

TABLE OF CONTENTS	Page
DECLARATION	i
DEDICATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	IV
TABLE OF CONTENTS	VI
LIST OF TABLES	X
ABBREVIATIONS	XI
CHAPTER ONE: BACKGROUND AND LITERATURE REVIEW	1
1.1 Introduction	1
1.2 Rationale for the Study	4
1.3 Factors associated with drug shortages	6
1.4 Aims and Objectives	8
CHAPTER TWO: METHODOLOGY	9
2.1 Study Design	9
2.2 Study Population	11
2.3 Sample Size	11
2.4 Pilot Study	14
2.5 Data Collection	15
2.6 Data Measurement	16
2.7 Validity and Reliability	16
2.8 Ethical Consideration	17
2.9 Data Analysis	17

CHAPTER THREE: RESULTS	19
3.1 Background	19
3.2 Demographic Profile	19
3.3.1 Provincial Depot	20
3.3.2 Hospital Pharmacies	21
3.4.1 Staffing	25
3.4.2 Supervision	27
3.4.3 Training in Specialised Areas	29
3.5.1 Communication Indicators	30
3.5.2.1 Access to the Facility	32
3.5.2.2 Access to Stores	32
3.5.2.3 Size of the Store	33
3.5.2.4 Burglar Proofing	33
3.5.2.5 Ventilation	34
3.6 Cold Chain Management	35
3.6.1 Type of Fridge and its use	35
3.6.2 Recording of Fridge Temperatures	36
3.6.3 Power Pack-Up System	36
3.7 Drug Selection	37
3.7.1 Selection and Availability of the EDL	37
3.7.2 Quantification Needs	37
3.8 Procurement and Distribution of Medicines	38
3.8.1 Sources and Methods	38
3.8.2 Lead Time	39

3.8.3 Receiving Procedures	40
3.9 Stock Control	41
3.9.1 Availability of SOPs and Guidelines	41
3.9.2 Use of Stock Cards	42
3.9.3 Prescribing and Dispensing Record	44
3.9.4 Dispensing	44
3.9.5 Prescribing Indicators	46
3.9.4.1 Average number of drugs per encounter	46
3.9.4.2 Percentage of encounters with an injection prescribed	46
3.9.4.3 Percentage of drugs prescribed by generic name	47
3.9.4.4 Percentage of drugs prescribed from the EDL	48
3.9.4.5 Percentage of encounters with an antibiotic prescribed	48
3.10 Knowledge of correct treatments	49
3.11 Control of Medicine Budget	49
3.12 Availability of Tracer Drugs	51
CHAPTER 4: DISCUSSION	54
4.1 Introduction	54
4.2 The Drug Supply Management Cycle	54
4.2.1 Drug Selection	54
4.2.2 Procurement and Distribution	55
4.3 Stock Control	57
4.4 Irrational Drug Use	57
4.5 Poor Record Keeping	59
4.6. Supervision	61

4.7 Storage and Security	62
4.8 Limitations of the Study	63
CHAPTER FIVE: RECOMMENDATIONS AND CONCLUSIONS	65
5.1 Procurement and Distribution	65
5.2 Stock Control	65
5.3 Prescription Indicators	66
5.4 Control of Drug Budget	67
5.5 Supervision	66
5.6 Sub-district and District Drug Management Teams	67
5.7 Cold Chain Management	68
5.8 Communication	68
5.9 Further Research	68
5.10 Conclusion	69

REFERENCES	70
-------------------	-----------

APPENDICES	72
-------------------	-----------

LIST OF FIGURES AND TABLES

Table 1: Distribution of Health Facilities Evaluated Using Facility Questionnaire	13
Table 2: Category and Roles of Personnel responsible for DSM	25
Table 3: Combining roles 2 & 3 and staff categories 1 &2	26
Table 4: Availability of communication equipment and its rating	31
Table 5: Frequency of Stock-Taking	43
Table 6: Tracer Drugs out of Stock in last 3 months	51
Figure 1: Drug Supply Chain of Mopani District	24

ABBREVIATIONS

AMC	: Average Monthly Consumption
AIDS	: Acquired Immuno-Deficiency Syndrome
CHC	: Community Health Centre
CCM	: Cold Chain Management
DISCA	: District STI Clinical Assessment
DoH	: Department of Health
DMT	: District Management Team
DSM	: Drug Supply Management
EDL	: Essential Drug List
EPI	: Expanded Programme on Immunisation
FEFO	: First Expiring First Out
FIFO	: First In First Out
HIV	: Human Immuno-deficiency Virus
HST	: Health Systems Trust
IMPP	: International Multi-source Pharmaceutical Products
ISDS	: Initiative for Sub-district Support
MSH	: Management Sciences for Health
NDP	: National Drug Policy
PHC	: Primary Health Care
PFMA	: Public Finance Management Act
RDU	: Rational Drug Use
ROL	: Re-Order Level
SADAP	: South African Drug Action Programme

SOPs : Standard Operational Procedures
STG : Standard Treatment Guidelines
TB : Tuberculosis
WHO : World Health Organization