# INTERIM REPORT OF THE COMMITTEE ON MORBIDITY AND MORTALITY IN CHILDREN UNDER 5 YEARS (COMMIC): 2012

November 2012

## CONTENTS

Contents	i
List of abbreviations	iii
List of Tables	V
List of Figures	V
Definitions	vii
Executive Summary	ix

## CHAPTERS

1. Introduction	1
2. Child Mortality Data : 2009	5
3. Interpretation of 2009 Child Mortality Data	13
4. Working Group reports	23
5. Progress Report on Implementation of CoMMiC	29
Recommendations	

## **A**PPENDICES

1. Terms of Reference Child Health Forum	35
2. Committee members	39
3. Additional activities undertaken by the committee	41

## LIST OF ABBREVIATIONS

ART	Antiretroviral Therapy
CFR	Case Fatality Rate
CoMMiC	Committee on Morbidity and Mortality in Children Under 5 Years
DCST	District Clinical Specialist Team
DHA	Department of Home Affairs
DHIS	District Health Information System
DNF	Death Notification Form
DRF	Death Report Form
EDL	Essential Drug List
EID	Early Infant Diagnosis
EPI	Expanded Programme on Immunisation
GIT	Gastrointestinal Tract
HDACC	Health Data Advisory and Coordinating Committee
HIV	Human Immunodeficiency Virus
IMR	Infant Mortality Rate
MDG	millennium Development Goals
MNCWH	Maternal, Newborn, Child and Women's Health
NDOH	National Department of Health
NHISSA	National Health Information Systems of South Africa
NHLS	National Health Laboratory Service
NIMART	Nurse Initiated Management of Antiretroviral Therapy
PHC	Primary Health Care
PMTCT	Prevention of Mother-to-Child Transmission of HIV
SAM	Severe Acute Malnutrition
SANCHERG	South African Child Health Epidemiology Research Group
SAPA	South African Paediatric Association
StatsSA	Statistics South Africa
U5MR	Under-5 mortality rate

## Provinces:

- EC Eastern Cape
- FS Free State
- GP Gauteng
- KZN KwaZulu-Natal
- LP Limpopo
- MP Mpumalanga
- NC Northern Cape
- NW North West Province
- WC Western Cape
- RSA Republic of South Africa

# LIST OF TABLES

1	Provincial mortality pattern: 2009	6
2	Mortality pattern by province and district: 2009	7
3	Provincial mortality trends, 2007-2009	9
4	Morbidity and mortality pattern by district, 2009	10
5	District mortality trends, 2007-2009	11
6	District ranking by 2009 U5MR	12
7	2009 Provincial mortality rates in South Africa	13
8	Provincial mortality trends in South Africa, 2007-2009	16
9	Mortality trends in districts with <60% decline in U5MR, 2007-2009	17
10	Districts with increasing mortality rates, 2007-2009	18
11	Top 5 causes of under-5 deaths per province, 2009	20

# LIST OF FIGURES

1	IMR Trend, 2007-2009	9
2	U5MR Trend, 2007-2009	9
3	Ten best U5MR performing districts, lowest U5MR	14
4	Ten worst U5MR performing districts, highest U5MR	15
5	Provincial mortality trends in South Africa, 2007-2009	16
6	District with decline in U5MR of more than 60%, 2007-2009	17
7	Comparison of number of under-5 deaths registered with DHA in 2009 with those counted in Census 2011	19

# DEFINITIONS<sup>1, 2</sup>

#### INFANT MORTALITY RATE (IMR)

The probability of dying between birth and exactly one year of age expressed per 1,000 live births, ie the number of deaths of infants aged less than one year per 1,000 live births.

#### UNDER-5 MORTALITY RATE (U5MR)

The probability of dying between birth and exactly five years of age expressed per 1,000 live births, ie the number of deaths of children aged less than five years per 1,000 live births.

#### **CAUSE OF DEATH**

Any condition, which leads to or contributes to death and is classifiable according to the International Classification of Diseases (ICD) system

#### UNDERLYING CAUSE OF DEATH

The disease or injury which initiated the train of morbid events leading directly to death or the circumstances of the accident or violence that produced the fatal injury (WHO).

#### INDIRECT CAUSE OF DEATH

Circumstance influencing the wellbeing of children, their access to or the quality of care received, that may have contributed towards the death.

<sup>&</sup>lt;sup>1</sup> Unicef, The State of the World's Children.

<sup>&</sup>lt;sup>2</sup> Burden of Disease Research Unit. Cause of death certification in South Africa: A Booklet for the guidance of Medical Practitioners in completing the Death Notification Form (DNF) – BI-1663. Medical Research Council.

#### **EXECUTIVE SUMMARY**

The Committee on Morbidity and Mortality in Children under 5 years (CoMMiC) was established in 2008. It is one of three national committees continuously reviewing maternal, perinatal and childhood deaths in South Africa. In June 2011, Dr A Motsoaledi, Minister of Health of the Republic of South Africa, reappointed members of CoMMiC for a second term with an expanded set of objectives. Its primary objective remains the monitoring of child mortality and morbidity data. It also has an oversight function, facilitating sound clinical governance and assisting in the development and monitoring of appropriate standards of health care for children in South Africa.

There are three years left before the Millennium Development Goals (MDG) reach their maturity date. Although South Africa is certain to miss the MDG 4 under-5 mortality rate (U5MR) target of 20 per 1 000 live births by 2015, the data in this report (and some more recent data) suggest cause for optimism. U5MR trends have shown a reversal – from escalating under-5 mortality until about 2006 to dramatic reductions in the review period.

Mortality data in this report is based on information extracted by StatsSA from death notification forms. In 2009, 50 471 under-5 deaths were reported, of whom three-quarters (75.2%) were infants (aged less than one year). This equates to a South African U5MR of 50.7 per 1000 live births in 2009 (2007: 62.1). Despite wide provincial variance (ranging from 28.2 in the Western Cape to 92.4 in the Free State), all nine provinces showed U5MR declines between 2007 and 2009. Some 11 239 fewer under-5 deaths occurred in 2009, with the greatest decline in the U5MR occurring in the North West Province. The reason(s) for this shift cannot be adequately explained at this stage because of the lack of cause-specific mortality data, but is likely to be related to improvements in the prevention and management of paediatric HIV, among other developments.

The U5MR variance was wider at district level with reported rates of 26.9 in the City of Cape Town and 157.7 in Xhariep in the Free State. Despite widespread successes, 11 districts had increased U5MRs between 2007 and 2009. Infant mortality rates in provinces and districts proportionately decreased more than young child (1-4 year) mortality rates.

The top five causes of death remained unchanged between 2007 and 2009 and included neonatal disorders, diarrhoeal disease, lower respiratory infections and non-natural deaths, with HIV/AIDS and severe malnutrition contributing as both primary and underlying causes of child mortality. The rank order of the main causes differed between and within provinces. Diarrhoeal disease remained the commonest cause of death in more rural provinces (Limpopo, Mpumalanga and the Eastern Cape), while neonatal conditions predominated in all other provinces.

Three new CoMMiC working groups were constituted in 2011: (a) Data (b) Implementation and Oversight, and (c) Norms and Standards. Activities that the groups engaged in or advised on during the review year included: changes to the death notification and report forms; development of a standardised national paediatric ward admission, death and discharge register; completion of a framework that will be used to establish a national package of essential child health care services; and an early warning system to identify and respond to adverse events affecting the child health system.

There has been variable progress in the implementation of the eight recommendations made by CoMMiC in its 2011 triennial report. The National Child Health Strategy first developed in 2009 has been reconciled with the recommendations of the three Ministerial mortality committees and was relaunched in May 2012. The roll-out of the primary health care re-engineering strategies has seen the establishment of district clinical specialist teams (DCST), as well as community health agents. Both of these cadres of health workers offer much promise in addressing some of the gaps in child health programme implementation identified in the previous CoMMiC report.

The establishment of District and Provincial Child Health Forums, together with the introduction of DCSTs, is likely to improve the implementation of both

the National MNCWH Strategy and CoMMiC's recommendations. It is likely that these initiatives together the addition of newer vaccine to the South African EPI in 2010 will sustain an ongoing decline in under-5 mortality in the country in the foreseeable future..

## **CHAPTER 1: INTRODUCTION**

On 2<sup>nd</sup> June 2011 Dr A Motsoaledi, Minister of Health of the Republic of South Africa, reappointed the members of the Committee on Morbidity and Mortality in Children Under 5 Years (CoMMiC) for a second three year term.

The Terms of Reference (ToR) for this second term have been expanded to include both a primary as well as a secondary objective.

The primary objective of CoMMiC is the reduction of childhood morbidity and mortality through a process of death auditing. This process entails:

- the registration of all deaths and significant causes of morbidity in children under 5 years of age throughout the country;
- the identification of the causes of morbidity and mortality;
- the investigation of all cases to establish both direct and indirect factors that may have contributed to these deaths;
- the development of recommendations, based on the above findings, which will prevent further morbidity and mortality;
- the development of proposals for the implementation of the above recommendations.

The secondary objective of CoMMiC is to undertake an oversight function with respect to childhood morbidity, mortality and health care to ensure good clinical governance and an appropriate standard of health care for children in South Africa. This oversight role entails:

- Defining significant adverse events;
- The development of suitable indicators, tools and systems for the identification of these adverse events;
- The investigation of significant adverse events affecting childhood morbidity, mortality and child health services;
- The monitoring of the management of MNCWH programmes at the district, provincial and national levels.
- The monitoring of the implementation of CoMMiC recommendations

To fulfil these objectives CoMMiC is required to:

- Establish systems to enable the effective functioning of the committee
- Submit annual interim and comprehensive triennial reports to the National Minister of Health that:
  - Establish the infant (IMR) and under 5 (U5MR) mortality rates at district, provincial and national levels;
  - Describe the major causes of morbidity and mortality at district, provincial and national levels;
  - Identify indirect, modifiable factors contributing to childhood morbidity and mortality;
  - Make recommendations to reduce childhood morbidity and mortality;
  - o Monitor the implementation of these recommendations;
  - Evaluate the status of child health and performance of health services for children.

In light of the expanded ToR the committee revised its structure and functioning to better address its mandate. The following three working groups were constituted:

- 1. Data
- 2. Implementation and Oversight
- 3. Norms and Standards

Each working group has established terms of reference for the three year period, identified members, described objectives for the triennium and activities for each year.

The functioning of the committee has been revised to allow each working group to function independently and to report back at Committee meetings which now include both plenary and breakaway sessions to accommodate the work of each group. In this 2012 interim report the committee will provide:

- An update on mortality data for the country for 2009, disaggregated to provincial and district level including trends for the three period 2007 – 2009.
- A progress report on the implementation of the recommendations in the first triennial report.
- An outline of the work of each of the three working groups.

## CHAPTER 2: CHILD MORTALITY DATA: 2009

#### Data

The following data is presented to reflect the pattern of childhood mortality in South Africa as in 2009:

- 1. Provincial Mortality Pattern: 2009
- 2. Morbidity Pattern by Province & District: 2009
- 3. Provincial Mortality Trends 2007 2009
- 4. Morbidity & Mortality Pattern by District: 2009
- 5. District Mortality Trends 2007 2009
- 6. District Ranking by 2009 U5MR

#### DATA SOURCES

The above data has been extracted from the following sources:

StatsSA Number of births Number of deaths Place of death in hospital Cause of death

Infant and under-5 mortality rates were calculated using the StatsSA data.

- Child PIP Relationship of HIV and malnutrition with deaths
- DHIS In-hospital case fatality rates (CFR)
- NHLS Early Infant Diagnosis (EID)

Province			% in	%	%	CFR			
Province	IMR	USINK	Hosp	SAM	HIV	GE	ARI	SAM	
Eastern Cape	24.4	36.3	46.1	24.3	40.6	10.0	8.1	20.5	
Free State	72.4	92.4	47.9	56.7	50.7	13.0	9.7	24.9	
Gauteng	50.1	63.2	48.5	32.3	51.2	7.2	6.0	19.5	
KwaZulu-Natal	37.2	49.7	62.0	33.8	54.9	7.0	4.8	13.1	
Limpopo	32.9	48.9	45.8	38.1	57.1	9.5	10.4	22.9	
Mpumalanga	36.5	62.2	50.6	29.8	44.4	12.3	10.1	17.6	
Northern Cape	48.1	63.7	49.1	35.5	41	6.3	4.5	21.9	
North West	48.4	63.1	39.7	60.6	49	8.2	7.5	18.7	
Western Cape	23.4	28.2	49.3	22.6	28.4	0.5	0.3	4.8	
South Africa	38.1	50.7	50.0	33.7	47.8	7.3	6.5	18.3	

## **TABLE 1**. PROVINCIAL MORTALITY PATTERN: 2009

# **TABLE 2.** MORBIDITY PATTERN BY PROVINCE & DISTRICT: 2009

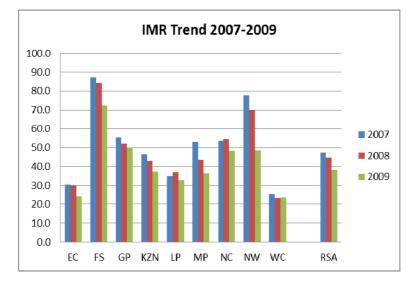
Province	District	Births	Death	Death	IMR	U5MR		In Hos		
Province	District	total	<1	<5		USINIK	<1	%	<5	%
EC	Cacadu	6 165	271	343	44.0	55.6	110	40.6	138	40.2
	Amathole & Buffalo City	35 208	901	1 319	25.6	37.5	461	51.2	633	48.0
	Chris Hani	14 310	350	505	24.5	35.3	184	52.6	255	50.5
	Ukhahlamba/Joe Qadi	5 889	227	333	38.5	56.5	107	47.1	149	44.7
	OR Tambo	26 155	265	509	10.1	19.5	127	47.9	232	45.6
	Alfred Nzo	10 860	272	487	25.0	44.8	92	33.8	162	33.3
	Nelson Mandela Bay Metro	20 765	624	835	30.1	40.2	315	50.5	426	51.0
	Total	119 352	2911	4 334	24.4	36.3	1397	48.0	1996	46.1
FS	Xhariep	1 319	168	208	127.4	157.7	59	35.1	76	36.5
	Motheo / Mangaung	17 358	875	1 107	50.4	63.8	523	59.8	633	57.2
	Lejweleputswa	11 011	1011	1 298	91.8	117.9	433	42.8	529	40.8
	Tabo Mafutsanyane	15 067	1186	1 511	78.7	100.3	601	50.7	720	47.7
	Fezile Dabi	7 700	558	720	72.5	93.5	281	50.4	361	50.1
	Total	52 455	3800	4 846	72.4	92.4	1898	49.9	2320	47.9
GP	Sedibeng	22 115	891	1 087	40.3	49.2	507	56.9	599	55.1
	Metsweding	5 756			0.0	0.0				
	West Rand	12 130	899	1 1 3 0	74.1	93.2	393	43.7	474	41.9
	Ekurhuleni	49 347	3065	3 769	62.1	76.4	1430	46.7	1703	45.2
	Johannesburg	63 367	2709	3 390	42.8	53.5	1330	49.1	1594	47.0
	Tshwane	33 753	1779	2 396	52.7	71.0	1015	57.1	1343	56.1
	Total	186 468	9347	11 776	50.1	63.2	4678	50.0	5707	48.5
KZN	Ugu	18 680	663	925	35.5	49.5	492	74.2	639	69.1
	uMgungundlovu	17 862	524	703	29.3	39.4	271	51.7	357	50.8
	Uthukela	13 829	592	790	42.8	57.1	360	60.8	431	54.6
	Umzinyathi	7 466	435	582	58.3	78.0	311	71.5	391	67.2
	Amajuba	11 602	443	583	38.2	50.2	285	64.3	356	61.1
	Zululand	18 686	792	1 048	42.4	56.1	428	54.0	541	51.6
	Umkhanyakude	13 157	395	532	30.0	40.4	299	75.7	370	69.5
	Uthungula	21 745	951	1 197	43.7	55.0	730	76.8	859	71.8
	iLembe	11 851	405	557	34.2	47.0	278	68.6	364	65.4
	Sisonke	7 298	283	391	38.8	53.6	194	68.6	239	61.1
	eThekwini	65 441	2044	2 735	31.2	41.8	1299	63.6	1644	60.1
	Total	207 617	7731	10 327	37.2	49.7	5112	66.1	6401	62.0
LP	Mopani	18 911	868	1 332	45.9	70.4	437	50.3	598	44.9
	Vhembe	33 563	669	1 017	19.9	30.3	404	60.4	561	55.2
	Capricorn	29 511	1 053	1 524	35.7	51.6	521	49.5	691	45.3
	Waterberg	15 064	437	595	29.0	39.5	205	46.9	246	41.3
	Greater Sekhukhune	15 246	665	1 020	43.6	66.9	294	44.2	417	40.9
	Total	112 295	3693	5 489	32.9	48.9	1 862	50.4	2 514	45.8
MP	Gert Sibande	17 783	1 320	1 653	74.2	93.0	694	52.6	805	48.7
	Nkangala	24 435	807	1 100	33.0	45.0	364	45.1	466	42.4
	Ehlanzeni	42 062	946	1 491	22.5	35.4	649	68.6	875	58.7
	Total	84 280	3 073	4 244	36.5	50.4	1 707	55.5	2 146	50.6

Dravinaa	District	Births	Death	Death	IMR	U5MR		In Hos	pital	
Province	District	total	<1	<5	IIVIR	USINIK	<1	%	<5	%
NC	Namakwa	1 627	41	51	25.2	31.3	20	48.8	26	51.0
	Pixley ka Seme	2 614	226	281	86.5	107.5	120	53.1	151	53.7
	Siyanda	4 709	251	343	53.3	72.8	138	55.0	191	55.7
	Frances Baard	8 616	281	391	32.6	45.4	134	47.7	172	44.0
	John Taolo Gaetsewe	4 881	281	363	57.6	74.4	130	46.3	161	44.4
	Total	22 447	1 080	1 429	48.1	63.7	542	50.2	701	49.1
NW	Bojanala Platinum	34 995	1 189	1 576	34.0	45.0	469	39.4	578	36.7
	Ngaka Modiri Molema	10 019	1 056	1 376	105.4	137.3	349	33.0	425	30.9
	Ruth Segomotsi Mompati	17 437	681	939	39.1	53.9	317	46.5	423	45.0
	Kenneth Kaunda	16 110	875	1 066	54.3	66.2	454	51.9	542	50.8
	Total	78 561	3 802	4 958	48.4	63.1	1 589	41.8	1 968	39.7
WC	West Coast	5 849	139	159	23.8	27.2	67	48.2	77	48.4
	Cape Winelands	13 137	336	415	25.6	31.6	165	49.1	194	46.7
	Overberg	2 668	79	93	29.6	34.9	30	38.0	32	34.4
	Eden	9 751	253	281	25.9	28.8	118	46.6	137	48.8
	Central Karoo	1 169	48	61	41.1	52.2	21	43.8	27	44.3
	City of Cape Town	71 456	1 591	1 922	22.3	26.9	843	53.0	979	50.9
	Total	104 030	2 431	2 935	23.4	28.2	1 244	51.2	1 447	49.3
			1	1		1			1	
RSA		995 791	37 974	50 471	38.1	50.7	20 077	52.9	25 256	50.0

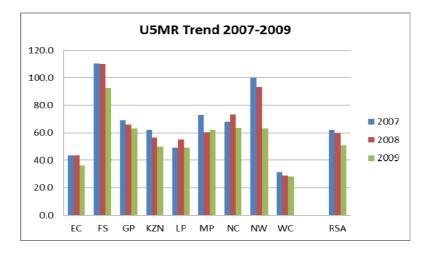
Province		IMR		U5MR				
Province	2009	2008	2007	2009	2008	2007		
Eastern Cape	24.4	30.0	30.6	36.3	43.4	43.4		
Free State	72.4	84.3	87.2	92.4	110.3	110.6		
Gauteng	50.1	52.2	55.3	63.2	66.0	69.1		
KwaZulu-Natal	37.2	43.0	46.5	49.7	56.6	62.1		
Limpopo	32.9	36.9	35.1	48.9	55.0	49.1		
Mpumalanga	36.5	43.6	52.9	62.2	60.5	73.2		
Northern Cape	48.1	54.4	53.4	63.7	73.4	68.2		
North West	48.4	70.2	77.6	63.1	93.1	100.3		
Western Cape	23.4	23.1	25.5	28.2	28.8	31.2		
South Africa	38.1	44.7	47.4	50.7	59.8	62.1		

## TABLE 3. PROVINCIAL MORTALITY TRENDS 2007 - 2009

## FIGURE 1. IMR TREND, 2007-2009



## FIGURE 2. U5MR TREND 2007-2009



Province	District	IMR	U5MR	% in	%	%		CFR		EID	HIV+
FIOVINCE	District		USINIK	Hosp	SAM	HIV	GE	ARI	SAM	cover	2/12
		1	1	1	1	1	1	1	1	1	
Eastern Cape	Cacadu	44.0	55.6	40.2	25.0	33.3	3.5	2.6	9.2	52.4	5.0
	Amathole & Buffalo City	25.6	37.5	48.0	28.0	51.5	9.9	15.0	41.8	37.8	4.3
	Chris Hani	24.5	35.3	50.5			8.9	8.2	21.1	41.4	4.6
	Ukhahlamba/Joe Qadi	38.5	56.5	44.7			8.3	9.5	30.6	54.5	5.4
	OR Tambo	10.1	19.5	45.6	19.0	32.0	22.0	18.0	23.7	24.1	7.0
	Alfred Nzo	25.0	44.8	33.3			18.2	11.8	19.9	31.4	7.0
	Nelson Mandela Bay Metro	30.1	40.2	51.0	28.8	39.0	5.9	4.5	14.7	33.4	5.2
Free State	Xhariep	127.4	157.7	36.5			21.6	11.9	34.1	76.4	4.1
	Motheo / Manguang	50.4	63.8	57.2	60.0	53.3	7.9	6.1	14.6	32.0	5.6
	Lejweleputswa	91.8	117.9	40.8			12.8	19.4	26.3	38.6	6.7
	Tabo Mafutsanyane	78.7	100.3	47.7	28.6	28.6	19.9	13.1	25.8	34.2	5.9
<b>2</b> 1	Fezile Dabi	72.5	93.5	50.1			11.0	6.7	51.6	43.4	5.2
Gauteng	Sedibeng	40.3	49.2	55.1			12.4	7.0	28.7	36.8	5.4
	Metsweding	0.0	0.0	44.0				1.0	40.4	122.1	5.8
	West Rand	74.1	93.2	41.9			7.4	4.9	13.1	57.0	5.7
	Ekurhuleni	62.1	76.4	45.2	00.7	54.0	7.0	7.2	21.8	38.9	5.6
	Johannesburg	42.8	53.5	47.0	30.7	51.0	7.2	0.4		71.7	4.7
	Tshwane	52.7	71.0	56.1	37.3	51.8	1.2	0.4	40.0	48.2	5.5
KwaZulu-Natal	Ugu	35.5	49.5	69.1	43.0	54.5	5.4	5.1	12.0	44.7	3.1
(2010 data)	uMgungundlovu	29.3	39.4	50.8	32.3	57.0	5.0	2.8	4.1	46.8	2.5
	Uthukela	42.8	57.1	54.6	37.0	50.0	3.3	3.6	17.2	29.1	2.8
	Umzinyathi	58.3	78.0	67.2	14.8	45.5	7.6	4.9	25.8	35.0	3.2
	Amajuba	38.2	50.2	61.1	41.2	50.5	4.4	4.6	8.8	53.1	2.7
	Zululand	42.4	56.1	51.6	28.6	61.9	13.9	7.4	29.5	46.0	4.0
	Umkhanyakude	30.0	40.4	69.5	44.3 30.2	50.8	7.1	7.8	15.3	26.5	3.6
	Uthungula	43.7 34.2	55.0	71.8		57.4	8.7 8.8	10.7	10.8	52.1	3.5
	iLembe		47.0 53.6	65.4	0.0 28.6	0.0 58.6	8.4	6.6 9.2	10.4 19.9	56.2 26.2	2.7
	Sisonke eThekwini	38.8 31.2	41.8	61.1 60.1	20.0 31.0	56.0	0.4 3.8	9.2	8.3	40.9	3.5 3.3
Limpono	Mopani	45.9	70.4	44.9	31.0	34.4	3.0 10.9	11.5	0.3 28.3	28.8	7.1
Limpopo	Vhembe	45.9	30.3				7.8	11.5	20.3		
	Capricorn	35.7	51.6	55.2 45.3	19.2	48.1	13.5	11.1	28.3	33.0 37.4	6.9 6.5
	Waterberg	29.0	39.5	45.5	48.4	62.4	12.2	8.6	19.9	40.2	6.5
	Greater Sekhukhune	43.6	66.9	41.3	40.4 50.0	50.0	6.9	8.4	19.9	39.0	7.7
Mpumalanga	Gert Sibande	74.2	93.0	40.9	17.0	32.9	13.0	14.0	11.8	39.0	6.3
wpumalanya	Nkangala	33.0	45.0	40.7	38.3	57.2	12.0	6.9	13.2	45.7	5.5
	Ehlanzeni	22.5	35.4	58.7	36.1	49.8	12.0	10.1	25.1	42.4	
Northern Cape	Namakwa	25.2	31.3	51.0	30.1	49.0	1.1	2.8	11.1	100.0	7.4 9.3
Northern Cape	Pixley ka Seme	86.5	107.5	53.7	12.5	25.0	11.4	5.2	25.0	45.9	3.6
	Siyanda	53.3	72.8	55.7	65.4	42.3	2.4	2.7	12.5	37.0	6.0
	Frances Baard	32.6	45.4	44.0	31.9	41.6	5.1	4.4	20.7	54.4	5.6
	John Taolo Gaetsewe	57.6	74.4	44.4	51.9	41.0	12.6	8.9	28.5	29.6	6.7
North West	Bojanala Platinum	34.0	45.0	36.7			12.0	9.5	20.5	42.9	5.7
	Ngaka Modiri Molema	105.4	137.3	30.9	61.1	51.0	6.9	4.7	12.6	47.6	5.5
	Ruth Segomotsi Mompati	39.1	53.9	45.0	53.3	40.0	7.3	12.1	25.8	40.6	6.7
	Kenneth Kaunda	54.3	66.2	50.8	63.2	31.1	6.2	6.6	22.3	50.7	4.4
Western Cape	West Coast	23.8	27.2	48.4	0.0	0.0	0.2	1.1	9.3	74.6	4.1
	Cape Winelands	25.6	31.6	46.7	53.5	11.6	0.4	0.2	2.5	63.7	4.2
	Overberg	29.6	34.9	34.4	26.7	26.7	1.8	0.2	4.3	66.5	4.5
	Eden	25.9	28.8	48.8	50.0	50.0	1.5	0.4	8.1	52.7	4.8
	Central Karoo	41.1	52.5	44.3	50.0	00.0	1.5	0.0	0.1	136.1	2.8
	City of Cape Town	22.3	26.9	50.9	19.3	30.5	0.2	0.2	3.3	67.2	4.0

# **TABLE 4**. MORBIDITY & MORTALITY PATTERN BY DISTRICT: 2009

Province	District		IMR			U5MR	
Province	District	2009	2008	2007	2009	2008	2007
Eastern Cape	Cacadu	44.0	52.5	23.5	55.6	69.0	29.5
	Amathole	25.6	30.0	38.2	37.5	42.7	54.3
	Chris Hani	24.5	28.5	78.9	35.3	40.2	105.7
	Ukhahlamba/Joe Qadi	38.5	50.4	47.9	56.5	72.9	69.7
	OR Tambo	10.1	20.0	13.4	19.5	35.9	22.9
	Alfred Nzo	25.0	15.3	16.1	44.8	24.2	23.8
	Nelson Mandela Bay Metro	30.1	39.7	45.8	40.2	51.6	57.8
Free State	Xhariep	127.4	89.6	74.6	157.7	119.7	96.6
	Motheo / Mangaung	50.4	69.3	64.9	63.8	92.5	81.6
	Lejweleputswa	91.8	102.2	106.3	117.9	133.9	138.4
	Tabo Mafutsanyane	78.7	84.7	98.5	100.3	110.2	123.7
	Fezile Dube	72.5	89.7	90.1	93.5	114.0	113.5
Gauteng	Sedibeng	40.3	45.9	20.0	49.2	57.8	24.6
	Metsweding	0.0	13.1	6.7	0.0	20.6	8.7
	West Rand	74.1	62.6	80.3	93.2	77.4	100.1
	Ekurhuleni	62.1	69.6	70.2	76.4	85.3	85.9
	Johannesburg	42.8	46.5	57.1	53.5	57.8	70.1
	Tshwane	52.7	46.3	33.1	71.0	62.9	43.8
KwaZulu-Natal	Ugu	35.5	36.9	48.9	49.5	50.4	67.2
	uMgungundlovu	29.3	34.1	40.0	39.4	48.1	56.3
	Uthukela	42.8	61.6	65.8	57.1	80.9	86.7
	Umzinyathi	58.3	80.2	94.1	78.0	101.8	119.8
	Amajuba	38.2	52.8	78.3	50.2	65.2	97.0
	Zululand	42.4	45.5	49.9	56.1	61.2	66.5
	Umkhanyakude	30.0	35.5	25.5	40.4	48.4	38.4
	Uthungula	43.7	41.0	43.5	55.0	53.7	57.5
	iLembe	34.2	37.8	45.2	47.0	51.4	60.8
	Sisonke	38.8	57.6	37.1	53.6	80.8	53.3
	eThekwini	31.2	36.0	41.0	41.8	47.9	54.3
Limpopo	Mopani	45.9	44.0	41.5	70.4	69.1	51.5
	Vhembe	19.9	23.6	26.7	30.3	32.6	39.1
	Capricorn	35.7	40.8	41.6	51.6	59.0	57.8
	Waterberg	29.0	37.3	36.4	39.5	50.2	49.2
	Greater Sekhukhune	43.6	52.0	30.6	66.9	82.1	48.6
Mpumalanga	Gert Sibande	74.2	83.4	130.7	93.0	106.1	165.6
	Nkangala	33.0	50.7	62.7	45.0	77.0	103.2
	Ehlanzeni	22.5	23.2	34.5	35.4	32.4	45.4
Northern Cape	Namakwa	25.2	32.8	9.9	31.3	36.0	12.3
	Pixley ka Seme	86.5	81.6	137.4	107.5	108.8	174.8
	Siyanda	53.3	45.4	89.0	72.8	62.2	110.4
	Frances Baard	32.6	47.0	77.5	45.4	63.0	102.0
	John Taolo Gaetsewe	57.6	68.0	39.4	74.4	94.9	50.0
North West	Bojanala Platinum	34.0	61.2	72.2	45.0	81.6	95.1
	Ngaka Modiri Molema	105.4	122.1	115.7	137.3	161.7	150.9
	Ruth Segomotsi Mompati	39.1	75.7	115.2	53.9	97.5	150.6
	Kenneth Kaunda	54.3	46.8	120.8	66.2	64.7	151.1
Western Cape	West Coast	23.8	29.2	39.2	27.2	35.0	52.4
	Cape Winelands	25.6	23.3	29.6	31.6	30.9	35.1
	Overberg	29.6	29.2	39.1	34.9	36.6	48.5
	Eden	25.9	24.0	34.3	28.8	30.1	41.5
	Central Karoo	41.1	45.1	50.6	52.5	59.9	67.5
	City of Cape Town	22.3	21.9	22.5	26.9	26.7	27.3

# TABLE 5. DISTRICT MORTALITY TRENDS 2007 – 2009

<b>–</b> .	District Drovince U5MR					Γ		IMR	
Rank	District	Province	2009	2008	2007	-	2009	2008	2007
1	OR Tambo	EC	19.5	35.9	22.9		10.1	20.0	13.4
2	City of Cape Town	WC	26.9	26.7	27.3		22.3	21.9	22.5
3	West Coast	WC	27.2	35.0	52.4		23.8	29.2	39.2
4	Eden	WC	28.8	30.1	41.5		25.9	24.0	34.3
5	Vhembe	LP	30.3	32.6	39.1		19.9	23.6	26.7
6	Namakwa	NC	31.3	36.0	12.3		25.2	32.8	9.9
7	Cape Winelands	WC	31.6	30.9	35.1		25.6	23.3	29.6
8	Overberg	WC	34.9	36.6	48.5		29.6	29.2	39.1
9	Chris Hani	EC	35.3	40.2	105.7		24.5	28.5	78.9
10	Ehlanzeni	MP	35.4	32.4	45.4		22.5	23.2	34.5
11	Amathole	EC	37.5	42.7	54.3		25.6	30.0	38.2
12	uMgungundlovu	KZN	39.4	48.1	56.3		29.3	34.1	40.0
13	Waterberg	LP	39.5	50.2	49.2		29.0	37.3	36.4
14	Nelson Mandela Bay Metro	EC	40.2	51.6	57.8		30.1	39.7	45.8
15	Umkhanyakude	KZN	40.4	48.4	38.4		30.0	35.5	25.5
16	eThekwini	KZN	41.8	47.9	54.3	Ē	31.2	36.0	41.0
17	Alfred Nzo	EC	44.8	24.2	23.8	Ē	25.0	15.3	16.1
18	Nkangala	MP	45.0	77.0	103.2		33.0	50.7	62.7
19	Bojanala Platinum	NW	45.0	81.6	95.1		34.0	61.2	72.2
20	Frances Baard	NC	45.4	63.0	102.0		32.6	47.0	77.5
21	iLembe	KZN	47.0	51.4	60.8	Ē	34.2	37.8	45.2
22	Sedibeng	GP	49.2	57.8	24.6	Ē	40.3	45.9	20.0
23	Ugu	KZN	49.5	50.4	67.2	Ē	35.5	36.9	48.9
24	Amajuba	KZN	50.2	65.2	97.0	Ē	38.2	52.8	78.3
25	Capricorn	LP	51.6	59.0	57.8	Ē	35.7	40.8	41.6
26	Central Karoo	WC	52.5	59.9	67.5	Ē	41.1	45.1	50.6
27	Johannesburg	GP	53.5	57.8	70.1	Ē	42.8	46.5	57.1
28	Sisonke	KZN	53.6	80.8	53.3	Ē	38.8	57.6	37.1
29	Ruth Segomotsi Mompati	NW	53.9	97.5	150.6	Ē	39.1	75.7	115.2
30	Uthungula	KZN	55.0	53.7	57.5		43.7	41.0	43.5
31	Cacadu	EC	55.6	69.0	29.5	Ē	44.0	52.5	23.5
32	Zululand	KZN	56.1	61.2	66.5		42.4	45.5	49.9
33	Ukhahlamba/Joe Qadi	EC	56.5	72.9	69.7	Ē	38.5	50.4	47.9
34	Uthukela	KZN	57.1	80.9	86.7		42.8	61.6	65.8
35	Motheo	FS	63.8	92.5	81.6		50.4	69.3	64.9
36	Kenneth Kaunda	NW	66.2	64.7	151.1		54.3	46.8	120.8
37	Greater Sekhukhune	LP	66.9	82.1	48.6		43.6	52.0	30.6
38	Mopani	LP	70.4	69.1	51.5		45.9	44.0	41.5
39	Tshwane	GP	71.0	62.9	43.8		52.7	46.3	33.1
40	Siyanda	NC	72.8	62.2	110.4		53.3	45.4	89.0
41	John Taolo Gaetsewe	NC	74.4	94.9	50.0	Γ	57.6	68.0	39.4
42	Ekurhuleni	GP	76.4	85.3	85.9	ſ	62.1	69.6	70.2
43	Umzinyathi	KZN	78.0	101.8	119.8	ſ	58.3	80.2	94.1
44	Gert Sibande	MP	93.0	106.1	165.6	ſ	74.2	83.4	130.7
45	West Rand	GP	93.2	77.4	100.1	ſ	74.1	62.6	80.3
46	Fezile Dube	FS	93.5	114.0	113.5	ſ	72.5	89.7	90.1
47	Tabo Mafutsanyane	FS	100.3	110.2	123.7	ſ	78.7	84.7	98.5
48	Pixley ka Seme	NC	107.5	108.8	174.8	ſ	86.5	81.6	137.4
49	Lejweleputswa	FS	117.9	133.9	138.4	ſ	91.8	102.2	106.3
50	Ngaka Modiri Molema	NW	137.3	161.7	150.9	ſ	105.4	122.1	115.7
51	Xhariep	FS	157.7	119.7	96.6		127.4	89.6	74.6
		-				Ļ			-
	Metsweding	GP	0.0	20.6	8.7	L	0.0	13.1	6.7

# **TABLE 6.** DISTRICT RANKING BY 2009 U5MR

# CHAPTER 3: OVERVIEW OF CHILD MORTALITY IN SOUTH AFRICA: 2009

The countdown to the Millennium Development Goal (MDG) is in place and for South Africa this means a target for the reduction in the under-5 mortality rate (U5MR) of 20 per 1,000 live births by 2015. As 2015 approaches South Africa has finally turned the corner and is no longer one of only 12 countries with a rising U5MR. Instead the U5MR has now started to show a downward trend although it remains far off the 2015 target.

#### MORTALITY IN 2009.

This mortality report is based on data from death notification forms submitted to StatsSA for deaths occurring in 2009. The estimation is most likely an underestimation of the true mortality rate as it does not reflect deaths that are not registered by the Department of Home Affairs (DHA).

Province	IMR	U5MR
Eastern Cape	24.4	36.3
Free State	72.4	92.4
Gauteng	50.1	63.2
KwaZulu-Natal	37.2	49.7
Limpopo	32.9	48.9
Mpumalanga	36.5	62.2
Northern Cape	48.1	63.7
North West	48.4	63.1
Western Cape	23.4	28.2
South Africa	38.1	50.7

**Table 7**: 2009 Provincial Mortality rates in South Africa.

#### **Provincial picture**

In 2009 50 471 deaths were recorded in children under 5 years of age. This has decreased from 61 710 in 2007<sup>3</sup>. This equates to an U5MR in South

<sup>&</sup>lt;sup>3</sup> Statistics South Africa (2012) Mortality and causes of death in South Africa, 2009: Findings from death notification.

Africa of 50.7 per 1000 live birth in 2009 with a range from 28.2 in the Western Cape to 92.4 in the Free State. When assessing the U5MR per district there is a wider discrepancy with a range from 19.5 in the OR Tambo District in the EC to 157.7 in Xhariep in the Free State.

South Africa is one of the countries with the highest inequality as shown by the Gini Coefficient of 0.63<sup>42</sup> and one can appreciate the deference in U5MR between the provinces and the district. Although the Free State has the highest U5MR the rate in Gauteng, Mpumalanga, the Northern Cape and the North West Province are all above the national average of 50.7. Figures 3 and 4 illustrate the best and worst performing district with respect to U5MR.

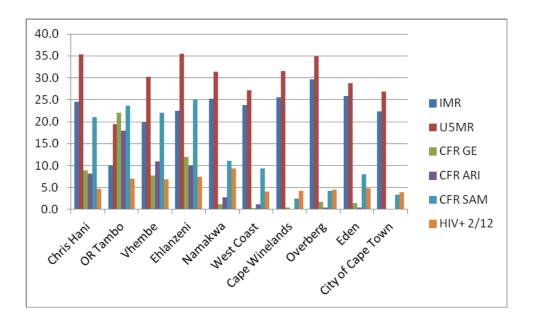


Figure 3: Ten best U5MR performing districts, lowest U5MR.

Apart from OR Tambo, Vhembe and Ehlanzeni Districts the best performing districts all had in-hospital case fatality rates (CFR) in children admitted with severe acute malnutrition (SAM) of less than 12% while the worst performing districts had CFR for SAM ranging from 11.8% to 51.6%<sup>5</sup>. Simplistically half of all children who were admitted with SAM in the Fezile Dabi district in the Free State died. It is clear that severe malnutrition contributed significantly to

<sup>&</sup>lt;sup>4</sup> <u>http://data.worldbank.org/indicator/SI</u> Accessed 29 October 2012.

<sup>&</sup>lt;sup>5</sup> DHIS data, 2009.

Under-5 mortality in 2009 as Child Healthcare Problem Identification Programme (Child PIP) data shows that just over one third of children who died in hospitals suing the programme to review deaths were severely malnourished and this reach a peak of 65% the Siyanda District in the Northern Cape<sup>6</sup>.

Among the ten best performing districts those in the Western Cape had CFR of less than 2% for both acute respiratory infections (ARI) and diarrhoeal disease and below 10% for SAM. The CFR for SAM in the remaining top ten districts were all above 12%. Amongst the ten worst performing districts with the highest U5MR the CFR for SAM was above 20%.

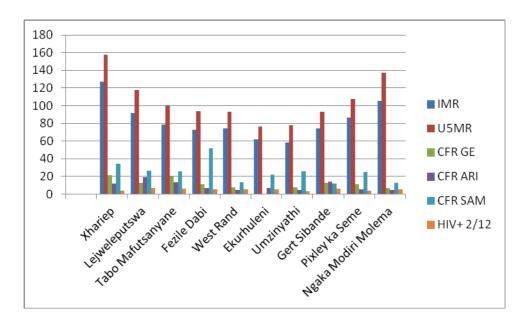


Figure 4: Ten worst U5MR performing districts, highest U5MR.

The districts with the worst U5MR are not only from poor rural provinces but include the West Rand and Ekurhuleni Districts in Gauteng.

#### Mortality trends

There has been a downward trend in the U5MR since 2007, falling from 62.1 in 2007 to 50.7 in 2009. This trend is evident across all nine provinces with the

<sup>&</sup>lt;sup>6</sup> Child PIP data, 2009.

greatest decline in the period 2007 to 2009 of 37.6% occurring in the North West Province where it fell from 100.3 to 63.1. The second greatest decline of 31% occurred in Mpumalanga with the smallest drop of less than 1% in Limpopo Province. Limpopo was the only province with a fluctuation in the U5MR which increased from 49.1 in 2007 to 55.0 in 2008 before falling to 48.9 in 2009.

Province	IMR			U5MR			% decrease U5MR	% decrease IMR		
	2007	2008	2009	2007	2008	2009	2007 - 2009	2007-2009		
EC	30.6	30.0	24.4	43.4	43.4	36.3	16.4	20.3		
FS	87.2	84.3	72.4	110.6	110.3	92.4	16.5	17.0		
GP	55.3	52.2	50.1	69.1	66.0	63.2	8.5	9.4		
KZN	46.5	43.0	37.2	62.1	56.6	49.7	20.0	20.0		
LP	35.1	36.9	32.9	49.1	55.0	48.9	0.4	6.3		
MP	52.9	43.6	36.5	73.2	60.5	62.2	15.0	31.0		
NC	53.4	54.4	48.1	68.2	73.4	63.7	6.6	9.9		
NW	77.6	70.2	48.4	100.3	93.1	63.1	37.1	37.6		
WC	25.5	23.1	23.4	31.2	28.8	28.2	9.6	8.2		
RSA	47.4	44.7	38.1	62.1	59.8	50.7	18.4	19.6		

**Table 8**: Provincial mortality trends in South Africa, 2007 – 2009.

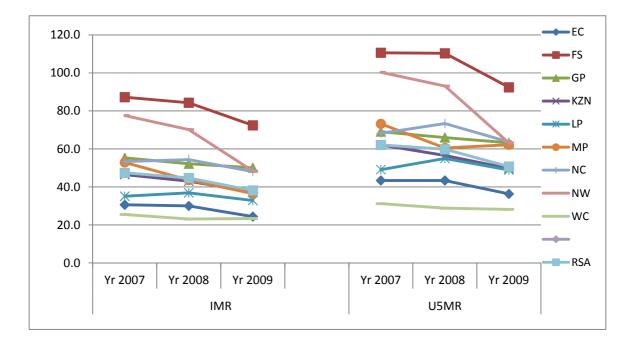


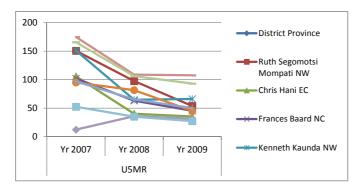
Figure 5: Provincial mortality trends in South Africa, 2007 – 2009.

U5MR	District	Province	U5MR			IMR			% change 2007-2009	
Rank			2007	2008	2009	2007	2008	2009	U5MR	IMR
29	RS Mompati	NW	150.6	97.5	53.9	115.2	75.7	39.1	-179.7	-194.6
9	Chris Hani	EC	105.7	40.2	35.3	78.9	28.5	24.5	-199.5	-222.0
20	Frances Baard	NC	102.0	63.0	45.4	77.5	47.0	32.6	-124.8	-137.7
36	Kenneth Kaunda	NW	151.1	64.7	66.2	120.8	46.8	54.3	-128.2	-122.5
19	Bojanala Platinum	NW	95.1	81.6	45.0	72.2	61.2	34.0	-111.2	-112.4
24	Amajuba	KZN	97.0	65.2	50.2	78.3	52.8	38.2	-93.0	-105.0
48	Pixley ka Seme	NC	174.8	108.8	107.5	137.4	81.6	86.5	-62.6	-58.8
44	Gert Sibande	MP	165.6	106.1	93.0	130.7	83.4	74.2	-78.1	-76.1
3	West Coast	WC	52.4	35.0	27.2	39.2	29.2	23.8	-92.8	-64.7

Across all provinces the infant mortality rate (IMR) showed an even greater decline ranging from 37.6% in the North West Province to 6.3% in Limpopo.

**Table 9**: Mortality trends in districts with >60% decline in U5MR, 2007 – 2009.

The change in mortality rates at the provincial level are slight compared to those seen in the districts with marked variation between districts in a single province. Table 9 and Figure 6 show districts where the decrease in U5MR between 2007 and 2009 exceeded 60%.





These included districts in six provinces including three in the North West Province and two in the Northern Cape. The greatest decrease occurred in the Chris Hani District of the Eastern Cape. Two of the districts, Chris Hani and the West Coast, are in the ten districts with the lowest U5MR and two, Pixley Ka Seme and Gert Sibanda, are amongst those with the highest U5MR.

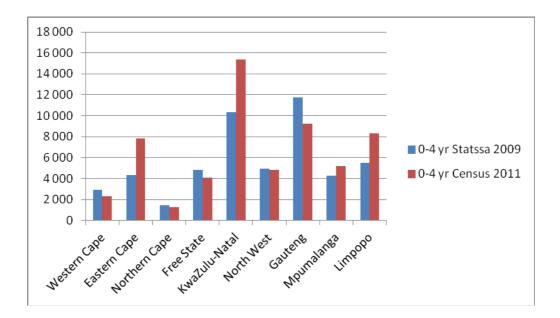
As shown in Table 10 the U5MR has not decreased in all districts. These include districts in 6 provinces other than the Western Cape, Mpumalanga and North West Province but only one district amongst the ten with the lowest, Namakwa, and highest, Xhariep, U5MR. The greatest increase, of over 60%, was seen in Namakwa in the Northern Cape.

U5MR Rank	District	Province		U5MR IMR					% increase 2007 - 2009		
			2009	2008	2007	2009	2008	2007	U5MR	IMR	
6	Namakwa	NC	31.3	36.0	12.3	25.2	32.8	9.9	60.8	60.7	
15	Umkhanyakude	KZN	40.4	48.4	38.4	30.0	35.5	25.5	5.0	15.0	
17	Alfred Nzo	EC	44.8	24.2	23.8	25.0	15.3	16.1	46.9	35.6	
22	Sedibeng	GP	49.2	57.8	24.6	40.3	45.9	20.0	50.0	50.4	
28	Sisonke	KZN	53.6	80.8	53.3	38.8	57.6	37.1	0.5	4.4	
31	Cacadu	EC	55.6	69.0	29.5	44.0	52.5	23.5	46.9	46.6	
37	Greater Sekhukhune	LP	66.9	82.1	48.6	43.6	52.0	30.6	27.4	29.8	
38	Mopani	LP	70.4	69.1	51.5	45.9	44.0	41.5	26.9	9.6	
39	Tshwane	GP	71.0	62.9	43.8	52.7	46.3	33.1	38.3	37.2	
41	JT Gaetsewe	NC	74.4	94.9	50.0	57.6	68.0	39.4	32.8	31.6	
51	Xhariep	FS	157.7	119.7	96.6	127.4	89.6	74.6	38.7	41.4	

Table 10: Districts with increasing mortality rates, 2007 - 2009

Whilst the U5MR appears to be declining the registration of death appears to be higher in infants compared to that of children between 1 and 4 years of

age. There is little correlation between the number of registered deaths and the Census 2011 data on childhood mortality which shows a lower number of under-5 deaths in five province, the Western Cape, Northern Cape, Free State, North West and Gauteng but a higher number of deaths in the Eastern Cape, KwaZulu-Natal, Mpumalanga and Limpopo provinces.



**Figure 7:** Comparison of number or under-5 deaths registered with DHA in 2009 with those counted in Census 2011

#### **Causes of death**

The top five causes of death remain unchanged over the past three years and include neonatal disorders, gastrointestinal tract (GIT) infections, acute respiratory illnesses and non-natural deaths. The order of these causes does however differ between and within the various provinces.

Limpopo is the only province were neonatal disorders do not rank amongst the top three causes of death. GIT infections rank as the commonest cause of death in the more rural provinces, Limpopo, Mpumalanga and the Eastern Cape, with less access to clean water and safe sanitation.

Province	Province Rank 1		Rank3	Rank 4	Rank 5	
Eastern Cape GIT Infection Ne		Neonatal	III defined	Respiratory	Non-natural	
Free State	Neonatal	GIT Infection	Respiratory	III defined	Malnutrition	
Gauteng	Neonatal	GIT Infection	Respiratory	III defined	Non-natural	
KwaZulu-Natal	Neonatal	GIT Infection	III defined	Respiratory	Non-natural	
Limpopo	GIT Infection	Respiratory	III defined	Neonatal	Malnutrition	
Mpumalanga	GIT Infection	Neonatal	Respiratory	III defined	Non-natural	
Northern Cape	Neonatal	GIT Infection	III defined	Respiratory	Malnutrition	
North West	Neonatal	III defined	GIT Infection	Non-natural	Respiratory	
Western Cape	Neonatal	GIT Infection	Respiratory	Injury	Malnutrition	
South Africa	Neonatal	GIT Infection	III defined	Respiratory	Non-natural	

 Table 11: Top five causes of under-5 deaths per province, 2009.

Ill defined causes appear in all provinces except the Western Cape and suggest a need for better completion of death notification forms by clinicians. The Medical Research council is running a course for clinicians throughout the country on how to complete the death notification form.

Child PIP data shows HIV as a major contributor to under-5 deaths with just over 50% of children who die in South African hospitals affected by HIV. Children who were HIV positive presented in late disease as 20% were in stage III and 68% in stage IV disease<sup>7</sup>. From 2010 all HIV infected infants in south Africa should receive Antiretroviral Therapy (ART) irrespective of CD4 count and in 2012 this was extended to all children under-5 years of age in order to address the late identification and delay in starting ART<sup>8,9.</sup>

Child PIP data reveals that a third of children who die are severely malnourished and another third of children who die are under weight for age<sup>10</sup>. Unless MDG 2 is realized and a reduction in levels of malnutrition achieved

<sup>&</sup>lt;sup>7</sup> Stephen CR, Bamford LJ, Patrick ME, Wittenberg DF eds. Saving Children2009: Five Years of Data. A sixth survey of child healthcare in South Africa. Pretoria: Tshepa Press, MRC, CDC; 2011.

<sup>&</sup>lt;sup>8</sup> NDOH, 2010 Paediatric ARV treatment guidelines.

<sup>&</sup>lt;sup>9</sup> NDOH 2012 memo on ART for children under-5 irrespective of CD4 count.

<sup>&</sup>lt;sup>10</sup> Child PIP 2009.

the U5MR will remain high. The high CFR for children admitted to hospitals with SAM reinforces the need for improved prevention strategies and better care of these children who are admitted with severe acute malnutrition. The Tshwane breastfeeding declaration in 2011 is a step in a right direction to reduce malnutrition.

#### Conclusion

The U5MR mortality rate has started to show decline and it remains to be seen if the MDG U5MR target will be attained in South Africa. The Western Cape remains the province with the lowest U5MR although the best performing district is OR Tambo in Eastern Cape. The Free State has the highest provincial and district, Xhariep, U5MR. There are 11 districts in which the U5MR has increased U5MR between 2007 and 2009 of which only Xhariep is amongst the ten districts with the highest U5MR.

# CHAPTER 4: WORKING GROUP REPORTS

To ensure that CoMMiC is able to fulfill both its primary and secondary objectives three working groups were established.

The following reports from each working group reflect the purpose, objectives and progress of each working group during the past year.

# DATA WORKING GROUP

#### Terms of reference

The responsibility of this group is to ensure that CoMMiC has access to appropriate and accurate information in order to inform recommendations to the Minister on the reduction of childhood morbidity and mortality.

#### Membership

Chair:	Neil McKerrow			
Members:	Norah Mabuza, Mphele Mulaudzi			

#### Objectives

- 1. Establish appropriate datasets to meet CoMMiC's primary objective and
  - a. Confirm which datasets are required to establish mortality rates for infants and children.
  - b. Identify indicators required to track childhood morbidity, including chronic diseases.
- 2. Strengthen existing datasets in order to improve the quality of available data by:
  - a. Revising DHA Death Notification and Death Report forms.
  - b. Supporting the DHIS through the introduction of ward registers and regular on-site review of data at each level in the health system.
  - c. Promoting mortality audits in all facilities.

- 3. Promote improved collection of data through:
  - a. On-site review and interpretation of datasets Child Health Forums at facility, District and Provincial levels
  - b. Interaction with relevant parties outside the Department of Health – DHA, StatsSA, HDACC.
- 4. Undertake an analysis of data trends and prepare an annual report on morbidity and mortality data disaggregated to the Provincial and District level.
- 5. Prepare preliminary recommendations for consideration by the full membership of CoMMiC.

# Progress

Presentation to HDACC to review the accuracy of IMR and U5MR.

Meeting with NHISSA to identify appropriate indicators to best reflect the status of child health in the country.

The DHA has been engaged to request modifications to the Death Notification (DNF) and Death Report (DRF) forms in order to ensure the collection of more comprehensive data regarding factors contributing to childhood deaths.

- The DNF will be modified to include tick boxes to reflect HIV, TB and nutritional status of children who have died.
- The DRF will not be modified due to concerns regarding the ability of the lay person to correctly capture the required data. However attempts will be made to submit a copy of the RtHB with the DRF.

A standardised Children's ward Admission, Deaths and Discharges register has been developed. This has been modified following input from pilot sites. The MNCWH Directorate of the NDOH is to review the register and facilitate national implementation.

Terms of reference have been developed for the Provincial and District Child Health Forums and is included in Annexure 1. An analysis of the 2009 death notification data has been undertaken and forms the basis for this interim report.

A meeting with StatsSA is scheduled to ensure better insight of the committee to the death notification data and to explore what additional analysis can be done with this and Census 2011 data to support the function of the committee.

Input has been given to Stats SA regarding data to be collected in the annual National Health Interview Survey which is to be introduced from 2014.

# IMPLEMENTATION AND OVERSIGHT WORKING GROUP

#### Terms of reference

Undertake an oversight function with respect to childhood morbidity, mortality and health care to ensure good clinical governance

#### Membership

Chair	Gerry Boon
Members	Bernhard Gaede, Sharon Matela, Haroon Saloojee,
	Andre Venter

# Objectives

- 1. Monitor the implementation of CoMMiC recommendations.
- 2. Monitor the delivery of district, provincial and national MNCWH services and programmes.
- 3. Develop definitions of child related adverse events that should be detected and monitored in the health system. Such events to be prioritised to reflect the needs of the health system to prevent, detect and respond to such events.
- 4. Develop a process, indicators and tools for the early recognition and response to adverse events in child health services.

5. Undertake, at the request of the Minister, ad hoc investigations into significant child health adverse events.

#### Progress

Nil submitted.

# NORMS AND STANDARDS WORKING GROUP

This group is dealing with Recommendation 2: *Develop a Framework for the delivery of Essential Health Care Services*. Prioritised within this was the rapid development of a Package of Essential Health Care Services that is to address the main causes of mortality in young children.

Actions to be undertaken included:

- Constituting a working group coordinated from the MCWH Directorate within the NDoH to lead the development of this Framework and Essential Package of Care.
- Developing a set of core norms and minimum standards to support each aspect of the Package of Care for the health care of children in clinics, community health centres, emergency units and wards in public and private hospitals in South Africa. The Norms and Standards should include:
  - the service to be delivered;
  - the facilities, staffing, skills development, equipment, support services,
  - o referral criteria and systems, transport required;
  - monitoring and audit; as well as
  - targets for achievement.

#### **Terms of reference**

To define a framework for an essential package of health care, across all levels of health care, for children in South Africa.

To set out the scope of the essential package with norms and standards in service areas such as:

- o Clinical pathways
- $\circ$  Staffing
- Infrastructure
- o Preventive care
- Child-Friendly services
- Staff competencies
- o Equipment
- o Pharmaceuticals
- o Patient information

To set out a process by which a review of existing policies, guidelines and protocols is taken.

To recommend a process for addressing the gaps.

To begin a consultative process of defining the package of care.

The work of the group is to take cognizance of, be informed by and linked with developments in the National Health Insurance and National Core Standards.

# Membership

Chair: Tony Westwood

Members: Lesley Bamford, Victoria Mubaiwa, Anne Robertson, Angie Thabopela

# Objectives

- 1. Develop a framework in which to define the:
  - a. Areas requiring a package of essential health care
  - b. The standard content of such a package
- 2. To identify and collate existing packages of care within South Africa and beyond that could serve as a basis for adaptation to local needs
- 3. To prioritise areas of work

- 4. To set up links with parallel processes within the Department of Health such as the EDL, National Core Standard and National Health Insurance, MNCWH, HIV, District Services, HRD, Chronic Disease, Genetics, NAPEMMCO.
- 5. To set up links with partners beyond the Department of Health e.g. Higher Education Institutions, UNICEF

# Progress

The Framework has been completed.

A first list of South African resources has been compiled.

The Neonatal Package (based on the Limpopo Initiative for Neonatal Care - LINC) has been prioritised for ratification and implementation.

Discussions have taken place regarding the cooperative development of Child health-related norms and standards with the National Core Standards office.

Liaison with the National Health Insurance processes is being arranged through the Child Health Directorate.

# CHAPTER 5: PROGRESS REPORT ON IMPLEMENTATION OF COMMIC RECOMMENDATIONS

In the first Triennial Report of CoMMiC the committee made eight recommendations.

This chapter provides a progress reports on the implementation of these recommendation at the National, Provincial and District level throughout the country.

1. Develop a National Child Health Strategy

The National Child Health Strategy developed in 2009 has been reconciled with the recommendations of all three Ministerial Mortality Committees and was launched on 4 May 2012.

- 2. Develop a Framework for the delivery of Essential Health Care Services:
  - a. An Essential package of care:

This task is being undertaken by the CoMMiC Norms and Standards Working Group.

- b. Define norms & standards for child health services:
   This task is being undertaken by the CoMMiC Norms and Standards Working Group in consultation with the Office of Health Standards Compliance.
- 3. Strengthen Community-based care services:
  - a. Family booklet.

This has not yet been developed although preliminary discussions have occurred with the Baby Club.

b. Community Health Worker Programme

This recommendation is encompassed in the PHC ward based outreach component of the re-engineering of PHC services.

So far 2,166 of a required 7,467 teams have been established. Amongst these teams 658 have completed training.

- 4. Strengthen existing child survival programmes
  - a. HIV/AIDS NIMART, PMTCT etc
  - b. PHC services
  - c. Hospital services
    - 1. Foster non-rotation of core staff

Circular Minute 1 of 2012 issued by Dr Y Pillay, DDG, NDOH:

- 50% of staff in nurseries, maternity and children's wards must be non-rotating staff.
- Daily ward round are required in these units
- Enhance the management of common emergencies : Work has started on a standardised curriculum for intern training in emergency paediatrics.
- 5. Strengthen training in paediatrics

Nurse training – a colloquium hosted by ELMA Philanthropies and UCT has initiated a review of training of the Child Health Nurse.

Medical practitioner training - no action yet

Paediatrician training – a three year initiative by the College of Paediatricians and the South African Paediatric Association is in place to standardise the training of paediatricians and align this to the health needs of children in South Africa. This curriculum will be phased in over three years starting in 2014.

#### 6. Regional paediatrician

This recommendation has been addressed by the District Clinical Specialist Team component of the re-engineering of PHC. To date 9 paediatricians and 20 paediatric nurses have assumed duty.

A training curriculum has been developed to assist in capacitating staff for their new role and training will occur in a decentralised fashion over the next year.

#### 7. Strengthen data systems

The DNF will be modified to include tick boxes to reflect HIV, TB and nutritional status of children who have died.

The DRF will not be modified due to concerns regarding the ability of the lay person to correctly capture the required data.

A standardised Children's ward Admission, Deaths and Discharges register has been developed. This has been modified following input from pilot sites. The MNCWH Directorate of the NDOH is to review the register and facilitate national implementation.

The Child Healthcare Problem Identification Programme is being rolled out as the preferred tool for the audit of deaths in all hospitals. To date at least 133 hospitals are using Child PIP to audit their deaths.

8. Identify key drivers

The first step is the establishment of Provincial and District Child Health Forums.

A generic Terms of Reference has been develop which can be adapted by each province.

To date 4 Provincial and 19 District Child Health Forums have been established.

Province	District	CCG teams deployed	DCST Paediatrician	DCST Paediatric Nurse	Hospitals using Child PIP	Hospitals using Std admission register	District Child Health Forum
				1			
EC	Cacadu				3 / 10		
	Amathole & Buffalo City	–235/ 1,003 teams – in – 128 / 167 wards			2 / 16		
	Chris Hani				1 / 15		
	Ukhahlamba/Joe Qadi				0/8		
	OR Tambo				1 / 13		
	Alfred Nzo				0 / 4		
	Nelson Mandela Bay Metro				1/4		
FS	Xhariep			1	0 / 4		Provincial & District Forums established
	Motheo / Manguang	46/ 427 teams		1	3/7		
	Lejweleputswa	in		1	3 / 5		
	Tabo Mafutsanyane	20 / 99 wards		1	3/6		
	Fezile Dabi			1	3 / 10		
GP	Sedibeng	77/ 1,637 teams in 81 / 507 wards			0/3		1
	Metsweding				0/0		
	West Rand				0/2		1
	Ekurhuleni		1		1/6		None
	Johannesburg		1	1	5/5		
	Tshwane		1		0/7		
KZN	Ugu	1,553 / 1,576 teams in ?828 / 828 wards		1	2/4	Standardised register piloted & being rolled out throughout KZN	Yes
	uMgungundlovu		1	1	4/4		Yes
	Uthukela				2/3		Yes
	Umzinyathi				3/4		Yes
	Amajuba				1/2		Yes
	Zululand			1	5/5		
	Umkhanyakude			1	5/5		
	Uthungula				6/6		
	iLembe			1	0/4		
	Sisonke			•	4/4		Yes
	eThekwini			1	2 / 10		Yes

Province	District	CCG teams deployed	DCST Paediatrician	DCST Paediatric Nurse	Hospitals using Child PIP (N <sup>0</sup> )	Hospitals using Std admission register (N <sup>o</sup> )	Child Health Forum
							•
LP	Mopani	0 / 806 teams in			0 / 7	7/7	Provincial Forum only
	Vhembe				1/7	7/7	
	Capricorn				1/8	8 / 8	
	Waterberg	0 / 543 wards			4 / 8	8 / 8	
	Greater Sekhukhune				1/7	7 / 7	
MP	Gert Sibande	16 / 560 teams		1	9/9	Added to current	Provincial Forum only
	Nkangala	in 25 / 402 wards ?		1	8 / 8	register	
	Ehlanzeni		1	1	11 / 11		
NC	Namakwa				2/4		No district or Provincial Child Health Forums
	Pixley ka Seme	2 / 160 teams in 2 / 194 wards ?	1		4 / 5		
	Siyanda				1/4		
	Frances Baard			1	2/4		
	John Taolo Gaetsewe		1		0/2		
NW	Bojanala Platinum	77 / 471 teams in 81 / 383 wards	1	1	0 / 4	2 / 4	
	Ngaka Modiri Molema			1	3 / 4	4 / 4	Each district plus Provincial Forum
	Ruth Segomotsi Mompati			1	2/4	4 / 4	
	Kenneth Kaunda		1	1	2/4	2 / 4	
WC	Metro West	160 / 827 teams in ? / 387 wards	1		5/6	1/6	Yes
	Metro East		1		4 / 4	1/4	Sub district only
	Worcester		Part time		9/9		Yes
	Paarl		Part time		8 / 8		
	George		Part time		7/7		

# APPENDIX 1: CHILD HEALTH FORUM – TERMS OF REFERENCE

# RATIONALE

The health status of children in South Africa is poor and childhood mortality rates are significantly worse than countries with similar population sizes and health expenditure. In essence children in this country are not getting a reasonable return on the States investment in their health. The poor outcome is further characterised by marked inequity between provinces as well as between districts within each province.

As part of a national response to improving child health, reducing childhood mortality and fulfilling the countries obligation to meet the Millennium Development Goals the Ministerial Committee on Morbidity and Mortality in Children Under 5 Years (CoMMiC) has recommended the creation of Provincial and District Child Health Forums to provide oversight and local review of the health status of children, the effectiveness of health programmes and the quality of health services available to children.

The primary purpose of a Provincial Child Health Forum is to provide oversight and advice for child health services through a process of monitoring, evaluation and recommendations.

# **O**BJECTIVES

- 1. Oversight:
  - a. The Provincial Child Health Forum will oversee the development and functioning of District Child Health Forums.
  - b. Review quarterly reports from the District Child Health Forums.
  - c. Ensure the aggregation of District data into a Provincial dataset.
  - d. Prepare an annual provincial report on the status of child health as well as of child health programmes and health services for children in the province.

- 2. Data:
  - a. Establish appropriate indicators that reflect the status of child health, child health programmes and the quality of the health service for children.
  - b. Support the strengthening of existing and facilitate the establishment of complimentary efficient health information systems for the collection, collation and aggregation of the above information.
  - c. Facilitate the collection of good quality information at the facility level.
  - d. Ensure the aggregation of facility data into District and Provincial datasets.
  - e. Facilitate the integration of community, PHC and hospital data.

Health information systems to be utilized could include the DHIS, PPIP, Child PIP and Vital registration and death notification as well as ad hoc community surveys.

3. Review:

Facilitate the review of health information at the local facility and district levels to ensure:

- a. Reliable data
- b. Early identification of discordant or deteriorating indicators.
- 4. Response:
  - a. Ensure a local response at the facility and District level to discordant or deteriorating indicators.
  - b. Monitor and evaluate the response of Districts and facilities to discordant or deteriorating indicators.
- 5. Recommendations:
  - a. Review the recommendations of District Child Health Forums on improving health services in their facilities and Districts.

- b. Make recommendations to the Provincial Department of Health on interventions required to strengthen health services for children in the province.
- c. Function as an advocate, when needed and as required for children within and outside the health sector and at local, District and Provincial levels.

#### MEMBERSHIP

Standing membership:

District representatives

1 per District drawn from one the following cadres

District Manager of Deputy Manager

DCST member (paediatrician or paediatric nurse)

MNCWH coordinator

Provincial programme representatives

MNCWH – Manager, Neonates and Children

Nutrition

HAST

Clinicians

Provincial Specialists or equivalent

Head of Academic Department of Paediatrics, if this exists in the province

HIS representatives

Data Management

M&E

Department of Home Affairs

Ad hoc representation as required and by invitation only:

Allied State Departments such as Education & Social Development NGO/NPO sector SASSA

Chairperson - the Provincial specialist or equivalent.

Term of office needs to be defined – for continuity purposes this would preferably be at least three years.

Appointment process - some people will be members through their position eg Provincial Specialists whilst others will need to appointed or nominated by the HoD, or person identified by the HoD.

# STAND OPERATING PROCEDURES

Quarterly meetings Quorum – 50% + 1 Agenda Minutes Annual Report

# APPENDIX 2: COMMITTEE MEMBERS

# Chairman:

Dr N McKerrow	Head of Clinical Department: Paediatrics & Child Health, Pietermaritzburg Metro Hospitals Complex, KwaZulu-Natal		
Deputy Chairman:			
Dr M Mulaudzi	Senior Specialist, Department of Paediatrics, Kalafong Hospital, Gauteng		
Members:			
Prof G Boon	Head of Clinical Unit: Department of Paediatrics & Child Health, East London Hospitals Complex, E Cape		
Dr B Gaede	Director, Centre for Rural Health, University of KwaZulu-Natal		
Ms F N Mabuza	District Specialist Paediatric Nurse, Mpumalanga		
Dr S Matela	Provincial Specialist: Paediatrics, Department of Health, Free State		
Dr O Mekgoe	Head of Clinical Unit: Department of Paediatrics, Klerksdorp Hospital, North West Province		
Dr F Mothebe	Head of Clinical Unit:: Department of Paediatrics, Bethelem Hospital, Free State		
Dr V Mubaiwa	Manager MNCWH, DoH, KwaZulu-Natal		
Ms L Napoles			
Dr A Njie	Head of Clinical Unit: Family Medicine, Ngaka Modiri Molema District, North West Province		
Dr A Robertson	Head of Clinical Unit: Department of Paediatrics, Polokwane Hospital, Limpopo		
Prof H Saloojee	Head: Division of Department of Paediatrics & Child Health, University of Witwatersrand		
Ms A Thabapelo	District Specialist Paediatric Nurse, Northern Cape		
Prof A Venter	Head of Clinical Department: Paediatrics & Child Health, University of the Free State		
Prof A Westwood	Head of Clinical Unit: Department of Paediatrics, New Somerset Hospital and Metro West, W Cape		
Logistics & Support:			
Prof L Bamford	Senior Specialist, Child & Youth Health Directorate, NDOH		

# APPENDIX 3: ADDITIONAL ACTIVITIES UNDERTAKEN BY THE COMMITTEE

In the course of the year members of the committee have undertaken or been involved in the following additional activities on behalf of the Minister of Health or the NDOH.

#### Input

District Clinical Specialist Teams consultation: June 2011

South African Neonatal and Child Health Epidemiology Reference Group (SANCHERG): August 2011

Health Data Advisory Coordinating Committee (HDACC) consultation: September 2011

National Health Information System / South Africa (NHISSA) consultation: November 2011

National Committee for the Confidential Enquiry into Maternal Deaths Annual Assessors Meeting: February 2012

#### Participation

Tshwane Breastfeeding summit: August 2011

Campaign for the Accelerated Reduction in Maternal Mortality in Africa (CARMMA) Launch: May 2012