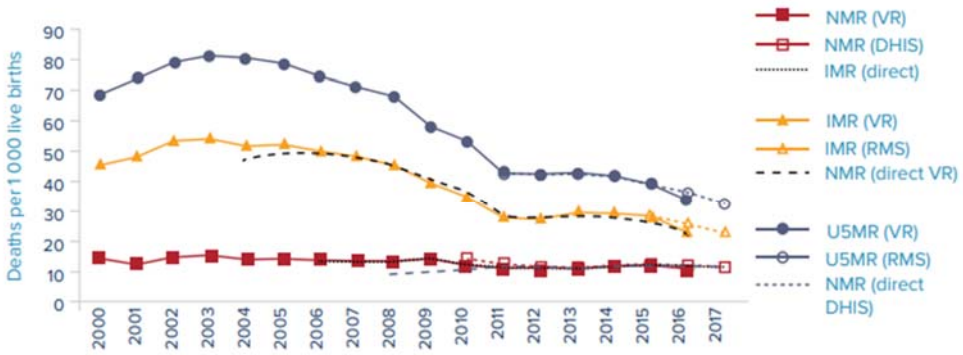
Essential Newborn Care

1. Background

South Africa is committed to achieving the Sustainable Development Goals which includes the goa of ending preventable newborn deaths and stillbirths. **All countries should have NMR and stillbirth rates <10/1000 by 2035**

As can be seen despite marked improvements in Under 5 and Under 1 mortality Neonatal mortality has remained relatively unchanged for 20 years. This despite the roll out of multiple programs eg antenatal steroids, HBB, KMC; MMSN (Management of sick and small neonates); nCPAP etc

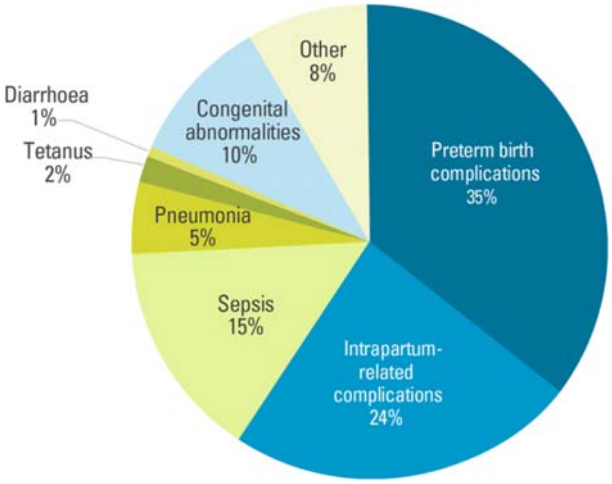
Figure 4: Under-five, infant and neonatal mortality rates in South Africa, 2000 - 2017



Source: Dorrington et al.; 2019.[44]
DHIS = District Health Information Software; IMR = infant mortality rate; NMR = neonatal mortality rate; RMS = rapid mortality surveillance; U5MR = under-five mortality rate; VR = vital registration.

In KZN:
KZN and Gauteng account for 42% of all births in SA and therefore carry the greatest responsibility for reducing mortality.
The under-5 mortality rate in KZN has dropped from 33.2 in 2011 to 27.8 in 2014
BUT 30% of child deaths in KZN are unreported,
59% of reported deaths occur in the health sector & 31% in the community
The neonatal mortality remains relatively unchanged at an estimated 12.4/1000

58.7% of all deliveries in South Africa happen at district hospitals and clinics. This implies that these facilities have the greatest responsibility in terms of newborn care. District Hospitals have the highest number of neonatal deaths. At the same time they are modestly staffed and equipped, and in particular there are no specialists on site to provide assistance when babies follow an untoward clinical course. It is pleasing that nationally there has been some decrease in neonatal deaths at district hospitals reflecting the impact of the DCSTs and other initiatives.



Source: UNICEF: Committing to child survival: A Promise Renewed progress report 2014. New York: UNICEF; 2014

There are three leading causes of neonatal deaths; Preterm birth, intrapartum complications (birth asphyxia) and sepsis.

We know how many babies are dying, when they die, why they die and what can be done to reduce deaths, however, so far, we are seeing little impact. It is evident if national and international mortality targets are to be met something has to change. If we continue with business as usual the neonatal mortality will not change and little further reduction in U5M will be achieved. We need to look at the coverage and quality of the essential care and programs we are implementing to assess where are the gaps and implement plans to address these.

2. Essential package of care (EPOC)

The National Department of Health has developed a plan with key steps to achieving the reductions in mortality required. These can be summarised in the pneumonic- HHAPINeSS.

H-Health systems
H- Health care providers
A- Reduce asphyxia related deaths
P- Reduce Prematurity related deaths
I- Reduce Infection related deaths
NeSS- Neonatal Survival Strategy

Improving neonatal outcomes is a complex process involving strengthening of health systems In support of the above National Neonatal Plan, from 2012, in KZN, norms and standards for neonatal and paediatric care and bi-annual Implementation plans were developed and communicated to facilities. From 2015 triennial accreditation of neonatal, paediatric and ambulatory services was introduced to assess compliance with the stated norms and standards. The following clinical governance processes were assessed:

1. Context
2. Infrastructure and equipment
3. Human resources
4. Systems
5. Clinical care
6. Monitoring and evaluation

However this produced only short term compliance and was costly due to the time and human resources required to conduct the audits. It was therefore decided that this process was not sustainable. It was decided that focus should instead be on empowering and equipping hospitals, with tools and support, to implement and assess these clinical governance processes themselves.

An Essential Package of Care was therefore developed and rolled out in a staged fashion from 2018. A similar package is also being developed for Paediatrics.

3. Contents

EPOC consists of standardised records, administrative e.g. equipment and maintenance registers and audit tools and death auditing and reporting. These tools describe and assess the above clinical governance (input, process and output) processes in support of the HHAPINess plan. The focus is on setting a standard of care, assessing compliance and implementing plans to address gaps identified.

There are 10 monthly audit tools, 9 quarterly, 2 6-mthly and 1 annual tool to be completed by various managers. The details of this process are recorded on the Roles and Responsibility Allocation Chart.

Tools			
Monthly (10)	**Quarterly**	**6 monthly**	**Annual**
Consumables checklist	Support Services Assessment	Equipment Assessment	Infrastructure Assessment
Pharmaceuticals checklist	Systems Assessment	Skills audit average	
HBB Firedrill average	Human resource Assessment		
Encephalopathy audit average	Resuscitation Assessment		
Sick/Preterm audit average	Neonatal Unit Assessment		
Well baby audit average	KMC Assessment		
IPC Assessment	LW Assessment		
Handwashing Assessment	Postnatal Unit Assessment		
Maternal interview-Neonatal	M&E Assessment		
Maternal interview-Post natal			

The Implementation Dashboard is a summary of all assessments performed during the year and visually represents progressive progress towards achievement of goals: Green- 80% or more compliance, Amber 50-79% and Red <50% compliance.
The Dashboard is compiled monthly by the Maternity/Paediatric Assistant Nurse Manager and Quality Manager. It is critical that action plans are implemented and progress presented for every indicator that is red.

The results of the Dashboard are to be presented and discussed monthly at the facility perinatal meetings and quarterly a report on progress should be submitted to the District and Provincial Offices by the CEO.

4. **Accountability**

Accountability for implementation of the Essential Package of Care and achievement of Goals at Facility level rests with the CEO. Some of this accountability may be shared as indicated in the Roles and Responsibilities chart.
The chart also indicates who should be informed if action is required for any of the tools/ interventions.

It is key that good communication, cooperation and support is experienced at all levels to ensure the positive impact of this package and the achievement of mortality reduction goals.

5. Support and Reporting

The facilities are supported with implementation through monthly outreach visits from a paediatric specialist and the DCST paed nurse and midwife. There are standardised reporting forms that should be submitted to the facility. In addition provincial support is available upon request.

The following people should receive a copy of the dashboard each month:

1. OM
2. Paediatric MO and/or Head clinical unit-paediatrics/neonates
3. Paediatric MO and/or Head clinical unit-paediatrics/obstetrics
4. Maternity/Paediatric Assistant Nurse Manager
5. Quality manager
6. Facility Executive

And quarterly the:

7. DCST team
8. District management including Quality, Infection and nutrition Managers
9. District Manager
10. Outreach consultant
11. Area Paediatric manager
12. Provincial Neonatal Coordinator
13. Provincial Paediatrician