TB related Maternal Mortality in eThekwini

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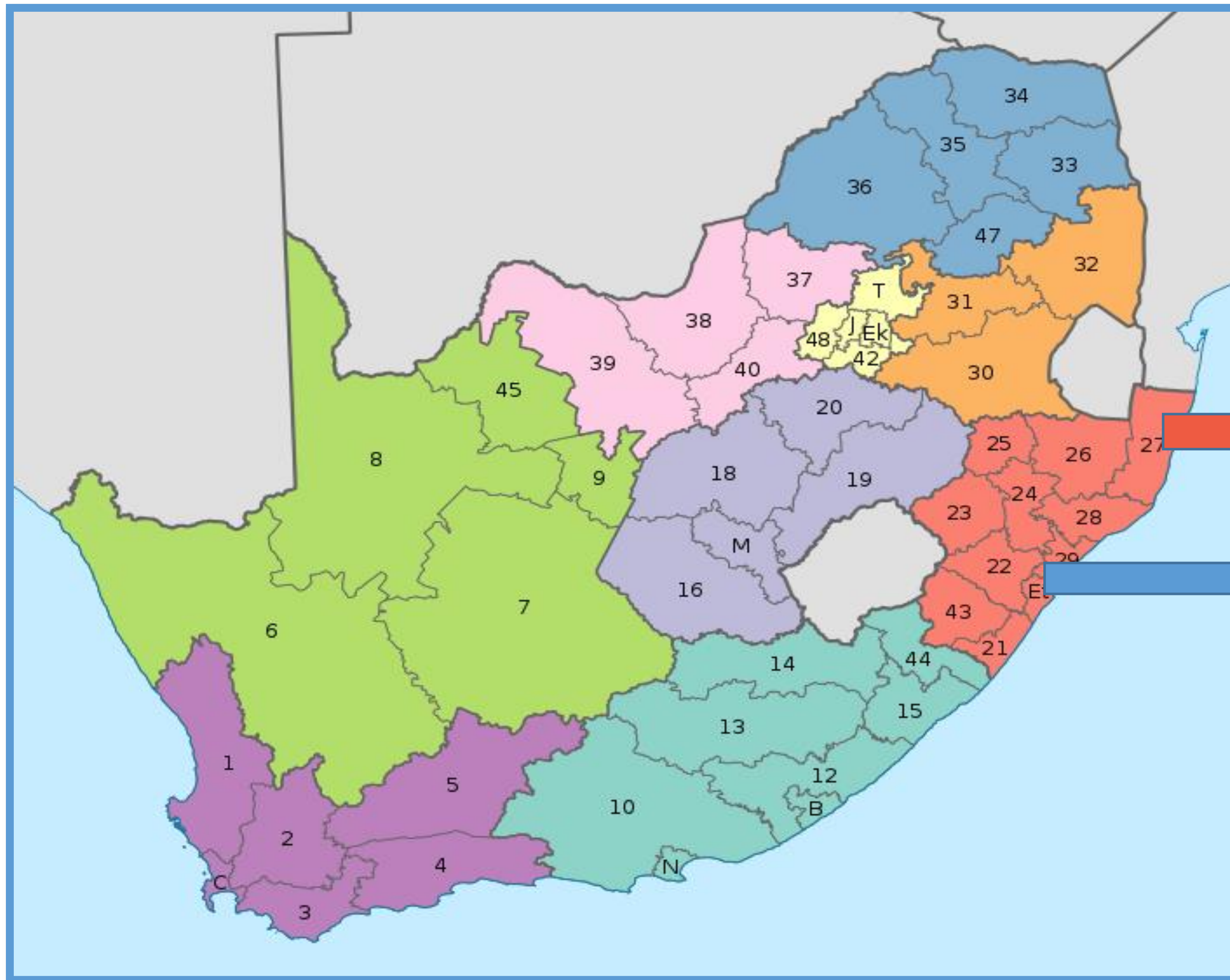
Introduction



Saving Mothers 2011-2013 (iMMR) :

SA	154
KZN	171
eThekwini	197.6

eThekwini

- **eThekwini :** 2014 - 167.4
  2015 - 122.4
  2016 - 120

- **NPRI** : 2015 - 39.4%
  2016 - 18.3%

Sub-categories NPRI maternal deaths in KZN

	2010 (HIV-)	2011 (HIV-)	2012 (HIV-)	2013 (HIV-)	2014 (HIV-)	2015 (HIV-)	2016 (HIV-)
Total deaths	183 (4)	157 (7)	131 (6)	117 (11)	92 (5)	70 (4)	63 (6)
TB	55 (2)	47 (2)	32 (1)	35 (3)	27 (0)	19 (0)	19 (2)
PCP	17 (0)	19 (0)	18 (0)	16 (1)	19 (0)	11 (0)	7 (0)
Other pneumonia	36 (1)	33 (3)	27 (4)	24 (5)	15 (3)	11 (2)	10 (0)

Note: 2010-2013 ADR to ARV were included in NPRI death category, but not in 2014-16

Sub-categories NPRI maternal deaths in eThekwini

	2015	2016
Totals deaths	26	13
TB	10	8
PCP	1	0
Other Pneumonia	7	3

TB Related Maternal Deaths in 2016 (1)

- 8 deaths:
  - 6 attended ANC
  - 2 HIV uninfected
  - 2 had a history of previous TB
  - 5 deaths in postpartum period
  - Perinatal outcomes: 4 live births (2 preterm), 1 miscarriage, 3 undelivered

TB Related Maternal Deaths in 2016 (2)

Symptoms	n=
Cough	5
Night sweats	4
SOB	4
Headache	3
Neck stiffness	2
Fever	2
Photophobia	2
Haemoptysis and syncopal attack	1

TB Related Maternal Deaths in 2016 (3)

Form of TB (n=):

- Disseminated TB (4)
- EPTB (2 TBM)
- PTB (2)

Diagnosis Based on (n=):

- Clinical with CXR (4)
- LP (2)
- Xpert positive (1)
- PM (1)

* Only 4 patients had a GeneXpert sample taken

TB Related Maternal Deaths in 2016 (4)

- In the women who were HIV co infected:
  - 2 unbooked: 1 defaulted treatment (CD4 17)
    1 on FDC since 2012 (VL 456000 / CD4 3)
  - 1 diagnosed with HIV during labour (not yet on FDC)
  - 3 booked and on treatment:
    1 on FDC since 2006 (No recent VL /CD4)
    1 on FDC since first ANC visit - Died before 3 months
    1 on FDC since 2012 (VL 26 / CD4 457)

Case 1: Primigravida

- Day 1 - Presented with problem of miscarriage and shock.

  Relevant medical Hx: ART since 2014, previous TB X2 (2014: ?MDR TB)

  History of cough and LOW.

  Clinical exam: Emaciated, distressed, ↓ air entry on right

  CXR – right pleural effusion.

  Commenced on Augmentin.

- Day 2 - USS and clinical examination – diagnosis of complete miscarriage.

Case 1 (2)

- Day 4- T/F to medical ward: Tazocin commenced.
- Day 7- Rifafour commenced and Bactrim.

  CD4 = 1, VL 1.6 mil
- Day 10- Imipenem.

  Non resolving pneumonia. ? TB bronchiectasis > ? MDR TB
- Day 13- Deceased

Case 1 (3)

- Challenges with diagnosis of TB in this case:
  - Attempts to tap effusion failed
  - Multiple attempts to collect sputum failed
  - History from family: patient had defaulted/ refused HAART
  - TB blood culture- MDR TB (INH and rifampicin resistance), sensitive to 2nd line drugs

Case 2

- ANC 1st visit -
  - 29 yr P2G3 booked at 25weeks.
  - No past TB hx
  - Diagnosed as HIV+, commenced on Atroiza
  - TB screening negative
- 3 weeks later: No TB screening, INH prophylaxis given
- 1 month later: No Screening. No problems.
- 19 days later:
  - Presented to hospital with BBA. 35wks. Symptoms of fever and SOB
  - CXR: Miliary picture- anti TB treatment commenced together with Bactrim and broad spectrum

Case 2 (2)

- 12 days Postpartum - deceased

- Concerns in this case:
  - Xpert X 2 negative in hospital
  - Ill at all ANC visits: low BP (93/62, 88/53; 88/50) and tachycardia (115;116; 116)
  - CD4 169 with VL 1259

Summary

- Problems with HIV management in and outside pregnancy.
- Problem recognition.
- Better implementation of screening.
- If strong clinical suspicion need to start empirical TB treatment.
- Early consultation.
- Possibly deaths attributed to other causes not considered as TB esp
- “Other pneumonia” and the chronically ill.
- Deficits in the investigation and assessment of possible TB suspects.
- Higher index of suspicion needed.