of children who have access to a safe and reliable supply of drinking water at home – either inside the dwelling or on site. This is used as a proxy for access to adequate water. All other water sources, including public taps, water tankers, dams and rivers, are considered inadequate because of their distance from the dwelling or the possibility that water is of poor quality. The indicator does not show whether the water supply is reliable, or if households have broken facilities or are unable to pay for services.

Water is essential for health, hygiene and sanitation. Young children are particularly vulnerable to illnesses associated with poor water quality, such as diarrhoea and cholera.

In 2008, nearly 7 million children lived in households without access to clean drinking water on site. A significantly higher proportion of children (36%) than adults (27%) lived in households without water on site. There has been little improvement in children's access to water from 2002 – 2008.

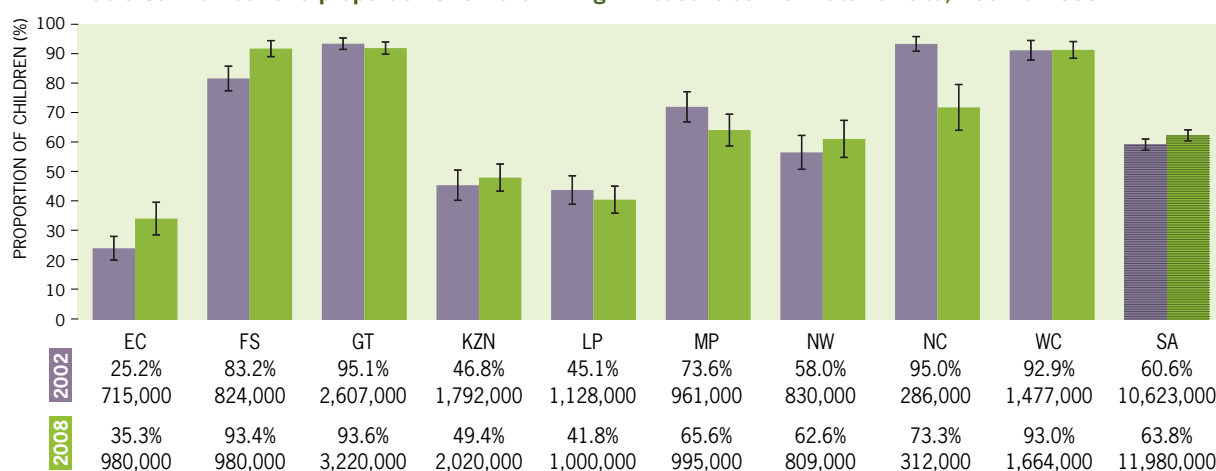
Provincial differences are striking. Over 90% of children in the Free State, Gauteng and the Western Cape provinces have an adequate supply of drinking water. However, access to water remains poor in KwaZulu-Natal (49%), Limpopo (42%) and the Eastern Cape (35%). The Eastern Cape appears to have experienced the greatest improvement in water provisioning since 2002.

Children living in formal areas are most likely to have services on site. While the majority of children in formal dwellings (75%) and informal dwellings (67%) had water on site in 2008, only 17% of children living in ‘traditional’ housing had clean water available on the property.

Racial inequalities persist: Only 58% of African children had clean water at home in 2008, while over 95% of all other population groups had clean water on site.

Policy guidelines⁴ for basic water supply recommend that water must be within 200 meters of the house. However, collecting water from a public source is physically burdensome and can be dangerous, especially for children.

Table 8a: Number and proportion of children living in households with water on site, 2002 & 2008



Sources: Statistics South Africa (2003; 2009) *General Household Survey 2002; General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ The confidence intervals, shown on the graph as a vertical line at the top of each bar, represent the range into which the true value may fall. See p. 97 for more details on confidence intervals. ⑤ See www.childrencount.ci.org.za for more information.

The number and proportion of children living in households with basic sanitation

This indicator includes the number and proportion of children living in households with basic sanitation. Adequate toilet facilities are used as proxy for basic sanitation. This includes flush toilets and ventilated pit latrines that dispose of waste safely and that are within or near a house. Inadequate toilet facilities include pit latrines that are not ventilated, chemical toilets, bucket toilets, or no toilet facility at all.

Poor sanitation compromises children's health, safety and nutritional status, and is associated with diarrhoea, cholera, malaria, bilharzia, eye infections and skin disease. The use of open land and bucket toilets also impacts on water quality and contributes to the spread of disease.

Children's access to adequate sanitation facilities has risen over the seven-year period from 47% in 2002 to 61% of children in 2008. Yet over 7 million children still use unventilated pit latrines, buckets or open land, despite the State's goal to provide adequate sanitation to all, and to eradicate the bucket system.

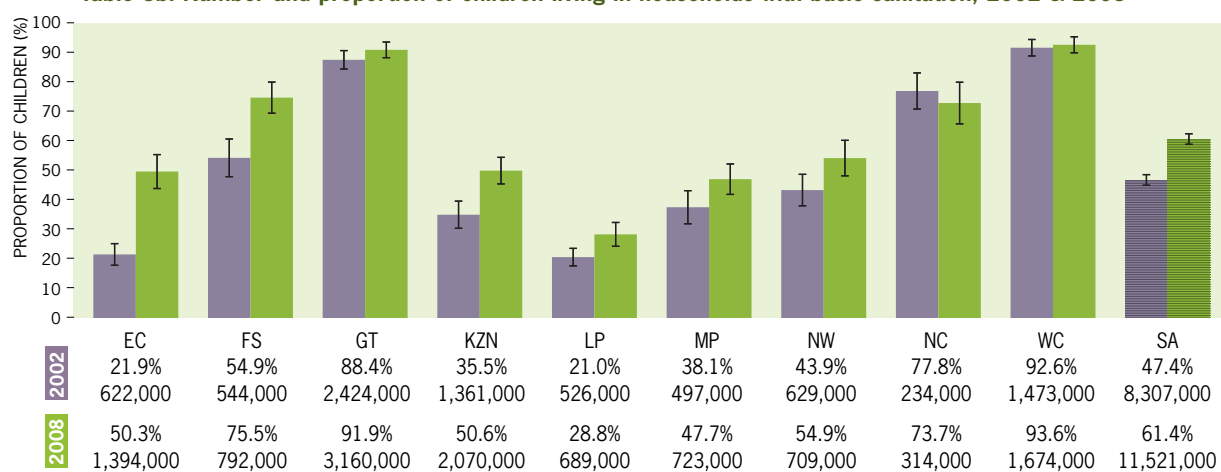
There are great provincial disparities. In provinces with large metropolitan populations, like Gauteng and the Western Cape, over 90% of children have access to adequate sanitation, while provinces with large rural populations have the poorest sanitation.

The proportion of children with adequate toilet facilities increased from 22% in 2002 to 50% in 2008 in the Eastern Cape, and from 36% to 51% in KwaZulu-Natal. Only 29% of children in Limpopo had adequate sanitation in 2008.

Racial inequalities persist: Over 95% of Indian, White and Coloured children had access to adequate toilets in 2008, while only 55% of African children had access to basic sanitation. This is a marked improvement from 38% of African children in 2002.

Effective sanitation is not simply about toilet technology. It is equally dependent on personal hygiene and effective sanitation services. The General Household Survey does not indicate whether toilets are in clean, or in working order.

Table 8b: Number and proportion of children living in households with basic sanitation, 2002 & 2008



Sources: Statistics South Africa (2003 ; 2009) *General Household Survey 2002; General Household Survey 2008*. Pretoria: Stats SA. Analysis by Katharine Hall & Double-Hugh Marera, Children's Institute, UCT.

Notes: ① Children are defined as people aged 0 – 17 years. ② Population numbers are rounded off to the nearest thousand. ③ Strengths and limitations of the data are described on pp. 132 – 134. ④ The confidence intervals, shown on the graph as a vertical line at the top of each bar, represent the range into which the true value may fall. See p. 97 for more details on confidence intervals. ⑤ See www.childrencount.ci.org.za for more information.

References

- 1 Constitution of the Republic of South Africa. Act 108 of 1996.
- 2 Secretary General of the African Union (1990) *African Charter on the Rights and Welfare of the Child*. OAU resolution 21.8/49 Addis Ababa: OAU.
- 3 Office of the High Commissioner of Human Rights (1989) *Convention on the Rights of the Child*, UN General Assembly resolution 44/25. Geneva: United Nations.
- 4 Department of Water Affairs and Forestry (1994) *White paper on water supply and sanitation*. Pretoria: DWAF.

Technical notes on the data sources

General Household Survey¹ The GHS is a multi-purpose annual survey conducted by the national statistical agency, Statistics South Africa, to collect information on a range of topics from households in the country's nine provinces. The survey uses a sample of 30,000 households. These are drawn from Census enumeration areas using multi-stage stratified sampling and probability proportional to size principles. The resulting estimates should be representative of all households in South Africa.

The GHS sample consists of households and does not cover other collective institutionalised living-quarters such as boarding schools, orphanages, students' hostels, old age homes, hospitals, prisons, military barracks and workers' hostels. These exclusions should not have a noticeable impact on the findings in respect of children.

Changes in sample frame and stratification

The current master sample was used for the first time in 2004, meaning that, for longitudinal analysis, 2002 and 2003 may not be easily comparable with later years as they are based on a different sampling frame. From 2006, the sample was stratified first by province and then by district council. Prior to 2006, the sample was stratified by province and then by urban and rural area. The change in stratification could affect the interpretation of results generated by these surveys when they are compared over time.

Provincial boundary changes

Provincial boundary changes occurred between 2002 and 2007, and slightly affect the provincial populations. Comparisons on provincial level should therefore be treated with some caution. The sample and reporting are based on the old provincial boundaries as defined in 2001 and do not represent the new boundaries as defined in December 2005.

Weights

Person and household weights are provided by Statistics South Africa and are applied in *Children Count – Abantwana Babalulekile* analyses to give estimates at the provincial and national levels.

Survey data are prone to sampling and reporting error. Some of the errors are difficult to estimate, while others can be identified. One way of checking for errors is by comparing the survey results with trusted estimates from elsewhere. Such a comparison can give an estimate of the robustness of the survey estimates. For this project, GHS data were compared with estimates from the Statistics South Africa's mid-year estimates, as well as the Actuarial Society of South Africa's ASSA2003 AIDS and Demographic model.

Analyses of the six surveys from 2002 to 2007 suggest that over- and under-estimation may have occurred in the weighting process:

- When comparing the weighted 2002 data with the ASSA2003 AIDS and Demographic model estimates, it seems that the number of children aged 0 – 9 years was under-estimated in the GHS, while the number of children aged 10 – 19 was over-estimated. The pattern is consistent for both sexes. The number of very young males aged 0 – 4 years appears to be under-estimated by 15%. Girls in this age group have been under-estimated by 15.8%. Males in the 10 – 14-year age group appear to be over-estimated by 5.7%.
- Similarly in 2003, there was considerable under-estimation of the youngest age group (0 – 9 years) and over-estimation of the older age group (10 – 19 years). The pattern is consistent for both sexes. The results also show that the over-estimation of males (9%) in the 10 – 19-year age group is more than double the over-estimation for females in this age range (3.8%).

- In the 2004 results, it seems that the number of children aged 7 – 12 years was over-estimated by 6%, as well as the number of persons aged 13 – 22 years. The number of very young children appeared to have been under-estimated. The patterns of over- and under-estimation appear to differ across population groups. For example, the number of White children appears to be over-estimated by 14%, while the number of Coloured persons within the 13 – 22-year age group appears to be 9% too low.
- In 2005, the GHS weights seem to have produced an over-estimate of the number of males within each five-year age group. The extent of the over-estimation is particularly severe for the 10 – 14-year age group. In contrast, the weights produce an under-estimate of the number of girls – the error seems greatest in respect of the younger age groups. These patterns result in male-to-female ratios of 1.06, 1.13, 1.10 and 1.09 respectively for the four age groups covering children (ie 0 – 4, 5 – 9, 10 – 14 and 15 – 19 years).
- The 2006 weighting process yielded the same results as in 2005. The one exception is that the under-estimation of females is greatest in the 5 – 9 and 15 – 19-year age groups. This results in male-to-female ratios of 1.03, 1.10, 1.11 and 1.12 respectively for the four age groups covering children.
- The 2007 weighting process produced an over-estimation for boys and an under-estimation for girls. The under-estimation of females is in the range of 3 – 5% while the over-estimation is in the range of 1 – 7%. This results in male-to-female ratios of 1.07, 1.06, 1.08 and 1.08 respectively for the four age groups covering children.
- Overall, assuming the ASSA2003 AIDS and Demographic model to be the 'gold standard', it appears that the GHS2008 over-estimates both male and female populations under the age of 19 years, except for 0 – 4-year-old females. The extent of over-estimation for boys is in the range 0 – 7%. It is particularly severe for boys aged 10 – 14 years. Over-estimation is in the range of 2 – 5% for girls aged five years and above. For girls aged 0 – 4 years, the ASSA2003 model suggests that these may have been under-estimated by about 1%. The GHS2008 suggests a sex ratio of 1.03 for children aged 0 – 4 years, which is higher than that of the ASSA model and Statistics South Africa's mid-year estimates.

The apparent discrepancies in the seven years of data may slightly affect the accuracy of the *Children Count – Abantwana Babalulekile* estimates. Since 2005 the male and female patterns vary in respect of a particular characteristic, which means that the total estimate for this characteristic will be somewhat slanted toward the male pattern. A similar slanting will occur where the pattern for 10 – 14-year-olds, for example, differs from that of other age groups. Furthermore, there are likely to be different patterns across population groups.

Disaggregation

Statistics South Africa suggests caution when attempting to interpret data generated at low level disaggregation. The population estimates are benchmarked at the national level in terms of age, sex and population group while at provincial level, benchmarking is by population group only. This could mean that estimates derived from any further disaggregation of the provincial data below the population group may not be robust enough.

Reporting error

Error may be present due to the methodology used, ie the questionnaire is administered to only one respondent in the household who is expected to provide information about all other members of the household. Not all respon-

dents will have accurate information about all children in the household. In instances where the respondent did not or could not provide an answer, this was recorded as “unspecified” (no response) or “don’t know” (the respondent stated that they didn’t know the answer).

SOCPEN database² Information on social grants is derived from SOCPEN, a national database maintained by the South African Social Security Agency (SASSA), which was established by the government in 2004 to implement the disbursement of social grants for the Department of Social Development. Prior to this, SOCPEN was managed directly by the department. There has never been a published, systematic review of the social grants database, and the extent of the limitations of validity or reliability of the data has not been quantified. However, this database is regularly used by the department and other government bodies to monitor grant take-up, and the computerised system, which records every application and grant payment, minimises the possibility of human error. Take-up data and selected reports are available from the department on request throughout the year. *Children Count – Abantwana Babalulekile* reports the mid-year grant take-up figures for the sake of consistency with the GHS survey, which is conducted in June/July each year.

ASSA2003 AIDS and Demographic models³ The ASSA2003 suite of demographic models give time series data on population and HIV-related indicators by province, population group, sex, age and nationally. The models use empirical evidence as well as a series of assumptions as input. The underlying assumptions are well accepted and thus the models have been regarded as the ‘gold standard’ in HIV/AIDS projections in South Africa. These models give an indication of the proportion of adults and children affected by HIV/AIDS.

Recently, there has been some uncertainty surrounding the models. The ASSA2003 model, which is used to produce the estimates of the annual numbers of new paediatric HIV infections, tends to under-estimate quite substantially the HIV prevalence that has been measured in surveys of older children.⁴ This suggests that the annual numbers of new paediatric HIV infections could be under-estimated. For this reason, the indicator ‘HIV prevalence among children’ has been discontinued in *Children Count – Abantwana Babalulekile*.

There is also substantial uncertainty around the ASSA2003 estimates of the annual numbers of adults progressing to AIDS in each province (the denominator in the calculation of antiretroviral treatment coverage). Caution is therefore required when analysing the relative levels of antiretroviral coverage in the different provinces.

A further limitation, relevant to antiretroviral treatment, is that the ASSA2003 model estimates the number of new AIDS cases rather than the number of individuals who are newly eligible for antiretroviral treatment. The latter includes individuals whose CD4+ counts have dropped below the threshold of 200/ μ , while the former does not. This is likely to imply some under-estimation of treatment need.

In the ASSA2003 model, antiretroviral treatment is assumed to be started at the time of the first AIDS-defining illness, and the calculation of the number of new adult AIDS cases in a particular period is therefore unaffected by the level of antiretroviral provision. Since the ASSA2003 model estimates of annual numbers of new AIDS cases are published over intervals from mid-year to mid-year, the rates of adult antiretroviral coverage are calculated for the same periods.

The ASSA2003 estimates were updated to take into account:

- revised estimates of the proportion of pregnant women who receive HIV counselling and testing (as presented in the section on access to prevention of mother-to-child transmission);
- revised estimates of the proportion of women testing positive who receive nevirapine (this has been set at 75%);
- allowance for the greater effectiveness of the combined AZT and

nevirapine regimen that has been introduced in the Western Cape since 2004; and

- revised estimates of the proportion of women who practise exclusive formula feeding.⁵

The model has recently been recalibrated, using more recent data, including the Community Survey 2007. It will be relaunched as ASSA2008 once technical details have been finalised.

National Comprehensive HIV and AIDS Plan Statistics⁶ This Department of Health report contains the number of adults and children starting antiretroviral treatment in a particular year. The reliability of these data is questionable. For some provinces, like the Northern Cape, the cumulative number of children on antiretrovirals dropped from one year to the other, suggesting data quality problems.

District Health Barometer⁷ This report by the Health Systems Trust contains data on pregnant women who receive voluntary counselling and testing for HIV. The data show erratic trends in provision of nevirapine to pregnant women and their babies, which may reflect changes in record-keeping rather than quality of service. The data collected from all public health facilities are subject to greater uncertainty and should be treated with caution. There is also provincial variation in the quality of the data. Where provinces produced implausible figures, fields have been left empty. Immunisation coverage is derived from clinic records and reflects the proportion of all children under one-year-old in a target area who complete a primary course of immunisation. Notes on data quality in the *Barometer* suggest some errors in the data from specific hospitals and districts. Some of these data issues are resolved, for instance by removing outliers. Problems with missing denominators seem to have been resolved in 2008.

National HIV and Syphilis Antenatal Sero-Prevalence Survey in South Africa⁸ South Africa’s antenatal clinic data are among the best in Africa. In most other African countries, HIV-prevalence levels are reported in individual clinics or districts, and there is no attempt to draw a nationally representative sample of clinics from which national antenatal clinic prevalence rates can be calculated. This Department of Health survey follows a stratified cluster sampling methodology, with clinics being sampled on a probability proportional-to-size basis. The overall sample sizes are very large, at around 30,000, making this HIV-prevalence dataset one of the largest in the world.

The survey is conducted among pregnant women who attend public health antenatal clinic services during pregnancy. It 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 seeking antenatal care in the private health sector have a relatively low prevalence of HIV,⁹ and thus the surveys over-estimate HIV prevalence in pregnant women generally. It would also be expected that there would be differences in sexual behaviour between pregnant women and non-pregnant women, and the levels of HIV prevalence observed in the antenatal clinic surveys should therefore not be seen as representative of those in the general female population. After controlling for age differences, HIV prevalence in pregnant women tends to be substantially higher than that in women in the general population.¹⁰

It should also be noted that – in accordance with UNAIDS guidelines¹¹ – women are tested using a single ELISA antibody test, and there is no confirmatory testing of positive specimens. This may bias the results slightly, as the test can produce false positive results in a small proportion of HIV-negative women. Although this bias is generally thought to be of minimal significance when the population prevalence exceeds 10%, recent South African studies have suggested that the false positive rate could be around 2%.¹² This would imply over-estimation of the true HIV prevalence in pregnant women by about 2%.

South African Demographic and Health Survey 2003¹³ Two nationally representative South African Demographic and Health Surveys (DHS) have been conducted to date. These cover the population living in private households. The first was conducted in 1998, and the second in 2003. The main survey targets women aged 15 and 49 years. The 2003 survey introduced questions to men on sexual behaviour.

Both surveys use two-stage nationally representative probability samples drawn from Census enumeration areas. The sample is first stratified by the country's nine provinces, and then by urban and non-urban areas. The final sample yielded approximately 10,000 households for 2003.

There was a marked decline in the response rate to the survey. The overall response rate for the women's questionnaire was 75% in 2003, far lower than the 92% in 1998.

The DHS 2003 report suggests an over-representation of urban areas and of the African population group, and an under-representation of Whites and Indian females. It also highlights problems with age misreporting.

Key demographic and health indicators from the DHS 2003 have data quality problems which may be the result of poor fieldwork. These include child mortality, fertility and hypertension prevalence estimates. These indicators are either inconsistent with other data sources or difficult to interpret. Findings that are not sufficiently robust for decision-making are indicated in the report.

The findings on teenage pregnancy rates, sexual behaviour and contraception use must be interpreted carefully. Some of these indicators are affected by the low number of births reported, and by poor data from KwaZulu-Natal. The results are also influenced to some extent by the over-representation of urban areas and Africans.

National Food Consumption Survey – Fortification Baseline (NFCS-FB) 2005¹⁴

This study is a cross-sectional survey of a nationally representative sample of children aged 1 – 9 years in South Africa. The survey population consisted of all the children aged 1 – 9 years (12 – 108 months) and women of reproductive age living in the same households in South Africa. This initial sample was adapted by means of 25% over-sampling to accommodate for children and women who would not be home at the time of the survey. A total of 226 enumerator areas (EAs) were included in the survey, 107 of which were urban-formal, 23 urban-informal, 15 rural-formal and 81 tribal areas. All qualifying EAs were selected with a known probability. A qualifying household for inclusion in the survey was defined as any household with at least one child aged between 1 – 9 years and at least one woman of reproductive age living in it.

Validated questionnaires were administered by trained fieldworkers and blood and urine samples were taken from the respondents of each household to assess micronutrient status. Samples of tap water and maize were collected from each household and tested for iodine and vitamin A respectively, the latter at the household level. All questionnaires were translated in the country's official languages for use as appropriate. Quality assurance measures were employed throughout the survey.

For children younger than three years, height was determined by means of a measuring board. The average of two readings was used. If the two

readings varied by more than 0.5 cm, the procedure was repeated. For children three years of age and older, height was determined by means of a stadiometer. The average of two readings was used. If the two readings varied by more than 0.5 cm, the procedure was repeated.

Weight was determined for all children using pre-calibrated electronic scales. The average of two readings was used. The procedure was repeated once. The two readings could not vary by more than 100g; if so, the scale was checked for accuracy and the procedure repeated.

Vitamin A status was classified according to the World Health Organisation's criteria. Status was determined on the basis of the serum vitamin A concentration present in the blood drawn from children in the sample.

References

- 1 Statistics South Africa (2003 – 2009) *General Household Survey Metadata 2002 – 2008*. Pretoria: StatsSA. Available: www.statssa.gov.za.
- 2 South African Social Security Agency (2004 – 2009) SOCPEN social grants data. Pretoria: SASSA.
- 3 Dorrington RE, Johnson LF, Bradshaw D & Daniel T (2006) *The demographic impact of HIV/AIDS in South Africa. National and provincial indicators for 2006*. Centre for Actuarial Research (UCT), Medical Research Council and Actuarial Society of South Africa.
- 4 Shisana O, Rehle T, Simbayi LC, Parker W, Zuma K, Bhana A, Connolly C, Jooste S & Pillay V (eds) (2005) *South African National HIV Prevalence, HIV Incidence, Behaviours and Communication Survey, 2005*. Cape Town: HSRC Press.
- 5 Doherty T, Besser M, Donohue S, Kamoga N, Stoops N, Williamson L & Visser R (2003) *An evaluation of the prevention of mother-to-child transmission (PMTCT) of HIV initiative in South Africa: Lessons and key recommendations*. Durban: Health Systems Trust.
- 6 Department of Health (2008) National comprehensive HIV and AIDS plan statistics. [Unpublished].
- 7 Health Systems Trust (2009) *District Health Barometer*. Available: www.hst.org.za.
- 8 Department of Health (2001; 2009) *National HIV and Syphilis Prevalence Survey 2000; National HIV and Syphilis Prevalence Survey 2008*. Pretoria: DoH.
- 9 Wilkinson D (1999) HIV infection among pregnant women in the South African private medical sector. *AIDS*, 12(13): 1783.
- 10 See no. 4 above; Connolly C, Shisana O, Colvin M & Stoker D (2004) Epidemiology of HIV in South Africa – Results of a national, community-based survey. *South African Medical Journal*, 94(9): 776-781.
- 11 World Health Organisation (2002) *Scaling up antiretroviral therapy in resource-limited settings: Guidelines for a public health approach*. Geneva: WHO.
- 12 Amirfar S, Hollenberg JP & Abdool Karim SS (2006) Modeling the impact of a partially effective HIV vaccine on HIV infection and death among women and infants in South Africa. *Journal of Acquired Immune Deficiency Syndromes*, 43(2): 219-225.
- 13 Jackson DJ, Chopra M, Doherty TM, Colvin M, Levin J, Willumsen J, Goga A & Moodley P (2007) Operational effectiveness and 36 week HIV-free survival in the South African programme to prevent mother-to-child transmission of HIV-1. *AIDS*, 21(4): 509-516.
- 14 Labadarios D (ed) (2007) *The National Food Consumption Survey – Fortification Baseline (NFCS-FB): The knowledge, attitude, behaviour and procurement regarding fortified foods, a measure of hunger and the anthropometric and selected micronutrient status of children aged 1 – 9 years and women of child bearing age: South Africa, 2005*. Pretoria: Directorate: Nutrition, Department of Health.



About the contributors

Lesley Bamford works as a specialist in the Child and Youth Health Directorate in the national Department of Health, and is also an honorary professor in the School of Health Systems and Public Health at the University of Pretoria. She is a paediatrician, and holds an honours degree in African studies and a doctorate in public health. Her work concentrates on improving child health service delivery at community, primary health care and district hospital levels.

Lizette Berry is a senior researcher at the Children's Institute, University of Cape Town. She has an MA in social policy and management. She has more than eight years experience in child policy research. Her main areas of research have been child poverty, particularly monitoring the socio-economic conditions in which children live, and social grant systems. This includes a focus on vulnerable children and monitoring their access to entitlements and the realisation of their rights.

Lesley Bourne holds the position of specialist scientist in the Environment and Health Research Unit, Medical Research Council, and is an associate professor in the School of Public Health at the University of Cape Town. Lesley is a registered dietician with qualifications from Natal and Stellenbosch universities, as well as additional qualifications in public health from the University of Cape Town. She has a special interest in the welfare of low income groups, and in children in particular. This includes the implementation of health and health-related policies in South Africa, and various aspects of health promotion.

Debbie Bradshaw is the director of the Burden of Disease Research Unit at the Medical Research Council and has a DPhil in biomathematics from Oxford University. She led the first national burden of disease study to be undertaken in South Africa and has published extensively on the health status and determinants of health. She is committed to improving the use of data for decision-making and has served on international and local advisory committees.

Minette Coetzee is currently an associate professor at the University of Cape Town School of Child and Adolescent Health at the Red Cross War Memorial Children's Hospital. She leads a practice development initiative with two major components: a broad-based practice improvement research programme and two postgraduate diplomas in paediatric and paediatric critical care nursing. She works with children's nurses throughout southern Africa to translate complex scientific understanding and evidence into simple and effective nursing interventions.

Mickey Chopra is chief of health and associate director of programmes at UNICEF, New York, and leads the agency's work on maternal, newborn and child health; immunisation; paediatric HIV/AIDS; and health systems strengthening, policy and research. Trained as a medical doctor in England, Mickey worked as district medical officer in KwaZulu-Natal before joining the School of Public Health at the University of the Western Cape, and thereafter the Health Systems Research Unit at the Medical Research Council. He has published over 70 international peer-reviewed papers and has a PhD from the University of Uppsala in Sweden.

Ariane De Lannoy is a senior researcher at the Children's Institute, University of Cape Town. She has a PhD in sociology and a Masters in languages and international politics. She is currently managing the Ordinary Politics Project in collaboration with the University of Princeton, New Jersey, USA.

Brian Eley is the head of Paediatric Infectious Diseases, Red Cross War Memorial Children's Hospital, University of Cape Town. His current research interests include the outcome of paediatric antiretroviral therapy, pharmacokinetics of antiretroviral agents in children co-treated with anti-tuberculosis medication, genetic control of mycobacterial infection, and new diagnostic tests for tuberculosis.

Alan Flisher, a child and adolescent psychiatrist, was the Sue Streungmann Professor of Child and Adolescent Psychiatry and Mental Health at the University of Cape Town. He was, until his untimely death, the head of the division of Child and Adolescent Psychiatry at UCT/Red Cross War Memorial Children's Hospital, the director of the Adolescent Health Research Unit at UCT, and also director of the Mental Health and Poverty Research Programme Consortium. Alan had a long history of research and clinical service in the fields of adolescent health, mental health services research and psychiatric epidemiology. His presence is sorely missed.

Anik Gevers is a clinical psychologist and researcher at the Division of Child and Adolescent Psychiatry/Adolescent Health Research Unit, University of Cape Town, specialising in child and adolescent mental health and well-being. Anik has a Masters in clinical psychology and her current research focuses on identifying and promoting healthy adolescent intimate relationships and developing a school-based programme to prevent intimate partner violence and promote healthy relationships among young adolescents.

Katharine Hall is a senior researcher at the Children's Institute, University of Cape Town. Her work at the Institute focuses on the targeting of government services and poverty alleviation programmes for children. She has been leading *Children Count – Abantwana Bablululekile*, an ongoing data and advocacy project of the Institute, since its established in 2005 to monitor progress for children.

Michael Hendricks is a paediatrician and associate professor in the School of Child and Adolescent Health at the University of Cape Town. He works at the Child Health Unit and at the Red Cross War Memorial Children's Hospital. Michael convenes the Postgraduate Diploma in Maternal and Child Health and the Master of Philosophy in Maternal and Child Health. He has a special interest in and has published in the areas of community child health, public health nutrition and infectious diseases.

Marian Jacobs is the dean of the Faculty of Health Sciences at the University of Cape Town, where she is also professor of child health. She is a public health paediatrician with a special interest in child health policy, child rights, health systems and health research for development. She is the founding director of the Children's Institute, and serves as an advisor on the Technical Steering Committee for the World Health Organisation's Department of Child and Adolescent Health and Development.

Lucy Jamieson is a senior advocacy co-ordinator at the Children's Institute, University of Cape Town. She has a BA (Hons) in politics and is currently completing an MA in democratic governance. She has 15 years of experience in political campaign management, communications co-ordination and public consultation.

Leigh Johnson is a postdoctoral fellow at the Centre for Infectious Disease Epidemiology and Research, University of Cape Town. He specialises in the modelling of HIV/AIDS and other sexually transmitted infections, and in the modelling of prevention and treatment strategies for these diseases. He also has an interest in the monitoring of access to antiretroviral treatment in South Africa and assessing its demographic impact.

Maurice Kibel is an emeritus professor of child health at the University of Cape Town. He started the Child Health Unit in 1979. His present research interests are in childhood tuberculosis and in distance-learning techniques. He has over 150 publications, including the co-editorship with Haroon Saloojee and Anthony Westwood, of *Child Health for All*, now in its 4th edition. His comic poems, *General Tso's Chicken and the Seven Deadly Sins* (with cartoons by Tony Grogan), are currently with the publishers.

Lori Lake is commissioning editor at the Children's Institute, University of Cape Town. She has a BA (Hons) in anthropology and has spent the past 13 years developing education support material for government and civil

society, with a particular focus on health, safety, child protection and early childhood development.

Prinslean Mahery is a senior researcher at the Children's Institute, University of Cape Town. She has two law degrees, an LLB and Masters, both from the University of the Western Cape. She is a legal researcher in the area of children's rights. Her particular research interests are legal reform, advocacy, children's health rights and the development of practitioners' guides to the Children's Act.

Double-Hugh Marera is a quantitative researcher at the Children's Institute, University of Cape Town. He is currently finishing an MPhil in demography with the Centre for Actuarial Research at UCT. His research interests are in mathematical modelling of HIV/AIDS, mortality and poverty.

Nomathemba Mazaleni is the country director for Management Sciences for Health in South Africa. She has more than 20 years experience in developing, managing and implementing public health programmes. A nurse with a Masters in community health, she has focused on strengthening health systems to improve HIV/AIDS, TB and maternal and child health programmes. Nomathemba has been instrumental in introducing evidence-based programme management and evaluation. She is also passionate about community participation in primary health care.

Helen Meintjes is a senior researcher at the Children's Institute. She has an MA in social anthropology from UCT. Her areas of interest include childhood studies, children's participation and social policy with a particular focus on HIV and poverty. Her recent research has focused on issues related to the provision of care for children affected by AIDS in South Africa, from a community as well as national and international policy perspective.

Dr Aaron Motsoeledi was appointed the Minister of Health on 11 May 2009. He is a medical practitioner by profession, and holds an MB ChB degree. Dr Motsoeledi worked in public hospitals early in his career, and later as a private medical practitioner in Limpopo province, serving remote and underserved rural areas. In the 1990s, he served in various portfolios as a Member of the Executive in Limpopo, and was instrumental in developing provincial policy and strategies to address poverty, unemployment, and access to services, amongst others.

Nadine Nannan is a senior scientist with the Burden of Disease Research Unit at the Medical Research Council. She has an interest in the determinants and inequalities of child mortality. As part of a larger project, her current research focus is to estimate the burden of disease in children under five and the assessment of the associated risk factors that impact on child survival in South Africa around 2005.

Ngashi Ngongo is a public health physician with 20 years of international experience in clinical care and public health, in areas of health management, maternal and child health and paediatric HIV prevention, care and treatment. He is currently Senior Health Advisor (Malaria) for UNICEF, New York. His areas of research include prevention of mother-to-child transmission, community-based maternal and child health, and health systems strengthening.

Shirley Pendlebury is the director of the Children's Institute, University of Cape Town. She has a PhD in education and is well known nationally and internationally for her wide-ranging academic work in education. Social justice and human rights in education have been a recurring theme in her research, publications, conference presentations, teaching and post-graduate supervision. She has a strong commitment to inter-disciplinary, socially responsible research.

Paula Proudlock is the manager of the Child Rights Programme at the Children's Institute, University of Cape Town. She has a Masters in constitutional and administrative law and specialises in research, advocacy and teaching on human rights, with a special focus on children's socio-economic rights.

Louis Reynolds is a paediatric pulmonologist in the Department of Paediatrics and Child Health at the University of Cape Town and the Red Cross War Memorial Children's Hospital. He serves on the Human Research Ethics Committee in the Faculty of Health Sciences. He is a member of the Steering Committee of the South African chapter of the People's Health Movement.

Haroon Saloojee is a personal professor and head of the Division of Community Paediatrics at the University of the Witwatersrand, Johannesburg. His research interests include neonatal care, childhood malnutrition, HIV, medical education and health system organisation. He is co-editor of the book *Child Health for All*, and of a World Health Organisation manual on neonatal care in resource-poor settings. He serves as president of the College of Paediatricians of South Africa and chairperson of the board of the Soul City Institute for Health and Development Communication.

David Sanders, academic chair and founding director of the School of Public Health at the University of the Western Cape, is a paediatrician qualified in public health. He has over 30 years experience of health policy development, research and teaching in Zimbabwe and South Africa, having advised governments and UN agencies in primary health care, child health and nutrition. He has over 100 peer-reviewed articles, including three books, and was Heath Clark lecturer at the London School of Hygiene and Tropical Medicine in 2004/05. He is on the Global Steering Council of the People's Health Movement.

Khululwa Seyisi-Tom is an admitted attorney who has practised law for six years before joining the Children's Institute, University of Cape Town, as an advocacy officer from February 2009 until March 2010. Khululwa now works at Parliament as a party researcher, focusing on debates within the National Assembly, the Standing Committee on Public Accounts, and the Portfolio Committee for Women, Children and People with Disabilities.

Maylene Shung King is a medical doctor, currently doing a full-time DPhil in social policy in the Department of Social Policy and Social Work, University of Oxford. Her focus is on child health policy, an area she has worked in for the past 13 years. Her doctoral thesis examines why child health policy in post-apartheid South Africa has not performed as intended, using the School Health Policy as a case study.

Charmaine Smith is the communication and knowledge manager of the Children's Institute, University of Cape Town. She holds a national diploma in journalism, and a post-graduate diploma in writing and production for the media. Her background is radio journalism, and she has been applying her media skills in the development sector for the past nine years.

Ashley van Niekerk is a programme manager and specialist scientist with the Medical Research Council/University of South Africa's Safety and Peace Promotion Research Unit. He has a PhD in social medicine. His current research interests are the identification of childhood injury risk profiles, in particular those due to burns, the development and evaluation of childhood safety interventions, the identification of barriers to these interventions, and the promotion of child safety policy.

Anthony Westwood trained as a paediatrician and is currently associate professor of the School of Child and Adolescent Health, University of Cape Town, and head of General Paediatric Services (Metro West) in the Western Cape Department of Health. His research interests include health systems, cystic fibrosis and diarrhoeal disease in children.

David Woods is an emeritus associate professor of the Neonatal Medicine Unit at School of Child and Adolescent Health, University of Cape Town. He is chairman of the Perinatal Education Trust, director of Eduhealthcare and co-director of Power-free Education and Technology. His current interest is in providing appropriate distance-learning courses for professional health care workers, especially in maternal and newborn care; and in partnering the development of cheap, rugged medical devices which are independent of conventional power sources. Both projects aim to improve patient care in under-resourced communities.



Previous issues of the *South African Child Gauge*

2008/2009:

Meaningful access to basic education

Essays focus on the right to education; meaningful access; budgetary frameworks; school-fee waivers; children who are out of school; the relationship between poverty and exclusion; partnerships between schools and communities; and what is required to build a strong foundation in numeracy and literacy. It includes a pull-out poster-map of national and provincial education provisions and outcomes.



2007/2008:

Children's constitutional right to social services

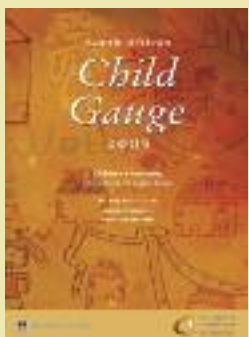
Within the context of a developmental social welfare system, the essays describe and analyse the law and policies that aim to give effect to children's right to social services, and explore and make recommendations on key budgetary, human resource and implementation challenges related to the Children's Act.



2006:

Children and poverty

This issue reviews barriers to key government poverty alleviation programmes that benefit children, including access to social assistance, education, primary health care, housing and water. It contains a pull-out poster-map that provides provincial data on a few key child-centred socio-economic indicators.



2005:

Children and HIV/AIDS

The essays discuss antiretroviral roll-out to children, social security for children in a time of AIDS, schools as nodes of care and support for children affected by HIV/AIDS, and children's participation in law-making processes.

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The *South African Child Gauge* tracks progress towards the realisation of children's rights and is produced annually by the Children's Institute, University of Cape Town.

The *South African Child Gauge 2009/2010* is fifth in the series and focuses on child health. This issue also reflects on recent legislative developments affecting children's health, and provides child-centred data tracking children's access to social assistance, education, health care, housing and basic services.

The Children's Institute aims to contribute to policies, laws and interventions that promote equality and realise the rights and improve the conditions of all children in South Africa, through research, advocacy, education and technical support.

What readers say about the *South African Child Gauge*

"[T]he *South African Child Gauge* is the only publication in South Africa that combines detailed empirical data ... in a user-friendly and accessible format, with insightful and thought-provoking research and commentary in the sphere of children's rights."

Belinda van Heerden, Supreme Court judge

"It's an invaluable campaigning tool for activists but also provides academics and state officials the means to critically examine and reflect on the glossy rhetoric of our policies in contrast to the actual reality on the ground."

*Salim Vally, Centre for Education Rights and Transformation,
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Dr Maria Mabetoa, Department of Social Development

46 Sawkins Road, Rondebosch

Cape Town, 7700, South Africa

Tel: +27 (0)21 689 5404 Fax: +27 (0)21 689 8330

E-mail: info@ci.org.za Web: www.ci.org.za

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