

AFRICA UNIVERSITY
(A United Methodist-Related Institution)

**EMPERICAL STUDY OF THE IMPORTANCE OF TRANSPORT ON
HEALTH CARE AND SERVICES DELIVERY AT BEITBRIDGE
DISTRICT HOSPITAL IN 2022**

BY

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**A RESEARCH PROJECT PROPOSAL SUBMITTED IN PARTIAL
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EXECUTIVE SUMMARY

Transport is a major constraint in achieving the child and maternal health goals in many of the developing countries in Africa (World Bank, 2011). It is clear that transport and health are inextricably linked as it is an essential aspect in health institutions. According to the World Health Organization, 2010, rural areas have few or no health care facilities, or the transport access for people to seek medical attention. The major constraints for accessing healthcare service are healthcare charges, long distances to facilities, inadequate and unaffordable transport systems.

The Research seeks to assess the impact of transport on healthcare and services delivery at Beitbridge District Hospital from January 2022 to December 2022. The research the proposal identifies the main determinant of transport challenges and factors contributing to the challenge. These have tended to negatively impact on the delivery of healthcare commodities and services for Beitbridge District residents.

Effective transport system is the cornerstone to the achievement of organizational goals and objectives. It is essential as it ensures all programmes are carried out conveniently and effectively within the health care setup. It is also essential for safe transportation of patient, assets and officers from point A to point B. The hospital has 1 functional Ambulance and five service vehicles with 3 being the only reliable ones and all of them overdue for service and repairs. Therefore, with that being said, it is of paramount importance to assess the challenges and determine the importance of transport within the health sector and hence come up with solutions to the transport challenges within the district hospital given the importance of transport in the health institutions. This will help save lives as well as smooth carrying out of hospital errands on time as well.

The main objective is to assess the direct impact of transport on health care delivery and health care seeking patients 2022. The four specific objectives are to describe the transport system in the quality of transport in healthcare delivery at Beitbridge Hospital, to assess the accessibility of transport to health care centres in the district, to find out the availability of transport in referral cases from the rural health care centres to the district hospital and from the district to the provincial hospital, to establish the impact of transport on health care providers at Beitbridge District Hospital.

Research participants are the Beitbridge District Hospital transport management team, caregivers and patients. The total number of participants will be 74 people. The source of recruitment will be Beitbridge District Hospital and Gwanda Provincial Hospital for the pretest. Age range of the targeted participants is above 18 years of age, both males and females. Pregnant women, delivered mothers and those involved in accidents are the vulnerable population to be included in the study. A consent letter will be written and given to each key informant and each patient participating in the study. These forms will have a signature part of thumb print section for those who cannot write. The consent form for the patients will be different from

A similar intervention according to my research was a project titled; The Contribution of Transport (Road) In Health Care Delivery “A Case Study of Mankranso District Hospital in The Ahafo Ano South District of Ashanti Region”, (A.O.Broni, I.A. Kumasi, O.A. Kumasi, P.Agyemang – Duah, 2014). It linked the contribution of transport to health care delivery with their main focus being on conducting a Strategic analysis on the role of transport in quality health care delivery

The impact of transport on health care delivery at Beitbridge District Hospital research is analysed using the case study method under the qualitative research design. The primary data for the research study will be collected from respondents through questionnaire administration to patients in 3 different languages namely Venda, Ndebele and English.

The study population is within Beitbridge Hospital which is the only district hospital in the area catering for all Beitbridge District residences. Beitbridge Hospital is a 140-bed district hospital which is a referral centre for about 18 Rural Health-care Centres, covering a population of over 250 000 locals. The researcher will select a number of patients from the emergency and out-patient department, mothers waiting home and maternity ward. A number of people will also be selected from the caregivers as well as the services and supply providers from the administration department.

The study will include maternity patients, Chikwarakwara health caregivers, transfer in and out patients, Beitbridge District Hospital care givers (nurses and doctors) and supplies and transport management team, the DMO, DHSA, DNO, Matron, PO, Accountant and pharmacists. The excluded criteria are the rest of the RHC within the district, other health seeking patients and caregivers not mentioned in the Inclusion Criteria that includes the general hands, nurse aides, sisters in charge, laboratory department and x-ray department.

DECLARATION

I Thabani Makiwa, student number 190311, do hereby declare that this dissertation is my original work except where sources have been cited and acknowledged. The work has never been submitted to another university for the award of the Bachelor of Science degree.

THABANI MAKIWA

25/11/22

Student's full name

Student's Signature

(Date)

Main supervisor's full name

Main Supervisor's Signature

(Date)

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DEDICATION

I dedicate this dissertation to my family, parents and siblings who have always supported me and encouraged me to never give up.

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LIST OF ACRONYMS

DNO	District Nursing Officer
DMO	District Medical Officer
PO	Procurement Officer
WHO	World Health Organization
BDH	Beitbridge District Hospital
EMRAS	Emergency Medical Rescue Ambulance Services
OPHID	Organization for The Public Health Interventions and Development
DHSA	District Health Services Administrator
MoHCC	Ministry of Health and Child Care
UNICEF	United Nations Children's Funds
OPD	Out-Patient Department

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CHAPTER 1 INTRODUCTION

1.0.INTRODUCTION

Transport is a major constraint in achieving the child and maternal health goals in many of the developing countries in Africa (World Bank, 2011). Transport and health are inextricably linked as it is an essential aspect in health institutions for health care delivery. Transport management is the administration of the transportation system with the available resources as well as managing the movement of vehicles, maintenance as well as fuel costs. Effective transport system is the key to achieving organisational objectives. Transport management in hospitals ensures the smooth flow of transportation of patients, staff as well as hospital goods for example, pharmaceuticals and patients' food. It enables smooth movement of patients, medication, procured goods and specimens for testing. Availability of reliable transport makes it easier and faster for people to access health care, for example when one calls for an ambulance there has to be a fast reaction to the call making sure help gets to the patient as soon as possible. Availability of transport in hospitals also makes it easier for hospital care givers reach out to residents in remote areas where there are no clinics or the clinics are quite a distance from their homes making it difficult for them to access health services due to lack of transport.

Ineffective transport management is a result of inadequate resources, the major being financial resources and limited number of vehicles per institution. The main effects of these problems results in vehicles going for overdue services and overuse. Local monetary laws also affect health institutions for instance most service providers prefer US\$ to RTGS whilst most funds of health institutions are in RTGS. The other issue is purchasing of fuel for hospital use becomes a challenge as the authorised fuel service providers that the government institutions are supposed to purchase fuel from may be

out of fuel supplied in rtgs and also the delays in transporting the fuel coupons from Harare to Beitbridge is a challenge, hence delaying health service delivery processes. Adverse effects of poor transport management results in poor health service delivery which leads to high mortality.

1.1.BACKGROUND OF THE STUDY

Transport is a major constraint in achieving the child and maternal health goals in many of the developing countries in Africa (World Bank, 2011). It is clear that transport and health are inextricably linked as it is an essential aspect in health institutions. The study will be looking at road transportation. According to the World Health Organization, 2010, rural areas have few or no health care facilities, or the transport access for people to seek medical attention. It stated an estimated percentage of 90% of children who die at home most of them without even seeking health care. Lack of transport and the transportation costs are important reasons why people do not use healthcare services, especially services requiring a referral. Health services are often not accessed by the very poor and by women in particular. The major constraints for accessing healthcare service are healthcare charges, long distances to facilities, inadequate and unaffordable transport systems. In the Beitbridge District people end up opting for the use of donkey carts, if they have one, to transport their relatives to the hospital due to financial challenges. Problems with transport also affect the ability of staff to deliver health services. Delays in treatment, increased mortality for some health problems are a result of long distance from certain communities to the hospital. Lack of accessible, affordable and timely public transport is a risk factor for health. Transport issues are an integral element in meeting a range of health service aims, including those set out the in national service frameworks and other policy documents, and in the health service environmental standards.

Negative effects of the problem are that there is delayed health services delivery. In some cases, ambulances are not readily available therefore the hospital has to call EMRAS and ask for them to assist the emergency caller. Patients who need to be transferred to other hospitals sometimes have to pay for fuel for the ambulance, due to fuel shortages, to speed up the transfer process that means if the patient is financially unstable the transfer might be impossible or delayed hence delaying their treatment process. In situations whereby there are two patients who are not very stable financially and are willing to share the fuel costs that means the ambulance meant to carter for a single patient is now transporting 2 patients who are seriously ill, which is unacceptable but due to circumstances this may be the best possible solution for both patient at that time.

1.2. STATEMENT OF THE PROBLEM

Although transport is not the main focus in health care delivery, unavailability of transport and the cost of transport are important reasons why people do not seek health care. Poor transport system is a priority problem in the hospital because transport is what makes the flowing of the business run smoothly, for example if a patient has to be transferred to another hospital, usually patients from Beitbridge District Hospital are transferred to United Bulawayo Hospitals (UBH) located 300km away and Gwanda Hospital located 190km away, there is need for a well-functioning hospital ambulance with all necessary equipment especially if the patient is in a critical condition and adequate supply of fuel is also important and should be readily available. One ambulance is not adequate therefore there is need for more ambulances.

The hospital has 1 ambulance and 5 service vehicles with only 3 being reliable. All of them need to be serviced. Beitbridge hospital caters for about 18 clinics with the furthest located 139km away. Beitbridge Hospital is a 140-bed district hospital which is

a referral centre for about 18 Rural Health Centres, covering a population of over 250 000 locals. The RHC are Makombe, Chasvingo, Shabwe, Chamnangana, Zezani, Shashe, Shabwe, Dite, Tongwe, Majini, Chikwakakwala, Chitulipasi, Nottingham, Swereki, Masera and Dulibadzimu. Due to transport challenges and poor road networks expecting mothers who reside outside Beitbridge town have to register with local clinics in their area earlier so that when there is a vehicle travelling to the district hospital where there is a pregnant women's waiting home. These women will stay there away from their families until they have safely delivered and are in good fit enough to go home together with their babies. This is the next best solution that helps avoid maternal deaths since there are inadequate functional ambulances and inadequate equipment for labour services or pregnant women's waiting home facilities at some of the local clinics. BDH collects supplies from Bulawayo and Gwanda, for example the theatre oxygen which is a daily necessity, therefore due to the long distance that has to be frequently covered there is need for a bigger vehicle that can transport goods on a regular basis to and from.

Some Beitbridge District Hospital patients opt for donkey carts as a mode of transport for transporting patients which is not safe and convenient in most cases. This may worsen the condition as the patient will not be comfortable and will be in an open space. It is also a slow mode of transport which is not convenient for cases whereby the patient needs to get to the hospital as soon as possible. A picture was taken showing donkey cart that had brought patients to the hospital and another was taken at Shabwe Rural Health Facility.



Figure 4: Shabwe Rural Health Facility



Figure 5: Beitbridge District Hospital

The hospital sometimes has to request for assistance elsewhere hence delaying the progress of outreach programmes. In terms of workshops the hospital also has to request for fuel and functional vehicles as well from the OPHID, Save Our Children and other partners they work with.

1.3.RESEARCH OBJECTIVES

The main objective is to assess the direct impact of transport on health care delivery and health care seeking patients at Beitbridge District Hospital from January to December 2022

Specific objective

The study seeks specifically seeks to:

1. To describe the transport system in the quality of transport in healthcare delivery at Beitbridge Hospital from January to December 2022
2. To assess the accessibility of transport to health care centres in the district from January to December 2022.
3. To find out the availability of transport in referral cases from the rural health care centres to the district hospital and from the district to the provincial hospital from January to December 2022

4. To establish the impact of transport on health care providers at Beitbridge District Hospital from January to December 2022

1.4.RESEARCH QUESTIONS

1. What is the role of transport in quality healthcare delivery at Beitbridge District Hospital from January to December 2022?
2. How was transport accessed by health care centres in the district from January to December 2022?
3. How available is transport in referral cases from the rural areas and rural health care facilities to the district hospital and from the district hospital to the provincial hospital from January to December 2022?
4. How does transport affect health care providers at Beitbridge District Hospital from January to December 2022?

1.4. ASSUMPTIONS

Before carrying out the actual study and assessing actual facts, the study is based on assumptions that:

- There is a direct link between maternal deaths and high mortality rates.
- There is a direct link between delays in seeking for health care and transport.
- Poor transport affects health care delivery due to delays in procurement and other hospital duties.

1.5.JUSTIFICATION OF THE STUDY

Transport is an important essential in every institution. It is a critical aspect of the logistics system of all institutions. Effective transport system is the cornerstone to the achievement of organizational goals and objectives. It is essential as it ensures all programmes are carried out conveniently and effectively within the health care setup. It

is also essential for safe transportation of patient, assets and officers from point A to point B. Beitbridge District Hospital has 16 clinics that operate under it and all these depend on the transport provided by the main hospital. Services such as transfer of patients, emergency calls around the community and district as a whole for critically ill patients requiring an ambulance, transportation of drugs and other hospital materials as well as staff members all rely on the hospital transport. Use of vehicles that are overdue for service in the health institution is dangerous to both patients and the driver and any other people being ferried by the vehicle as there is a risk of breakdowns and accidents.

The hospital has 1 functional Ambulance and five service vehicles with 3 being the only reliable ones and all of them overdue for service and repairs. Therefore, with that being said, it is of paramount importance to assess the challenges and determine the importance of transport within the health sector and hence come up with solutions to the transport challenges within the district hospital given the importance of transport in the health institutions. This will help save lives as well as smooth carrying out of hospital errands on time as well.

1.6.DELIMITATION OF THE STUDY

The findings of the study will show the impact of transport on health care delivery to staff and patients at Beitbridge District Hospital. The study will provide recommendations on the possible ways that can be used to improve availability of transport and hence improve the quality of health services delivery. The study may also serve as a reference guide for the government in planning and implementation of its budgets towards the health services. The suggestions and recommendations of this research may also help Beitbridge District Hospital to improve its transport system efficiently and effectively.

1.7.LIMITATIONS TO THE STUDY

The limitations to this study include that not everyone will take part in the research. Not all participants are willing to say everything they wish to say. There will also be language barriers as most residents of the chosen population area are Venda and Ndebele speakers.

1.8.SUMMARY

This chapter clearly outlined the importance transport in the health sector. It outlines the challenges faced by health institutions. The chapter then also outlines the background of the study, the problem statement, research objectives and questions, assumptions, justification and delimitation of the study. The chapter clearly identifies the challenges arising because of a poor transport system within the Beitbridge District Hospital.

CHAPTER 2 REVIEW OF RELATED LITERATURE

2.1. INTRODUCTION

Literature review is a system of methods used in an area of study. It looks at other researches previously done in line with this research and points out areas that were not clearly analysed.

2.2. CONCEPTUAL FRAMEWORK

The study focuses on the relationship between health care delivery and transport and logistics. The study seeks to establish a correlation between the absence of an effective transport and logistics management system and poor health delivery. There is no attainment of set goals such as malaria eradication and reduction of mortality rates and maternal deaths.

The model points out the relationships between transport system, its factors, and their impact on health services delivery outcomes.

The main contributions of this framework are the framing of poor transport system contribution towards health services delivery. Transportation is shaped by trends in policy decisions that determine how the hospital transport system is funded, whether it is always readily available for emergencies and how often services are delayed.

The study will point out how the availability and unavailability of transport affects the behaviour of patients on seeking health care especially those who go to the hospital when they feel the condition is now too bad to handle.

The diagram below shows the relationship between a poor transport system and health services delivery, these are the outcomes of a poor transport system.

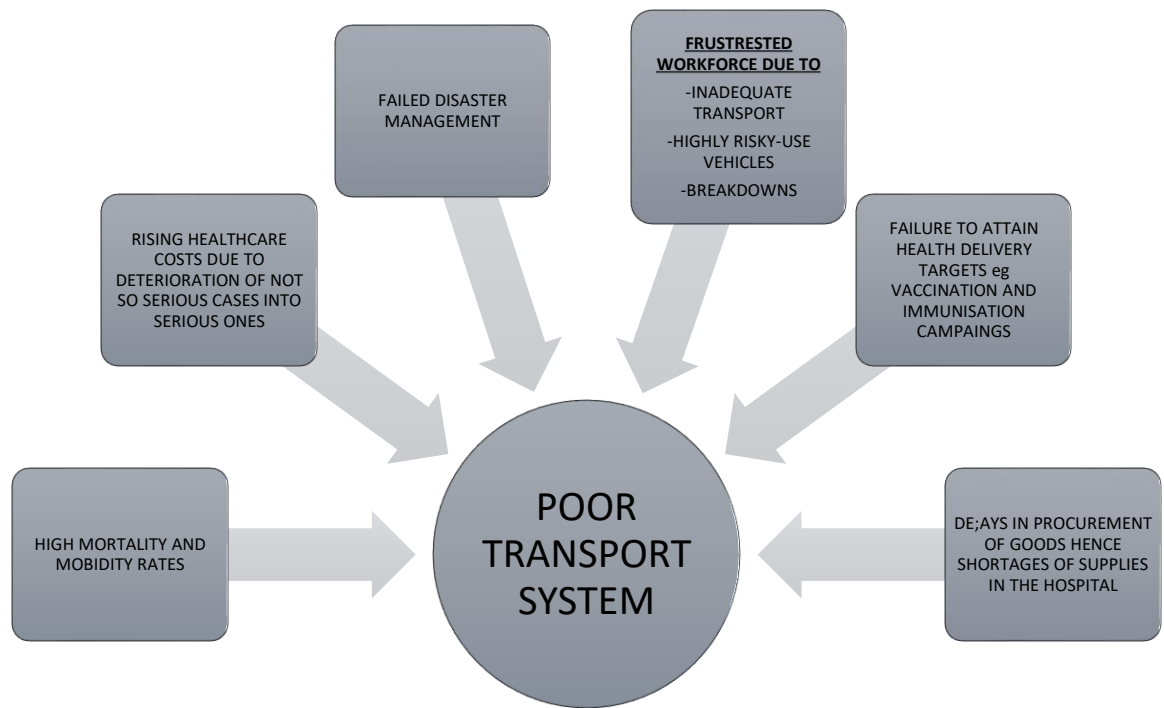


FIGURE 1: Conceptual Framework

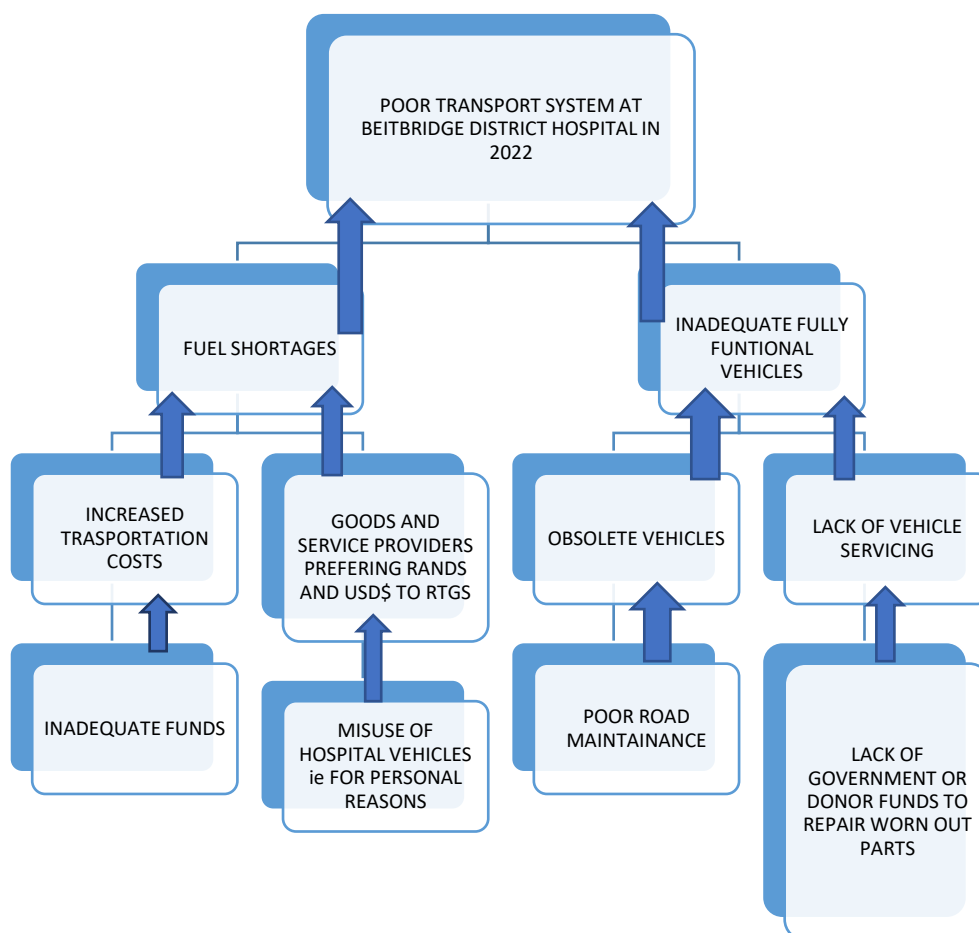
Poor transport results in high mortality and morbidity rates, rising healthcare costs due to deterioration of not so serious cases into serious ones, delays in hence the need to assess the accessibility and availability of transport for the healthcare and services delivery in order to have knowledge on how the improved transport system may reduce the healthcare problems identified.

Assessment of the transport system impact on healthcare delivery will help and the impact of transport on healthcare providers will help in the reduction of the failed disaster management rates as well as procurement issues, frustration amongst workforce and the failures to attain health delivery targets.

The hospital usually has no fuel for day to day operations or for patient transfers.

Patient transfers are also an issue as there is only 1 properly functional ambulance yet the hospital has at least 2 patient transfers per day, most of them being maternity patients.

The diagram below shows clearly the factors that affect transport system in the hospital directly and indirectly. These lead to the poor transport system and hence resulting in delayed and poor health services delivery, affecting both health workers and the patients.



KEY

↑ The arrows in bold show the movement of the diagram. The Indirect factors are at the bottom which results in the second row direct factors which result in the determinants of the main problem, the poor transport system problem at Beitbridge District Hospital in 2022.

Figure 2: Problem Analysis Diagram

The unavailability of fully functional resources as well as total absence of other resources and also having obsolete resources is a major issue at the hospital.

An example could be the unavailability of transport to take food to the quarantine centre which is quite a distance from the hospital due to shortage of fuel resulting from inadequate funds and also the unavailability of foreign currency funds (rands or US dollars, mainly US dollars) which is the only accepted currency at most if not all fuel stations in Zimbabwe. The hospital's available funds are in RTGS, the local Zimbabwean currency which is only accepted by a few fuel companies therefore the hospital has to request for a favour to be allowed to pay using the foreign currency and if they agree that's when they now can get fuel for their vehicles, from ambulances to delivery trucks that carry patient's food and other hospital commodities as well as stuff. Most departments, for example, the procurement department requests for transport and they are told there is no transport or the only vehicle with fuel is not around hence this will stop the flowing of business as the required resources' procurement process will be delayed due to lack of transport.

In some cases, for example transportation of food for patients the drivers have to use the ambulance which is meant for transporting patients during emergencies. Despite the fuel challenges, the hospital has a lot of vehicles that are lying idle because they are not in good conditions and need to be serviced or because the costs of replacing the broken parts are way above or close to purchasing a new vehicle therefore, they have to be disposed. All these issues lead back to financial issues, the hospital has inadequate funds to either purchase new vehicles or purchase parts that need to be replaced on the old vehicles.

2.3. RELEVANCE OF THE CONCEPTUAL FRAMEWORK TO THE STUDY

The conceptual framework clearly points out the factors that link transport and health services delivery. It helps identify the effects of poor transport in health services

delivery such as delays in procurement and daily set goals due to fuel shortages or poor performance of vehicles because they are not serviced.

Globally, most parts of the world, mostly developing countries face major challenges in transport management. Mostly in remote areas there is bad terrain and sometimes no vehicles for patient transfers and other health services. The consequences of inadequate transport for the delivery of basic health care according to The World Health Organisation (WHO) are that, the most impoverished, usually rural areas have few or no health care facilities, or the means to transport people for medical assistance. About 90 percent of children dying die at home, often without their families even seeking health care, (WHO/UNICEF, 2010). Unavailability of transport and cost of transport are major reasons why people do not seek healthcare services, especially services requiring a referral. Health services are often not accessed by those financially incapacitated in particular. Transport constraints also hinder the human resource in delivering their duties due to absenteeism, lateness and incapacitation.

Transport challenges in the health sector are making it difficult to manage diseases, leading to high mortality and making it difficult to manage some diseases. Distance has been related to the delay in treatment, increased morbidity and mortality for some health problems such as ischemic heart disease. Lack of accessible, affordable and timely public transport is a risk factor for health. There is need for smooth and prompt vehicles ready for emergence cases and referral cases at every level of health care. From literature review, improper transport management causes delay in deciding to seek care and in receiving care at health facility were identified as contributing to deaths among women with Obstetric complications (Fam,1992; Maine, 1997).

Zimbabwe is currently facing economic challenges which affect all industries including the health sector. In Zimbabwe, which is in the Southern region of Africa, most if not all

health institutions in different provinces and districts as well as rural health care centres are facing transport challenges. Most government owned hospitals have inadequate number vehicles and/or fuel shortages due to financial challenges which are highly necessary for the transportation of food, medication and patients.

2.4. LITERATURE REVIEW

A similar intervention according to my research was a project titled; The Contribution of Transport (Road) In Health Care Delivery “A Case Study of Mankranso District Hospital in The Ahafo Ano South District of Ashanti Region”, (A.O.Broni, I.A. Kumasi, O.A. Kumasi, P.Agyemang – Duah, 2014). It linked the contribution of transport to health care delivery with their main focus being on conducting a Strategic analysis on the role of transport in quality health care delivery. The results of the project confirmed the existence of healthcare delivery transport challenges due to the poor road network, few health facilities and high transport cost leading to residents of the district not accesses medical treatment on time or at all. Results also proved the challenges faced by health workers of not being able to conduct outreach programs and be at work on time due to transport challenges, hence negatively affecting healthcare delivery for Ahafo-Ano residents. Their main goal after discussions and agreements was to establishment of a good road network, increase medical outreach and mobile health clinics.

Consequences of inadequate transport for the delivery of basic health care: "The most impoverished, mostly rural areas have few or no health care facilities, or have inadequate transport for people to be able to seek medical assistance. Approximately 90 percent of children dying die at home without their families seeking health care", (WHO/UNICEF,2010). Inadequate transport and high transport costs are the main reasons why people do not seek healthcare services, especially those requiring a referral.

From literature review, improper transport management causes delay in deciding to seek care and in receiving care at health facility were identified as contributing to deaths among women with Obstetric complications (Fam,1992; Maine, 1997).

On the global scale, poor transport management is a major issue in many hospitals and health care centres in developing countries mainly whereby there are lack of resources as well as mismanagement of the available resources. Transport management for health service delivery is very important because transport costs are regarded as the third largest part of most district health budgets with staff and drug costs being the first two, and the largest part of the budget under the direct control of the district health services administrator. Introducing effective transport management can greatly improve health service delivery, for example, South Africa introduced an effective transport management system which in turn increased the availability of transport for the health sector by an estimate of 40 percent, nearly tripling the amount of vehicle time used for service delivery.

2.6. SUMMARY

The above literature review shows the importance of transport in health care and services delivery. It shows the direct link of transport in the health care sector. The reviews of previous studies point out the challenges resulting from poor transport management in and outside Zimbabwe. The studies show that poor transport result from different factors such as poor roads and unavailability of resources and funds.

CHAPTER 3 METHODOLOGY

3.1. INTRODUCTION

This chapter covers the specific procedures used in identifying, selecting, processing and analysing information about a topic. The research method was chosen to determine the impact and outcome of poor transport system on the health care delivery at Beitbridge District Hospital. The chapter covers the research design, population sampling, data instruments, analysis and organisation of data and ethical considerations. This research was done using the qualitative method.

3.2. THE RESEARCH DESIGN

The impact of transport on health care delivery at Beitbridge District Hospital research is analysed using the case study method under the qualitative research design. The primary data for the research study will be collected from respondents through questionnaire administration to patients in 3 different languages namely Venda, Ndebele and English depending on the language understood by the patient and questionnaire administration for the key informants, that is the transport management team and health care staff conducted by the researcher.

3.3 THE STUDY SETTING



Figure 3: Beitbridge District Map

Beitbridge Hospital is a 140-bed district hospital which is a referral centre for about 18 Rural Health-care Centres, covering a population of over 250 000 locals. Population covered in this study are Beitbridge District Hospital patients and staff, within the Beitbridge district. It will also include staff from the furthest RHC (Chikwarakwara Health Facility located 139km from the district).

3.4 STUDY POPULATION

The District Medical Officer (DMO), District Nursing Officer (DNO), Matron, Pharmacists, Procurement Officer (PO), District Health Services Administrator (DHSA), Transport Officer, drivers, nurses from OPD and Chikwarakwara Rural Health Facility, and some randomly selected patients from the OPD department maternity ward, mothers' waiting home, female and male ward all being over 18 years of age will be part of the group selected to be part of the respondents for the research.

3.4.1 INCLUSION CRITERIA

The study included maternity patients, Chikwarakwara health caregivers, transfer in and out patients, Beitbridge District Hospital care givers (nurses and doctors) and supplies and transport management team, the DMO, DHSA, DNO, Matron, PO, Accountant and pharmacists

3.4.2 EXCLUSION CRITERIA

The excluded criteria included the rest of the RHC within the district, other health seeking patients and caregivers not mentioned in the Inclusion Criteria that includes the general hands, nurse aides, sisters in charge, laboratory department and x-ray department.

3.5 SAMPLE SIZE

Those involved in transport are the DHSA, Transport officer, PO, Matron, DMO, DNO, Accountant, pharmacist, and patients.

Patients admitted
$$n = \frac{N}{1+Ne^2} = \frac{140}{1+140 \times 0.10^2} = 59 \text{ patients}$$

Maximum sample size = $59 / 0.8 = 74 \text{ people}$

The total participants for the study will be 74 people.

3.6 SAMPLING PROCEDURE

The purposive sampling method was used in this research on the nursing, doctors' side and on the administrative side that is the transport management team. Convenience sampling was used on the available and newly admitted patients. The research was done using the purposive sampling method which involves use of expertise to select a sample that is more useful to the purpose of the research. The researcher selected a number of patients from the emergency and out-patient department, mothers waiting home and maternity ward. A number of people were also selected from the caregivers as well as

the services and supply providers from the administration department. The questionnaires were administered in short focus group meetings to allow questions to be asked where not clear: patients within the hospital and health managements or key informants. The secondary method used was data collection and analysis from within the district hospital. Data analysis was based on simple percentages and frequency tables. Responses from individual informal interviews were processed manually.

3.7 DATA COLLECTION INSTRUMENTS

Data instruments to be used in this research include:

- Questionnaire for key informants in English.
- Questionnaires for Patients (English and Ndebele)

The questionnaires have only one section and other questions required the participants to briefly explain so as to give the researcher more understanding to their responses.

The questionnaires were accompanied by consent forms which each participant had to go through and sign or place a fingerprint in case they are unable to sign due to reasons such as being unable to write. For patients with relatives close by they had them sign on their behalf.

For patients who could not read and write the researcher asked their relatives or any close by person to be a witness as the researcher explained what was written down verbally and helped with filling in of the form as well, the witness was also allowed to fill in the questionnaire on behalf of the participant according to the answers given by the participant. In such cases the witness signed and the participant provided their finger print.

A copy of the results of the research will be sent to the hospital once the project is complete, participants wishing to know the outcome of the research project will have access to it at the hospital or if they contact the researcher.

3.7.1 VARIABLES

The extent to which the unavailability of transport inconveniences the patients was determined by the results of the patient's questionnaire based on their responses.

The impact transport has on healthcare delivery was determined by the responses given by the key informants.

Both are dependent variables as both patient healthcare seeking behaviour as well as time taken to receive treatment and healthcare delivery are determined by the availability of transport in the hospital.

3.8 PRETEST

Pre-test was done through asking random questions in the administration department to find out their view on the delays in health services delivery due to poor transport system in the hospital. Pre-test was done at Gwanda provincial Hospital end of February 2023 based on their 2022-year experience with transport.

3.9 ANALYSIS AND ORGANISATION OF DATA

Analysis of data is to be done through questionnaires and data collection from hospital records which will be compiled digitally for evaluation purpose. The analysis of the data was based on simple percentages and frequency tables. Responses from individuals were processed manually. The collected data was analysed using descriptive statistics, including frequency distributions, percentages, means, and standard deviations. The

data was then presented in tables and figures to provide a clear and concise representation of the findings.

The study was conducted at Beitbridge District Hospital which serves 18 RHC, around the district, the furthest being Chikwarakwara located 139km away from the district hospital.

3.10 ETHICAL CONSIDERATIONS

No names or personal details were recorded in the research study. Participation of the selected target group was voluntary, only those willing to share their views and experiences took part in the study. The volunteers gave their consent to participate which also allowed them to pick what to and what not to include in the research from the information they would have provided. The study proposal was submitted to Africa University Research Committee (AUREC) for clearance.

3.11 BUDGET

ACTIVITY	COST
Travelling to Beitbridge from Mutare and back including local errands in Beitbridge	\$100USD
Printing of questionnaires (80) and consent forms (80)	\$100USD
Accommodation for 5 nights including meals	\$300 USD
Total costs	\$500USD

TABLE 1: Budget Table

3.12 TIMEFRAME

The timeframe for the research project is within 4-5 months. In 5 months, the whole project will be complete. Data collection alone will require 2 weeks at most if any challenges are faced, if not, 1 week will be enough.

CHAPTER 4

DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

This chapter presents the results of the empirical study conducted to investigate the importance of transport on healthcare and service delivery at Beitbridge District Hospital in 2022. The chapter begins with a description of the study participants and data collection procedures, followed by a presentation of the findings of the study. The data analysis process is described, and the results are presented in tables and figures. Finally, the chapter concludes with a discussion of the implications of the study's findings for healthcare and service delivery in Beitbridge District Hospital.

This topic provides answers to the set research questions below:

1. What is the role of transport in quality healthcare delivery at Beitbridge District Hospital from January to December 2022?
2. How was transport accessed by health care centres in the district from January to December 2022?
3. How available is transport in referral cases from the rural areas and rural health care facilities to the district hospital and from the district hospital to the provincial hospital from January to December 2022?
4. How does transport affect health care providers at Beitbridge District Hospital from January to December 2022?

4.2. STUDY PARTICIPANTS AND DATA COLLECTION TABLE

	Key Informants	Maternity Patients	Other Female	Male Patients	Total Participants	Initial Sample	Percentage of sample size
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			Patients			Size	covered
	15 out of 20	28 out of 30	8 out of 10	9 out of 14	60	74	81.08%
Percentage of actual participants	75%	93%	80%	64.3%			

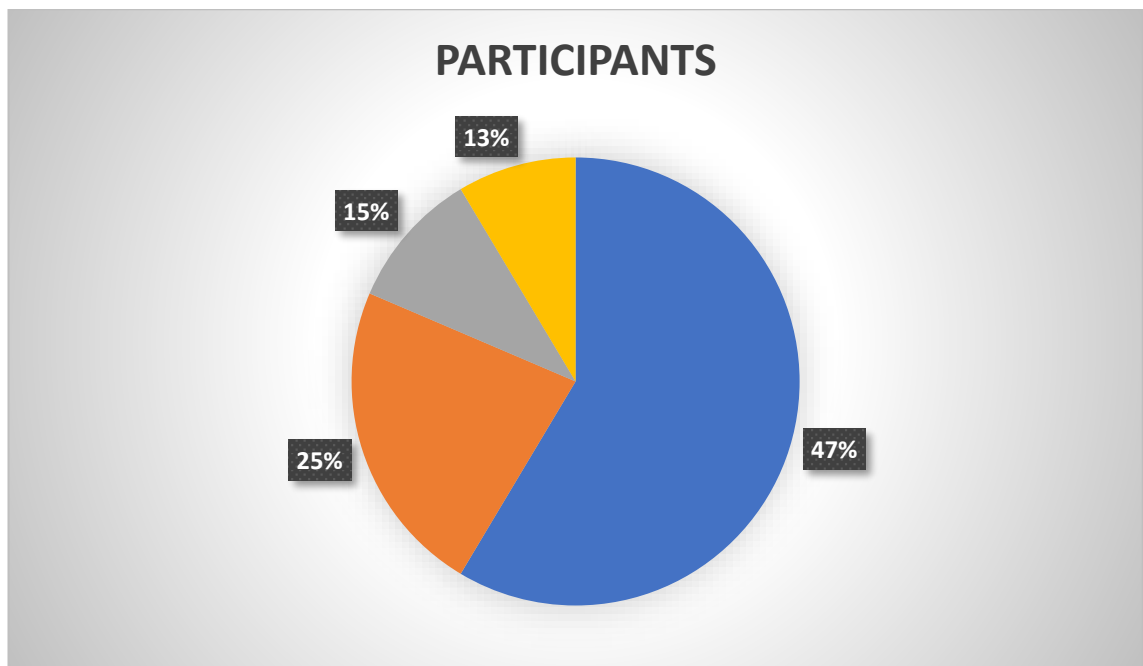


Figure 6: Participants pie chart

KEY

Maternity Patients-Blue

Key Informants-Brown

Female patients-Grey

Male patients- Orange

The study sample size was 74 participants who were selected through a stratified sampling technique. The participants included healthcare providers, patients, and their caregivers. Data was collected using a structured questionnaire, which was administered through face-to-face interviews. The questionnaire comprised closed-ended questions, which enabled the collection of quantitative data. The questionnaire was designed to collect information on the importance of transport on healthcare and service delivery at Beitbridge District Hospital.

4.3.DATA ANALYSIS

The collected data was analysed using descriptive statistics, including percentages. The data was then presented in tables and figures to provide a clear and concise representation of the findings.

Findings

The findings of the study are presented in the following sections.

PARTICIPANT CHARACTERISTICS

The study participants included 15 healthcare providers and caregivers (key informants) out of a target of 20 and 45 patients out of a target of 54. Of the key informants, 55.6% were female, while 44.4% were male. The majority of the patients (80%) were female, while 20% were male. Of the patients, 20% were Ndebele speaking hence, they filled in the Ndebele Questionnaires.

Of the female patients 55% were maternity patients and the majority of these patients were from the rural areas. These patients come earlier before their due dates of delivery to stay in the Mothers' Waiting Home. These mothers come earlier because there is no transport to ferry them on the day of delivery to the hospital on time for them to have a safe delivery.

Importance of Transport on Healthcare and Service Delivery

The study found that transport plays a critical role in healthcare and service delivery at Beitbridge District Hospital. Specifically, the study found that transport is important in the following ways:

1. Access to Healthcare Services

The study found that transport is essential in providing access to healthcare services. Specifically, 80% of the patients and caregivers reported that they had to travel long distances to access the hospital. The study also found that 60% of the healthcare providers reported that transport is a critical factor in determining the hospital's accessibility.

2. Timely Service Delivery

The study found that transport is important in ensuring timely service delivery. Specifically, 85% of the healthcare providers reported that transport is a critical factor in ensuring timely service delivery, ambulances delay in most cases due to fuel shortages as well as the ambulances being inadequate, the hospital has to call for help from other ambulance service providers such as EMRAS and the City Council. The study also found that 75% of the patients and caregivers reported that transport is important in ensuring timely service delivery as delays result in worsening of the condition and delays in treatment.

3. Emergency Response

The study found that transport is critical in emergency response situations. Specifically, 90% of the healthcare providers reported that transport is a critical factor in emergency response situations. The study also found that 80% of the patients and caregivers

reported that transport is important in emergency response situations as the delays in attending to emergency cases. The least amount of time

4. Referral System

The study found that transport is important in the hospital's referral system. Specifically, 70% of the healthcare providers reported that transport is a critical factor in the hospital's referral system. The study also found that 65% of the patients and caregivers reported that transport is important in the hospital's referral system.

5. Staff Mobility

The study found that transport is essential in ensuring staff mobility. Specifically, 75% of the healthcare providers reported that transport is a critical factor in ensuring staff mobility. The study also found that 70% of the patients and caregivers reported that transport is important in ensuring staff mobility. Out reach programmes are affected by the availability of transport. During the covid-19 era when staff had to mobilise vaccinating local residents, fuel and properly functional vehicles were sourced from other local partners willing to assist in the programmes because the hospital did not have enough resources.

Discussion

The study findings suggest that transport is a critical factor in healthcare and service delivery at Beitbridge District Hospital. Specifically, the study found that transport is important in providing access to healthcare services, ensuring timely service delivery, emergency response, the hospital's referral system, and staff mobility. These findings are consistent with previous studies that have highlighted the importance of transport in healthcare and service delivery, particularly in rural areas.

The study findings have several implications for healthcare and service delivery in Beitbridge District Hospital. First, the hospital should prioritize transport infrastructure development to improve accessibility and timely service delivery. This could include the construction of new roads and the maintenance of existing ones, as well as the provision of reliable and affordable transport services.

Second, the hospital should develop effective emergency response systems that take into account the critical role of transport. This could include the establishment of dedicated ambulance services and the development of emergency transport protocols.

Third, the hospital should enhance its referral system to ensure that patients receive appropriate and timely care. This could include the development of referral guidelines and the provision of transport services to facilitate referrals.

Fourth, the hospital should prioritize staff mobility to ensure that healthcare providers can access remote areas and provide services where they are needed most. This could include the provision of reliable and affordable transport services for healthcare providers.

Conclusion

The study findings suggest that transport is a critical factor in healthcare and service delivery at Beitbridge District Hospital. The study highlights the importance of transport in providing access to healthcare services, ensuring timely service delivery, emergency response, the hospital's referral system, and staff mobility. These findings have several implications for healthcare and service

CHAPTER 5

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

This final chapter discusses the overall findings of the research as well as coming with a conclusion together with recommendations to solve the challenges identified.

5.2 DISCUSSION

The empirical study aimed to explore the importance of transport on healthcare and service delivery at Beitbridge District Hospital. The study revealed that transport plays a critical role in healthcare service delivery in the district. The study found out that the hospital faces numerous transport challenges, which negatively impact healthcare service delivery. The study found out that the hospital has an inadequate number of ambulances resulting in delays in transporting critically ill patients to higher-level hospitals. In the absence of ambulances, patients have to be transported in private vehicles or hired transport, which is not ideal for critically ill patients.

The study also revealed that the hospital faced challenges in transporting medical supplies and equipment from the central warehouse to the hospital. The distance from the central warehouse to the hospital is long, and the road conditions are poor, resulting in delays in the delivery of medical supplies and equipment. The study found out that if the medical supplies and equipment are not delivered on time, it can lead to a shortage of supplies and affect patient care.

Despite the challenges faced, the study found out that the hospital had implemented some interventions to address the transport challenges. The hospital had established a transport committee responsible for the coordination of transport activities within the hospital. The committee was tasked with ensuring that the hospital had adequate

transport for patient care and medical supplies and equipment transportation. The transport team uses the available resources effectively and efficiently giving priority to the most important cases requiring transport due to the scarce resources.

5.3 LIMITATIONS TO THE STUDY

The researcher had to travel long distance for data collection which was a challenge as it was not easy to find all key informants in the hospital due to their tight schedules. This made the research process take longer.

5.4 STUDY CONCLUSION

The empirical study has shown that transport plays a vital role in healthcare service delivery at Beitbridge District Hospital. The hospital faces numerous transport challenges, including a shortage of ambulances and functional vehicles as well as adequate fuel, clinics too far from the hospital for patients to travel, costly transport charges for the patients and poor road conditions, which negatively impact healthcare and service delivery. However, the hospital has implemented some measures to address the transport challenges, including the establishment of a transport committee responsible for coordinating transport activities within the hospital.

5.5 RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made:

1. The hospital management should prioritize the procurement of more ambulances to ensure that critically ill patients are transported to higher-level hospitals on time and also from local clinics and residents to the hospital.
2. The hospital management should explore alternative means of transport to ferry medical supplies and equipment to the hospital, such as using air transport, which may be faster and more reliable.

3. The hospital management should engage the relevant authorities to improve road conditions leading to the hospital to ensure the timely delivery of medical supplies and equipment.
4. The transport committee should continuously monitor transport activities within the hospital to ensure that sufficient transport is available for patient care and medical supplies and equipment transportation.
5. The hospital management should develop a transport policy that clearly outlines the roles and responsibilities of the transport team.
6. An effective vehicle service plan should be followed to ensure vehicles are well maintained.

CONCLUSION

This chapter covered the discussion of the overall outlook of the study, findings, conclusion. The researcher went on to give suitable recommendations to the challenges or problems identified resulting from poor transport at Beitbridge District Hospital which affected patients care as well as hospital operations.

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Appendices

Appendix 1: Informed Consent Form for patients in English

Note: If participant cannot read and/ or write a witness will read and explain to them together with the researcher as well as assist in filling in the questionnaire.

My name is Thabani Makiwa. I am a student at Africa University, Mutare currently in my final year studying Bachelor of Health Services Management Honours. I am carrying out a research project on the topic Empirical study of the importance of transport on health care and services delivery at Beitbridge District Hospital in 2022.

Part of this research project includes a questionnaire for patients regarding their views and experience with transport when coming to the hospital. It will help us to know your exact thoughts and experiences as a patient hence making it easier to find solutions with your responses in mind and taking them into consideration. I am seeking your assistance in filling in the questionnaire to help answer the questions raised in the research.

Please read through and understand the purpose of the study before signing.

The major constraints for accessing healthcare service are healthcare charges, long distances to facilities, inadequate and unaffordable transport systems. In the Beitbridge District people end up opting for the use of donkey carts, if they have one, to transport their relatives to the hospital due to financial challenges. Problems with transport also affect the ability of staff to deliver health services. Delays in treatment, increased mortality for some health problems are a result of long distance from certain communities to the hospital. Lack of accessible, affordable and timely public transport is a risk factor for health. Transport issues are an integral element in meeting a range of health service aims, including those set out the in national service frameworks and other policy documents, and in the health service environmental standards.

The main objective is to assess the direct impact of transport on health care delivery and health care seeking patients 2022.

Specific objective

The study seeks specifically seeks to:

1. To describe the transport system in the quality of transport in healthcare delivery at Beitbridge District Hospital.
2. To assess the accessibility of transport to health care centres in the district.
3. To find out the availability of transport in referral cases from the rural health care centres to the district hospital and from the district to the provincial hospital.
4. To establish the impact of transport on health care providers at Beitbridge District Hospital.

A copy of the results of the research will be sent to the hospital once the project is complete, participants wishing to know the outcome of the research project will have access to it at the hospital or if they contact the researcher.

May you kindly sign in agreement to participate in the research. You have the right to refuse to take part.

Your name will not be recorded or mentioned in the research.

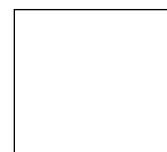
For further questions you may contact the:

Researcher on 0773532315; makiwat@africau.edu

The research project Supervisor Mr Chikaka on 0772818612; chikakae@africau.edu

Signature or fingerprint of Participant_____

If applicable, signature of witness_____



APPENDIX 2: Questionnaire for patients in English

Patient Transport Questionnaire

The purpose of this questionnaire is to find out how patients are travelling to the Beitbridge District Hospital and to know any challenges faced. In order to improve patient transport effectively we need to understand all specific problems that patients are experiencing when trying to access healthcare services.

Please tick in the boxes provided next to your selected answer. Where words are needed write in the spaces provided.

1. What case brought you to the hospital?

2. What is your place of residence?

3. How did you arrange your transport to the hospital?

The Hospital/Local clinic made an arrangement for you

☐

Yourself

☐

Family

☐

Other. Please specify_____

☐

4. How long did it take for you to get to the Hospital?

5. How did you get to the hospital?

Bus

☐

Car

☐

Ambulance

☐

Motorcycle

☐

Donkey cart

☐☐

Taxi

On foot

☐

Other. Specify _____

☐

6. Who paid for your transport costs?

Covered by your medical aid

☐

Yourself

☐

Parents

☐

Husband

☐

Wife

☐

Hospital

☐

Other. Please specify _____

☐

7. How convenient was your transport arrangement?

Very convenient

☐

Convenient

☐

Inconvenient

☐

Convenient for my needs

☐

8. In your current state of health was the transport safe?

Yes

☐

No

☐

9. Do you have any problems getting to the hospital?

Yes

☐

No

☐

If yes please state or explain the challenges you faced

10. Would you like to add any suggestions or comments regarding Beitbridge District

Hospital transport?

Yes

☐

No

☐

If your answer is yes, please write your comments in the space provided below.

Your participation is greatly appreciated. Thank you.

Appendix 3: Isithasiselo 1: Ifomu Lemvume Enolwazi leziguli ngesiNdebele

Qaphela: Uma umhlanganyeli engakwazi ukufunda kanye/noma ukubhala ufakazi uzobafundela futhi abachazele kanye nomcwaningi futhi amsize ekugcwaliseni uhlu lwemibuzo.

Igama lami nginguThabani Makiwa. Ngingumfundi e-Africa University, eMutare okwamanje ngisemnyaka wami wokugcina ngifundela iBachelor of Health Services Management Honours. Ngenza iphrojekthi yocwaningo ngesihloko Ucwaningo olunamandla ngokubaluleka kwezokuthutha ekunakekelweni kwezempilo kanye nokulethwa kwezinsizakalo esibhedlela saseBeitbridge District ngo-2022. Ingxenye yalolu cwaningo ihlanganisa uhlu lwemibuzo lweziguli mayelana nemibono yazo nolwazi lwazo kwezokuthutha uma ziza esibhedlela. Kuzosisiza ukuthi sazi imicabango yakho kanye nokuhlangenwe nakho kwakho njengesiguli ngakho-ke kwenze kube lula ukuthola izixazululo ngezimpendulo zakho futhi uzicabangele. Ngicela usizo lwakho ekugcwaliseni uhlu lwemibuzo ukuze usize ukuphendula imibuzo ephakanyiswe ocwaningweni.

Sicela ufunde futhi uqonde inhloso yocwaningo ngaphambi kokusayina.

Izingqinamba ezinkulu zokuthola usizo lwezempilo izindleko zokunakekelwa kwezempilo, amabanga amade ukuya ezikhungweni, izinhlelo zokuthutha ezinganele nezingathengeki. Esiqintini seBeitbridge abantu bacina sebekhethe ukusebenzisa izinqola zabobabhemi nxa belazo ukuthwala izihlobo zabo esibhedlela ngenxa yobunzima bemali. Izinkinga zezokuthutha ziphinde zibe nomthelela ekutheni abasebenzi balethe izinsiza zezempilo. Ukubambeleleka kokwelashwa, ukwanda kokushona kwezinye izinkinga zempilo kuwumphumela webanga elide ukusuka emiphakathini ethile ukuya esibhedlela. Ukushoda kwezithuthi zomphakathi ezifinyeleleka kalula, ezithengekayo nezifike ngesikhathi kuyisici esiyingozi empilweni.

Izindaba zezokuthutha ziyisici esibalulekile ekuhlangabezaneni nezinhlobo ezinhloso zenkonzo yezempilo, okuhlanganisa nalezo ezibekwe ohlakeni lwezinsizakalo zikazwelonke kanye neminye imibhalo yenqubomgomo, kanye nasezingeni lezemvelo lenkonzo yezempilo.

Inhloso enkulu ukuhlola umthelela oqondile wezokuthutha ekulethweni kokunakekelwa kwezempilo kanye nokunakekelwa kwezempilo okudinga iziguli ngo-2022.

Umgomo othize

Ucwaningo luhlose ngokukhethekile:

1. Ukuchaza uhlelo lwezokuthutha ngekhwalithi yezokuthutha ekulethweni kokunakekelwa kwezempilo eBeitbridge District Hospital.
2. Ukuhlola ukufinyeleleka kwezokuthutha eziya ezikhungweni zezempilo esifundeni.
3. Ukuthola ubukhona bezokuthutha ezimweni zokudluliselwa kweziguli ezisuka ezikhungweni zokunakekelwa kwezempilo zasemakhaya ziye esibhedlela sesifunda kanye nokusuka esifundeni kuya esibhedlela sesifundazwe.
4. Ukuthola umthelela wezokuthutha kubahlinzeki bezempilo eBeitbridge District Hospital.

Kwangathi ungasayina ngomusa isivumelwano sokubamba iqhaza ocwaningweni. Unelungelo lokwenqaba ukuba yingxenywe.

Ikhophi yemiphumela yocwaningo izothunyelwa esibhedlela uma iphrojekthi isiphelile, ababambiqhaza abafisa ukwazi umphumela wephrojekthi yocwaningo bazokwazi ukuyifinyelela esibhedlela noma uma bethintana nomcwaningi.

Igama lakho ngeke lirekhodwe noma lishiwo ocwaningweni.

Ngeminye imibuzo ungaxhumana no:

Umcwaningi ku-0773532315; makiwat@africau.edu

USupervisor wephrojekthi yocwaningo uMnu Chikaka ku-0772818612;

chikakae@africau.edu

Isiginesha Yombambiqhaza noma izigxivizo zeminwe

zoMhlanganyeli_____



Uma kufanele, isiginesha yofakazi _____

Appendix 4: Imibuzo yezigulane

Imibuzo emayelana letransport yezigulane

Injongo yemivhuzo leyi, yikuthola ngohqambo lwezigulani zisiya eB D H lokuthola inkinga abahlangana lazo. Ukuze siguqukise I transport yezigulane, kumele sibe lolwazi ngenkinga ezitholakalayo uma izigulane zidinga uncedo lwezempila kahle.

Maka phakathi kwebokisi elikhona phambi kwe mpendulo oyikhethileyo.

1. Yini ekulethe esibhedlela?

2. Uhlala ngaphi?

3. Uyithole njani I transport eya esibhedlela?

Kungaba isiBhedlela sakutholela I transport/iClinika eseduze? ☐

Nguwe na ☐

Umdeni ☐

Abanye ☐

Cacisa_____ ☐

4. Kukuthathele isikhathi esinganani ukuthi ufike esibhedlela?

5. Ufike ngani esibhedlela?

Nge Bhasi na? ☐

Imota ☐

Imota ethwala izigulane ☐

Umdududu ☐

inqola yembongolo ☐

I tekisi ☐

Ngonyawo ☐

Okunye, cacisa_____ ☐

6. Ubani owakhokhela imali yokugibela?

Ikhaviwe yi-medical aid yakho ☐

Wena ngokwakho ☐

Abazali ☐

Umyeni ☐

Unkosikazi ☐

Isibhedlela ☐

Okunye. Sicela ucacise_____ ☐

7. Bekungela nkinga yini ukuthola I transport?

Bekungela ngitsho ☐

Beyikhona ☐

8. Ekubeni kwakho kwezempila kahle, I transport ibiphephile na?

Yebo. ☐ Cha ☐

9. Esimeni sakho sezempilo ngabe isithuthi siphephile?

Yebo ☐ Cha ☐

9. Ingabe unazo izinkinga zokuya esibhedlela?

Yebo ☐ Cha ☐

Uma uthi yebo sicela usho noma uchaze izinselele obhekane nazo

10. Ungathanda ukwengeza noma iziphi iziphakamiso noma ukuphawula mayelana nezokuthutha eBeitbridge District Hospital?

Yebo ☐ Cha ☐

Uma impendulo yakho inguyebo sicela ubhale ukuphawula kwakho esikhaleni esinikezwe ngezansi.

Ukuhlanganyela kwakho kwaziswa kakhulu. Ngiyabonga.

Appendix 5: Informed Consent Form for Key Informants

My name is Thabani Makiwa. I am a student at Africa University, Mutare currently in my final year studying Bachelor of Health Services Management Honours. I am carrying out a research project on the topic Empirical study of the importance of transport on health care and services delivery at Beitbridge District Hospital in 2022. Part of this research project includes a questionnaire for key informants, that is the service providers within the hospital, regarding their views and experience with transport and how it affects the hospital services provision system. It will help us to know your exact thoughts and experiences as a patient hence making it easier to find effective solutions based on the responses of people within the hospital. I am seeking your assistance in filling in the questionnaire to help answer the questions raised in the research.

Please read through and understand the purpose of the study before signing.

The major constraints for accessing healthcare service are healthcare charges, long distances to facilities, inadequate and unaffordable transport systems. In the Beitbridge District people end up opting for the use of donkey carts, if they have one, to transport their relatives to the hospital due to financial challenges. Problems with transport also affect the ability of staff to deliver health services. Delays in treatment, increased mortality for some health problems are a result of long distance from certain communities to the hospital. Lack of accessible, affordable and timely public transport is a risk factor for health. Transport issues are an integral element in meeting a range of health service aims, including those set out in national service frameworks and other policy documents, and in the health service environmental standards.

The main objective is to assess the direct impact of transport on health care delivery and health care seeking patients 2022.

Specific objective

The study seeks specifically seeks to:

1. To describe the transport system in the quality of transport in healthcare delivery at Beitbridge District Hospital.
2. To assess the accessibility of transport to health care centres in the district.
3. To find out the availability of transport in referral cases from the rural health care centres to the district hospital and from the district to the provincial hospital.
4. To establish the impact of transport on health care providers at Beitbridge District Hospital.

A copy of the results of the research will be sent to the hospital once the project is complete, participants wishing to know the outcome of the research project will have access to it at the hospital or if they contact the researcher.

May you kindly sign in agreement to participate in the research. You have the right to refuse to take part.

Your name will not be recorded or mentioned in the research.

For further questions you may contact the:

Researcher on 0773532315; makiwat@africau.edu

The research project Supervisor Mr Chikaka on 0772818612; chikakae@africau.edu

Signature of Participant_____

Appendix 6: Questionnaire for Key Informants in English

Key Informants Questionnaire

The purpose of this questionnaire is to find out the transport provision at the hospital, how transport is managed, the consequences related to transport as well as how it affects hospital healthcare delivery so as to help the researcher know any challenges faced. In order to improve hospital transport effectively we need to understand all specific problems that key informants are experiencing when trying to meet healthcare services delivery set goals.

Please tick in the boxes provided next to your selected answer. Where words are needed write in the spaces provided.

Please answer the following questions if applicable to your department.

1. How many vehicles are in the Hospital?

2. How many vehicles are properly functional?

3. How often are vehicles serviced?

4. Are day to day set targets that involve transport met?

Yes No

5. What are the barriers to accessing transport in Rural Health Clinics?

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.....
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6. In case of emergencies what is the time taken to provide transport?

7. What are the challenges being faced in the maintenance of vehicle fleet?

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8. Is fuel always readily available?

Yes ☐ No ☐

9. If the answer to question 7 is no are there second options in cases of emergency.

Yes ☐ No ☐

If yes please state.

10. How long does it take to organise transport for a patient transfer?

11. Is the provision of supplies affected by transport?

Yes ☐ No ☐

12. What do you think are the problems that can be solved if transport challenges are improved?

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.....

13. Are outreach programs affected by transport?

Yes ☐ No ☐

14. Would you like to add any suggestions or comments regarding Beitbridge District Hospital transport and what you think needs to be changed?

Yes

☐

No

☐

If your answer is yes, please write your comments in the space provided below.

Your participation is greatly appreciated. Thank you.

Appendix 7: Approval letter from Beitbridge District Hospital

Telephone: 0286 22496
0286 22571
0286 22701
Fax: 0286 22112
0286 22571
Email: beitbridgedmo@gmail.com



MINISTRY OF HEALTH AND
CHILD CARE
BEITBRIDGE DISTRICT
HOSPITAL
P.O. Box 57
BEITBRIDGE
ZIMBABWE

20 November 2022

To whom it may concern

REF: PERMISSION TO CARRY OUT A RESEARCH PROJECT


This letter serves as approval and permission to Thabani Makiwa, a final year student at Africa University to carry out the research project by titled Emperical study of the importance of transport on health care and services delivery at Beitbridge district hospital.

Regards


T. Dube
DHSA



Appendix 8: Proof of Payment

 AFRICA UNIVERSITY	Account Number <u>12501</u>	138901
	Date <u>30/01/2023</u>	
Received from <u>Thabani Makwira</u>		USD 15-00 2
For <u>AUREC FEES</u>		
The Sum of \$ <u>fifteen USD</u>		
<u>— dollars —</u>		
Cash <input type="checkbox"/> Swipe <input checked="" type="checkbox"/> Transfer <input type="checkbox"/> Mobile <input type="checkbox"/> <u>Useba</u>		With Thanks

Print Solutions: 0774 093 685

Appendix 9: AUREC Approval Letter



AFRICA UNIVERSITY RESEARCH ETHICS COMMITTEE (AUREC)

P.O. Box 1320 Mutare, Zimbabwe, Off Nyanga Road, Old Mutare-Tel (+263-20) 60075/60026/61611

Fax:

(+263 20) 61785 website: www.africau.edu

Ref: AU2602/23

8 March 2023

THABANI MAKIWA

C/O Africa University

Box 1320

MUTARE

RE: EMPIRICAL STUDY OF THE IMPORTANCE OF TRANSPORT ON HEALTH CARE AND SERVICES DELIVERY AT BEITBRIDGE DISTRICT HOSPITAL IN 2022

Thank you for the above-titled proposal that you submitted to the Africa University Research Ethics Committee for review. Please be advised that AUREC has reviewed and approved your application to conduct the above research.

The approval is based on the following. a) Research proposal

- **APPROVAL NUMBER** AUREC 2602/23

This number should be used on all correspondences, consent forms, and appropriate documents.

- **AUREC MEETING DATE** NA
- **APPROVAL DATE** March 8, 2023
- **EXPIRATION DATE** March 8, 2024
- **TYPE OF MEETING** Expedited

After the expiration date, this research may only continue upon renewal. For purposes of renewal, a progress report on a standard AUREC form should be submitted a month before the expiration date.

- **SERIOUS ADVERSE EVENTS** All serious problems having to do with subject safety must be reported to AUREC within 3 working days on standard AUREC form.
- **MODIFICATIONS** Prior AUREC approval is required before implementing any changes in the proposal (including changes in the consent documents)
- **TERMINATION OF STUDY** Upon termination of the study a report has to be submitted to AUREC.



Yours Faithfully

MARY CHINZOU

ASSISTANT RESEARCH OFFICER: FOR CHAIRPERSON

