



KWAZULU-NATAL PROVINCE

HEALTH
REPUBLIC OF SOUTH AFRICA



Trends in maternal mortality in South Africa: the need for integration of HIV care and maternal care

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AWACC 30th October 2025

GROWING KWAZULU-NATAL TOGETHER

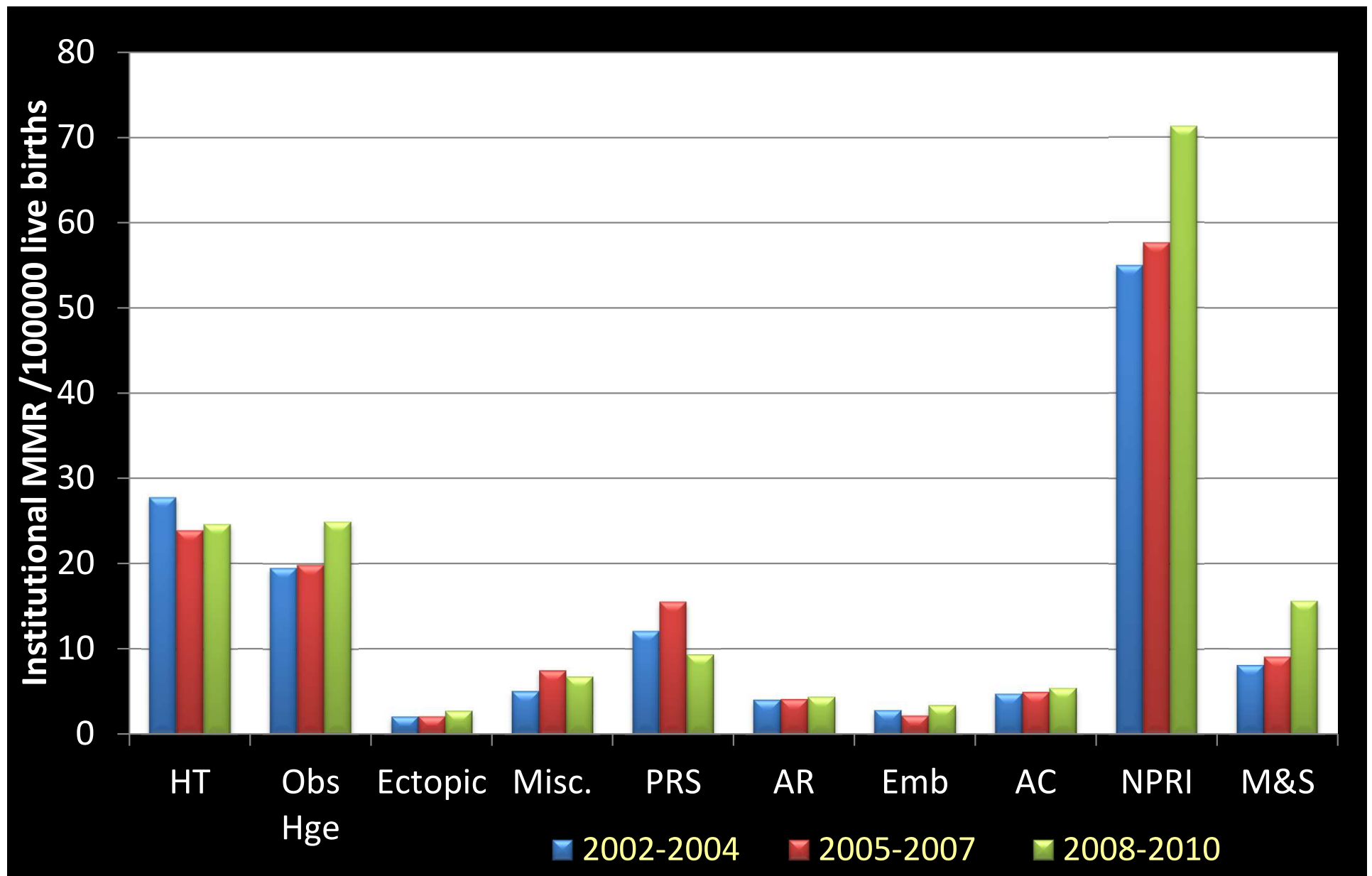


SDG 3: MMR

- **World SDG target: 70 maternal deaths per 100 000 live births**
- **No country should have a MMR above 140**
- **Target to be achieved by 2030 (5 years' time)**

Trends in underlying causes of maternal deaths

South Africa 2002-2010



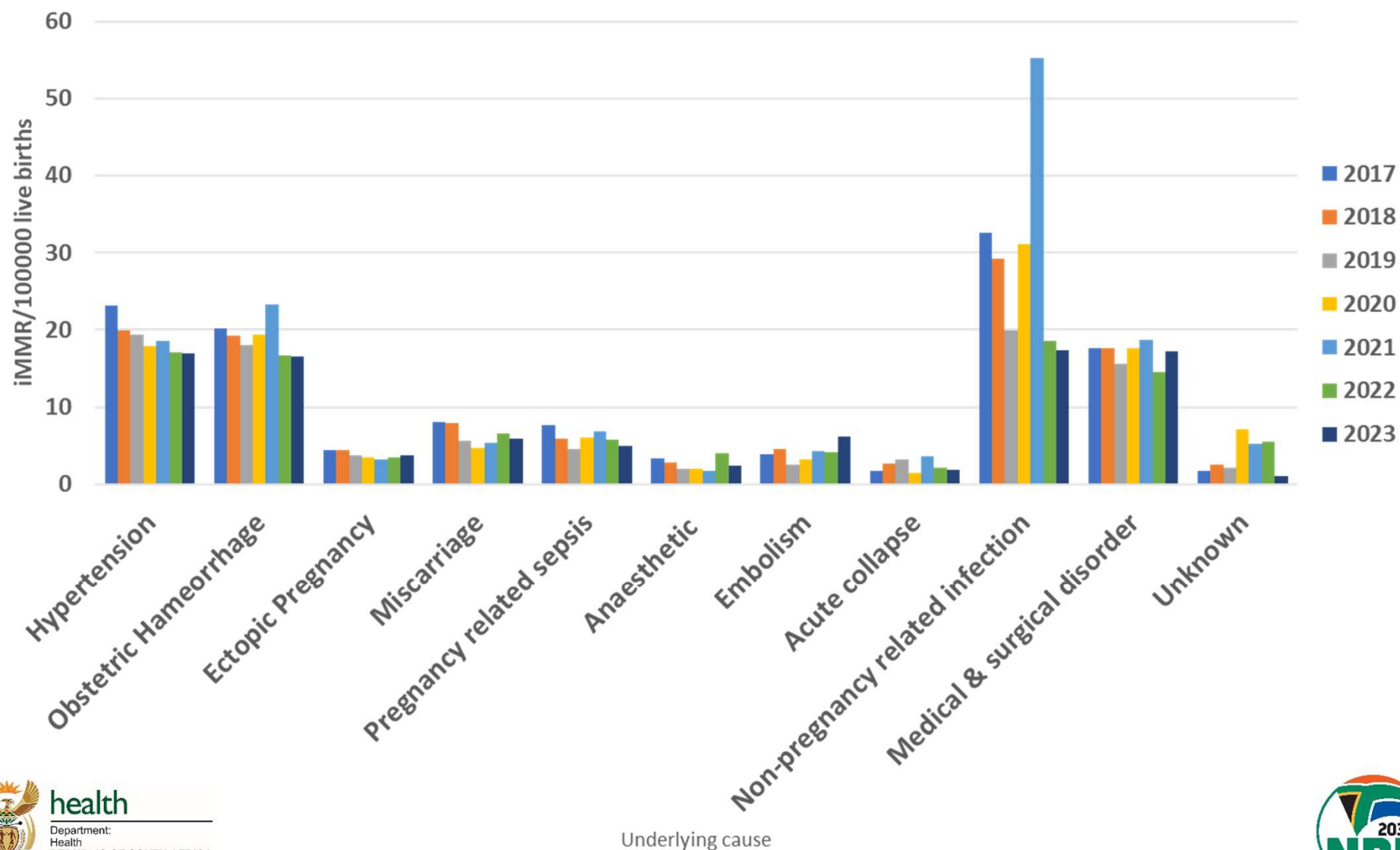
Maternal Death: underlying conditions: 2008-10

- HIV status
 - 80% maternal deaths tested for HIV
 - 70% of those tested were HIV positive

Maternal Death Big 4 +1 2023 South Africa

- **Non-pregnancy related infections** 17.4%
- **Medical and surgical disorders** 17.2%
- **Hypertensive disorders of pregnancy** 16.9%
- **Obstetric haemorrhage** 16.5%
- **Embolicism** 6.2%

Trends in Primary causes of death from 2017-2023 (uncorrected)



Maternal Death: underlying conditions: 2020-22

2008-10 maternal death HIV status

- 80% maternal deaths tested for HIV
- 70% of those tested were HIV positive

2020-22 maternal death HIV status

- 86% maternal deaths tested for HIV
- 46% of those tested were HIV positive

2020-22 ARVs

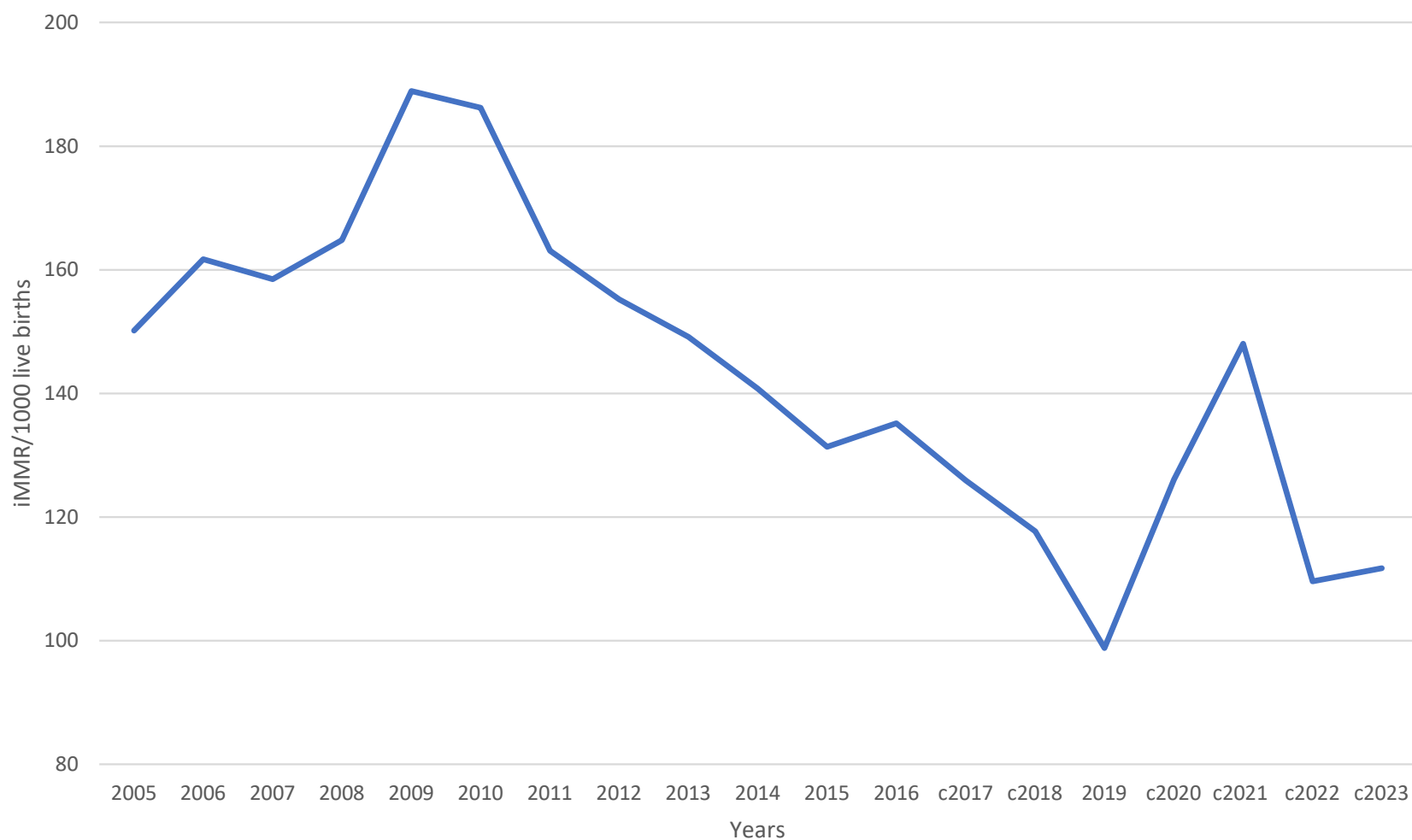
- All causes of maternal deaths: 86% of HIV +ve were on ARVs
- NPRI maternal deaths: 82% of HIV+ve were on ARVs

Maternal Death in women living with HIV

Saving Mothers 2017-19

- Maternal deaths: the majority of pregnant women who were HIV positive died despite being on ART
- We are now moving on from problems of not testing for HIV or not starting ART, to a problem of ART failure, which we need to learn how to manage better

National Saving Mothers Report 2023: Trends in iMMR in SA 2005 to 2023



National Saving Mothers Report 2023: iMMR per province 2017-2023

Province	2017	2018	2019	c2020	c2021	c2022	c2023
Eastern Cape	142.10	125.78	123.53	170.52	135.25	128.9	140.4 (c)
Free State	154.85	195.27	159.32	185.8	232.31	116.2	139.5
Gauteng	128.53	121.31	109.41	131.52	150.1	121.7	107.6 (c)
KwaZulu-Natal	135.69	101.93	86.92	116	128.84	87.8	88.1 (c)
Limpopo	151.89	138.72	124.60	118.1	144.23	114.7	120.2 (c)
Mpumalanga	156.04	140.34	88.94	103.2	174.5	137.4	138.3
North West	150.23	162.44	134.98	130.6	188.53	116.8	156.5
Northern Cape	136.75	116.12	174.44	104.3	190.87	117.4	134.6
Western Cape	84.02	75.13	60.54	93.3	102.28	70.8	71.8
South Africa	134.97	122.90	98.82	126.06	148.06	109.6	111.7 (c)

Comparison of Primary Obstetric causes per province 2023

iMMR 2023	EC	FS	GP	KZN	LP	MP	NW	NC	WC	Total
M+S disorders	32.7	16.3	16.9	12.0	8.0	24.6	28.7	17.9	12.1	17.2
NPRI	29.4	23.3	12.9	15.6	23.9	15.1	10.8	31.3	11.0	17.4
Ectopic pregnancy	1.1	11.6	2.0	2.6	3.5	5.5	5.4	8.9	5.5	3.7
Miscarriage	5.4	4.7	9.4	3.6	3.5	9.6	9.0	4.5	2.2	5.9
PRS	8.7	2.3	5.0	3.1	4.4	5.5	9.0	8.9	3.3	5.0
OH	20.7	18.6	11.4	17.2	18.6	23.3	28.7	8.9	7.7	16.5
Hypertension	17.4	37.2	10.4	13.0	16.8	30.1	30.5	31.3	6.6	16.9
Anaesthetic	2.2	2.3	0.5	1.6	5.3	4.1	1.8	8.9	2.2	2.4
ADR	0.0	0.0	1.0	1.0	1.8	0.0	0.0	4.5	2.2	1.0
Embolism	6.5	4.7	6.9	6.8	3.5	9.6	3.6	4.5	6.6	6.2
Acute collapse -	2.2	0.0	2.0	1.0	0.0	0.0	1.8	13.4	5.5	1.9
Miscellaneous	0.0	0.0	1.0	0.5	4.4	1.4	0.0	0.0	0.0	1.0
Unknown	0.0	18.6	7.4	6.8	5.3	9.6	5.4	13.4	6.6	6.9
iMMR (excl. coin)	126.3	139.5	86.7	85.0	99.0	138.3	134.6	156.5	71.8	102.1
Coincidental	1.1	11.6	1.5	1.6	3.5	1.4	1.8	4.5	8.8	3.1
iMMR (incl. coin)	127	151	88	86.5	103	140	136	161	81	105
Live births (2023)	91856	43010	201763	191839	113106	73026	55731	22367	90546	883244

HIV status in DDPCP 2023

Primary obstetric problem	Positive	Neg	Declined	Unknown	Total
Coincidental cause	8	7	0	12	27
M+S disorders	53	81	0	18	152
NPRI	115 (75%)	39	0	0	154
Ectopic pregnancy	9	3	0	21	33
Miscarriage	19	11	0	22	52
Pregnancy-related sepsis	15	24	0	5	44
Obstetric haemorrhage	50	81	0	15	146
Hypertension	41	92	0	16	149
Anaesthetic	4	16	0	1	21
Adverse drug reactions	1	7	0	1	9
Embolism	15	36	1	3	55
Acute collapse	5	11	0	1	17
Miscellaneous	3	4	0	2	9
Unknown	20	31	0	10	61
Total	358 (38.5%)	443 (47.7%)	1 (0.1%)	127 (13.7%)	929 (100.%)

Subcategories NPRI 2023 compared to 2022 and previous triennium

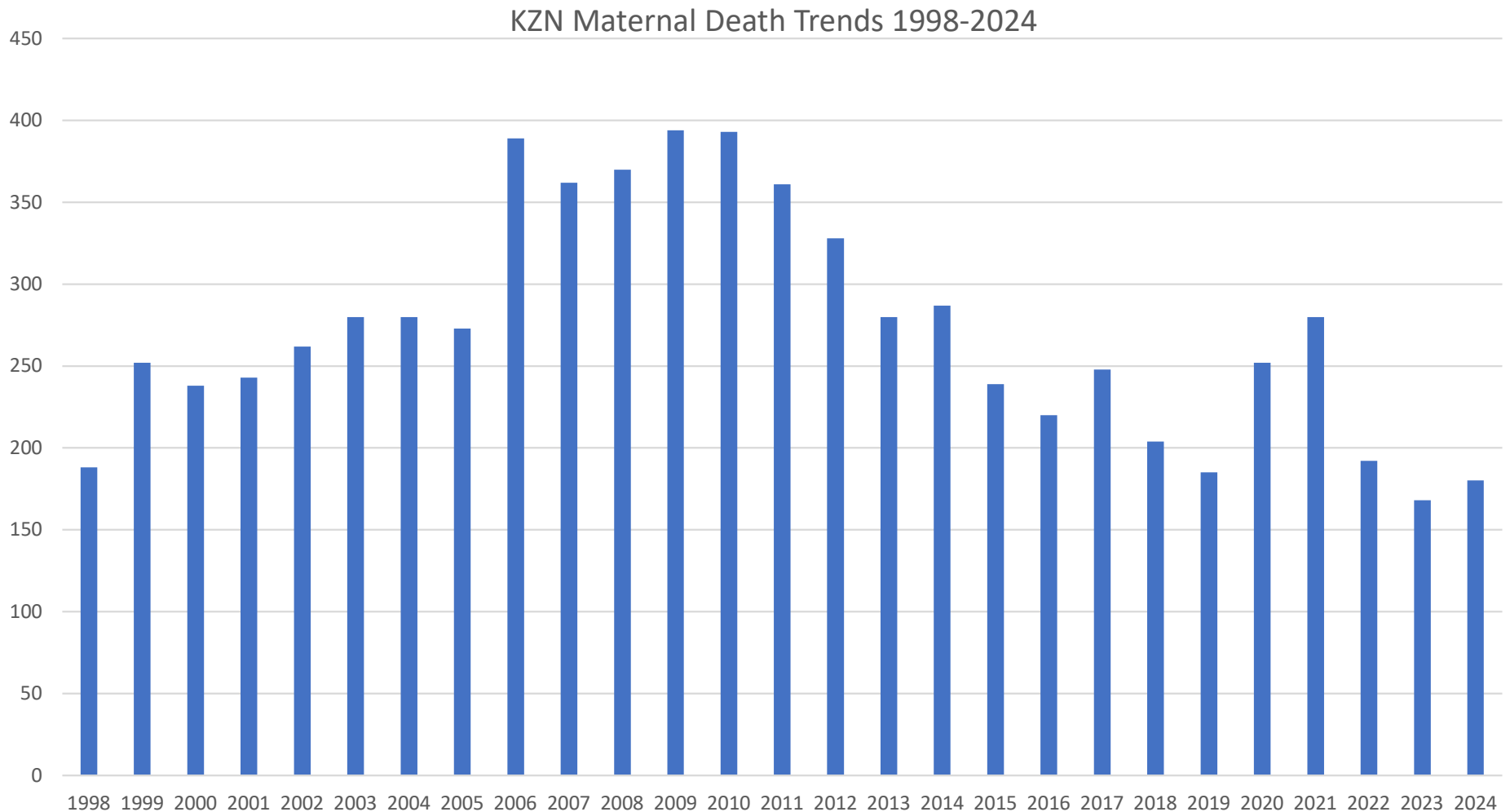
Non-pregnancy related infections	Number NPRI 2023	% NPRI 2023	% NPRI 2022	%NPRI 2020-2022
Pneumonia	45	29.2	33.9	20.6%
TB	62	40.3	35.0	16.7%
Meningitis	20	13.0	11.7	6.4%
GIT, Appendicitis, Malaria etc	15	9.7	10.0	4.6%
Other/includes COVID	12	7.8	9.4	51.7%
Total	154	100	100	100%

KZN Maternal Death Trends

- **2019: 185 deaths**
- **2020: 252 deaths**
- **2021: 280 deaths**
- **2022: 192 deaths**
- **2023: 167 deaths**
- **2024: 180 deaths**
- **2025:**



KZN Maternal Death Trends From Confidential Enquiry 1998-2024



KZN Maternal Deaths 2024

Numbers, Top 5 Causes, Trends

Causes	2024 Total 180	2023 Total 168	2022 Total 192	Trend cf 2023 7%↑
NPRI TB Other Pneum	37 (21%) 15 11	31 (19%) 11	37 (19%) 11	19%↑
M+S Cardiac	32 (18%) 12	24 (14%) 5	31 (16%) 14	33%↑
↑ BP	27 (15%)	25 (15%)	19 (10%)	8%↑
Haem Post VD Post CS	26 (14%) 11 12	33 (20%) 10 21	35 (18%) 15 15	21%↓ 10%↑ 43%↓
Embolism	11 (6%)	13 (8%)	8 (4%)	15%↓

KZN NPRI maternal deaths 2023: Avoidability

- **No Suboptimal care** **39%**
 - **Suboptimal care had no impact on outcome** **6%**
 - **Possibly preventable** **52%**
 - **Clearly preventable** **3%**
-
- **55% of NPRI deaths were potentially preventable if best care had been rendered**

Case Example

- **20 yr old G1P0**
- **Booked at 8 weeks at local clinic**
- **Rhesus pos, rapid syphilis neg, Hb not done**
- **HIV positive from birth**
- **Wt – 45kg, Ht – 151cm, BMI – 19**
- **Sputum GXP done – negative**
- **Called back in 1 month**

Case Example

- **Seen every month**
- **TB symptom screen documented negative**
- **Bloods done**
- **CD4 – 22**
- **Crypt Ag – negative**
- **Hep B – negative**
- **No VL done**
- **Hb – 11.4g/dl**
- **1st documentation of TLD ☐ 3/12 after booking**

Case Example

- **At 27 weeks**
- **Seen at another clinic**
- **Pulse = 133/min**
- **Admitted to defaulting ART x 3 years and being reinitiated during pregnancy**
- **Takes meds incorrectly**
- **Feels depressed**
- **VL done and referred to regional hospital after 2 days**

Case Example

- **At 28 weeks**
- **Seen at regional hospital**
- **Tachycardic – pulse = 122 /min**
- **VL result – 182 330**
- **Hb – 7.6g/dl**
- **Referred to dietician and ART counsellor**
- **TCB in 3 weeks**

Case Example

- **At 29 weeks**
- **Seen in LW at hospital**
- **Pulse = 129/min**
- **Diagnosed as false labour**

- **Discharged home**

Case Example

- **Two weeks later (31 weeks)**
- **Seen at hospital ANC**
- **Weight = 43kg Pulse = 113/min**
- **Brought by family – poor appetite, malaise**
- **Found to be ill-looking, pale, VDS noted**
- **Given IV fluids and syndromic management for VDS**
- **Admitted to antenatal ward, bloods done**

Case Example

- **Remained in hospital for 2 days**
- **Anaemia of 6.5g% noted – NNA**
- **CD4 = 14**
- **VL = 50 copies /ml**
- **Transfused 2 units RBC**
- **Hb 9.5g/dl**
- **Discharged to f/up at ANC in 2 weeks**

Case Example

- **Re-admitted one week later (32 weeks)**
- **Presented to LW with a history of SROM at 11h00**
- **Pulse = 118/min, ill-looking**
- **Oral thrush noted**
- **Chest clear**
- **Urine LAM – not available**
- **CXR ordered, physician consult sent – not seen by physician for several days**

Case Example

- **At 32 weeks, delivered live male – 1.39kg**
- **Sent to postnatal ward**
- **Re-initiation of HAART ?defaulted again**
- **Emotionally distressed ☐ for social worker and psych**
- **Seen by S/W ☐ advised referral to psychologist**
- **Still has tachycardia +/- 100 bpm**

Case Example

- **6 days post delivery**
- **C/O abdominal pain**
- **Pulse 126/min**
- **Abdomen tender, slightly distended**
- **Hb 8.1g/dl**
- **CrAg – negative**
- **Seen by dietician – MUAC 19**
- **Finally seen by physicians ☐ septic screen, PCT, bloods, concerned about abdomen, Pt transferred to high care**

Case Example

- **10 days post delivery**
- **still ill, in resp distress, abd tender**
- **Surgical consult**
- **NGT inserted**
- **Responding only to pain**
- **Severe hypoglycaemia**
- **Given IV dextrose**

Case Example

- **Seen by surgical team – not for surgical intervention**
- **Reviewed by physicians – GCS = E4V1M6**
- **Urgent bloods and urgent CT scan**
- **CTB – global brain atrophy in keeping with HIV encephalopathy**
- **No focal lesions**
- **Abd US and CT – ascites, splenic microabscesses, ?pancreatic TB, psoas muscle collection**
- **Pulmonary nodules**

Case Example

- **Poorly responsive, on IV dextrose infusion**
- **Reviewed by MDT**
- **Started on anti-TB treatment and steroids**
- **Fluconazole added**
- **Patient remained poorly responsive**
Family counselled
- **Died on day 14 after delivery**

Cause of Death

- **Advanced HIV/AIDS**
- **With Disseminated TB**
- **Died 26 weeks (6 months) after booking for antenatal care**



Reducing NPRI Deaths: Challenges

- **Sheer volume of people on ARVs in South Africa (inevitably a proportion will have chronic adherence problems)**
- **Young women /adolescents who were infected in utero or at birth, with ARV adherence problems, now getting pregnant**
- **Women who disengaged from ARV Tx during pandemic, now getting pregnant**
- **Increase in illegal immigrants who may struggle to access ARVs**



Reducing NPRI Deaths: Challenges

- **ARV drug stock-outs (budgetary constraints)**
- **Loss of US funding for HIV care programmes**
- **Myths about dangers of ARVs (social media)**





Attaining SDG 3: MMR target

- **HIV is one of the most common risk factors for pregnant women in South Africa**
- **TB is one of the most common serious complications of pregnancy**
- **As maternity health workers, we must remain vigilant regarding: HIV-related immunocompromise, opportunistic infections, viral non-suppression, vertical transmission**



Attaining SDG 3: MMR target

- **Maternity health workers must take responsibility for HIV/TB screening, investigation, diagnosis and management**
- **Pregnancy is often the gateway for young women living with HIV who are lost to FU, to re-engage with HIV care services**
- **We cannot rely on HIV specialist doctors and nurses to manage HIV/TB –related aspects of care during pregnancy and the puerperium**
- **Basic HIV/TB –related aspects of care must be integrated into maternal care. Clear referral criteria for complications**





Attaining SDG 3: MMR target

- **Being admitted in a regional/tertiary hospital should not put a pregnant woman at a disadvantage in terms of receiving quality advanced HIV care**
- **Training on advanced HIV and TB care must target maternity care workers, (not just HIV clinicians), including those working in O+G units at specialist level**
- **Requires leadership from O+G clinical managers**





Attaining SDG 3: MMR target

- **As well as integrating HIV care into maternal care, SRH care must be integrated into HIV treatment clinics**
- **Safe conception: providing contraception when there is no plan to conceive**
- **Safe conception: where the woman/ couple plan to have a baby, ensure that HIV is suppressed, that infections are screened for and treated before unprotected sex**
- **Cervical screening**

THANK YOU

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