

Evaluation of Maternal Mortality Limpopo Initiatives

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Background

A. World Health Organization (Trends in Maternal Mortality, 2010)

- Global MMR: 400/100 000 live births in 1990
260/100 000 live births in 2008 } **34% reduction**
- South Africa MMR: 230/100 000 live births in 1990
410/100 000 live births in 2008 } **78% increase**

B. Confidential Enquiry into Maternal Deaths in South Africa

- First CEMD emerged in 1998 → 150/100 000 live births
- Second (1999-2001), third (2002-2004) and fourth (2005-2007) CEMD's reported steady increase in MMR **and leading causes of death remain unchanged**
- Fifth (2008-2010) CEMD shows a 16% increase (176/100 000 live births)

C. Health Data Advisory and Coordination Committee

- HDACC Report (2011) → 310/100 000 live births in 2009
- Target 270/100 000 live births in 2014

Definitions

Maternal Death (WHO):

Death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

Maternal Mortality Ratio:

Ratio of the number of maternal deaths per 100 000 live births.

(NB: used as a measure of the quality of a healthcare system)

WHO classification of Maternal Mortality Ratio (MMR):

1. MMR lower than 20 deaths per 100 000 live birth → **Low**
2. MMR between 50 and 149 deaths per 100 000 live births → **High**
3. MMR above 150 deaths per 100 000 live births → **Very High**

Age distribution in Limpopo Province

	Male		Female	
	No	%	No	%
0-4	324580	13	320286	11
5-9	310582	12	308244	10
10-14	331328	13	334885	11
15-49	1343934	52	1550925	52
50-54	66540	3	107372	4
55-59	58400	2	92451	3
60-64	47829	2	77410	3
65-69	35140	1	56673	2
70-74	27291	1	49341	2
75-79	17288	1	38822	1
80+	15432	1	39904	1
	2578344	100	2976313	100

Source: StatsSA, mid-year population census, 2011

Aim/Objectives

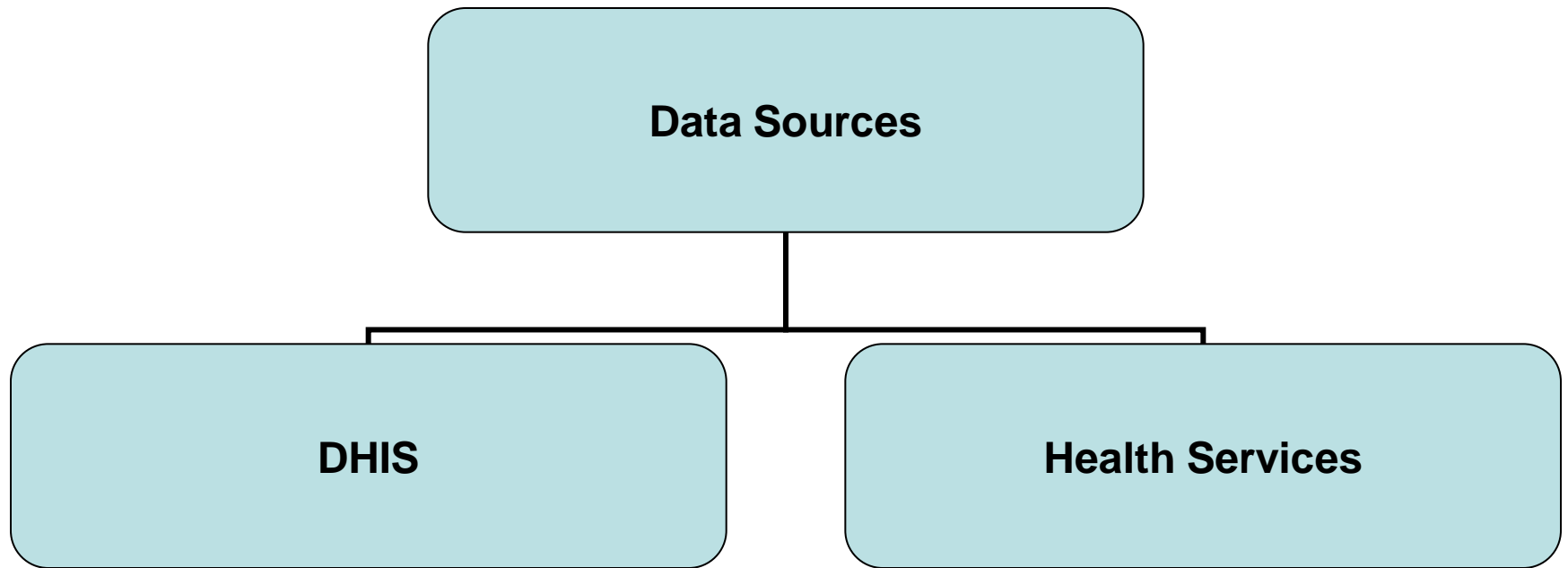
Aim:

To identify facilities **with higher MMR** with the purpose to provide proper institutional intervention.

Specific objectives:

- To identify health facility with higher maternal mortality ratio
- and to determine major causes of maternal death in each health facility

METHODOLOGY



Capricorn Health District

	Number of Live births	Number of maternal deaths	MMR (maternal deaths per 100000)	Perinatal mortality rate per 1K	C/S rate
Pietersburg	1479	26	1757.9	74.3	36.2
Mankweng	2745	8	291.4	66.2	17.8
WF Knobel	763	1	131.1	39.5	16.5
Zebediela	921	1	108.6	46.5	10.4
Botlokwa	692	1	144.5	38.2	17.9
Seshego	2030	5	246.3	37.7	15.6
H Franz	1155	3	259.7	62.5	12.3
Lebowakgomo	1721	1	58.1	34.5	19.4

Sekhukhune Health District

	Number of Live births	Number of maternal deaths	MMR (maternal deaths per 100000)	Perinatal mortality rate per 1K	C/S rate
Matlala	788	4	507.6	28.7	14.8
Mecklenburg	1394	1	71.7	28.8	12.8
Jane Furse	2514	10	397.8	39.8	15.2
St Ritas	2219	6	270.4	29.1	19.9
Dilokong	1868	1	53.5	39.3	13.5
Philadelphia	1779	5	281.1	26.5	17.3
Groblersdal	902	0	0.0	39.8	18.7

Vhembe Health District

	Number of Live births	Number of maternal deaths	MMR (maternal deaths per 100000)	Perinatal mortality rate per 1K	C/S rate
Tshilidzini	2655	8	301.3	38.1	22.9
Messina	810	4	493.8	26.8	13.6
L Trichardt	787	1	127.1	32.5	27.4
Malamulele	2192	4	182.5	31.4	12.4
Elim	1887	4	212.0	42.7	19.6
Siloam	1553	5	322.0	27.8	18.9
D Fraser	2331	2	85.8	41.1	17.5

Waterberg Health District

	Number of Live births	Number of maternal deaths	MMR (maternal deaths per 100000)	Perinatal mortality rate per 1K	C/S Rate
Ellisras	626	2	319.5	37.4	31.1
Mokopane	1332	4	300.3	47.4	19.3
G Masebe	729	1	137.2	30.9	19.2
Thabazimbi	580	2	344.8	40.3	23.2
Voortrekker	708	4	564.9	45.4	24.3
FH Odendaal	625	3	480.0	35.9	19.2
Warmbath	845	0	0.0	33.3	21.4
Witpoort	576	1	173.6	18.8	8.1

Mopani Health District

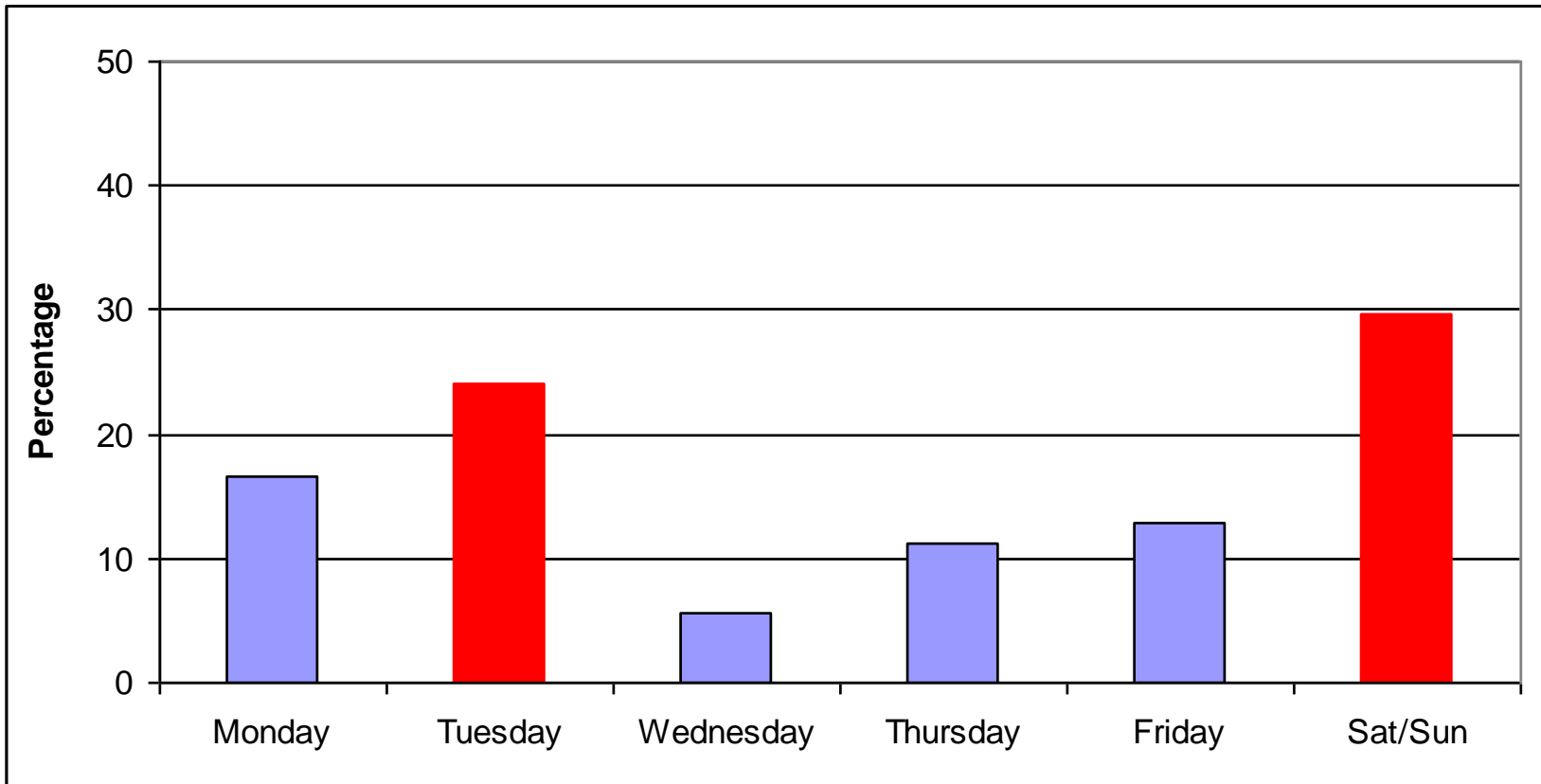
	Number of Live births	Number of maternal deaths	MMR (maternal deaths per 100000)	Perinatal mortality rate per 1K	C/S rate
M Malatji	1230	4	325.2	59.7	18.8
Letaba	1693	5	295.3	37.0	28.3
Sekororo	1114	3	269.3	36.1	12.1
Dr CN Phatudi	1098	2	182.1	35.6	17.1
Kgapane	2110	9	426.5	44.1	16.7
Nkhensani	2351	6	255.2	34.8	14.9
Van Velden	699	2	286.1	30.9	27.4

Referrals to Pietersburg/Mankweng Hospital Complex

Mopani		Vhembe		Waterburg	
Hospital Names	No of pts	Hospital Names	No of pts	Hospital Names	No of pts
M Malatjie	1	L Trichardt	1	Ellisras	1
Nkhensani	1	Siloam	1	Voortrekker	1
Total	2	Elim	1	Witpoort	1
		D Frazer	1	Total	3
		Total	4		
Capricorn		Sekhukhune			
Hospital Names	No of pts	Hospital Names	No of pts		
Complex	3	J Furse	1		
Seshego	2	Mecklenburg	1		
Knobel	1	Dilokong	2		
Rethabile	1	Grobliersdal	2		
Total	7	Philadelphia	1		
		St Ritas	3		
		Total	10		

8 Local

Distribution of deaths by the day of the week

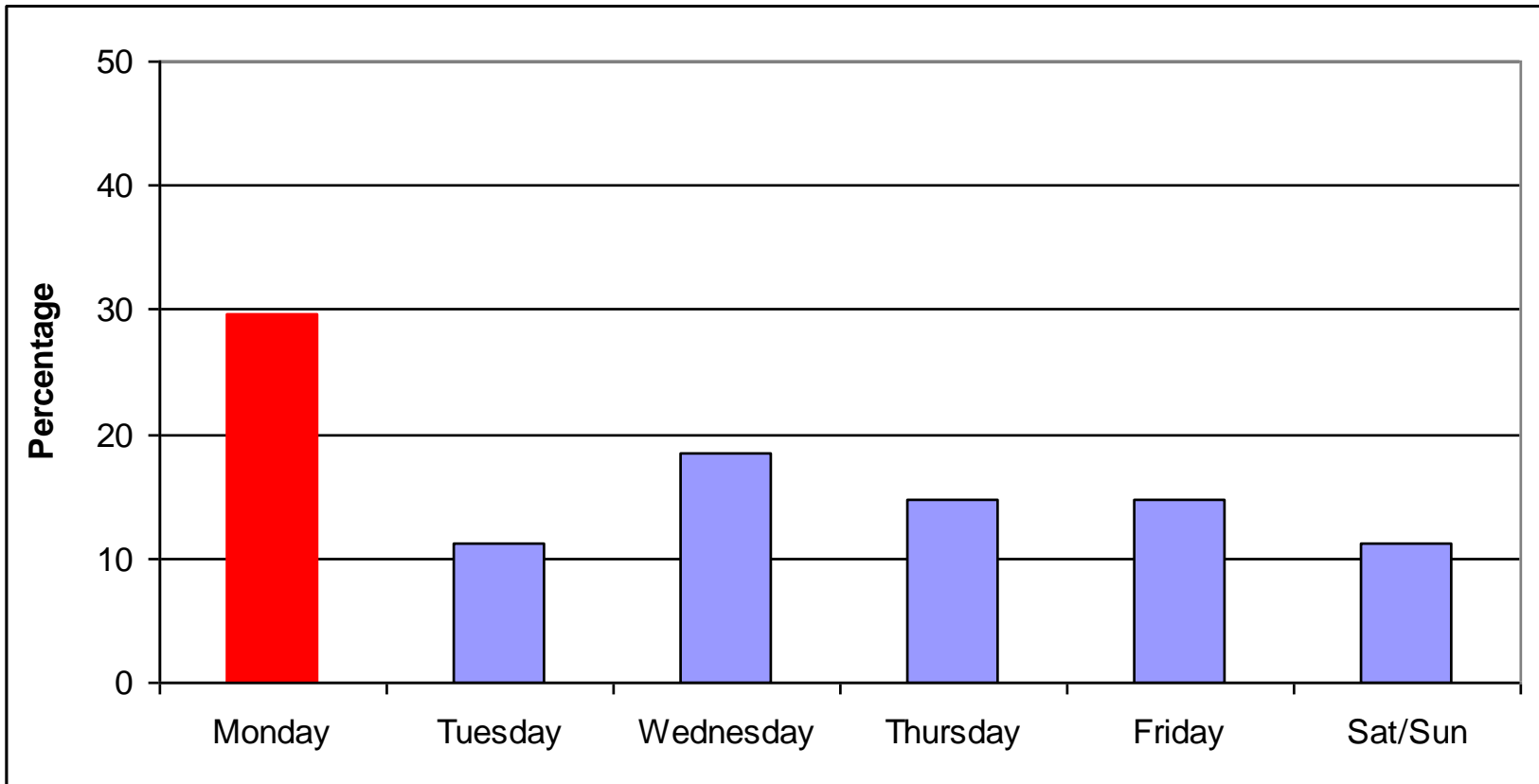


Mopani		Sekhukhune	
Hospital Names	No of pts	Hospital Names	No of pts
Letaba	2	Philadelphia	1
M Malatjie	4	St Ritas	1
Sekororo	1	Dilokong	1
Van Velden	1	J Furse	1
Kgapane	1		
Total	9	Total	4

10 Local

4 unspecified locations

Distribution of deaths by the day of the week



Maternal Mortality Ratio by district

	Number of Live births	Number of maternal deaths	MMR (maternal deaths per 100000)
Capricorn	22897	98	428
Mopani	19195	44	229
Vhembe	24321	49	201
Waterberg	11644	23	198
Sekhukhune	21880	25	114
Province	99937	239	239

Major causes of death per health facility

Pietersburg	Mankweng	Seshego	WF Knobel	Lebowakgomo	H Franz	Botlokwa	Zebediela
Hypertension in pregnancy	Infectious diseases						
Infectious diseases	Hypertension in pregnancy						
Haemorrhage (APH;PPH)	Haemorrhage (APH;PPH)						

Infectious diseases: Meningitis, Tuberculosis, Septicemia, HIV/AIDS

Discussion/Recommendations

Recommendations

- **Improving Quality of Data available**
 - Incomplete Information in death notification forms, Maternity register and patient records
 - Health information data and Maternity register differ
 - Recording of causes of death inadequate
 - Primary cause of death
 - Mechanism of death
 - Contributory Causes of Death
 - Natural vs. Unnatural deaths
 - Post Mortem Policy

Recommendations

- **Clinical Audits** of common causes of Maternal deaths (Eclampsia, PPH, APH and NPRI)
- Strengthening on **HIV/AIDS Clinical Management and Infectious disease Management (PTB)** among Health Professionals in the Obstetric department

Conclusion

- HIV
- Haemorrhage
- Hypertension
- Health Worker Training
- Health Systems
- Health Information Strengthening