Development of Indicator Scores Using Items from the WHO Safe Motherhood Needs Assessment to Examine Utilisation of Maternal Health Services in South Africa

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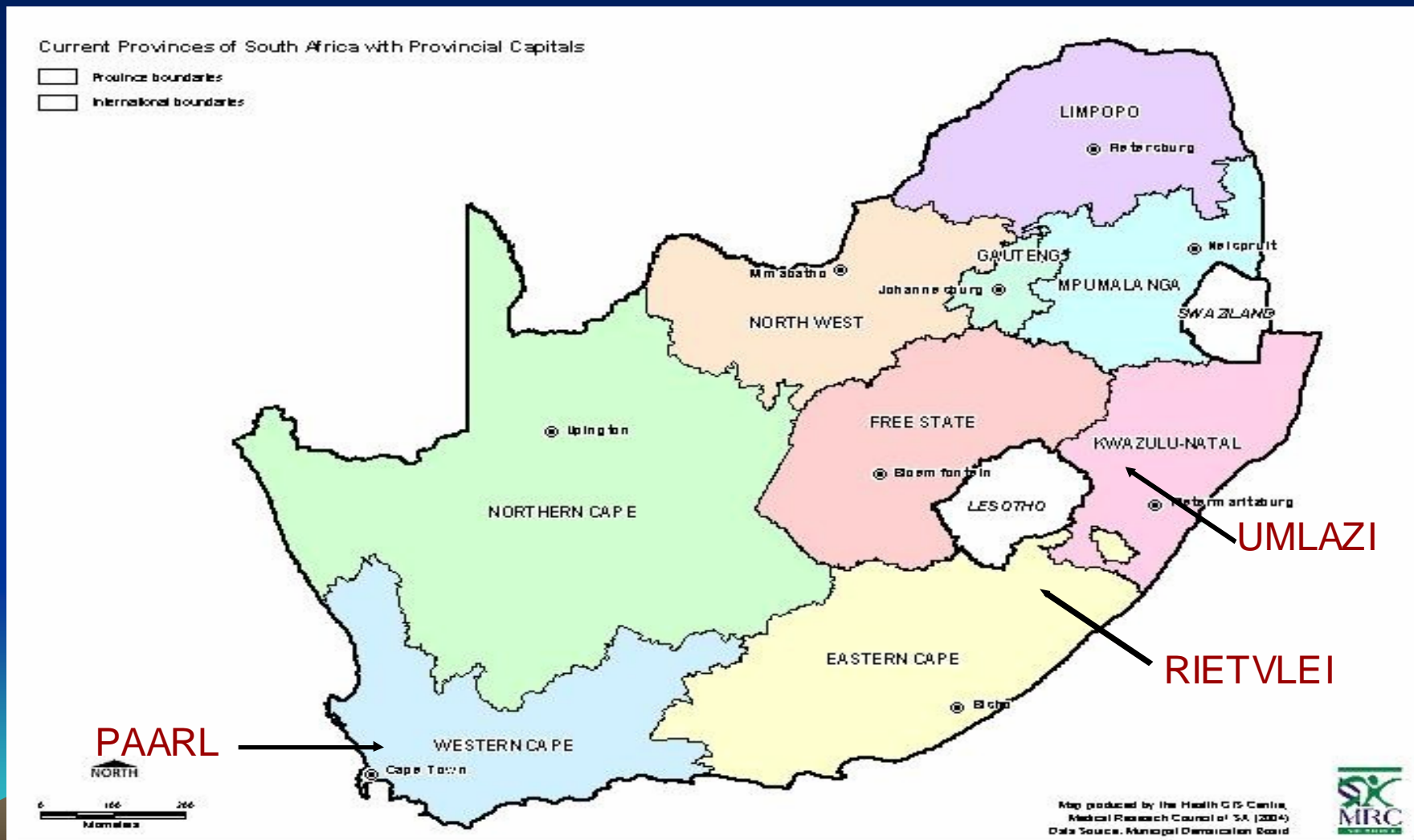
Introduction

- Maternal mortality and severe morbidity are currently major problems in reproductive health worldwide

- South African maternal mortality rate is 175-200/100 000 live births

- Recognising consumer perceptions of healthcare services and incorporating the client's views to improve quality of care is widely acknowledged in healthcare

Study sites

Research Problem

Perceived quality of maternal health services

HIV/AIDS

Poor Utilisation of maternal health care services

Accessibility

Knowledge of maternal danger signs

Aim & Objectives

AIM
To determine factors that impact on the utilisation of maternal care

OBJECTIVES
- To identify the predictors of utilisation of maternal services
- To assess and compare the quality of maternal care services from the perspective of the women
- To compare the differences in the utilisation of maternal care services across sites
- To compare health seeking behaviour of HIV positive and HIV negative mothers

Research Methodology

- Sample : 20 HIV+, 20 HIV- & 20 HIV-unknown status, randomly sampled from prior study or community lists in each site

- Cross sectional study

- Data collection
  - *Semi-structured home-based interviews with mothers who have delivered a baby in the last 9-12 months*
  - *Questionnaire – adapted from WHO Safe Motherhood Needs Assessment*

Score Development and Data Analysis

- Scores were developed on perceived quality, knowledge, socio-economic status, satisfaction and barriers to services variables

- Scores were developed with the help of an expert in public health

- The Kruskal-Wallis test was used to assess the differences in the scores across sites

- Correlation analysis was used to assess the relationship between the indicator scores

- Simple linear regression analysis was used to assess individual predictors of utilisation

Development of utilisation score

Variable	Categories Response	Score
ANC attendance in all pregnancies	Yes	1
	No	0
Place of delivery in all pregnancies	In health centre	1
	Not in health centre	0
First antenatal care visit	0-4 months	1
	> 4 months	0
First infant follow-up visit	0-6 weeks	1
	> 6 weeks	0
First mother follow-up visit	0-6 weeks	1
	> 6 weeks	0
Currently using family planning	Yes	1
	No	0

Study Results
Socio-Demographics
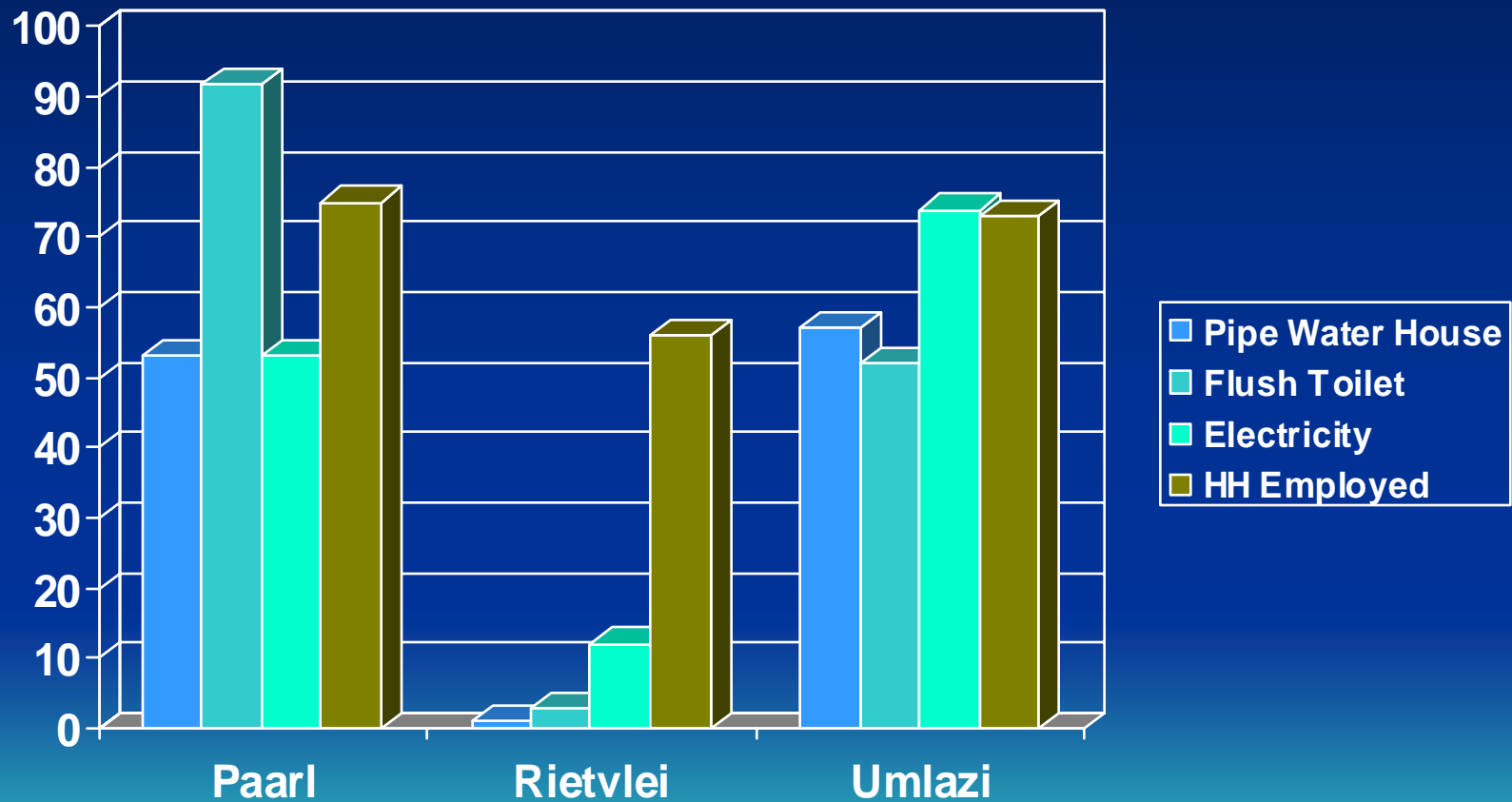
Descriptive statistics for the scores
**These variables come from items in the WHO Safe Motherhood Needs Assessment

Score Variable	N	Mean	Std	Min	Max
Socio-economic status	177	11.85	5.83	1	25
Utilisation of services	178	4.51	1.05	1	6
Barriers to services	178	3.43	1.83	0	8
Perceived quality of services**	178	12.98	5.76	1	25
Satisfaction with services**	178	3.63	1.40	0	6
Knowledge of danger signs**	178	47.31	24.07	10	122

The correlations among the scores

	Quality	Knowledge	Socialscore	Barriers	Satisfaction
Coefficients					
Quality	1				
Knowledge	-0.071	1			
Socialscore	0.148	-0.030	1		
Barriers	-0.068	0.030	-0.067	1	
Satisfaction	0.489	-0.134	-0.148	0.038	1

Predictors of utilisation of maternal services

Scores	R-square	Pr > |t|
Perceived quality	0.214	<0.0001
Knowledge of danger signs	0.068	0.0004
Socio-economic status	0.049	0.0030
Barriers to maternal services	0.045	0.0043
Satisfaction	0.022	0.0504

Distribution of utilisation score by site
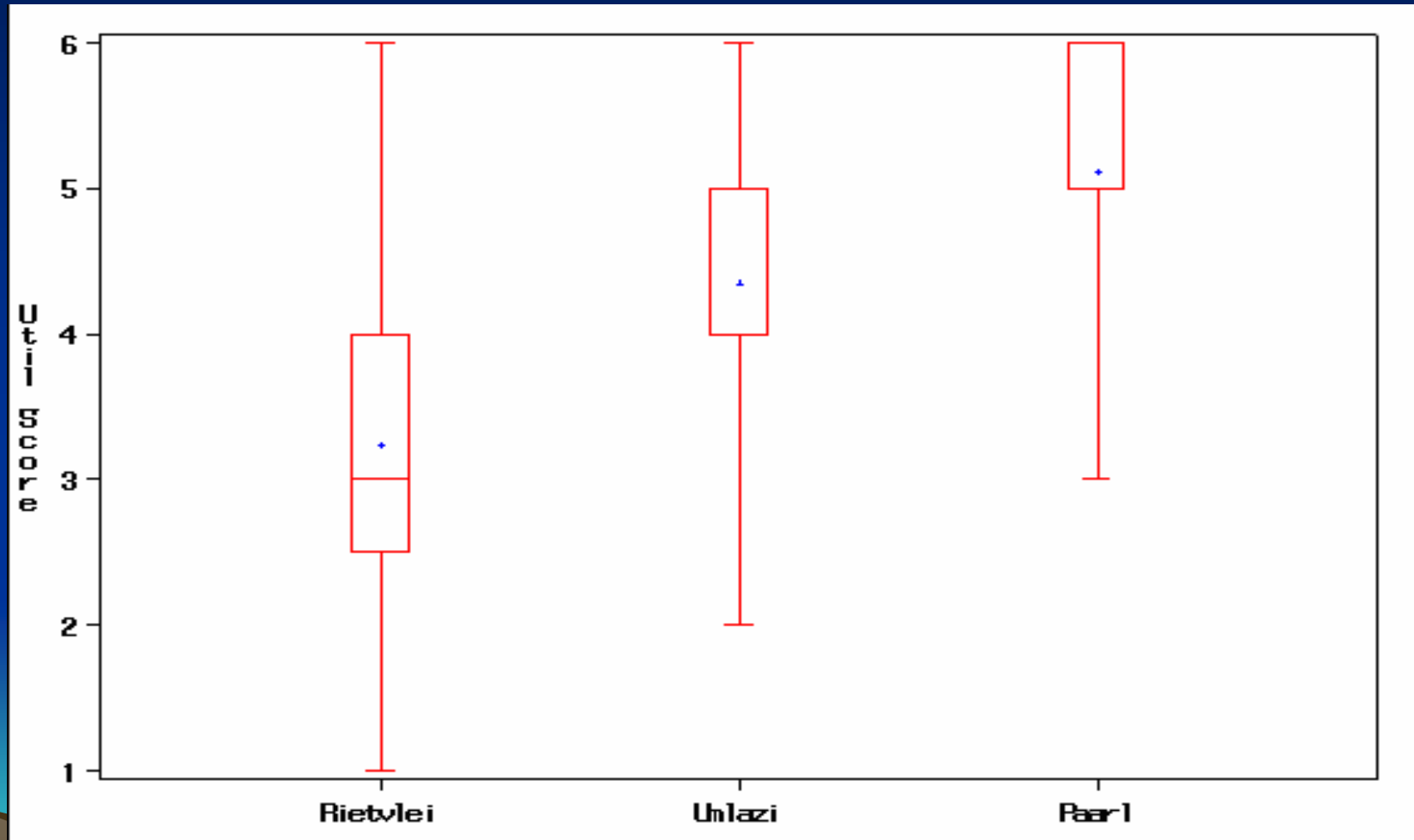
Comparisons of score variables in all sites

Scores	Paarl	Rietvlei	Umlazi	P-value
Socio-economic status	13	6	14	<0.0001
Utilisation of services	5	3	4	<0.0001
Barriers to services	2	3	2	0.4253
Perceived quality of services	17	9	12	<0.0001
Satisfaction with services	4	4	3	<0.0001
Knowledge of danger signs	31	45	52	<0.0001

Utilisation of maternal health services by HIV status

- Utilisation of maternal health services was not determined by HIV status

- The utilisation of services by HIV+ and HIV-women is worrying because HIV+ women are at higher risk of complications

Conclusions

- *Perceived Quality of Care is the strongest predictor of maternal health service utilisation – clients are more informed than we think??*

- Development of score variables from WHO Safe Motherhood Needs Assessment Tool may have wide applicability for assessing maternal health services

- The factors contributing to poor utilisation of services pose serious threats to women's health in Rietvlei and Umlazi

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