

A TITLE: Keep it simple, brief and attractive



<!-- Change your name accordingly --> Student: Your Name

<!-- Change the name of your supervisor accordingly -->

Supervisor: Supervisors Nama

A RESEARCH REPORT SUBMITTED TO THE SCHOOL OF PUBLIC HEALTH, UNIVERSITY OF THE
WITWATERSRAND, JOHANNESBURG, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF SCIENCE IN BIOSTATISTICS

November, 2017

DECLARATION

I, [Your Name], student No: [1500000] declare that this research report is my own work. It is being submitted for the degree of Master of Science in [Epidemiology in the field of Biostatistics] at the University of Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at this or any other University.

<!-- change name and date accordingly -->

[Your Name]

[November 2017]

DEDICATION

This research is dedicated to ,

To all is unto you.

ABSTRACT

Background:

Brief background

Methodology:

Brief Methodology

Results:

Brief Results

Conclusion:

Brief Conclusion

ACKNOWLEDGEMENT

The achievement and realization of this research project has been through the mentorship of my supervisor

Secondly I thank Sub-Saharan African Consortium

Siyabonga

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NOMENCLATURE

- **MySQL** -My Structured Query Language
- **WHO** -World Health Organisation
- **MODIS** -Moderate Resolution Imaging Spectroradiometer
- **EVI** -Enhanced Vegetation Index
- **SD** -Standard Deviation
- **ARIMA** -AutoRegressive Integrated Moving Average
- **SARIMA** -Seasonal AutoRegressive Integrated Moving Average
- **ACF** -Autocorrelation Function
- **PACF** -Partial autocorrelation function
- **AR1** -Auto Regressive order 1
- **MLE** -Maximum Likelihood Estimation
- **MCMC** -Markov chain Monte Carlo
- **INLA** -Integrated Nested Laplace Approximations
- **DIC** -Deviance Information Criterion
- **GLM** -Generalised Linear Models

CHAPTER 1: INTRODUCTION AND BACKGROUND

1.1 Background

1.1.1

Background 1.1.1 this is how we reference from the bibliography.bib file (1,2). If its one reference then its (2). Check the file under bibliography called bibliography.bib that contains bibtex content from either google scholar, mendeley or endnote

1.1.2

Background 1.1.2

1.1.3

Background 1.1.3

1.2 Problem statement

Problem statement

1.3 Justification of the study

Justification of the study

1.4 Literature review

1.4.1

Literature review sub section 1.4.1

1.4.2

Literature review sub section 1.4.2

1.5 Research question

Is it PICOT criteria and Feasible Interesting Novel Ethical Relevant

1.6 Aim and objectives of the study

1.6.2 Study aim

1.6.3 Study objectives

a) To describe

b) To investigate

c) To investigate ...

CHAPTER 2: METHODOLOGY

Introduction

This chapter describes the study site, design and population

2.1

METHODOLOGY 2.1 then include an image under the images folder

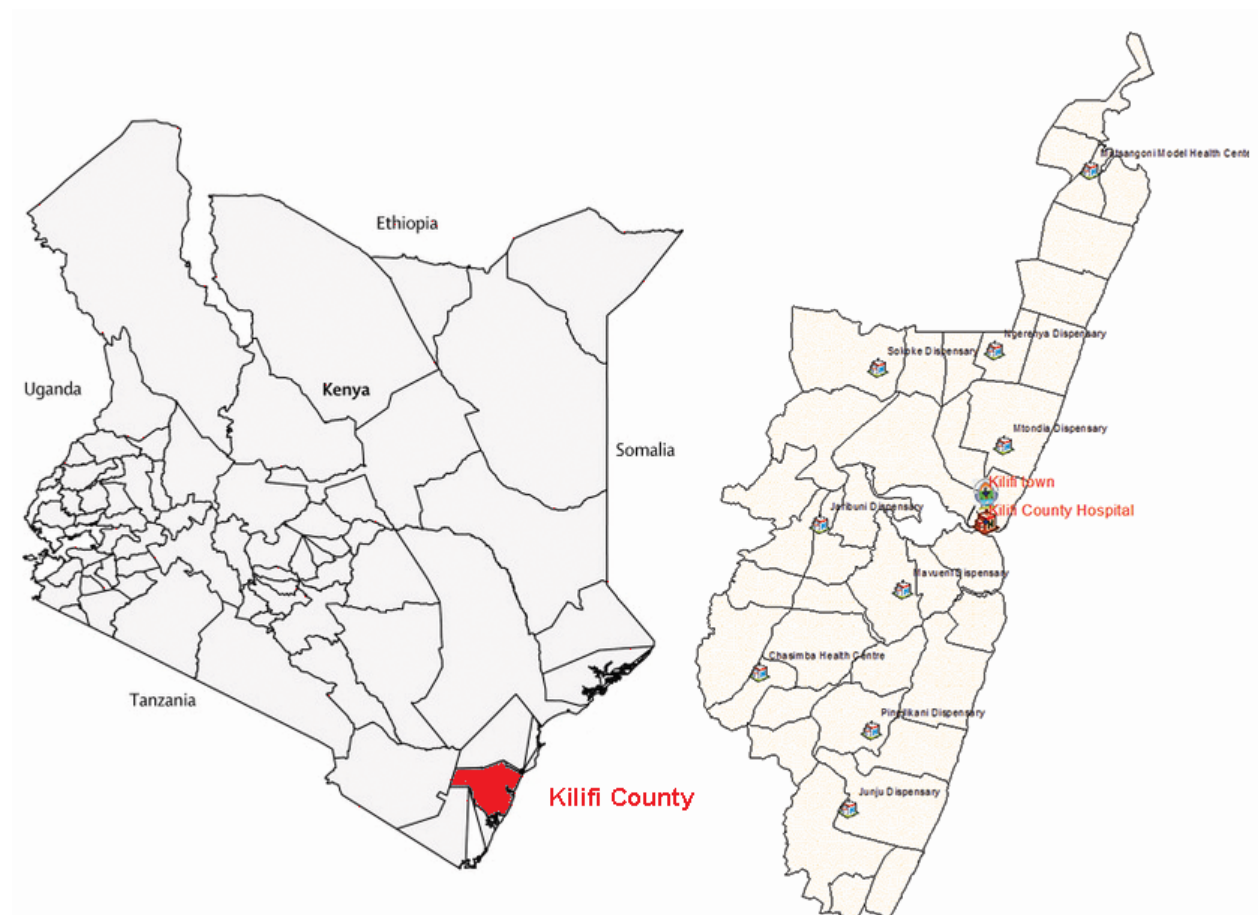


Figure 2.1: The location of

2.2 Study Design and Data Management

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley

2.2.1 Data Quality

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley

2.3 Study Population

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley

2.3.1 Inclusion Criteria

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley

2.3.2 Exclusion Criteria

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley

2.4 Outcome and Explanatory Variables

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley

2.5 Exploratory Data Analysis

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley

2.5.1

Exploratory Data Analysis 2.5.1 and include equation that is not referenced
In general the seasonal autoregressive moving average model is defined

as;

$$\text{ARIMA } (p, d, q) (P, D, Q)_s$$

\uparrow
Non seasonal

\uparrow
seasonal

In general SARIMA model with period s is defined as;

$$(1 - \varphi_p L)(1 - \theta_1 L^s)(1 - L)(1 - L^s)_{yt} = (1 + \phi_p L)(1 + \Theta_1 L^s)_{\ell_t}$$

\uparrow

\uparrow

\uparrow

\uparrow

\uparrow

\uparrow

NS AR(1)

S AR(1)

NS D

SD

NS AR(1)

S AR(1)

(Eqn:1)

2.5.2 S

2.6 Inferential Statistics

2.6.1 Inferential Statistics 1

Include inline eqautions like this $x + y = x + y \dots$

Model Definition and include equation

The definition of the negative binomial spatial model is

$$y_{ijt} | \psi_{ijt}, \Omega \sim \pi(y_{ijt} | \psi_{ijt}; \Omega) \quad (\text{Eqn:2})$$

2.6.2 Inferential Statistics 2

Our outcome for objective 3 ...

Model Definition

Since our outcome is binary the general distribution is;

$$y_i = \begin{cases} 1 & \text{if there was a death} \\ 0 & \text{otherwise} \end{cases}$$

2.6.3 Model assesment and goodness of fit

We adopted both multilevel models and Bayesian approach for model estimation....

2.9 Ethical Clearance

Ethical approval under clearance certificate number was received from the Human Research Ethics Committee of the University of the Witwatersrand. The certificate is in Appendix 1.

CHAPTER 3: RESULTS

3.1 Introduction

In this chapter, we show the results of the analysis of.....

3.2 Exploratory Data Analysis

3.2.1

Result Exploratory Data Analysis 1

3.2.2

Result Exploratory Data Analysis 2

3.3 Bivariate Analysis

The code for the table can be generated from <https://www.tablesgenerator.com/> and put between begin {table} and end {table}

Table 4.1: Characteristics of the study population for the continuous variables a bivariate analysis by mortality; SD(O,B,W) is the overall, within and between Standard Deviation

Variables	N (total)	Overall		Data1		Data2		P-value		
		Mean	SD (O,B,W)	N (total)	Mean	SD (O,B,W)	N (total)		Mean	SD (O,B,W)
Age	3114 (7820)	35.95	32.56 28.53 14.73	3114 (7621)	35.71	32.35 28.48 14.46	199 (199)	45.16	38.69 38.69 N/A	0.0001
Days	3113 (7780)	5.18	6.61 4.95 4.45	3113 (7591)	5.15	6.53 5.04 4.34	189 (189)	6.51	9.16 9.16 N/A	0.0067
Number of	3114 (7820)	3.49	2.56 1.59 N/A	3114 (7621)	3.50	2.58 1.59 N/A	199 (199)	2.96	1.75 1.75 N/A	0.0036
Total	3114 (7820)	3.22	2.27 1.37 N/A	3114 (7621)	3.23	2.29 1.37 N/A	199 (199)	2.67	1.37 1.37 N/A	0.0007
Weight	3109 (7736)	10.96	5.17 4.69 2.16	3108 (7541)	10.97	5.13 4.68 2.13	195 (195)	10.53	6.38 6.38 N/A	0.2597
Height	3092 (7526)	85.17	19.06 17.09 8.53	3088 (7350)	85.12	18.98 17.14 8.40	176 (176)	87.05	22.45 22.45 N/A	0.1939
Water (mm)	3070 (7426)	31.92	44.30 32.42 32.84	3068 (7236)	31.78	44.02 32.78 32.30	190 (190)	37.27	53.79 53.79 N/A	0.1002

3.4 Inferential 1 Model Fit and Diagnostics

3.4.1 Model fit results

orem Ipsum is simply dummy text of the printing and typesetting industry.

3.4.2 Model fit diagnostics orem Ipsum is simply dummy text of the printing and typesetting industry.

3.5 Inferential 2 Model Fit and Diagnostics

3.5.1 Model fit results

orem Ipsum is simply dummy text of the printing and typesetting industry.

3.5.2 Model fit diagnostics

orem Ipsum is simply dummy text of the printing and typesetting industry.

CHAPTER 4: DISCUSSION AND CONCLUSION

4.1 Introduction

This chapter discusses the key results from our analysis

In general, reference Figure~??.

4.2

Lorem Ipsum is simply dummy text of the printing and typesetting industry

4.3

Lorem Ipsum is simply dummy text of the printing and typesetting industry

4.4 Lorem Ipsum is simply dummy text of the printing and typesetting industry

4.5 Strengths and limitations of the study

The strength and limitations of the results and discussion in this research project are discussed in four broad categories;

- Category 1

- Category 2

4.5.1 Category 1

.Lorem Ipsum is simply dummy text of the printing and typesetting industry

4.5.2 Category 2

Lorem Ipsum is simply dummy text of the printing and typesetting industry

4.6 Conclusion

in conclusion

REFERENCES

1. Kazembe LN, Chirwa TF, Simbeye JS, Namangale JJ. Applications of bayesian approach in modelling risk of malaria-related hospital mortality. BMC Medical Research Methodology. 2008;8:6.
2. Greenspan J, Bulger B. MySQL/php database applications [Internet]. John Wiley & Sons, Inc. 2001 [cited 2017 Jun 6]. Available from: <http://dl.acm.org/citation.cfm?id=558011>

APPENDICES

Appendix 1 - Plagiarism declaration report



PLAGIARISM DECLARATION TO BE SIGNED BY ALL HIGHER DEGREE STUDENTS

SENATE PLAGIARISM POLICY: APPENDIX ONE

I _____ (Student number: _____) am a student
registered for the degree of _____ in the academic year _____.

I hereby declare the following:

- ❖ I am aware that plagiarism (the use of someone else's work without their permission and/or without acknowledging the original source) is wrong.
- ❖ I confirm that the work submitted for assessment for the above degree is my own unaided work except where I have explicitly indicated otherwise.
- ❖ I have followed the required conventions in referencing the thoughts and ideas of others.
- ❖ I understand that the University of the Witwatersrand may take disciplinary action against me if there is a belief that this is not my own unaided work or that I have failed to acknowledge the source of the ideas or words in my writing.

Signature: _____ Date: _____

Clearance Certificate

ETHICS CERTIFICATE