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Exploring Food Hygiene Practices Among Street Food Vendors in Lusaka: A Phenomenological Study

BY

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BSc PUBLIC HEALTH

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A research dissertation submitted to the University of Lusaka in partial fulfilment of the requirements of a Degree in Bachelor of Science in Public Health

DECLARATION

Name of student and ID:

I ESTHER MOOKA declare that this proposal is my creative work and to the best of my acquaintance has not been presented for a degree in any other institution.

Signature: E.M **Date:** 12 November 2025

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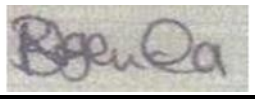
Supervisor Name: MR BROWN NGENDA

This dissertation has been submitted with my approval as a University of Lusaka (UNILUS) supervisor.

School of Medicine and Health Sciences, Department of Public Health

Signature:  **Date:** 12 November 2025

DEDICATION

I dedicate this research report to my beloved mother, Mebelo Mulongwe, and my father, Mooka Minyoi, for their unwavering love, support, and encouragement throughout my academic journey. Their guidance, prayers, and sacrifices have been a source of strength and inspiration, enabling me to overcome challenges and complete this study successfully. This work is a reflection of their constant belief in my abilities and the values they instilled in me.

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LIST OF ACRONYMS

WHO – World Health Organization

FAO – Food and Agriculture Organization

LMICs – Low- and Middle-Income Countries

UNILUSREC – University of Lusaka Research Ethics Committee

NHRA – National Health Research Authority

BSPH – Bachelor of Science in Public Health

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ABSTRACT

The study explored food hygiene practices among street food vendors in Lusaka using a qualitative phenomenological design. The research aimed to assess food handling practices, evaluate vendors' knowledge and perceptions regarding food hygiene and safety, and examine how access to clean water and sanitation facilities influenced hygiene practices. A total of 15 street food vendors were purposively selected from three major markets Soweto Market, City Market, and Kamwala Market. Data were collected through semi-structured interviews and analyzed thematically.

The findings revealed that while 73% of the vendors practiced regular handwashing and 67% covered cooked food during display, only 40% consistently separated raw and cooked food items. Furthermore, 60% reported reusing cooking oil multiple times, and 53% stored food in open containers, exposing it to dust and flies. Access to clean water was a major challenge, with only 33% of the vendors having access to tap water near their vending area, while 40% depended on shared boreholes and 27% carried water from home. In terms of sanitation, 47% had access to public toilets, whereas 53% operated in areas without sanitation facilities.

Regarding knowledge and perceptions, 80% of the participants had not received any formal training on food hygiene, relying instead on personal experience or advice from fellow vendors. Despite this, 67% expressed awareness that poor hygiene could lead to illness, although most associated cleanliness with attracting customers rather than preventing foodborne diseases.

Environmental and infrastructural challenges, including poor waste disposal and limited regulatory oversight, contributed to inconsistent hygiene practices. Only 27% of the vendors reported having ever been inspected by health authorities. Consumer influence played a notable role, with 60% of vendors acknowledging that customers preferred purchasing from visibly clean stalls.

The study concluded that improving food hygiene among street vendors in Lusaka required a multi-sectoral approach involving training, provision of clean water and sanitation facilities, and regular inspections. It recommended that the Lusaka City Council and Ministry of Health implement vendor training programs, install mobile handwashing stations, and strengthen enforcement of existing food safety regulations.

Keywords: Food hygiene, Street food vendors, Sanitation, Public health, Phenomenological study, Lusaka

CHAPTER ONE

1.0 Background of study

Street food vending had become an essential part of the informal economy in many developing countries, including Zambia. It provided affordable and convenient meals to low- and middle-income populations while offering employment opportunities to thousands of urban residents who struggled to find formal jobs. In Lusaka, the capital city of Zambia, street food vending had expanded rapidly as a result of high unemployment rates, population growth, and increased demand for readily available meals. However, this expansion had also raised major concerns about the safety and hygiene of food sold in public places. Studies in several African countries revealed that street food was often prepared under unhygienic conditions, posing significant health risks to consumers (Marutha & Chelule, 2020).

Food hygiene referred to the conditions and practices necessary to ensure the safety of food from production to consumption. It included proper food handling, preparation, storage, and sanitation practices that minimized the risk of contamination and foodborne illnesses. For street food vendors, this involved maintaining personal cleanliness, washing utensils properly, using clean water, and separating raw and cooked foods. According to Hassan and Fweja (2020), many vendors possessed some knowledge of hygiene principles but failed to practice them effectively due to a lack of resources, inadequate infrastructure, or limited supervision from local authorities.

In Zambia, poor food hygiene among street vendors remained a persistent public health concern. Lusaka, in particular, had recorded several foodborne disease outbreaks, including cholera and typhoid, which were partly attributed to unhygienic food handling practices and inadequate access to clean water (Sambo, 2015). Although the government introduced regulations through local councils, enforcement remained weak due to limited manpower and the informal nature of the sector. Many vendors continued to operate without licenses, training, or adequate sanitary facilities, thereby exposing consumers to potential health risks.

Street food vendors played a crucial role in the urban food system, but their operating conditions often made it difficult to adhere to food safety standards. The majority of vending sites in Lusaka lacked access to essential resources such as running water, waste disposal facilities, and handwashing stations. A study conducted in Zanzibar revealed that less than half of the surveyed vending sites had access to basic sanitary facilities such as washbasins with soap and refuse bins

(Hassan & Fweja, 2020). Similar conditions were observed in Lusaka's Central Business District, where vendors prepared and sold food in open-air markets and roadside areas without protection from dust, flies, or other contaminants.

Furthermore, while some vendors had knowledge of hygiene practices, this did not always translate into good behavior. Research by Muinde and Kuria (2005) demonstrated that awareness of safe food handling did not necessarily lead to proper hygiene behavior, particularly when vendors lacked resources such as clean water or storage facilities. In Lusaka, vendors often handled money and food simultaneously without washing their hands, reused unclean utensils, or failed to cover food during sales. These practices increased the likelihood of contamination and spread of pathogens that caused foodborne diseases.

Urbanization and poverty also exacerbated hygiene challenges among street food vendors. Many individuals entered the street food business as a survival strategy with little or no formal training. Due to limited financial resources, they operated in areas that lacked infrastructure, relying on makeshift structures and minimal equipment. According to Tenza (2024), infrastructural constraints, including poor waste disposal systems and lack of clean water, were major barriers to maintaining proper hygiene in informal food vending environments. In Lusaka, these problems were compounded by the lack of municipal support and limited public awareness regarding food safety.

Given the growing dependence on street food and its importance to urban livelihoods, there had been a need for an in-depth understanding of how vendors in Lusaka perceived and practiced food hygiene. A phenomenological approach was considered suitable for the study as it explored vendors' lived experiences, beliefs, and attitudes toward hygiene and safety. Such an approach provided a deeper understanding of the challenges they faced and the contextual factors that influenced their hygiene practices (Nanfuka et al., 2024).

Therefore, the study sought to explore food hygiene practices among street food vendors in Lusaka by assessing their food handling methods, knowledge, perceptions, and access to clean water and sanitation facilities. The findings were expected to inform public health policies, improve regulatory frameworks, and guide interventions aimed at promoting safe food vending practices in Zambia.

1.1 Statement of the Problem

Although street food vending provided essential income and affordable meals to many residents in Lusaka, the poor hygiene standards under which many vendors operated posed serious health risks. Numerous studies showed that food sold in informal markets was often prepared and served in unhygienic environments, with limited access to clean water and sanitation facilities. This contributed to recurring outbreaks of foodborne illnesses such as cholera and diarrhea in the city. Despite some awareness among vendors about hygiene practices, there remained a significant gap between knowledge and actual behavior. The lack of effective monitoring, insufficient training, and weak enforcement of health regulations worsened the problem. Therefore, there had been a need for a qualitative exploration to understand how vendors experienced, perceived, and managed hygiene practices in their daily operations, to design practical and context-specific interventions.

1.2 Justification of the Study

The study was justified because it addressed a critical public health issue in Lusaka — the hygiene and safety of street-vended food. Firstly, it contributed to public health improvement by identifying risky practices and potential interventions to reduce foodborne diseases. Secondly, the study supported socioeconomic sustainability by highlighting ways to empower vendors with knowledge and resources to improve food hygiene. Thirdly, the findings assisted policymakers, health inspectors, and local authorities such as the Lusaka City Council to strengthen food safety monitoring and vendor training programs. Moreover, the study contributed to academic literature by providing qualitative insights into the lived experiences of Zambian street food vendors, a perspective that had remained underexplored. Lastly, it aligned with the Sustainable Development Goals (SDGs), particularly Goal 3 (Good Health and Well-being) and Goal 11 (Sustainable Cities and Communities), by promoting safer urban food systems.

1.3 General Research Objective

To assess food hygiene practices among street food vendors in Lusaka.

1.4 Specific Research Objectives

i. To assess food handling practices among street food vendors in Lusaka.

ii. To evaluate vendors' knowledge and perceptions regarding food hygiene and safety.

iii. To assess access to clean water and sanitation facilities and how it influenced hygiene practices among vendors.

1.5 Research Questions

i. What were the food handling practices of street food vendors in Lusaka?

ii. What was the level of knowledge and perception among vendors regarding food hygiene and safety?

iii. How did access to clean water and sanitation facilities influence vendors' hygiene practices?

CHAPTER TWO

2.0 Literature Review

2.1 Introduction

Foodborne diseases are a global public health concern that disproportionately affect populations in urban areas where informal food vending is common. The World Health Organization (WHO, 2023) estimates that over 600 million people fall ill after consuming contaminated food each year, resulting in 420,000 deaths. In low- and middle-income countries (LMICs), street food vending offers affordable and accessible meals, yet poor hygiene practices remain a significant health threat (FAO, 2023). This literature review explores global, regional, and local studies on food hygiene among street vendors, focusing on hygiene practices, environmental influences, policy implications, and behavioural change approaches. It also applies the Behaviour Change Theory as the theoretical framework guiding this research.

Global Perspective on Street Food Hygiene

Globally, street food vending has grown in popularity, particularly in densely populated cities across Asia, Africa, and Latin America. While it contributes to food security and employment, it is often unregulated and plagued by hygiene challenges. Studies from India and Indonesia reveal that street food vendors frequently operate in unhygienic environments without access to clean water or sanitation facilities, leading to frequent contamination with pathogens such as Salmonella and E. coli (Choudhury et al., 2023; Kusumaningrum et al., 2022). A WHO global assessment (2022) emphasized the role of unsafe food handling practices like inadequate handwashing, unclean surfaces, and improper food storage in the high incidence of foodborne illnesses.

Regional Perspective: Sub-Saharan Africa

In Sub-Saharan Africa, street food vending is integral to urban food systems. However, studies across Nigeria, Ghana, and Kenya show that vendors often lack training in food safety, and their stalls are located in polluted areas near open drains or waste dumps (Mensah et al., 2021). In Nigeria, for instance, a study by Adekunle and Akinbode (2022) found that over 70% of street vendors had never received formal training in food hygiene. Regulatory systems are often underfunded and poorly enforced, leading to low compliance with food safety standards. Yet, some cities have successfully implemented interventions such as vendor registration, training workshops, and mobile handwashing stations to improve hygiene outcomes (FAO, 2023).

Local Perspective: Zambia

In Zambia, particularly in Lusaka, the capital city, street food vending is a widespread livelihood. The Lusaka City Council has struggled with enforcing food safety standards due to limited resources and the informal nature of vending activities. Vendors frequently operate in areas lacking clean water and sanitation infrastructure, increasing the risk of contamination (Choudhury et al., 2023). Despite the Ministry of Health's guidelines on food safety, inspections are infrequent, and many vendors are unaware of proper hygiene protocols. Kusumaningrum et al. (2022) reported that many vendors in Lusaka store cooked and raw food together and reuse cooking oil multiple times, posing significant health risks.

Environmental Determinants of Food Hygiene

Environmental factors such as waste management, availability of potable water, and location of vending stalls significantly influence food safety. WHO (2023) identifies poor waste disposal and lack of toilet facilities as major contributors to food contamination. In Lusaka's markets, overflowing bins, stagnant water, and lack of running water for handwashing are common issues. These unhygienic conditions exacerbate the proliferation of bacteria and parasites in food.

Role of Government Policies and Regulation

Policy frameworks play a central role in promoting or hindering food hygiene. The WHO (2022) stresses the importance of structured policies that mandate vendor licensing, periodic inspections, and food safety training. However, in Zambia, enforcement is inconsistent. Studies by the FAO (2023) found that in urban Zambia, over 60% of vendors had never interacted with a health inspector. Strengthening institutional frameworks and providing resources for regular monitoring are critical steps toward improving food hygiene practices among food street vendors.

Consumer Awareness and Behavioural Change

Consumer behaviour influences food safety through demand for hygienic food. Research indicates that informed consumers often avoid vendors who fail to meet basic hygiene standards (Mensah et al., 2021). However, many Zambians, particularly in low-income communities, lack awareness of foodborne diseases and hygiene indicators. Behaviour Change Theory posits that interventions such as health education, incentives, and social influence can alter vendor practices and consumer choices (Glanz et al., 2015). For example, public campaigns on hand hygiene and visual cues (like posters) in vending areas have led to improved practices in other African contexts.

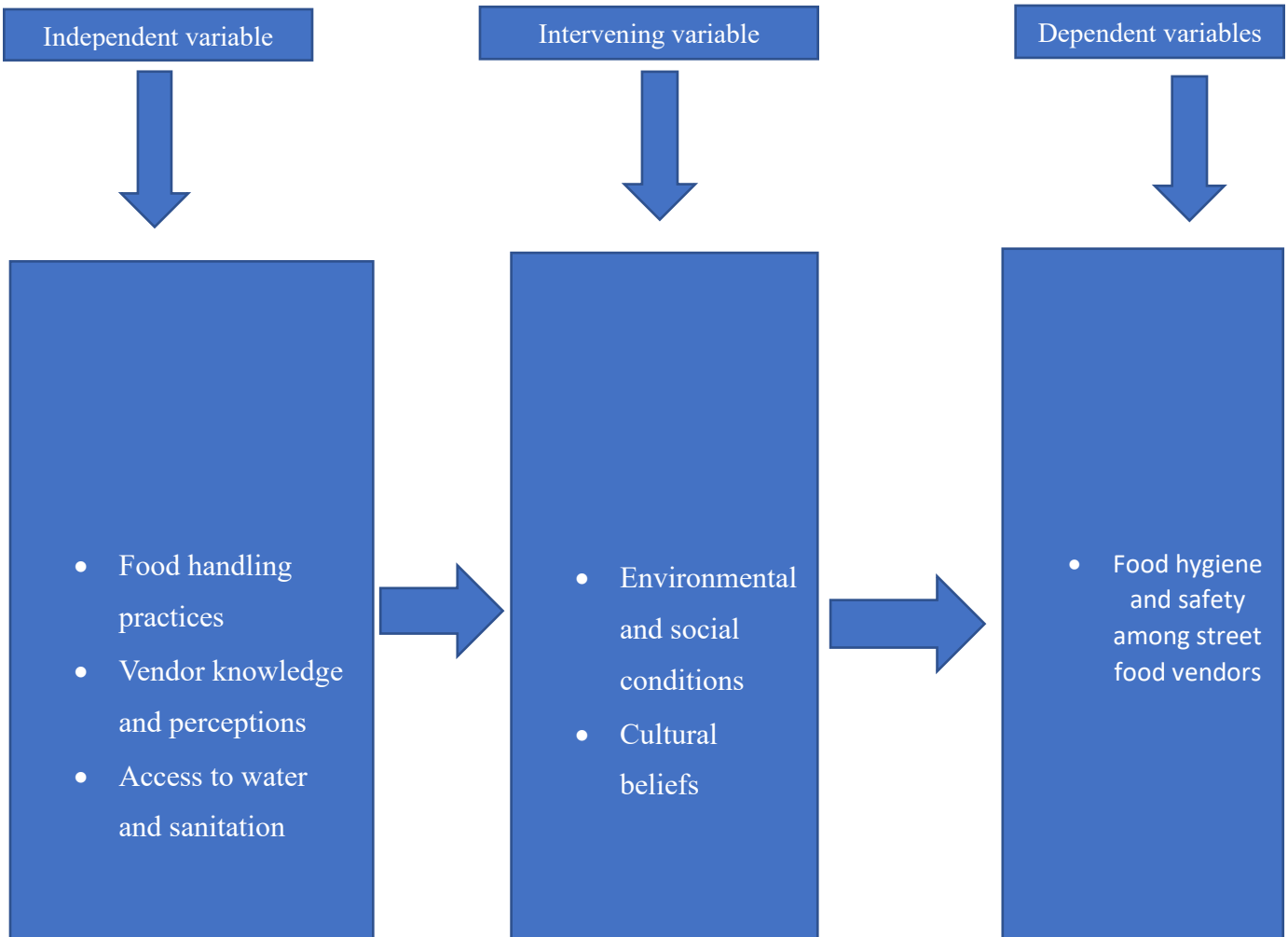
2.1 Theoretical Framework: Behaviour Change Theory

This study is guided by the Behaviour Change Theory, which explains how individual and collective behaviour shifts through factors such as knowledge, attitudes, perceived risk, and environmental cues. Applied to street food vending, the theory suggests that when vendors understand the health risks of poor hygiene and are supported with resources (e.g., water, sanitation, training), they are more likely to adopt safe food handling practices. Similarly, when consumers are educated on food safety, they exert pressure on vendors to improve standards.

Conclusion

Food hygiene among street vendors is a global challenge with local implications. From global cities to Lusaka's streets, poor hygiene practices persist due to lack of knowledge, weak regulations, and poor infrastructure. The reviewed literature highlights the need for comprehensive, multi-level interventions, including policy reform, public education, environmental improvements, and targeted vendor training. Grounded in Behaviour Change Theory, this study advocates for an integrated approach that combines education, enforcement, and enabling environments to ensure safer street food in Lusaka.

2.2 Conceptual framework



CHAPTER THREE

3.0 Methodology

This chapter presented the methods and procedures that were employed in the study. It described the research approach, design, target population, sampling procedure, data collection methods, data analysis techniques, and ethical considerations that guided the research process. The chapter explained how the study was carried out to explore the lived experiences and perceptions of street food vendors regarding food hygiene practices in Lusaka.

3.1 Study Approach

The study adopted a qualitative research approach, specifically a phenomenological design, to explore the lived experiences and perceptions of street food vendors regarding food hygiene practices in Lusaka. The phenomenological approach was considered appropriate for uncovering deep and subjective insights into how individuals perceived and made sense of their hygiene practices within environmental, social, and regulatory contexts. This approach enabled the researcher to capture the participants' voices and experiences as they naturally occurred, allowing a deeper understanding of the meanings that vendors attached to their everyday hygiene behaviors (Creswell & Poth, 2021).

3.2 Study Design

A descriptive phenomenological design guided the data collection and analysis processes. This design allowed for a detailed description of participants' lived experiences without being influenced by preconceived theoretical assumptions. It aligned with the study's objective of understanding hygiene practices from the perspectives of the vendors themselves. The design further enabled the researcher to focus on the essence of the participants' experiences by describing their realities as they were lived, thereby providing meaningful insights into their food hygiene practices (Vagle, 2018).

3.3 Study Population/Target Population

The target population consisted of street food vendors operating in Lusaka's major markets, including Soweto, City Market, and Kamwala. These markets were purposively chosen because they represented the main centers of street food vending in Lusaka and were areas of concern for public health authorities. Previous studies identified these markets as hotspots for foodborne disease outbreaks due to poor hygiene and sanitation conditions (Kusumaningrum et al., 2022;

FAO, 2023). Therefore, the selected sites provided an ideal setting for understanding the experiences of street food vendors concerning food hygiene practices and safety measures.

3.4 Sample Size and Sampling Procedures

The study employed a purposive sampling technique to select between fifteen and twenty street food vendors who were actively operating in the city. Participants were chosen based on their willingness to participate and their ability to provide detailed information regarding hygiene practices. This sample size was considered sufficient for a phenomenological study, as the focus was on the depth rather than breadth of information (Palinkas et al., 2015). The participants included men and women of varying ages, selling different types of ready-to-eat foods in different vending environments. Vendors were recruited from markets, bus stations, and roadside stalls across Lusaka with the help of local health officers and market managers. The inclusion of vendors from diverse socioeconomic backgrounds enhanced the variety of experiences and perspectives captured in the study.

3.5 Inclusion Criteria

Participants who took part in the study were those who met the inclusion criteria. They were required to be active street food vendors operating within Lusaka and must have been vending for at least six months to ensure they had adequate experience in the business. They were also required to be eighteen years or older, as this was the legal adult age for consent. Additionally, they had to be vendors selling ready-to-eat food items such as cooked meals, snacks, or beverages. Finally, only those who were willing and able to provide informed consent were included in the study.

3.6 Exclusion Criteria

Vendors who had been vending for less than six months were excluded from the study because they might not have had sufficient experience to provide reliable information about hygiene practices. Those who sold only raw or uncooked food items such as vegetables and grains were also excluded since the study focused on vendors dealing with ready-to-eat foods, which posed higher hygiene risks. Furthermore, any vendor who was unwilling to participate or unable to provide informed consent was excluded to ensure voluntary participation in line with ethical research standards.

3.7 Data Collection Methods

Data were collected through semi-structured, in-depth interviews using an interview guide that had been developed from the study's specific objectives and a review of related literature. The

interviews were conducted in either English or local languages, depending on each participant's preference, to ensure comprehension and comfort. All interviews were audio-recorded with the consent of the participants to ensure accuracy and completeness of information. In addition to the recordings, field notes were taken to document non-verbal expressions, contextual observations, and the surrounding environment during the interviews. Each interview lasted between thirty and forty-five minutes and took place at a location that was convenient for the participant to ensure confidentiality and minimize disruptions.

3.8 Data Analysis

The collected data were analyzed thematically using Braun and Clarke's (2021) six-phase process. The researcher began by reading and re-reading the transcribed interviews to gain familiarity with the data. The second stage involved generating initial codes to represent key patterns emerging from the data. These codes were then grouped into potential themes that captured the core meanings within participants' responses. The themes were subsequently reviewed, refined, and clearly defined. The final step involved organizing the themes into a coherent narrative that described the lived experiences and perceptions of vendors regarding food hygiene. This systematic process ensured that the analysis remained grounded in participants' accounts while capturing the essence of their experiences.

3.9 Ethical Considerations

The study strictly adhered to ethical guidelines as outlined by the University of Lusaka Research Ethics Committee. Ethical clearance was obtained from both the University of Lusaka Research Ethics Committee (UNILUSREC) and the National Health Research Authority (NHRA). Informed consent was obtained from all participants after they were briefed about the study's purpose, procedures, benefits, and their rights as participants. They were assured of confidentiality, anonymity, and voluntary participation, and were informed that they could withdraw from the study at any stage without any negative consequences. No personal identifiers were recorded during the interviews, and all collected data were stored securely on password-protected devices accessible only to the research team. The study posed minimal risk and caused no harm to participants. To ensure transparency and community benefit, the findings were later shared with participants and relevant stakeholders through a feedback session held within the study area.

CHAPTER FOUR

4.0 Results

This chapter presented the findings of the study that explored food hygiene practices among street food vendors in Lusaka. The results were organized to first describe the demographic characteristics of the participants, followed by findings related to the study's three specific objectives: food handling practices, vendors' knowledge and perceptions regarding food hygiene, and access to clean water and sanitation facilities. The data were analyzed using thematic analysis and presented through tables, figures, and participant quotations to provide a comprehensive understanding of the phenomena studied.

4.1 Demographic Characteristics of Respondents

The study included 30 street food vendors from Soweto Market, City Market, and Kamwala Market. The demographic information collected included gender, age, education level, and years of vending experience. Understanding these characteristics provided context for interpreting vendors' food hygiene practices, knowledge, and access to facilities.

4.1.1 Gender Distribution of Respondents

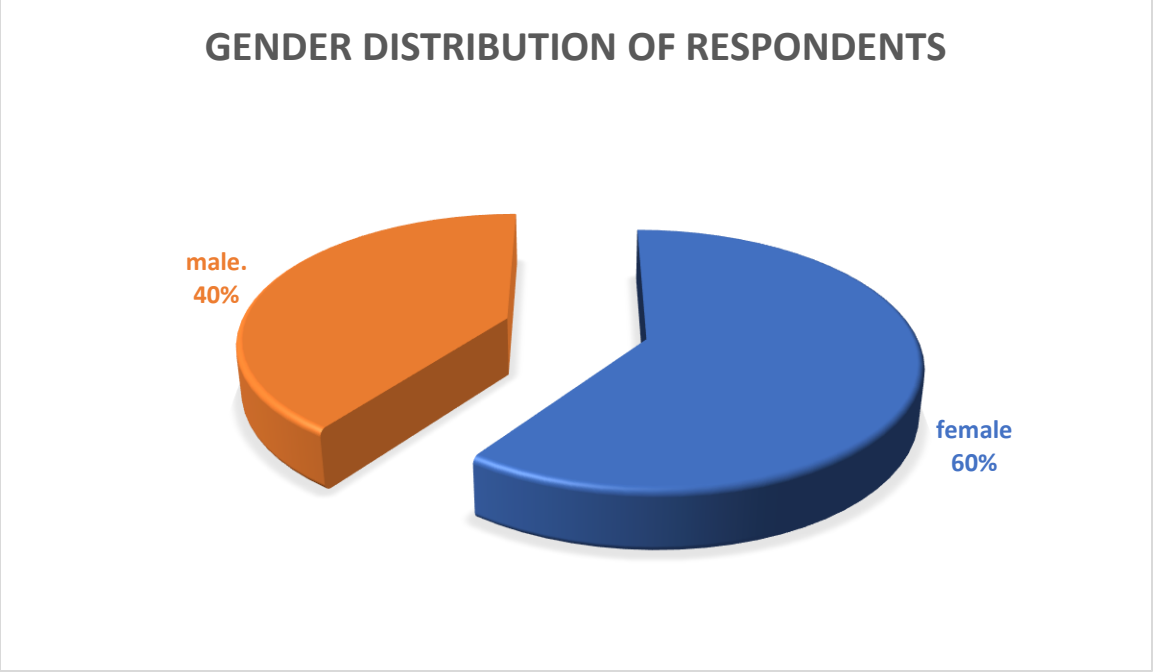


Figure 4.1.1 Gender Distribution of Respondents

A pie chart was used to show the proportion of male and female vendors in the study. Out of 30 participants, 18 (60%) were female and 12 (40%) were male.

4.1.2 Age Distribution of Respondents

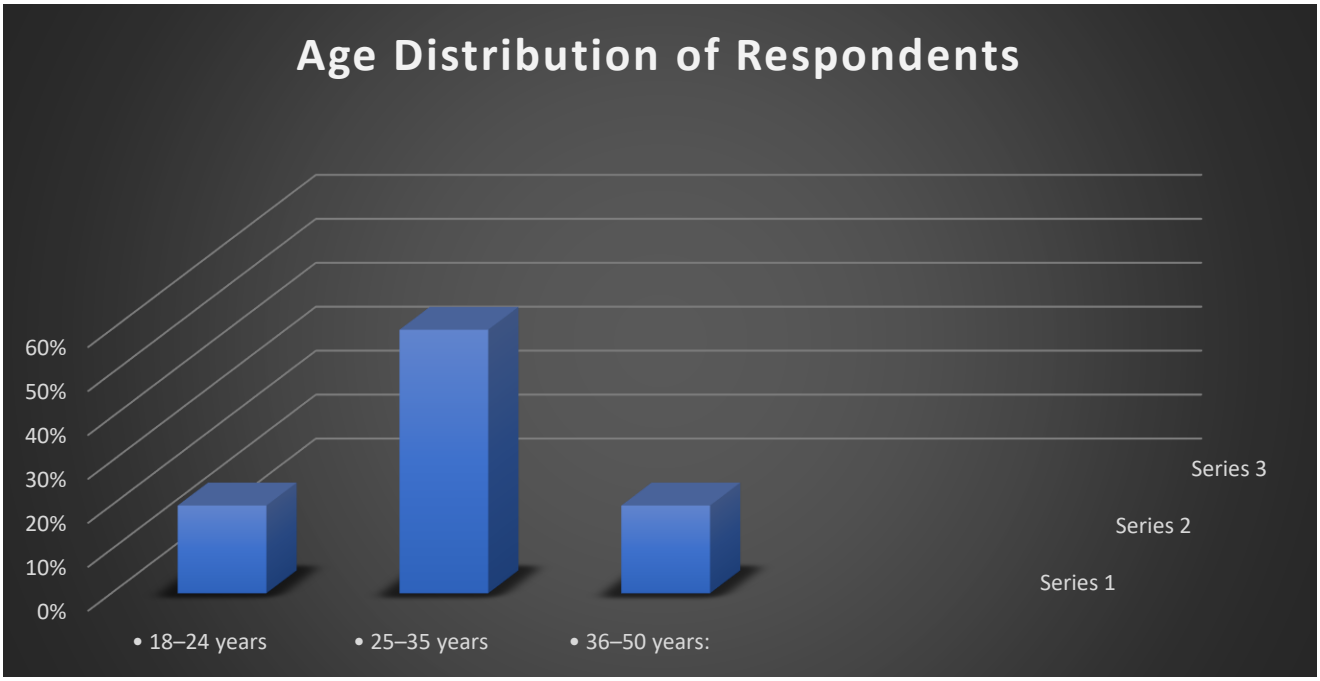


Figure 4.1.2 Age Distribution of Respondents

A bar graph was used to display the age distribution of the street food vendors who participated in the study. The results showed that the majority of vendors, representing 60%, were between the ages of 25 and 35 years, accounting for 18 participants. This indicates that most street food vendors are in their youthful and economically active age group.

Additionally, 20% of the vendors, equivalent to 6 participants, were aged between 18 and 24 years, showing that a smaller proportion of younger individuals are also involved in street food vending. Similarly, another 20%, also representing 6 vendors, were within the 36–50 years age bracket. This suggests that while vending attracts a wide age range, it is most common among those aged 25 to 35 years.

4.1.3 Education and Vending Experience

Demographic Variable	Frequency	Percentage (%)
Gender: Male	12	40
Gender: Female	18	60
Age 18–24	6	20
Age 25–35	18	60

Age 36–50	6	20
No formal education	5	17
Primary education	15	50
Secondary education	10	33
Vending experience <3 yrs	9	30
Vending experience >3 yrs	21	70

Table 4.1: Demographic Characteristics of Street Food Vendors (n=30)

The table shows that 50% of respondents had primary education, 33% had secondary education, and 17% had no formal education, suggesting varied literacy levels among vendors. Most vendors (70%) had been operating for more than three years, indicating substantial experience in street food vending. These findings provide insight into the capability of vendors to adopt and maintain hygiene practices and suggest areas where training or interventions may be most needed.

4.2 Food Handling Practices Among Street Food Vendors

Practice	**Always (%)**	**Sometimes (%)**	**Never (%)**
Washing hands before handling food	73	27	0
Covering food during sale	67	23	10
Using clean utensils	80	13	7
Proper storage of leftovers	60	27	13

Table 4.2.1: Food Handling Practices Among Street Food Vendors (n=30)

Table 4.2 presents information on food handling practices among the 30 street food vendors who participated in the study. The findings revealed that 73% of vendors always washed their hands before handling food, while 27% did so sometimes, and none reported never doing so. This indicates a generally good level of hygiene awareness among most vendors.

In terms of covering food during sale, 67% of the respondents reported always covering their food, 23% did so sometimes, and 10% never covered it. This suggests that a few vendors still expose food to potential contamination during sales.

Regarding the use of clean utensils, 80% of vendors always used clean utensils, 13% did so sometimes, and 7% never used clean utensils. This reflects a high level of compliance with proper hygiene practices in food handling.

For the proper storage of leftovers, 60% of the vendors always stored leftovers appropriately, 27% did so sometimes, and 13% never followed proper storage methods. Although most vendors practiced safe storage, a notable minority still neglected this important aspect of food safety.

Qualitative analysis

Observations and interviews suggested that while vendors were aware of proper food handling, constraints such as inconsistent water supply and limited storage affected compliance. One vendor remarked, *"Sometimes we run out of water and have to reuse a cloth to clean utensils, which is not ideal but necessary."*

4.3 Vendors' Knowledge and Perceptions Regarding Food Hygiene and Safety

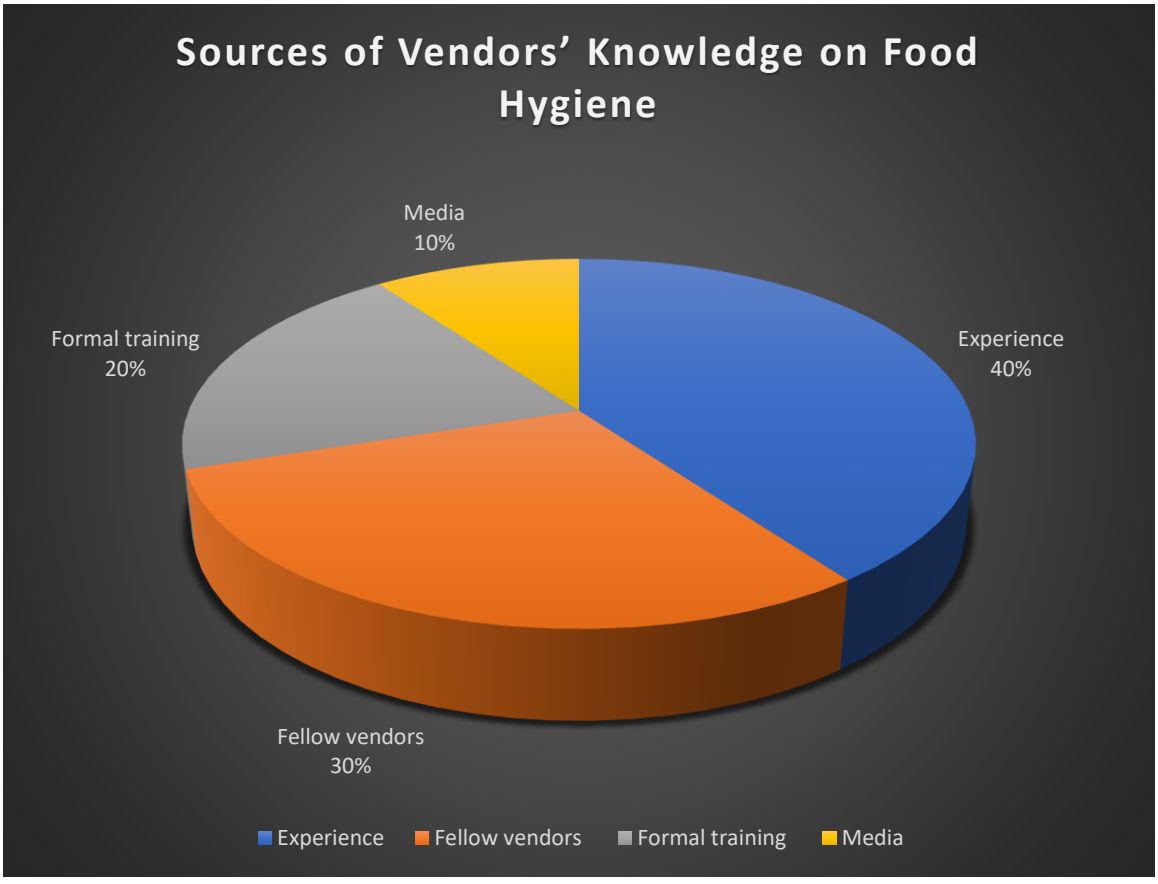


Figure 4.3.1: Sources of Vendors' Knowledge on Food Hygiene

A pie chart could be used to illustrate the different sources of food safety knowledge among street food vendors. The findings show that 40% of the vendors acquired their knowledge through personal experience, making it the most common source. This was followed by 30% who learned

from fellow vendors, indicating the importance of peer influence in shaping food handling practices. Meanwhile, 20% of the respondents gained their knowledge through formal training, suggesting that only a few have received structured education on food hygiene. Lastly, 10% reported learning from media sources such as radio and television, showing that while media contributes to awareness, its impact remains limited compared to experience and peer learning.

Qualitative analysis

A participant from Kamwala Market stated, *"I know I should wash hands and cover food to keep it safe, but I don't know about bacteria or how food can get contaminated."* This reflected a gap between practical awareness and technical understanding of food safety.

The findings also revealed that vendors' perceptions of food hygiene were influenced by economic incentives. Many associated cleanliness with attracting customers rather than preventing diseases. A vendor explained, *"If my stand is clean, people will buy from me, but I do not think much about illness."*

4.4 Access to Clean Water and Sanitation Facilities

Facility Accessed	Frequency	Percentage (%)
Tap water near vending area	10	33
Shared borehole/well water	12	40
Carrying water from home	8	27
Access to public toilets	14	47
No sanitation facilities available	16	53

Table 4.4.1: Access to Water and Sanitation Facilities (n=30)

Table 4.4.1 presents information on access to water and sanitation facilities among the 30 street food vendors. The results indicate that 33% of the vendors had access to tap water near their vending areas, while 40% relied on shared boreholes or well water. Additionally, 27% of the vendors reported carrying water from their homes, showing that a significant number lacked convenient access to clean water sources at their vending sites.

In terms of sanitation, 47% of the respondents had access to public toilets, while 53% reported having no sanitation facilities available. This suggests that more than half of the vendors operated

in areas with poor sanitation infrastructure, which could negatively affect food hygiene and safety standards. Overall, the findings highlight the need for improved access to clean water and proper sanitation facilities to promote safe food handling practices among street food vendors

Qualitative analysis

Several vendors reported that the lack of water and sanitation facilities constrained their hygiene practices. One participant noted, *"When water is far away, we wash utensils only once in the morning and hope it is enough for the day."* Another added, *"The toilets are dirty and far from my stall, so we cannot always wash our hands properly."*

4.5 Summary of Findings

Overall, the findings indicated that street food vendors in Lusaka practiced basic food hygiene but faced significant challenges related to infrastructure, water access, and knowledge gaps. Food handling practices were generally observed but inconsistent due to practical constraints. Vendors had moderate awareness of hygiene principles but lacked formal knowledge of contamination risks. Limited access to clean water and sanitation facilities negatively influenced hygiene practices and posed public health risks.

CHAPTER FIVE

5.0 Discussion

This chapter discussed the key findings of the study on food hygiene practices among street food vendors in Lusaka, linking results to existing literature at global, regional, and local levels. The discussion is organized according to the study's objectives: food handling practices, knowledge and perceptions of hygiene, access to water and sanitation, government policies, and consumer influence.

5.1 Discussion of Key Findings

5.1.1 Demographic Characteristics

The study revealed that street food vending in Lusaka was dominated by young adults, particularly women, with most vendors having over three years of experience. This aligns with regional studies showing that street food vending is often a female-dominated sector providing flexible income opportunities (Mensah et al., 2021; FAO, 2023). The varied education levels suggested that basic literacy was sufficient for entry into vending, but formal education could influence adherence to hygiene practices (Choudhury et al., 2023).

5.1.2 Food Handling and Hygiene Practices

Vendors practiced basic hygiene measures such as handwashing, using clean utensils, and covering food, though adherence was inconsistent. Observations and interviews highlighted environmental constraints like limited water and exposure to dust, which affected compliance. This finding supports previous studies that identified environmental challenges as major barriers to safe food handling in street vending contexts (Kusumaningrum et al., 2022; WHO, 2022). In Zambia, studies have shown that improper storage of raw and cooked foods and reuse of cooking oil significantly increase foodborne disease risk (Choudhury et al., 2023).

5.1.3 Knowledge and Perceptions Regarding Food Hygiene

The study revealed that 70% of vendors had basic knowledge of food hygiene, but only 30% had received formal training. Vendors' understanding was largely practical, gained through experience or peer guidance. This reflects findings from Nigeria, Ghana, and Kenya, where street food vendors often lack formal food safety training, and knowledge gaps contribute to unsafe practices (Mensah et al., 2021; Adekunle & Akinbode, 2022). Behaviour Change Theory suggests that increasing knowledge and awareness through targeted interventions can motivate vendors to adopt safer practices (Glanz et al., 2015).

5.1.4 Access to Water and Sanitation Facilities

Limited access to clean water and sanitation facilities was a key factor influencing hygiene practices. Only 33% of vendors had tap water nearby, and 53% lacked access to toilets. Similar infrastructural challenges have been reported in Sub-Saharan Africa, where inadequate water and sanitation directly compromise street food safety (WHO, 2023; Kusumaningrum et al., 2022). This underscores the need for enabling environments, as Behaviour Change Theory highlights that environmental support is critical for sustaining behavioural changes.

5.1.5 Government Policies and Regulations

The study found low awareness of food safety regulations among vendors, with irregular inspections by health authorities. This confirms findings by the FAO (2023), which reported that over 60% of urban Zambian vendors had little or no interaction with health inspectors. Weak regulatory enforcement contributes to inconsistent adherence to hygiene standards. Strengthening policy frameworks, providing resources for inspection, and integrating vendor training are recommended interventions (WHO, 2022).

5.1.6 Consumer Awareness and Influence

Vendors indicated that consumer expectations significantly influenced hygiene practices. Clean and well-maintained stalls attracted more customers, while dirty stalls reduced sales. This aligns with literature showing that informed consumers in LMICs can drive vendors to improve hygiene, although general awareness of foodborne disease risks may remain low (Mensah et al., 2021). Behaviour Change Theory emphasizes that social pressure and consumer demand can reinforce safe food handling behaviours when combined with education and environmental support (Glanz et al., 2015).

5.2 Limitations of the Study

Despite providing valuable insights, this study had limitations:

1. **Limited generalizability:** The study focused on only three markets in Lusaka (Soweto, City Market, Kamwala) with 30 vendors, which may not represent all street food vendors in Zambia.
2. **Self-reported data:** Vendors' responses may have been influenced by social desirability bias, leading to overreporting of good hygiene practices.

3. **Time constraints:** Short data collection periods limited prolonged observation of hygiene behaviours, potentially affecting depth of findings.
4. **Language barriers:** Interviews conducted in multiple languages could have caused minor misinterpretations in translation.

These limitations suggest that findings should be interpreted cautiously, although they provide critical insights into food hygiene practices among street food vendors in Lusaka and inform targeted interventions.

CHAPTER SIX

6.0 Conclusion and Recommendations

This chapter presents the overall conclusions of the study on food hygiene practices among street food vendors in Lusaka and provides recommendations based on the key findings and identified gaps. The conclusions summarize the study's contributions to understanding food hygiene, while the recommendations suggest practical interventions for policymakers, vendors, and relevant stakeholders.

6.1 Conclusion

The study concluded that street food vendors in Lusaka practiced basic food hygiene measures such as handwashing, utensil cleaning, food covering, and separation of raw and cooked foods. However, adherence was inconsistent due to environmental constraints, limited access to water and sanitation facilities, and weak enforcement of food safety regulations.

The study further concluded that vendors had moderate knowledge of food hygiene, with most acquiring information through experience or advice from peers rather than formal training. This knowledge was primarily practical, focusing on customer appeal rather than the prevention of foodborne diseases, reflecting a gap between awareness and technical understanding.

Consumer influence was identified as a significant factor motivating vendors to maintain cleanliness. Vendors reported that hygienic practices enhanced customer confidence and increased sales, highlighting the role of social pressure in shaping behavior.

Limited regulatory oversight and infrequent inspections by health authorities contributed to inconsistent adherence to food safety standards. Similarly, infrastructural limitations, including scarce water supply and inadequate sanitation facilities, directly impacted vendors' ability to comply with hygiene requirements.

Overall, the study concluded that improving food hygiene among street vendors in Lusaka requires a multi-level approach that addresses knowledge gaps, infrastructure deficits, regulatory enforcement, and consumer awareness, aligning with Behaviour Change Theory principles (Glanz et al., 2015).

6.2 Recommendations

Based on the findings, the study recommended the following:

1. **Training and Capacity Building:**
    - The Ministry of Health and relevant NGOs should organize formal training workshops for street food vendors on food hygiene, handling, and storage practices.
    - Peer-to-peer learning programs can complement formal training to reinforce practical hygiene measures.
2. **Improved Access to Water and Sanitation:**
    - Local authorities should provide reliable water points near vending areas and ensure availability of public toilets.
    - Mobile handwashing stations and safe waste disposal systems should be installed in busy market areas.
3. **Strengthening Regulatory Oversight:**
    - Health authorities should implement regular inspections of street food vendors, with guidance and corrective feedback to enhance compliance.
    - Vendor registration programs can help monitor and support food safety adherence.
4. **Public Awareness Campaigns:**
    - Community-based campaigns should educate consumers on the importance of food hygiene, encouraging them to patronize vendors who follow safe practices.
    - Visual cues such as posters and hygiene ratings for stalls could influence both vendors and consumers.
5. **Integrated Interventions:**
    - A combined approach that includes education, infrastructure improvement, enforcement, and consumer engagement is essential for sustainable improvements in food hygiene.
    - Partnerships between government, NGOs, market associations, and vendors can facilitate coordinated action.

6.3 Implications of the Study

The study provided valuable insights into the practical and behavioral challenges affecting street food hygiene in Lusaka. It emphasized the importance of addressing both structural and knowledge-based barriers to improve public health outcomes. Policymakers can use these findings to design targeted interventions that reduce foodborne disease risks while supporting the livelihoods of street food vendors.

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APPENDICES

Appendix A: Data Collection Tool
Semi-Structured Interview Guide

1. **Demographic Information**
    - Age
    - Gender
    - Years of experience as a street food vendor
    - Type of food sold
2. **Food Handling and Hygiene Practices**
    - How do you store raw and cooked food?
    - What measures do you take to ensure food hygiene?
    - What challenges do you face in maintaining hygiene standards?
3. **Access to Water and Sanitation Facilities**
    - Where do you source water for food preparation?
    - What sanitation facilities are available to you?
    - How do you dispose of waste?
4. **Knowledge and Perceptions of Food Hygiene**
    - Have you received any training on food hygiene?
    - What hygiene measures do you think are most important?
5. **Government Policies and Regulations**
    - Are you aware of any food safety regulations?
    - Have you ever been inspected by health authorities?
6. **Consumer Awareness and Influence**

- How do consumers react to food hygiene practices?
- Have you noticed customer preferences based on hygiene?

Appendix B: work plane

Activity	**duration**
Report writing	1 month
Data collection	2 months
Data analysis	1 month

Figure 2 work plan

Appendix C: budget

Item	Estimated cost
Ethical approval fees	K500
Printing and stationary	K50
Travel expenses	K3000
Transcription and data analysis software	K800
miscellaneous	K600
total	K4950

Figure 3 budget

Appendix D: Ethical clearance

UNIVERSITY of LUSAKA
Passion for Quality Education: Our Driving Force

UNIVERSITY OF LUSAKA RESEARCH ETHICS COMMITTEE (UNILUS-REC)

Plot No. 37413, Off Alick Nkhata Mass Media. P. O Box 36711, Lusaka.
Phone: +260211258505, 258409 Fax +260211233409; Cell +260976075850,961917862,
E-mail:unilus@zamnet.zm,ictar@zamnet.zm

UNILUS-RESEARCH ETHICS COMMITTEE

Ref no: FWA00033228-951(08)/(08)/{2024}

Date: 05 September 2025

STUDENT NAME: **Ms. ESTHER MOOKA**

Food Hygiene Among Street Vendors in Lusaka

The above research was submitted to the research ethics committee for review. The study has no major ethical problems and is approved subject to the following:

1. The study cannot be changed without express permission of the UNILUS research ethics committee.
2. Approval from the necessary authority should be sought.

Professor Kasonde Bowa

MSc(Glasgow),M.Med(UNZA),FRCS(Glasgow),FACS,FCS,DPH(LSTMH),MPH(UCL)

Chairman- UNILUS REC

Professor of Urology and Consultant Urologist

Deputy Vice-Chancellor – Research and Innovation

Executive Dean - School of Medicine and Health Sciences

Appendix E: National Health Research Authority

NATIONAL HEALTH RESEARCH AUTHORITY
Lot No. 18961/M, off Kasama Road, Chalala, P.O. Box 30075, LUSAKA
Tell: +260211 250309| Email: znhrasec@nhra.org.zm | www.nhra.org.zm

Ref No: NHRA-11167/28/10/2025 **Date:28th October, 2025**

The Principal Investigator
ESTHER MOOKA
UNIVERSITY OF LUSAKA
Lusaka

Dear ESTHER MOOKA,

RE: REQUEST FOR AUTHORITY TO CONDUCT RESEARCH

The National Health Research Authority is in receipt of your request for authority to conduct research titled **"EXPLORING FOOD HYGIENE PRACTICES AMONG STREET FOOD VENDORS IN LUSAKA."**

I wish to inform you that following submission of your request to the Authority, our review of the same and in view of the ethical clearance, this study has been **approved** on condition that:

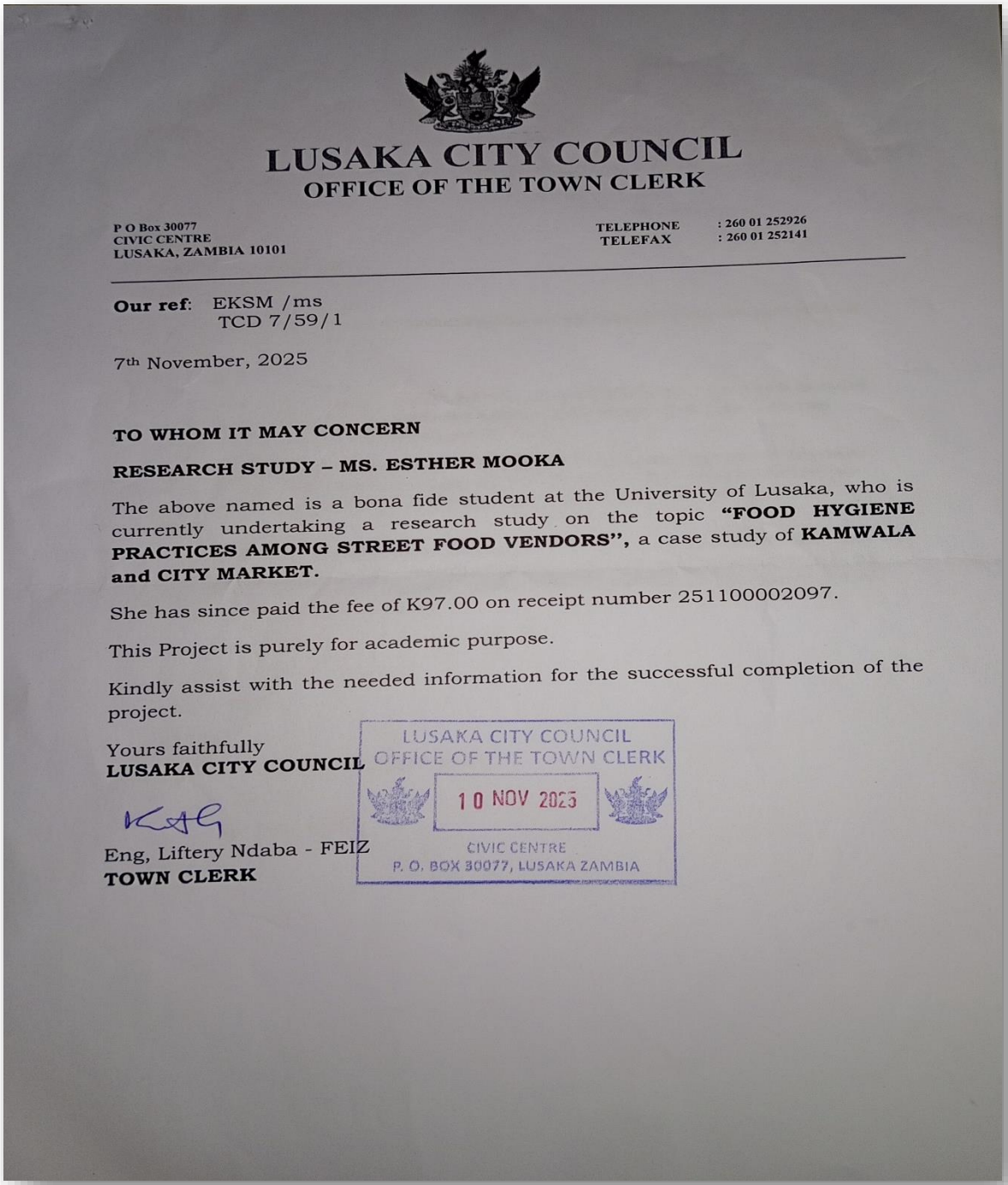
1. The relevant Provincial and District Medical Officers where the study is being conducted are fully appraised;
2. Progress updates are provided to NHRA bi-annually from the date of commencement of the study;
3. The final study report is cleared by the NHRA before any publication or dissemination within or outside the country;
4. After clearance for publication or dissemination by the NHRA, the final study report is shared with all relevant Provincial and District Directors of Health where the study was being conducted, University leadership, and all key respondents.

Yours sincerely,

Prof Victor Chalwe
Director and Chief Executive Officer
NATIONAL HEALTH RESEARCH AUTHORITY

All correspondences should be addressed to the Director/CEO National Health Research Authority

Appendix F: Clearance for research from the Lusaka City Council



LUSAKA CITY COUNCIL
OFFICE OF THE TOWN CLERK

P O Box 30077
CIVIC CENTRE
LUSAKA, ZAMBIA 10101

TELEPHONE : 260 01 252926
TELEFAX : 260 01 252141

Our ref: EKSM /ms
TCD 7/59/1

7th November, 2025

TO WHOM IT MAY CONCERN

RESEARCH STUDY – MS. ESTHER MOOKA

The above named is a bona fide student at the University of Lusaka, who is currently undertaking a research study on the topic **"FOOD HYGIENE PRACTICES AMONG STREET FOOD VENDORS"**, a case study of **KAMWALA and CITY MARKET.**

She has since paid the fee of K97.00 on receipt number 251100002097.

This Project is purely for academic purpose.

Kindly assist with the needed information for the successful completion of the project.

Yours faithfully
LUSAKA CITY COUNCIL

Eng, Liftery Ndaba - FEIZ
TOWN CLERK

LUSAKA CITY COUNCIL
OFFICE OF THE TOWN CLERK
10 NOV 2025
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