

**AN ASSESSMENT OF THE INFLUENCE OF SCHOOL MEALS ON ATTENDANCE: A
CASE STUDY OF PRIMARY SCHOOLS IN KIBERA AND MATHARE INFORMAL
SETTLEMENTS IN NAIROBI COUNTY, KENYA**

By

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**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
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DECLARATION

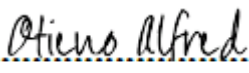
I, Nyamai Faith Mulekye, (Q51/88547/2016) declare that this research project is my unique work and has therefore not been submitted in any other university or college for a degree award.

Signature.....

Date.....23rd November 2022

APPROVAL

This research project is presented for examination with my approval as University Supervisor:

Supervisor: Prof. Alfred Agwanda Signature..... Date....23rd November 2022.

DEDICATION

This project is dedicated to my loving best friend and husband, James Kutany'a, who has been my main pillar of support and strength during my entire study and data collection period, to ensure that I finalise the project on time. I also dedicate this project to my three sons, Jeremy, Jabali and my special baby, Junior.

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ACRONYMS

| | |
|--------------|-------------------------------------|
| SDG | Sustainable Development Goals |
| MDGs | Millennium Development Goals |
| ASALs | Arid and Semi-Arid Lands |
| WFP | United Nations World Food Programme |
| SFP | School Feeding Programme |
| MoE | Ministry of Education |
| FAO | Food and Agricultural Organization |
| FFE | Food For Education |
| GoK | Government of Kenya |
| SMP | School Meals Program |

ABSTRACT

This study strived to ascertain the effect in the urban school feeding programme (SFP) on pupils' attendance in Kibera and Mathare informal settlements, in Nairobi County and suggest any possible interventions to ensure an effective SFP in urban areas. The study employed a treatment-control approach to establish the differences that existed between schools with, and those without feeding. A total of 10 schools that were feeding in 2018 and had the programme terminated in 2019, and 4 schools that were feeding in both 2018 and 2019 were included in the study as treatment and control respectively. Data gathered was analysed using Difference-in-Differences (DiD) method. The outcome of the study disclosed that withdrawal of SFP led to an overall decline in attendance by 116 pupils for both boys and girls in both informal settlements. In Kibera a total of 113 pupils missed school compared to 139 pupils in Mathare. Founded on the study outcome, it suggested that, even with scarce and limited resources available, there is need for the government to prioritize support to urban school feeding. In addition, school management committees and head teachers must broaden the community and parental commitment in supporting urban SFP. Finally, the study suggests that an intensive comparative study might be undertaken to compare the influence of enrolment necessitated by school feeding programme and attendance in schools in urban informal settlements, in relation to schools in rural areas.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

According to the Global Education Monitoring (GEM) report 2020 by United Nations Scientific Education Cultural and Organization (UNESCO) an estimated 258 million children or 17% of the total number of children cannot access education. Further, the report estimates that among 65 low- and middle-income countries, the average gap in attendance rates between the poorest and the richest 20% of households was 9 percentage points for primary school-age children. The report asserts that the poorest are highly likely to repeat and leave school early, wealth gaps are even higher in rates of completion: 30 percentage points for primary, 45 for lower secondary and 40 for upper secondary school completion (UNESCO, 2020)

According to the Universal Declaration of Human Rights (Article 26), education is a mandatory human right that comprises the requirement to free and mandatory basic education. School feeding program has been seen as a social security fabric in developing nations as a tool for attaining Sustainable Development Goals. The schemes are equally deemed as essential mediation in enhancing the human capital for school-going pupils (Birdsall, 2005). According to the Millennium Development Goal (MDG) Task Force Report for accomplishing MDG Education, and FFE schedules are seen to be a valuable way in attracting children in accelerating studying in school. According to (World Food Programme, 2002) report, well-nourished children are able to cope with their studies and acquire education. For example, in Bangladesh a survey on school feeding program done after more than one year of its implementation, reduced dropout rate of pupils by 7.5 percent (Ahmed, 2004). The School Feeding Programme acts as incentive to parents who permit their children to attend school and are able to remain active.

The Government of Kenya desire to implement Free Primary Education (FPE) has seen the adoption of education policies and system reforms that capture national and continental aspirations. The universal access to free and compulsory basic education is a key tenet of the

Kenya Constitution (2010), which provides the mandate for school meals by stipulating in Section 53: (1a) every child has the right to free and compulsory basic education as well as the right to basic nutrition, shelter and health care.” There have been great strides in reforming the Education policies in Kenya so as to meet the development needs of the country while focusing on vision 2030 (Ogutu, 2017).

The African Union (AU) Agenda 2063 focuses on education rights which requires respective African governments to ensure that education is, available, accessible, acceptable and adaptable at all levels of the education system in their respective countries. The 2020 Ibrahim Index of African Governance (IIAG) shows that although education enrolment rates have increased over the decade, the pace of progress has reduced more than three-fold since 2015. This has been attributed to increasing decline in primary school enrolment rates, as well as pre-primary enrolment rate having reverted to decline between 2015 and 2019. The report further says that the pace of improvement in Education Completion has nearly halved since 2015, due to slowing improvement in both the completion rate of primary education and the expected years of schooling throughout a child’s life (IIAG, 2020)

According to the Ibrahim Index Report (2017), Kenya’s education system was ranked third out the fifty-four African countries. The education score in Kenya stood at 72.7 % in the 2017 report, whilst in the 2020 report, the education score declined and was at 59.4%, ranking at fourteenth out of fifty-four African countries (IIAG, 2020). Significantly essential in the reduction of universal inequality is the fourth among the seventeen goals, access to quality education. This would ensure these children acquire an elementary foundation of knowledge and accelerated access to a minimum wage in ensuing life. Nevertheless, in spite of the preferences to educational progressions, current statistics depict that 69 million children universally aren’t registered in primary schools. In regard to the education indicators in Kenya, satisfaction levels in education provision was at 79.4 %, the education quality at 66.7 %, the human resources in primary school at 79.4 % and primary school completion at 75.7 % (IIAG, The 2017 Ibrahim Index of African Governance: Index Report, 2017)

(NCPD, 2017) estimates the rate of enrolment of primary schools in Kajiado County at 75 percent. Further, the report estimates that the primary school pupil-teacher to be at a paltry 26.7 percent. Additionally, the Kajiado County 2014 Basic Education Statistical data shows that for Primary School Enrollment Rate approximately 43,405 children are out of school. It is indeed a sad reality that the meal programme's significant effect on school attendance seems to be worsen as age increases for primary school pupils. In the traditional communities, it is viewed that as children grow and increase in age, they are seen as resourceful individuals in the household set-up, as they can now actively participate and contribute to household chores and work, businesses, protection of household property, work in businesses and improve income of the household (Ahmed, 2004). From seventh grade, the overture for a school meal is insignificant and consequently the dropout ratios escalate with the ascending opportunity costs for keeping them in school (Finan, 2010)

Advocates of SFP assert that furnishing schools with food could effectively entice children to school, improve class attendance and minimize the rate of dropping out (World Food Programme, 2010). According to the United Nations World Food Programme report, the program for school feeding is a motivation to very fragile households to actively engage and participate in the education of the children as it encourages them to register their children to schools running a school feeding programme, and makes the effort to maintain them in school (WFP, 2018). Empirical research equally affirms that the School Feeding Programs significantly influence school enrolment and that they are efficient in motivating school enrolment, promoting class attendance and reducing the dropping out of students (WFP, 2018). On the other hand, there are some studies that have showed that there is no noticeable difference in relation to attendance even with a school feeding programme in place (Nelima, 2015).

A study undertaken in Taita Taveta County, Kenya in 2008 confirmed that the school feeding program boosts pupil's (Khatete et al, 2013). Furthermore, (Nelima, 2015) in a study of Yala division of the then Siaya District contravened the notion and expectations by deciding that school meals don't influence pupils' achievement.

In 2008, a survey by WFP revealed that the total enrolment for girls and boys grew from 77% experienced in 2002 to a percent of 92% in the year 2007 because of the supply of meals in schools and the free education in Kenyan primary schools. Whilst gender proportion is almost at par with the schools that offer the feeding schemes, this proposes that school meals entice the majority of the less fortunate children in school and equally attract hunger-stricken children to school (MoE, 2019)

Over the last 30 years, the population in urban towns of developing nations has escalated fivefold. It is projected that by 2030, the population of persons residing in developing nations could heighten from 4.9 billion to 6.8 billion. In Kenya, there is a 4% increase in urban population in 2019 (World Bank, 2020) which is way above the world average of 1.9%. According to figures obtained from some eight developing nations having 66 percent of the developing nation's population, the fraction and outright population of poverty-stricken persons found in urban settlements have expanded in the past twenty years; and from earlier as from somewhere in the mid-1990s, the number of emaciated children in the urban regions have grown. (World Bank, 2020). The rate at which the precise figure of the urban poor and under-fed has intensified in the last between 15 to 20 years outpaces parallel alterations in the rural areas (World Bank, 2020).

The study consequently took into account these debates and assesses the importance of the Programmes of school feeding to attendance amongst the school children in primary schools in an urban context. This case study focuses on primary schools in Kibera and Mathare slums which are located in the heart of Nairobi County. The overall food security trend in Kenya has consistently been unstable and is deteriorating in both urban informal settlements and rural areas. This could have an effect on the attendance of pupils. (World Food Programme, 2019)

1.2 Statement of the Problem

As a crucial development tool school feeding programmes directly relate to at least six of the seventeen Sustainable Development Goals (SDGs), that is, nil poverty, zero hunger, good health

and wellbeing, standard education and gender equality, by 2030. Kenya has made great strides in achievement of education goals as per the sustainable development goals, in comparison to other African Countries (IIAG, The 2020 Ibrahim Index of African Governance: Index Report. Available at: <https://mo.ibrahim.foundation/sites/default/files/2020-11/2020-index-report.pdf>, 2020). In Kenya, school feeding has largely been overlooked in the urban context, with more emphasis by governments and stakeholders being in the low income rural areas (World Food Programme, 2019)

Since inception of school feeding programme in Kenya in 1966, the programme has been highly dependent on external donors for financial backing. The United Nations World Food Programme (WFP) has been a main donor, supporting children feeding schemes in schools in the ASALs from 1980. In Nairobi City County, the WFP rolled out the school feeding initiative in 2001 which started with seven of the poorest and most vulnerable slums urban communities namely, Kangemi, Kawangware, Mathare, Kibera, Kariobangi, Mukuru and Makadara. The programme covered pre-primary and primary school children in 92 urban Nairobi schools. The programme supported both public and informal schools and were selected on the basis that they cater for pupils from low-income informal settlements.

Due to financial constraints and decreasing donor funding, the WFP and its implementing partners handed over all the school feeding programmes in Kenya, including Nairobi back to the Government of Kenya at the end of 2018 (World Food Programme, 2010). With this final handing over of the entire school feeding plan by donors back to the Kenyan government, this research study aims at finding out the effect of programme withdrawal to primary school attendance: a focus on schools in Kibera and Mathare informal settlements in Nairobi City County.

1.3 Research Questions

The study sought to respond to the following questions:-

- (i) What is the influence of a school feeding programme to pupils' attendance in primary schools in Kibera and Mathare informal settlements in Nairobi County?
- (ii) What is the perception of stakeholders on school feeding programmes?

1.4 Objectives of the study

1.4.1 General objective

The major objective in this study was to explore the impact in urban school feeding programmes on pupils' attendance in Kibera and Mathare informal dwellings in Nairobi County, Kenya.

1.4.2 Specific Objectives of the Study

The specific objectives of this study were to: -

- i. To examine the influence of school-feeding programme on attendance of pupils in schools in Kibera and Mathare informal settlements in Nairobi County.
- ii. To explore the perceptions of key stakeholders upon the school feeding programme.

1.5 Justification of the Study

The findings of this particular study were conceptualized as useful in various forms. First, the study could serve as an informative source of information for school managers and headteachers in Nairobi County on the extent of the impact in lack of a school feeding plan, hence create awareness on the need to support and implement SFP in their schools.

Second, the study may be an informative document to the Government of Kenya (GoK), and donors including the United Nations World Food Programme and other partners, on the status of pupils' participation in schools in Nairobi's informal settlements, due to withdrawal of the program of school meals in schools.

Additionally, this study finding can assist the Kenyan education sector policy makers to target schools in urban centres, in addition to schools in ASALs, even in the midst of constrained financial resources.

Overall, the study shall assist the entire education fraternity, including government personnel, ministry of education officers, county and sub-county school meals committees, school proprietors and administrators, and parents to comprehend the significance of these meals to learners and therefore adopt policy measures to support school feeding programs, for better education outcomes to all children in Kenya.

1.6 Scope and Limitations of the study

The study was confined to 14 formal and informal schools both in Kibera and Mathare informal habitations in Nairobi County, Kenya. Generalization might therefore not be applicable to all other schools which are located in other informal settlements in the county, and the country in general.

The main data analysis method utilized was Difference in Differences method (DiD), which provides narrow and limited scope of results after analysis of the data. The analysed data was not able to give a wide array of other insights in regards to the school feeding programme.

Data collection for the study was carried out in July 2021 when the spread of COVID 19 pandemic across Kenya and the world in general, was still a huge concern. The Kenyan Government at that time had in force restrictions on gatherings, and therefore Focused Group Discussions were not held for this research. Individual questionnaires were administered to the selected key informant respondents, in addition to review of the other school level sources of data for this research.

1.7 Operational Definition of Terms

A feeding programme: An activity scheduled to provide sufficient nutrition and a balance diet to a selected group of people. In regard to school children, a schedule is laid down to provide food for the children in order to enhance learning and other activities.

School Enrolment: Refers to the number of children registered in a school.

School Attendance: Refers to daily availability at any regular accredited educational institution or programme, public or private, for organised learning at any level of education.

Management: This involves planning, organising, directing and controlling of activities within an institution set up.

Nutrients: Components of food that are needed by the body in adequate amount in order to grow reproduce and lead a normal life.

Performance: Ability to do well in attainment of skill, knowledge and attitude.

School Feeding Programme: This is a scheduled activity of providing enough nutritious and balanced diet to children at school.

School feeding: It represents a more varied and comprehensive set of uses of food for the achievement of educational outcomes.

Home Grown School Feeding Programme: This is a government-led school meals programme that provides food produced and purchased locally.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter presents literature associated with this study which is the effect of school feeding programmes on students' attendance in school. A history of school feeding helped to set the stage for a deeper understanding of the programmes at both the global and local (Kenyan level). This was followed by a review of the influence of school feeding programmes at both global and local levels. A theoretical framework that described the theory underpinning the research problem was provided. The conceptual framework provided a diagrammatic representation of factors at play in school attendance. The chapter equally summarizes operational framework of the research study.

2.2 History of the School Feeding Program: A global perspective

There are many conflicting theories and postulates on start and history of the School Feeding Programme have been put forth. In (Tomlinson, 2007) assertion, he states that the start and increase of SFP in United Kingdom (UK) and United States of America (USA) in the 1930s had the overall objective of improving school pupils progress. Further, it is postulated that SFPs emerged in the beginning of 1700s and 1800s in around four hundred and sixty four (464) Western European nations. He notes that some USA states were providing school meals to pupils as per mid-1800s (Tomlinson, 2007). In the execution of the school meals programme, Brazil implemented a decentralized approach to run the feeding programme. This was executed through the setting up of school meals local councils, who in turn brought on board representatives from the national government, parents, teachers and civil organizations (WFP, 2009).

In the early 1940s, South Africa rolled out the School Meals Programme by providing milk to the to primary schools inhabited by whites and coloured children. This programme provided reinforced biscuits, nutritional supplementation and full hot food (Tomlinson, 2007).

Tunisia was among the first countries in the Middle East and North Africa (MENA) region to initiate a nationwide school feeding programme: the programme rolled out right after after the country's independence and following the initial changes of their education system in 1958 (WFP, 2020). The overarching objective of this national school feeding programme was to ensure that all children receive primary education, with the target being the most vulnerable children living in rural areas and impoverished households, and to boost the nutrition status of students in these schools.

2.3 History of the School Feeding Program: A Kenyan perspective

The National School Feeding Programme in Kenya was initiated around 1966 led by the principle 'A starving kid can't learn' (Ministry of Education, 2009). This programme majorly used food commodities produced locally and was obtained from National Cereals and Produce Board. The programme was rolled out following a survey on feeding habits and nutritional status of school going pupils in Kenya by Bohdal and Co-workers. The programme then was managed by the National School Feeding Council (NSFC), and actively involved the support of parents who paid nine Kenyan shillings per term per child to provide a meal to their children in school. By the year 1973, the programme was feeding over 30,000 children across the country. The program was implemented equally across the country, with children receiving a similar food basket which consisted of beans and maize. This maize and beans was added an additional commodity, popularly known as 'suplo' which was an industrial product composed of barley, flour, yeast and skimmed milk (Pieters, J. J., Van Steen Bergen, W.M, Vande Hoeven, H.M.J, Demoel J.P.C & Van, 1975). In the year 1979, the government of Kenya introduced the milk program to pupils in all schools across to republic. (Pieters, J. J., Van Steen Bergen, W.M, Vande Hoeven, H.M.J, Demoel J.P.C & Van, 1975). This report further states that after some years, the government was unable to sustain this programme due to its high production and logistical implementation costs. The programme was scrapped off by the Kenyan Structural Adjustment Program (SAP) (Pieters, J. J., Van Steen Bergen, W.M, Vande Hoeven, H.M.J, Demoel J.P.C & Van, 1975). Subsequently, the government realized that they solely cannot effectively and efficiently run a

school feeding programme in the country. Hence, the government sought for the support of development partners to run the programme, and the United Nations World Food Programme was at the forefront to support this initiative (Ministry of Education, 2009). Consequently, in 1981, WFP and the Government of Kenya successfully launched the School Meals Programme as a joint initiative. The overall goal of this programme was to improve the country's achievement of global primary education, and with a particular interest to pupils in schools in the arid and semi arid lands of Kenya,

In Kenya, urban school feeding programme was rolled out in 2001 in the capital city of Nairobi, targeting schools located in informal settlements within the city (World Food Programme, 2019). In this report, the school feeding programme in Nairobi's informal settlements supported by WFP started in 2001 and ended in 2018, when it was handed back to the Kenyan Government for support under the Home Grown School Feeding Programme initiatives (World Food Programme, 2019). With this handing over of the programme by donors, and with limited financial resources by the Kenyan Government, the main focus to support school feeding is to schools in impoverished rural areas in Kenya, leaving behind schools in the urban informal settlements (MoE, 2021). During the 2018/2019 financial year Ksh 2.5 billion allocated to school feeding programme in arid and semi-arid areas was far below the Ksh 4.5 billion required (Republic of Kenya, 2018). Studies have shown that a provision of meals to schools in Kenya provides the largest, or even the only meal, for many school going pupils on any given day (Walingo, M.K., Musamali, B., 2008). UNICEF data is showing an increasing number of children aged below 18 at risk of severe food insecurity from 1.1 million to 1.8 million in August 2017 (Wakaya, 2018).

During this period (2001-2018), food aid to the schools was earmarked for pre-schools and primary schools (World Food Programme, 2019). The objectives of the programme were to retain routine attendance ratio in the schools, accelerating attention period of pupils by providing school meals and boost enrolment in the pre-schools and primary schools (Ministry of Education, 2010).

2.3.1 The Influence of the School Feeding Programme on pupils attendance: A global perspective

Several research work conducted in many parts of the world show that school feeding programmes are associated with increased attendance (Gelli, A, Meir,U & Espejo, F., 2007). In India, an evaluation of the government led Mid-Day Meals (MDM) programme, found that female school attendance was approximately 15 percent higher in schools that provided the feeding program than in schools that did not (Dreze J & Kingdon G, 2001). A randomized controlled trial of a school feeding program in Peru also showed increased attendance rates in treatment versus control schools (Jacoby E, Cueto S & Pollit E, 1996).

In 2001 India's Supreme Court gave an order for the relevant governments departments to offer cooked hot meals to select schools. In this programme the school children were provided with a mid-morning and mid day meal whilst in school. The programme estimated the influence of school meals on attendance and found that it improved by 10.5% in those schools which were running the school feeding scheme at level one. Although the number of attendees for girls in grade one went up by 1.77% in each schooling day and by 0.81% for grade three because of the school's feeding scheme, boys' attendance demonstrated a positive but reasonable rise for grade one pupils (Afridi, 2007). Both developed and developing countries have practiced SFPs for several decades.

(Kazianga, H., de Walque, D., & Alderman, H., 2013) established that in Burkina Faso, that Taking Home Ration (THR) and School Feeding Programmes (SFP) were both initiatives that possessed significant statistically influence on the entire increased by a 6.2%, while girls' enrolment rose by 5.6%; new girls' enrolment increased by 5% in SFP schools. The authors also noted the "attendance conditional on enrolment was likely to be lower with the programme than without the program" (Alderman H, 2013)

In Malawi (Chimombo, 2000) conducted a study and ascertained factors that affect school attendance, and pinpointed poverty as the major obstacle in the majority of the households.

Moreover, concerning education for everyone, (UNESCO, 2020) also noted that beside poverty and the aspect of child labour, the poor quality of education provided was a major reason for high dropout rates.

(Cheung, M., & and M. Perrotta., 2010) argue that the compared to other social safety nets, provision of school meals offers a stronger incentive to attend school because learners must be physically present to obtain their meal portions. School feeding programmes in the long term through education will improve health among learners, have a positive impact on incomes and in the long-term break the cross-generational cycle of poverty (Partnership for Child Development, 2013).

2.3.2 The Influence of the School Feeding Programme on pupils attendance: A Kenyan perspective

In Kenya, WFP has supported the children school meals since 1981, with the program's main objective being to raise registration and attendance in school (World Food Programme, 2010). The report highlights that the districts targeted had the smallest enrolment and poor ratio of attendance in schools, with also gender proportions in the nation in comparison to national averages, mostly due to cultural norms, poverty, hunger and the dilapidated conditions of the facilities in school. In research undertaken in Kibera informal settlement in Nairobi City County, factors pointed to levels of poverty as the greatest aspect hindering parents from enrolling the children in schools (CSO, 2003)

According to (World Food Programme, 2010) the provision of food at school assists to relieve immediate short-term hunger contributing to better learning and boasts performance on school exams while promoting transition from one class to another, hence learners are able in the long run to obtain basic education.

Moreover, the several national food and nutrition policies, strategies, guidelines and action plan developed by the government have an effect on pupils attendance to schools. The policies and

strategies include the National Food Nutrition Security Policy (2011), National Nutrition Action Plan (2012-2017), National School Health Strategy Implementation Plan 2011-2015, Home Grown School Meals Guidelines and National School Meals and Nutrition Strategy 2017–2022. All these policies, strategies and guidelines among others are key to developing and implementing effective school feeding programmes to improve enrolment and attendance (Saber, 2016)

These policies provide an avenue and the solid basis for the government and stakeholders to demonstrate a commitment to school feeding programmes and ensures accountability for the quality of support offered (Saber, 2016). These policies and strategies also have a multi-sectoral approach to encourage joint collaboration of relevant governments departments, state agencies including education, agriculture, finance and health. The main challenge to these strategies is their actual implementation, and resources to finance the heavy budgets associated with their effective implementation, thus the difficulty to directly benefit school feeding programmes (Saber, 2016).

A randomized control trial study was carried out to ECDE children receiving a mid-morning breakfast in a school in rural Kenya, where school attendance of pupils in the treatment group was 8.5 percent higher than those who were in the control group (C. Vermeersch & M. Kremer, 2004). However, due to limited data on urban school feeding, it is not clear whether School Feeding Programme has had an effect on attendance in primary education in urban settlements.

Hence the need for this study to identify the effect of school feeding to attendance and find out the perspective of the various stakeholders on the importance of school feeding in the urban informal settlements of Nairobi County, Kenya.

2.4 Theoretical Framework

This study was informed through the motivation theory anchored by (Maslow, 1954), founded on the hierarchy of the needs. He detailed need as a psychological shortage that a human being experiences the obligation to accomplish. This need can cause pressure which could affect ones'

attitude to work and also behaviour. Maslow's theory is founded on his description of need that suggests that humans are driven by numerous wants and the needs are present in a hierarchical sequence as follows;

- (i) Physiological and Biological requirements- food, drink, shelter, warmth, air, sleep and sex.
- (ii) Safety requirements- safeguard against aspects of security, lawfulness order, support and freedom devoid of fear.
- (iii) Affection and association requirements – companionship, closeness and love at work place, family, comrades and sentimental association.
- (iv) Esteem requirements – accomplishment, proficiency, autonomy, condition, supremacy, dignity, self-esteem and respect from other quarters.
- (i) Self-Actualization requirements – Actualizing individual capability, personal-fulfilment, exploring individual growth and pinnacle adventures. In accordance to Maslow's hierarchy of needs theorem, there were some minimal needs which were crucial to human requirements for the facilitation of ideal living standards. Needs hierarchy is shown in Figure 2.1 below.



Figure 2.1: Maslow's Hierarchy of Needs

Source: Maslow's hierarchy of needs (1954)

2.3.1 Educational applications Maslow's hierarchy of needs

(Maslow, 1954) hierarchy of needs theory subsequently created significant addition to learning and schools' classes administration. Apart from lowering manner of reaction in the environment, (Maslow A, 1970) affirms a comprehensive method to learning and education. Maslow addresses the whole physical, social, sentimental and scholarly traits of a person and his/her influence on studying.

In the appliance of Maslow's hierarchy theory to the classroom work by teachers are distinct. In order to meet student's cognitive requirements, their basic requirement physiologically should be first fulfilled. For instance, an exhausted and starved pupil shall find it hard to concentrate in class. Students are supposed to have a feeling of physical and emotional secure and acknowledged in the classroom to advance and attain their maximum potential. In Maslow's ideal, students should be proven the worthiness and accorded respect in the classroom and the teacher must forge a supporting environment. Pupils with little self-regard can't develop academically at an excellent degree till their self-esteem is enhanced.

2.5 Conceptual Framework

A study conducted in Tanzania concerning influence of the Feeding Programme for students in secondary school attendance shows clearly that school feeding scheme has an effect on school attendance for students' and environment. Parents' economic status (PES) and school environment are some of the key factors that influence children participation in school. Other intervening factors include efficient system management, ideal connections between stakeholders, efficient orderly decision-making, appropriate collating of stakeholders and resources and ideal-designed enactment plans (Alderman H, 2013). (UNESCO, 2020) also believe that school attributes such as ideal accomplishment, best attendance in school and general ideal health of students could result to the anticipated outcome which is standard education to learners.

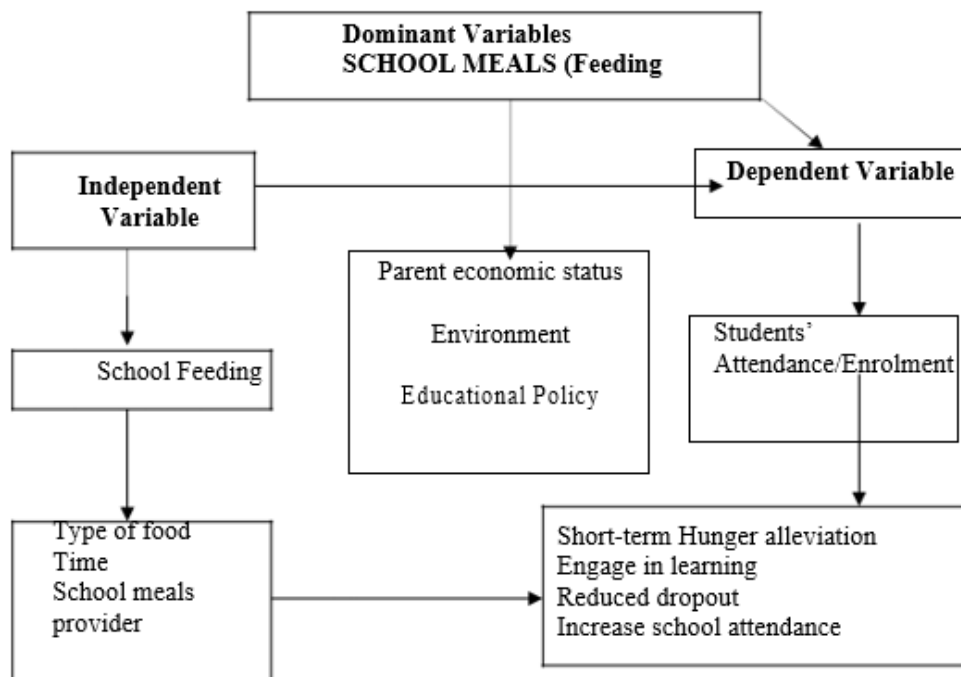


Figure 2.1: The Interlinkage amid SFP on Students Attendance and Enrolment

Source: Adapted from Oso and Onen 2005

2.6 Summary of the Literature Reviewed

Most of the reviewed literature exhibits that majority of research studies undertaken focused on rural areas, with limited research in schools located in urban areas. None of these studies fulfilled the gap in knowledge on function for school feeding scheme in connection to children's enrolment and attendance of primary schools specifically in informal settlement locations in large urban centres, as opposed to those schools situated in the rural localities.

There is lack of studies on the status and effect of school feeding programmes in urban Kenya, more so in the urban informal settlements.

The study consequently focused on ascertaining if there was any effect of the school feeding programme to the primary school pupils in connection to their attendance at both Mathare and Kibera slum areas, located at the heart of the City County of Nairobi, Kenya.

2.7 Operational Framework

It's clear that a void exists in knowledge in whether school feeding scheme would influence the primary schools' attendance in an urban context. This study employed a descriptive design on a fact-finding mission to understand the extent to which SFP influences school attendance. A review of class registers provided quantitative data, while key informant interviews provided qualitative data for the study.

The study employed mixed sampling methods. Purposive sampling technique was applied in selection of 10 schools against the total of 65 that participated in the programme of school-feeding in 2018. These acted as the treatment group. An additional 4 schools were selected as the comparison group which had feeding programme in both 2018 and 2019.

The administration of semi-structured questionnaire including both closed and open-ended questions was applied for key informants including the MoE official, school heads and parents in a face-to-face interview setting. Document analysis involved a review of class registers and school enrolment records. The final study conclusions were focused on the outcomes of difference-in-difference (DiD) model that put into perspective the changes over time in the treatment and comparison groups.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The chapter documents the research method that was utilised in the research study. It consists of the research design, targeted population, data gathering tools and techniques in analysing data.

3.2 Study Design

This study used descriptive survey design. The approach was suitable for the study since it deals with fact finding and questions from the head teachers and parents on the influence on school meals on attendance of primary school pupils. Records of class registers in the schools for all classes during the study period were reviewed and analysed, hence providing the quantitative data in the study. The design was considered ideal to the research study as the respondents were able to accord their opinions towards the impact of the school feeding programme to learners' attendance among the selected primary schools. Qualitatively, the researcher collected data on attitudes and perceptions of the respondents towards provision of school feeding in their schools. Both quantitative and qualitative data supplemented and complemented one another and enriched the findings of the study. The study vowed to maintain anonymity in the name of the particular school, head teachers, parents and guardians who took part in the study.

3.2.1 Variables

The studies main variables consist of school-feeding against school enrolment and attendance. In this case, school enrolment and attendance were the outcome variables whose measure was a function of school feeding programme. School attendance was considered a more accurate

measure of the outcome of school-feeding programme as it provided a clearer picture of the daily situation in schools with or without feeding.

3.3 Study location

The study was conducted in Kibera and Mathare sub-counties of Nairobi County in Kenya. The two sub-counties are home to the largest unplanned settlements in Nairobi, the capital city of Kenya. The county is situated in the central region of the republic, with Kibera located between latitude 1^o 19' south and longitude 36^o 47', whilst Mathare is located between latitude 1^o 15' south and longitude 36^o 51'43'. According to the 2019 census, Nairobi County had a population of 4,397,073 people, whilst Kibera and Mathare sub counties had 185,777 and 206,564 people respectively. The informal housing residents here mostly casual labourers and small-scale merchants whose income on daily basis is less than a dollar a day and is meant mostly to cater for their daily household food requirements. Past 80 percent of residents' earnings is utilized on food stuff. Kibera and Mathare are the largest sprawl slums in Kenya (APHRC, 2014) and were therefore chosen for this study. More essentially, a study of this type hasn't been undertaken on schools in an urban context.

3.4 Population

(Orodho, A. J. , 2003) describes target population to be “all members of a real or hypothetical set of people, events or objects from which the researcher wishes to generate the results of the research”. Gay (2011) opines that target population is “a group of interest to the researcher to which the results of the study would be generalized”. The target population for the study is public formal and informal primary schools in the slum settlement areas of Kibera and Mathare that had been implementing this feeding programme between the years 2018-2019. According to

Nairobi City County Government (NCCG) records (2016), a total of 65 primary schools in the study area of Kibera and Mathare sub-counties were offering school meals to their pupils as at end of term three of 2018. Of the 65 schools, 33 were public schools whilst 32 were informal schools. In 2019, out of the 65 schools that were feeding in 2018, only 32 schools continued with feeding in the two informal settlements.

3.5 Sampling Technique and Sample Size

(Kombo, 2010) allude that sampling design is part of a research scheme that depicts how cases or respondents would be chosen for purposes of observation. (Kombo, 2010) further describes a sampling frame as “a complete list of all objects/elements in the population from which your sample will be drawn. (Oso & Onen, 2005) contend that sampling involves an explanation of the strategies that the researcher utilizes to choose representative respondents from the identified population. The research applies probability and non-probability sampling techniques to get information from the actual sample as per the categorized clusters. (Gay, 2011) narrates non-probability samplings as those that utilize whichever subjects that are convenient for the study, instead of following a particular subject choosing procedure. However, a few of the non-probability sampling procedures might yield samples which don't meticulously depict the characteristic of the population intended. For probability sampling, the researcher selected respondents by employing simple random sampling methods in the case of each entity had an opportunity of being chosen. Again (Gay, 2011) notes that purposive or strategic sampling involves selecting entities that are deemed as more pertinent or knowledgeable in the content matter and peruse them, while convenience sampling technique merely includes either unit that emerges on the way devoid of much stress. (Kombo, D.K, and Tromp, D.L., 2009) remarks that in purposive sampling method, this researcher determines which component/part shall be added

or eliminated in the sample. This is occasionally referred as judgemental sampling method. Subsequently convenience sampling technique is a coincidental sampling and relies on respondents' presence and eagerness to respond (Kombo, D.K, and Tromp, D.L., 2009).

(Etikan, I., Sulaiman Abubakar Musa, S., & Rukayya Sunusi Alkassim, R.S., 2016) remarks that purposive sampling is a form of non-probability sampling whose purpose is for sampling participants in a convenient manner so that the ones included in the sampling are ideal for the research questions presented. Convenience sampling uses persons that are captive clientele in which the researcher encounters haphazardly (Kombo, D.K, and Tromp, D.L., 2009)

3.5.1 Sampling Technique

The research made use of purposive sampling method to choose the two informal settlements of Kibera and Mathare. The proximity and accessibility of Mathare slums for the researcher was the pointing reasons for the choice. Simple random sampling technique is used to choose 10 schools out of a population of 65 schools participating at the school feeding programme in the two informal settlements in 2018. Simple random sampling was also opted in selecting four control schools for the study which were feeding in both 2018 and 2019. In 2019, a total of 32 schools were feeding in both Mathare and Kibera informal settlements.

Purposive or strategic sampling was used to gather information from the MoE Officer in-charge of the School Health, Nutrition and Meals Unit, and from head teachers of each of the selected 14 schools. This is because they were the most relevant source of information and knowledge for the study. Additionally, convenience sampling was deployed to gather information through questionnaires from the 28 parents/guardians (2 per school).

3.5.2 Sample size

(Gay, 2011) postulated that for descriptive studies a sample size of 10% is sufficient. In this study area of Kibera and Mathare informal settlements, a total of 65 schools were participating in SFP, led by the government of Kenya with the support of partners (World Food Programme, 2019). The researcher used 10 percent to select the number of schools for this study, hence the 14 schools which were used for this study met the minimum 10 percent sample size. These 14 schools were randomly selected from the two informal settlements, with six schools selected from Kibera and four schools selected in Mathare.

Of the 14 schools, 10 schools were feeding in 2018, with no feeding in 2019, whilst four schools (two per informal settlement), formed the control group to the entire study. These four schools were implementing the school feeding programme in both the years 2018 and 2019.

The researcher relied a great deal on the availability at the school level of verified attendance data in a school term, which is generated by the school from marking the daily attendance class registers. Enrolment data for the primary school section for each of the 14 schools was collected for all the 3 school terms in the years 2018 and 2019. In addition to administration of the headteachers and parents' questionnaires.

3.6 Research instruments

The tools of research which were applied in this study were actually questionnaires and document analysis that included class registers and school enrolment registers.

3.6.1 Questionnaire.

The instrument was used to gather data from the MoE official, head teachers and the parents. The researcher directly administered the questionnaires to both the head teachers and the parents, in a

face-to-face conversation, and noted down the responses in the questionnaire spaces provided. The information sought from the questionnaire included influence of SFP on pupils' attendance and enrolment, and possible intervention strategies that can be deployed to ensure a successful SFP programme in the schools. The questionnaires were constructed to collect both closed ended and open-ended questions. (Kombo, 2010) posits that a questionnaire has several benefits since it avails a reaction to a big population of people simultaneously and offers the researcher a relatively convenient data accumulation. (Kombo, 2010) further observes that questionnaires are easy to be clarified by the person administering them to fulfil the aim of the study, equally explaining the elements which might be unclear.

3.6.2 Document analysis

The researcher relied a great deal on the verified figures of enrolment available in the school, and verified by the head of the school. Documentations are actually the records in custody and provided by the authentic participants or witness in the exercise (Kombo, 2010). The researcher made use of the records in school comprising of class rosters and nominal enrolment rosters.

3.6.2.1 Class registers

A class register constitutes a record of the whole population of learners in a given class and their day-to-day reporting to school (MoE, 2008). This tool was used by the researcher to gather the attendance information of the learners in each of the 14 schools, averaged on term basis, and segregated by gender.

3.7 Pilot Study

According to Kombo and Tromp (2009), a pilot study involves subjecting research instruments to a test, so as to measure their reliability and validity. Conducting a pilot study gave the

researcher an opportunity to ascertain whether the instruments gave the expected information to resolve the research problem. Purposive sampling of 2 schools in Mathare sub-county was used. When selecting the 2 pilot schools, the researcher considered schools that were participating in the feeding programme in the research study period of 2018 and 2019, and therefore had characteristics ideal for the study. The instruments were administered after obtaining a chance to expound to school heads the aim of study. Conducting a pilot study ensured that instruments to be applied were capable of eliciting the intended data, clear any ambiguities in the tools to ensure those questions were well understood and it would be able to collect and also analyse this data to achieve study aims. This allowed enhancement of the research validity and reliability of the instruments and permitted the researcher to acquaint himself/herself with them. Gay (1987) contends that content validity is determined by specialists' assessments. These instruments were therefore revised using the information gathered in the pilot study.

3.7.1 Validity of the instruments

Mugenda and Mugenda (2003) alludes that validity refers to precision, meaningfulness and the extent in which outcomes yielded from the ensuing analysis of the data are represented as a phenomenon of a study. In ascertaining the validity of the tools prior to administration of the questionnaires the researcher availed the questionnaire to the University supervisor for criticisms and evaluation. A preliminary survey was undertaken in line with the study purpose in two schools as part of the research area, and was implementing the school feeding programme. The bottlenecks of interpreting the instrument or any inconsistency were then noticed.

The components deemed to be improper in achieving the purpose of the study were agreeable refined to better the standard of the tools, with others disregarded entirely and changed with ideal ones that would improve the validity of the research tools.

3.8 Data collection procedures

The researcher attained a consent letter from the University of Nairobi's Population Studies and Research Institute (PSRI). The letter authorized the research work, collection and gaining access to data from the selected institutions and respondents. The researcher administered the questionnaires to the identified respondents, equally noted down answers in the questionnaire sheets. Explanation on the goal of the study was made to the respondents, with assurance given to each of the participants that the information collected shall strictly be utilized for the study goals.

During the interview process, each particular issue was extensively investigated and discussed for a detailed and deeper understanding of the issue. Further, documents review and analysis was done, with the assistance of the head teacher, with all relevant records in each of the schools thoroughly perused. For the parents/guardians' questionnaire interview, the head teacher introduced the researcher to the parents/guardians. The 2 parents/guardians respondents per school were randomly selected from those available at the school during the date of the visit to the school. Precaution was taken to avoid the Hawthorne effect. This is a situation whereby interviewees respond in an artificial manner since they believe they are receiving special attention. Each of the schools sampled had three questionnaires (1 head teacher, 2 parents/guardian), in addition to the quantitative data collected for all classes for the 3 terms for the year 2018 and 3 terms of 2019.

3.9 Data Analysis

Kothari (2009) concludes that data analysis is "the computation of the indices or measures along with searching for patterns of relationship that exist among the data groups. The study collected both quantitative and qualitative data, so as to avoid any biasness that may arise, with findings

derived from one approach used to validate the other. The questionnaires were checked, coded and processed. The final analysis of the data was done using Difference-in-Differences (DiD) method.

3.9.1 Use of Difference-in-Difference (DiD)

In order to analyse whether the school feeding programme had an effect on pupil attendance or not, the Difference-in-differences (DiD) data analysis process, also referred to as the ‘double difference’ process was used. DiD compare the alterations in results during the period of treatment and comparison segments, so as to be able to approximate the impact. The one difference effect estimates gauge the results in the treatment unit with the yields in the comparison unit at an individual point preceding the intervention. The DiD renders a powerful impact approximation than sole difference, that only compares the difference in outcomes among treatment and comparison factions following the interference. Application of the DiD system eliminates the difference in the outcome between treatment and the comparison factions at the baseline.

The DiD statistical model is defined as follows:-

$$Y = \beta_0 + \beta_1 * \text{beforeTreatment} + \beta_2 * \text{Post} + \beta_3 * \text{Treatment} * \text{Post} + e$$

Whereby; Y = outcome variable, Treatment = 1, Post = 1 and Treatment*Post = 1

β_0 – is the average outcome of control group before treatment

β_1 – is the difference between treatment and control groups before treatment

β_2 – is the change in the average outcome of control group before and after treatment

β_3 – is the diff-in-diff estimator

The hypothesis of interest is β_3 (Diff-in-Diff estimator). If the value of β_3 equals to zero (0), then we can conclude that the treatment (withdrawal of the feeding programme) had no effect to attendance. But if the value of β_3 , which is the DiD estimator is a different figure other than zero, then we can conclude that withdrawal of school feeding had an effect on attendance.

3.10 Research Ethical Issues

(J. Creswell, 2018) contend that the researcher must anticipate ethical concerns to occur in the process of research. While conducting this study, consent and authorization from the University of Nairobi to undertake this study had to be obtained. The secured research approval letter from the university facilitated in procuring authority from the respondents to conduct this study in selected schools and persons from the area of the study. The research involved collecting data from people and therefore the researcher ensured protection of the participants by cultivating confidence, exhibiting integrity in the research, caring about impropriety and any other unethical behaviour that could portray the institutions or organizations negatively, and handle the emerging challenges (Keith F. Punch, 2014). All the data and information collected from the study was kept confidential, with letters of the alphabet and numbers used when referring to the schools and persons interviewed, so as to ensure confidentiality.

CHAPTER FOUR: THE INFLUENCE OF SCHOOL FEEDING PROGRAMME ON ATTENDANCE IN PRIMARY SCHOOLS IN KIBERA AND MATHARE IN NAIROBI COUNTY

4.1 Introduction

This chapter presents results of the assessment. Part one describes the current status of the school feeding programme in the urban slums. Part two presents the results of the analysed data on school attendance while the last part presents the perceptions of key stakeholders on the programme, in the urban context.

The statistical submission and the data analysed confined to the indicators in focus. Quantitative data was analysed using Difference in Differences methodology, whilst qualitative data was analysed using narrative analysis. An aggregate of 14 schools were targeted in this study, with 43 questionnaires distributed to parents and head teachers of these 14 schools, representing a response rate of 100 percent. The following areas are covered in the chapter:

- a. Background and current position of the Schools Feeding Programme.
- b. Results of Difference in Differences (DiD) analysis – this provides a detailed explanation of the overall results of the impact of pupils’ attendance arising from the school feeding programme; key results by sex, and a summary of key results by region.
- c. Perceptions of key stakeholders on the school feeding programme.

Comments

Background results can be presented first

4.2 Background and current position of School Feeding Programme in the schools

Total of 14 schools was visited in Mathare and Kibera slum dwellings in the City County of Nairobi. Data was gathered using the structured questionnaires, for head teachers in each of the 14 schools and analysis was done. Out of the 14 schools, 10 schools were feeding in all the terms of 2018 with no feeding in 2019, with data also collected from 4 schools which were feeding in all the school terms of 2018 and 2019.

The study established the status of SFP in the schools, with data collected from this study indicating that none of the 14 schools currently don't have government supported the school feeding programme. Additionally, it was noted that in the current term, five of the fourteen schools in the study were completely not feeding, three of them were partly feeding with six schools having a feeding programme for all their learners. This translates to 36 percent of schools with no feeding, 43 percent of them with feeding, with the rest 21 percent partly feeding their learners. For the nine schools that were feeding or partly feeding, the programme was a localized arrangement, supported by the parents of learners. The particular schools that were providing food has this programme supported by parents, with payments of between Kshs. 1,000 and Kshs. 1,500 per term in all the schools.

4.3 Results of data analysis using Difference in Differences (DiD) methodology

This study sought to address two main purposes: (i) ascertain the effect of this school feeding programme upon pupils' school attendance in Kibera and Mathare schools in the spontaneous settings in the City County of Nairobi: and (ii) explore the perceptions of major stakeholders on the urban school feeding programme.

4.3.1 Influence of School Feeding on Pupils' attendance

This part presents and discusses the attendance trends in the schools in the study. The study compared attendance figures in 10 schools which had feeding in 2018, and figures for the same when feeding was terminated in 2019. The data was sourced from schools' daily attendance registers.

The pupils' attendance data for both the years 2018 and 2019 was analysed using the difference-in-differences method. The average attendance of the schools for the three terms in both the comparison and control schools for each of the two years was calculated. As shown in Table 4.1, data for 2018 was recorded in column A and that of 2019 was recorded in column B. To smooth the data, this was followed by taking the differences between column B and column A, and the data was recorded in column C. The outcomes of the study were presented as exhibited in table 4.1 below.

Table 4.0.1: Summary of School Attendance based on School Registers

| Name of School/ Area | 2018 by terms (A) | | | | | | | | | 2019 by terms (B) | | | | | | | | | Differences between 2019 and 2018 (C) | | | | | | | | |
|---|-------------------|-------|------|-------|------|-------|-----------|------------|-----------------|-------------------|-------|------|-------|------|-------|-----------|------------|-----------------|---------------------------------------|-------|------|-------|------|-------|-----------|------------|-----------------|
| | I | | II | | III | | Mean Boys | Mean Girls | Mean of 3 terms | I | | II | | III | | Mean Boys | Mean Girls | Mean of 3 terms | I | | II | | III | | Mean Boys | Mean Girls | Mean of 3 terms |
| | Boys | Girls | Boys | Girls | Boys | Girls | | | | Boys | Girls | Boys | Girls | Boys | Girls | | | | Boys | Girls | Boys | Girls | Boys | Girls | | | |
| All schools in the comparison group (no feeding programme in 2019-Treatment) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A-Mathare | 799 | 885 | 795 | 910 | 819 | 913 | 804.33 | 902.67 | 853.50 | 780 | 870 | 763 | 869 | 741 | 898 | 761.33 | 879.00 | 820.17 | 19 | 15 | 32 | 41 | 78 | 15 | 43.00 | 23.67 | 33.33 |
| B-Mathare | 1107 | 1215 | 1115 | 1214 | 1115 | 1212 | 1112.33 | 1213.67 | 1163.00 | 1060 | 1209 | 830 | 1295 | 725 | 1082 | 871.67 | 1195.33 | 1033.50 | 47 | 6 | 285 | -81 | 390 | 130 | 240.67 | 18.33 | 129.50 |
| C-Mathare | 1089 | 1209 | 1110 | 1203 | 1112 | 1204 | 1103.67 | 1205.33 | 1154.50 | 971 | 1148 | 942 | 1024 | 945 | 1051 | 952.67 | 1074.33 | 1013.50 | 118 | 61 | 168 | 179 | 167 | 153 | 151.00 | 131.00 | 141.00 |
| D-Mathare | 681 | 741 | 680 | 740 | 685 | 741 | 682.00 | 740.67 | 711.33 | 459 | 583 | 390 | 578 | 340 | 565 | 396.33 | 575.33 | 485.83 | 222 | 158 | 290 | 162 | 345 | 176 | 285.67 | 165.33 | 225.50 |
| E-Kibera | 321 | 333 | 330 | 341 | 338 | 345 | 329.67 | 339.67 | 334.67 | 336 | 355 | 301 | 312 | 309 | 339 | 315.33 | 335.33 | 325.33 | -15 | -22 | 29 | 29 | 29 | 6 | 14.33 | 4.33 | 9.33 |
| F-Kibera | 261 | 276 | 372 | 345 | 385 | 358 | 339.33 | 326.33 | 332.83 | 351 | 353 | 235 | 349 | 304 | 347 | 296.67 | 349.67 | 323.17 | -90 | -77 | 137 | -4 | 81 | 11 | 42.67 | -23.33 | 9.67 |
| G-Kibera | 660 | 698 | 661 | 703 | 666 | 703 | 662.33 | 701.33 | 681.83 | 621 | 682 | 619 | 671 | 623 | 659 | 621.00 | 670.67 | 645.83 | 39 | 16 | 42 | 32 | 43 | 44 | 41.33 | 30.67 | 36.00 |
| H-Kibera | 131 | 146 | 130 | 145 | 131 | 145 | 130.67 | 145.33 | 138.00 | 121 | 129 | 82 | 94 | 68 | 75 | 90.33 | 99.33 | 94.83 | 10 | 17 | 48 | 51 | 63 | 70 | 40.33 | 46.00 | 43.17 |
| I-Kibera | 105 | 136 | 106 | 138 | 106 | 139 | 105.67 | 137.67 | 121.67 | 70 | 87 | 55 | 70 | 41 | 54 | 55.33 | 70.33 | 62.83 | 35 | 49 | 51 | 68 | 65 | 85 | 50.33 | 67.33 | 58.83 |
| J-Kibera | 56 | 70 | 55 | 73 | 58 | 78 | 56.33 | 73.67 | 65.00 | 40 | 67 | 31 | 56 | 36 | 39 | 35.67 | 54.00 | 44.83 | 16 | 3 | 24 | 17 | 22 | 39 | 20.67 | 19.67 | 20.17 |
| Mean | | | | | | | 532.63 | 578.63 | 555.63 | 481 | 548 | 425 | 532 | 413 | 511 | 439.63 | 530.33 | 484.98 | 40 | 23 | 111 | 49 | 128 | 73 | 93.00 | 48.30 | 70.65 |
| All schools in target(with school feeding) Comparison | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K-Mathare | 549 | 561 | 545 | 561 | 548 | 565 | 547.33 | 562.33 | 554.83 | 545 | 568 | 555 | 568 | 558 | 569 | 552.67 | 568.33 | 560.50 | 4 | -7 | -10 | -7 | -10 | -4 | -5.33 | -6.00 | -5.67 |
| L-Mathare | 310 | 337 | 309 | 337 | 310 | 337 | 309.67 | 337.00 | 323.33 | 319 | 340 | 321 | 339 | 321 | 341 | 320.33 | 340.00 | 330.17 | -9 | -3 | -12 | -2 | -11 | -4 | -10.67 | -3.00 | -6.83 |
| M -Kibera | 2098 | 2193 | 2133 | 2327 | 2164 | 2365 | 2131.67 | 2295.00 | 2213.33 | 2261 | 2418 | 2372 | 2412 | 2403 | 2415 | 2345.33 | 2415.00 | 2380.17 | -163 | -225 | -239 | -85 | -239 | -50 | -213.67 | -120.00 | -166.83 |
| N -Kibera | 160 | 220 | 160 | 220 | 161 | 221 | 160.33 | 220.33 | 190.33 | 155 | 226 | 153 | 220 | 158 | 227 | 155.33 | 224.33 | 189.83 | 5 | -6 | 7 | 0 | 3 | -6 | 5.00 | -4.00 | 0.50 |
| Mean | | | | | | | 787.25 | 853.67 | 820.46 | 820 | 888 | 850 | 885 | 860 | 888 | | | 865.17 | | | | | | | | | -44.71 |

To give a measure of the gross effect, the differences in column C between the comparison group and control group were taken. These differences are called the difference-in-differences and gives a measure of the gross effect. The results were presented as shown in Table 4.2

Table 4.0.2: Summary table of the Difference-in-Differences Estimator

| Treatment and comparison | Mean attendance in 2018 for both boys and girls (Pre exposure) | Mean attendance in 2019 for both boys and girls (Post exposure) | Differences in means between 2019 and 2018 |
|--------------------------|--|---|--|
| Treatment | 555.63 | 484.98 | -70.65 |
| Comparison | 820.46 | 865.17 | 44.71 |
| | -264.83 | -380.19 | -115.36 |

The DiD statistical model is defined as follows:-

$$Y = \beta_0 + \beta_1 * \text{before Treatment} + \beta_2 * \text{Post} + \beta_3 * \text{Treatment} * \text{Post} + e$$

Where:

Y = outcome variable, Treatment = 1, Post = 1 and Treatment*Post = 1, e=

From table4.2 above, the coefficients are as below:-

β_0 = average outcome of control group pre-intervention = 820.46

β_1 = difference between treatment and control groups pre-intervention = -264.83

β_2 = change over time in the control group = 44.71. This is the change in the average outcome of control group independent of the intervention

β_3 = is the parameter of interest = **-115.36**.

β_3 represents the adjustment in average yield of the treatment faction in ensuing period after the treatment, in comparison to what might occurred to that group in the missing of the interference.

Average outcome of treatment group after treatment (withdrawal of school feeding programme),
is: -

$$\begin{aligned} &= \beta_0 + \beta_1 + \beta_2 + \beta_3 \\ &= 820.46 + (-264.83) + 44.71 + (-115.71) = \mathbf{484.98} \end{aligned}$$

The parameter of interest is β_3 (DiD estimator). If the value of β_3 equals to zero (0), then we can conclude that the treatment (withdrawal of the feeding programme) had no effect on the attendance. But if the value of β_3 , which is the DiD estimator is a different figure other than zero, then we can conclude that withdrawal of school feeding had an effect on attendance.

Since the coefficient β_3 , which is the DiD estimator, is different from zero, the data presents withdrawal of the feeding program in the schools under this study had a negative impact on school attendance. Specifically, school attendance in treatment group reduced on average, by 115 pupils over the period of time under the study. Therefore, it could be concluded that this school feeding program influenced school attendance in the study area.

On the other hand, what would have happened had the treatment not occurred (the counterfactual)? The counterfactual is the average outcome of the treatment group plus the difference in control variable before and after treatment, that is:-

$$\begin{aligned} \text{Counterfactual} &= \beta_0 + \beta_1 + \beta_2 \\ &= 820.46 + (-264.83) + 44.71 \\ &= \mathbf{600.34} \end{aligned}$$

The counterfactual contends that had the programme of school feeding been maintained in treatment group, the attendance in school would have increased to 600.34 on average from 555.63 before the treatment. This is equivalent to the average alteration in bygone period in the

control faction before and after treatment independent of the treatment (see Table 4.3 and Figure 4.1 below).

Table 4.0.3: Summary of Attendance Pre- and Post-treatment

| | Treatment | Comparison | Counterfactual |
|-----------------------|-----------|------------|----------------|
| Pre exposure in 2018 | 555.63 | 820.46 | 555.63 |
| Post exposure in 2019 | 484.98 | 865.17 | 600.34 |

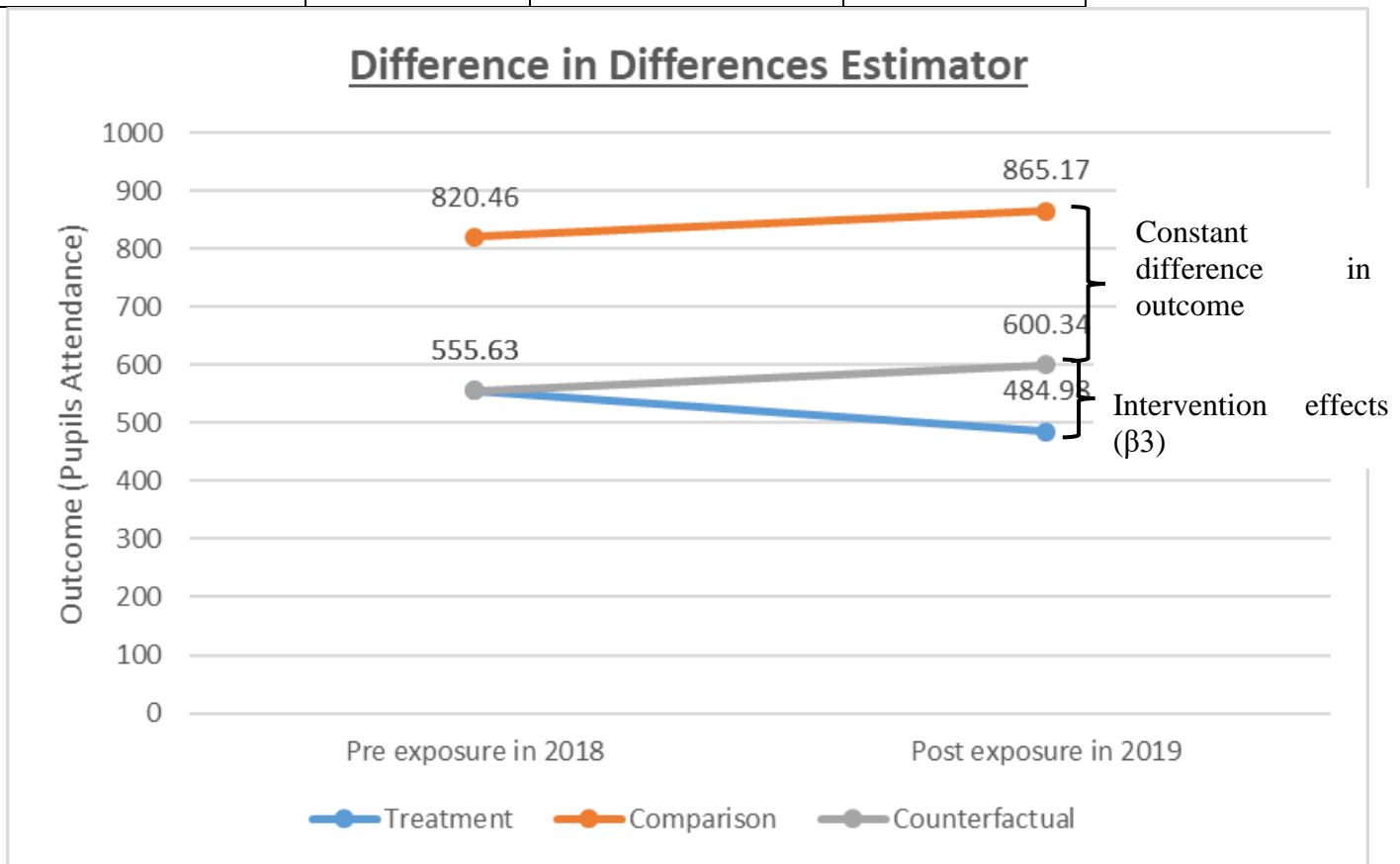


Figure 4.1: The Difference in Differences Estimator

The DiD approach is founded on ‘parallel trends hypothesis’ that the indicators of concern pursue the same direction over time in both the comparison groups and treatment. According to Figure 4.1 above, this assumption is correct, and this therefore shows that the programme impact estimate for this study was unbiased.

Findings from Figure 4.1 show that retraction from school feeding programme had negative impact on the pupils' attendance, with a gross effect of 115 pupils missing school due to lack of the feeding programme.

4.3.1.1 Influence of Feeding programme on Pupils attendance by gender

The researcher further analysed the ensuing effect of the feeding programme in the pupil attendance by the gender of pupils (see Tables 4.4 and 4.5 below).

Table 4.4: Boys attendance Pre and Post-treatment

| | 2018 mean attendance | 2019 mean attendance | Difference of means between 2019 and 2018 |
|------------|----------------------|----------------------|---|
| Treatment | 532.63 | 439.63 | -93.00 |
| Comparison | 787.25 | 843.42 | 56.17 |
| DiD | | | -149.17 |

Table 4.5: Girls attendance Pre- and Post-treatment

| | 2018 mean attendance | 2019 mean attendance | Difference of means between 2019 and 2018 |
|------------|----------------------|----------------------|---|
| Treatment | 578.63 | 530.33 | -48.30 |
| Comparison | 853.67 | 887.00 | 33.25 |
| DiD | | | -81.55 |

With an average attendance drop of 115 pupils for both boys and girls, an analysis of pupil attendance rates by gender revealed that boys were more likely to miss school in the absence of food in school. An average of 149 boys missed school in comparison to 82 girls, over the same period.

4.3.1.2 Influence of Pupils attendance by Informal Settlement

The study equally strived to ascertain the differences in pupils' attendance observed could have been influenced by neighbourhood. Data was sorted and analysed for all boys and girls in the 2

informal settlements, and then further analysed for boys and girls separately. The tables below paint a picture of the situation of school attendance in both settlements (see Tables 4.6 to 4.11 below).

Table 4.6: School attendance in Kibera Pre- and Post-treatment

| | Mean attendance in 2018 (Boys and Girls) | Mean attendance in 2019 (Boys and Girls) | Differences between 2019 and 2018 |
|------------|---|---|--|
| Treatment | 279.00 | 249.47 | -29.53 |
| Comparison | 1201.83 | 1285.00 | 83.17 |
| DiD | | | -112.69 |

Table 4.7: School attendance Kibera for Boys

| | Mean attendance in 2018 (Boys) | Mean attendance in 2019 (Boys) | Differences between 2019 and 2018 |
|------------|---------------------------------------|---------------------------------------|--|
| Treatment | 270.67 | 219.80 | -50.87 |
| Comparison | 1146.00 | 1250.33 | 104.33 |
| DiD | | | -155.20 |

Table 4.8: School attendance in Kibera for Girls

| | Mean attendance in 2018 (Boys) | Mean attendance in 2019 (Boys) | Differences between 2019 and 2018 |
|------------|---------------------------------------|---------------------------------------|--|
| Treatment | 287.33 | 263.22 | -24.11 |
| Comparison | 1257.67 | 1320.00 | 62 |
| DiD | | | -86.11 |

On average, 113 pupils missed school in Kibera with 155 boys and 86 girls having been affected.

Table 4.9: School attendance in Mathare Pre- and Post-treatment

| | Mean attendance in 2018 (Boys and Girls) | Mean attendance in 2019 (Boys and Girls) | Differences between 2019 and 2018 |
|------------|---|---|--|
| Treatment | 970.58 | 838.25 | -132.33 |
| Comparison | 439.08 | 445.33 | 6.25 |
| DiD | | | -138.58 |

Table 4.10: School attendance in Mathare for Boys

| | Mean attendance in 2018 (Boys) | Mean attendance in 2019 (Boys) | Differences between 2019 and 2018 |
|------------|---|---|--|
| Treatment | 925.58 | 745.50 | -180.08 |
| Comparison | 428.50 | 436.50 | 8.00 |
| DiD | | | -188.08 |

Table 4.11: School attendance in Mathare for Girls

| | Mean attendance in 2018 (Girls) | Mean attendance in 2019 (Girls) | Differences between 2019 and 2018 |
|------------|--|--|--|
| Treatment | 1015.58 | 931.00 | -84.58 |
| Comparison | 449.67 | 454.00 | 4.50 |
| DiD | | | -89.08 |

From tables 4.9 to 4.11, an average of 113 pupils in Kibera and 139 pupils in Mathare missed school, in comparison to the gross average of 115 pupils in both settlements. This means that Kibera had a higher attendance rate than Mathare, for both boys and girls. About 155 boys in Kibera and 188 boys in Mathare missed school, whilst 86 girls in Kibera and 89 girls in Mathare missed school over the same period. This means that in Mathare, more boys were missing school in comparison to boys in Kibera. The attendance rate for girls in both settlements remained almost at par.

4.3.2 Perceptions of key stakeholders on the school feeding programme

This study collected qualitative data using questionnaires from a sampled 29 respondents. The 29 respondents were 2 respondents from each of the 14 sampled schools, with the 2 respondents per school being the head teacher and a parent/guardian. Another questionnaire was also administered to the Ministry of Education official in charge of the National school meals

programme. Qualitative data was valuable for this study since it provided an in-depth explanation on these results derived from the interpretation of the quantitative data. Using both the qualitative and quantitative data was useful in avoiding biasness, with the findings derived from quantitative analysis being validated by the qualitative information that was gathered.

The researcher asked the head teachers the extent to which they felt that SFP had an influence on pupil enrolment and attendance in their schools. Out of the 14 head teachers interviewed, 12 of them were of the opinion that SFP affected enrolment and attendance to a ‘very great extent’, which was the highest ranked opinion, with 2 head teachers indicating a ‘great extent’ level, which was the second level best opinion. This represents 85.71 percent of head teachers who felt that SFP had a great influence on pupils’ participation in learning. These findings are in line with (Afridi, 2007) who contended that SFP is quite an essential mitigation in school attendance.

The Ministry of Education officer had this to say:

“Since 1980, the Government of Kenya has in collaboration with WFP and other development partners been supporting the school feeding programme in Kenya, targeting the ASAL areas. In 2001, a feeding programme supporting targeted schools in seven of the poorest Nairobi’s informal settlements was rolled out, supported by WFP and its implementing partners. In 2008, due to reducing donor support, MoE developed a sustainable strategy to start off the process of complete handover of SFP from partners to the government, and the process was completed in 2019. With complete handover of the programme to the government, it was envisaged that the country will implement the Home-Grown School Meals Programme (HGSM) model with support from national, county and community resources. Due to limited resources available by the government, the focus on available resources has been placed to support school feeding schools in arid counties in the country. As per the National School Meals and Nutrition Strategy 2017-2022 document, the gap left by national government requires the efforts of all stakeholders, including county, donor and community resources, to fill in” (MoE, 2021).

The MoE officer further noted that even with the limited funding from the National Government to support the feeding programme in the country, there are plans in the 2021/2022 financial year to put some resources in provision of mid-morning porridge to class one to three pupils in all formal schools in the informal settlements, leaving out informal schools.

The school headteacher in school F, a public school in Kibera Sub County had this to say:

“Since SFP was terminated in my school in 2018 when it was supported by WFP, there has not been a feeding programme in this school. Pupils missing school on a daily basis has increased since then. The school management has on various occasions tried to mobilise the parents to contribute funds to support the programme, but this has not been very well supported.

Of the 1,341 learners enrolled in this school, only 20% of them carry food to school, with the others not carrying anything and hence do not have a mid-day meal” (Headteacher School F, 2021)

Similar assertions were actually advanced by head teacher in school G, who alluded:

“School feeding programme supported by WFP in this school ended in 2019, and since then it has been an uphill task to get another sponsor to support the programme. Currently, this school has an enrolment of 5,372 learners, and only 321 learners are participating in the school based feeding programme in school, funded by their parents. A further approximately 300 learners bring packed food from home, with the rest not feeding at all. On a daily basis, we have had learners fainting due to hunger during afternoon classes. Pupil attendance has greatly been negatively affected in this school”. (Headteacher School G, 2021)

The researchers view from the above narrations concurs to the outcomes of quantitative analysis of data, since the WFP supported urban feeding programme ended in 2018 and in 2019 in other schools, there has been a negative effect on pupils’ participation in the affected schools.

The head teachers reported that with the termination of donor funded feeding programmes in their schools, the programme was handed over to the government to fund the programme. However, all the head teachers in all the 14 schools reported that no funding to support school feeding has been received in their schools since 2018 and 2019. Therefore, with no forthcoming support from the government and donors, it was left to the school management committees to make arrangements to set-up parents supported feeding programmes in the schools.

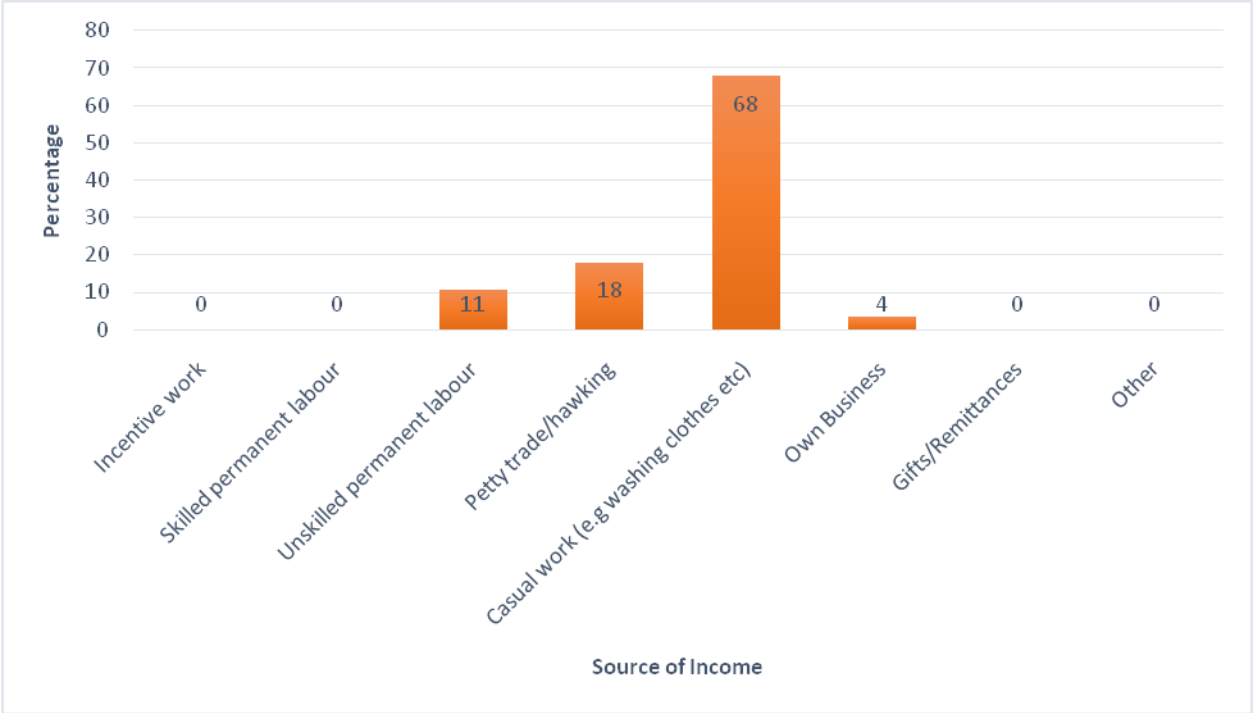


Figure 4.2: Main Income sources for the households

Figure 4.2 above shows the main household income sources of the 28 parents/guardians who participated in the study. 68 percent of the parents participated in casual work to earn income for their households, whilst 18 percent and 11 percent of them had their incomes from engaging in petty trades and unskilled permanent labour respectively.

On payment by pupils to support school feeding, the charges ranged from Kes. 1,000 to Kes 1,500 per pupil per term. One school was charging Kes. 20 per pupil per day. It was noted that only 2 schools were able to have at least 50 percent (half of their pupils) paying the requisite charges. On average, 37.88 percent of learners were able to pay for school feeding in all the 14 schools in the study.

In school E, it was observed that there was a high willingness by the school administration to ensure an effective school feeding programme in the school. The school allowed the pupils to make payments for feeding on a day-to-day basis, and also on weekly and monthly instalments, with feeding charges pegged at Kshs. 20 per pupil per day.

The researched concluded that since majority of the parents were casual workers, who were most likely paid for their services on a daily basis, the daily charges worked well for them. In this school, 91.35 percent of pupils were able to pay the requisite charges, and hence obtain hot school lunch every day. In schools F and G, no feeding was on-going in the schools, with the headteachers saying that parents were unable to pay the term charges in wholesome, hence rendering implementation of feeding programmes in the schools impossible.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

Discussion, recommendations and conclusions reached were addressed on the objectives of the research that comprised: the effect of the feeding programme in school to the attendance and perception of stakeholders towards the school feeding programme

5.2 Summary of Findings

5.2.1 Effect of school feeding programme on attendance

The study established evidence to show that school meals supplied to pupils have an impact on their school attendance. This evidenced by the research findings in that when school feeding was terminated in 2019, there was drop in pupils' attendance by 115 pupils. Boys were hardest hit by the withdrawal of school-feeding programme as observed in both informal settlements where more boys missed school in the absence of feeding.

5.2.2 Perception of stakeholders towards the urban school feeding programme

This study observed the importance of all education sector stakeholders to focus on SFP in high-risk areas of urban centres, as they are equally vulnerable to low participation of pupils in school, just as those in rural regions of the country. Apart from government funding, support should be sought from other sources, including non-government organisations, private sector organizations, religious-based organizations, well-wishers in supporting the programme.

More specifically, school administrators and the school level school feeding committees should endeavour to guarantee that feeding is actually executed in schools, as per immediate participation outcomes gained from it are evident.

Further, the government of Kenya should allocate funds to school feeding programmes in urban locations alongside other programmes for school meals in the nation and these funds should be ring-fenced to ensure their utility to the allocated usage only.

5.3 Conclusion

In an urban context, there is evidence of economic gain to the families, as food in school does not only convey income to the households, on the other hand it facilitates parents and guardians to retain their children in school the whole day, hence relieving stress to them to be involved in other income-generating livelihood activities. This study observed that approximately 68 percent of the parents/guardians with children enrolled in schools in informal settlements rely on casual work as their main source of household income. This means that majority of these parents are low-income earners, and living in urban areas means that a great portion of the household earning is spent to purchase ration for the household and housing expenses. This means that parents support to school feeding is not a major priority for them. This is evidenced in school G where only 5.88 percent of pupils were feeding since that was the only portion of parents who were able to pay the charges of Kshs. 1,200 per pupil per term.

In conclusion, SFP charges and payment modalities adopted by school A can be replicated in other schools in informal settlements, where 91.35 percent of pupils were able to pay the meal charges. Due to the nature of daily incomes from casual work by households in these areas, payments for meals in schools on a daily basis seemed to work perfectly well.

School meals should be considered as a crucial safety cover for the poor vulnerable pupils and also as secure food for the families and community at large. The urban regions school feeding programmes, as the ones in the rural set-up, could assist in addressing some of the conditions that

hinder educational achievement for the school-age children and could be particularly efficient for street children and poor slums children.

All school children in Kenya, whether urban or rural, are equal, as stipulated in the supreme law of the land, the Constitution of Kenya (2010), which require the government and parents to promote standard basic education for every child. Particularly, chapter 4 precisely assures all Kenyans their social, economic and cultural privileges to education, health, food and viable accommodation. Article 43 (1) (c) postulates that all Kenyans are entitled to be devoid from hunger as a fundamental human right, to possess sufficient food of satisfactory standard and (1) (d) the right to safe and clean water in sufficient amounts.

5.4 Recommendations

Based upon the results derived from this study, it is suggested that the government and policy administrators in the education sector should build a consensus on policies so as to lay focus on improvement of school participation of pupils in schools in impoverished areas in urban centres. The government, Ministry of Education and their development partners should allocate and ring-fence programme resources meant for school feeding, with a priority to urban school feeding as well.

In addition, school administration committees and head teachers should intensify the community and parental togetherness in supporting SFP. The management of the school should support payment modalities that are workable with the parents in informal settlements of urban areas, so as to ensure an effective feeding programme. These school committees should also actively analyse and identify alternative sources of financing and costing preferences. It can be attained

by initiating school level exercises for generating income to increase amounts that complement cash obtained from other sources.

In the instances of growing size in urban schools accompanied by the absence of commitment often noticed in urban surroundings can result to absence of parent community participation in the processes and administration of the feeding programmes in schools. Focusing to those neighbourhoods which have knowledge in conducting community-based assignments must render it simple to create commitment in school feeding programmes. If found impossible, then a joint effort should be put in place from the beginning to include the activities of parents in school feeding programme.

5.5 Recommendations for Further Research

There prevails a knowledge gap for practice in the influence of feeding programmes in school to the schools in the ASALs, in comparison to schools in urban areas, and more so in informal settlements of the urban areas. In future there is need for further research to compare the impact to school feeding to school attendance for urban informal settlements in relation to those in the rural areas in order to come up with policies and interventions that are customizable to the specific settings in which the schools are found.

Results from this study showed that there is a higher drop-out rate of boys in comparison to that of girls, for both informal settlements, in the absence of a school feeding programme. There is therefore a need for further study on the cause, and how to mitigate this to ensure that all children attend school.

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APPENDIX I: QUESTIONNAIRE FOR MINISTRY OF EDUCATION OFFICER

This questionnaire is designed to gather information on the ongoing research to seek your opinion on the feeding programme in Kenya. Your opinion will be treated with a lot of confidentiality. This information is purely for academic purposes only.

| 1. INTERVIEWEE INFORMATION, GEOGRAPHIC LOCATION | | |
|--|--|-------------------|
| 1.1 | Name of interviewee | |
| 1.2 | Title and Department (Unit) | |
| 1.3 | Sex of interviewee | 1. Male 2. Female |
| 1.5 | Date of interview (<i>DD/MM/YY</i>) | |
| 2. FEEDING PROGRAMME | | |
| 2.1 | Give a brief history of School Feeding Programme in Kenya. (Hints: When it started, support from partners & stakeholders, challenges) | |
| 2.2 | What is the current status of School Feeding Programme in Kenya? And specifically what is the status of Urban School Feeding in Kenya? | |
| 2.2 | What is the future of Urban School Feeding in Kenya? | |
| 2.3 | In your opinion, what do you think can be done to build an effective urban school feeding programme? | |

APPENDIX II: QUESTIONNAIRE FOR THE HEADTEACHER

| 1. INTERVIEWEE INFORMATION, GEOGRAPHIC LOCATION | | |
|---|--------------------------------------|--------------------------|
| 1.1. Geographical Information | | |
| 1.1.1 | County | |
| 1.1.2 | Name of sub county | |
| 1.1.3 | Name of school | |
| 1.1.4 | Type of school | 1. Formal 2. Informal |
| 1.1.5 | TSC Code | |
| 1.1.6 | ID/Sample number | |
| 1.2 Interviewee Information | | |
| 1.2.1 | Date of call/interview (DD/MM/YY) | |
| 1.2.2 | Name of interviewee | |
| 1.2.3 | Sex of the interviewee | 1. Male 2. Female |

| 2. SCHOOL ENROLMENT AND RECORDS | | | | | |
|---------------------------------|-----------------|------|-------|-------|--|
| Year | Term | Boys | Girls | Total | School Feeding was available in School? (Yes or No) |
| 2018 | Term I | | | | |
| | Term II | | | | |
| | Term III | | | | |
| 2019 | Term I | | | | |
| | Term II | | | | |
| | Term III | | | | |

| | | | | | | | | | |
|--------------------------|--|--------------------------|----------|---------------|----------------------------|-------------|---------------------------|------------|-------------------------|
| 2.1 | <p>In your opinion, in order of priority, what are the reasons for the changes in enrolment observed above (if any?)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">1. Moranism/Circumcision</td> <td style="width: 50%;">5. Death</td> </tr> <tr> <td>2. Insecurity</td> <td>6. Migration by the family</td> </tr> <tr> <td>3. Marriage</td> <td>7. Lack of food at school</td> </tr> <tr> <td>4. Illness</td> <td>8. Other (Specify).....</td> </tr> </table> | 1. Moranism/Circumcision | 5. Death | 2. Insecurity | 6. Migration by the family | 3. Marriage | 7. Lack of food at school | 4. Illness | 8. Other (Specify)..... |
| 1. Moranism/Circumcision | 5. Death | | | | | | | | |
| 2. Insecurity | 6. Migration by the family | | | | | | | | |
| 3. Marriage | 7. Lack of food at school | | | | | | | | |
| 4. Illness | 8. Other (Specify)..... | | | | | | | | |

3. SCHOOL FEEDING INFORMATION

| | | | | | | | |
|-----|---|----|-------------------|----|-----------|----|--------------|
| 3.1 | <p>Currently, is there a feeding programme in the school?</p> <p>1. Yes 2. No</p> <p>(If No, go to section 4, If yes, answer 3.3 and the entire section 3)</p> | | | | | | |
| 3.2 | <p>If no to 3.1, when (year) was the last school feeding programme in the school?</p> | | | | | | |
| 3.3 | <p>If yes to 3.1, for how long has the feeding programme been operated?</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">a.</td> <td style="width: 50%;">Less than 2 years</td> </tr> <tr> <td>b.</td> <td>3-4 years</td> </tr> <tr> <td>c.</td> <td>Over 4 years</td> </tr> </table> | a. | Less than 2 years | b. | 3-4 years | c. | Over 4 years |
| a. | Less than 2 years | | | | | | |
| b. | 3-4 years | | | | | | |
| c. | Over 4 years | | | | | | |
| 3.4 | <p>What is the source of support/funding to the programme?</p> <p>a. Parents supported b. Government supported c. Donor/NGO supported</p> | | | | | | |
| 3.5 | <p>What type/Modality of school feeding programme is present in your school?</p> <p>1. Decentralised modality - funds are transferred from the national or county governments to local levels</p> <p>2. Centralised modality - procurement is undertaken either at national or county levels and the food is distributed to schools</p> <p>3. Outsourced Catering Services modality - supply and provision of meals is outsourced through catering services</p> <p>4. Community based modality - Parents may contribute to school meal and nutrition activities with either food or money</p> | | | | | | |
| 3.6 | <p>What promoted the need to have a feeding programme in the school?</p> <p>1. Decreasing pupil attendance/absenteeism and enrolment 2. Low attentiveness in class</p> | | | | | | |

| | |
|---------------------------------|--|
| | <ol style="list-style-type: none"> 3. Need to save on feeding time and increase on school/classwork 4. Others (specify) |
| 3.7 | <p>What challenges do you face in sustaining the feeding programme in your school?</p> <ol style="list-style-type: none"> 1. Some parents are unable to provide the required money 2. Source of energy/firewood/electricity 3. Others (specify) |
| 3.8 | <p>What is the extent of the effect of challenges mentioned above?</p> <ol style="list-style-type: none"> 1. Very great extent 2. Great extent 3. Moderate extent 4. Low extent 5. Very low extent |
| 4. FEEDING AND ENROLMENT | |
| 4.1 | <p>Do you think that presence/lack of school feeding program has an effect on enrolment in your school?</p> <ol style="list-style-type: none"> 1. Yes 2. No |
| 4.2 | <p>If yes to above, in your opinion, what is the extend of effect to pupils enrolment in your school?</p> <ol style="list-style-type: none"> 1. Very great extent 2. Great extent 3. Moderate extent 4. Low extent 5. Very low extent |
| 4.3 | <p>Do you call a parents' meeting to create awareness as concerns the school feeding program?</p> <ol style="list-style-type: none"> 1. Yes 2. No |
| 4.4 | <p>What do you think can be done to improve the school feeding programme in your school?</p> <ol style="list-style-type: none"> 1. Financial support from Government and other stakeholders 2. Availability and use of improved jikos 3. Others (specify) |

5.0 Final interviewer comments (qualitative)

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APPENDIX III: QUESTIONNAIRE FOR THE PARENTS/GUARDIANS

This questionnaire is designed to gather information on the ongoing research to seek your opinion on the feeding programme in the school where your child learns. Your opinion will be treated with a lot of confidentiality. This information is purely for academic purposes only.

| 1. INTERVIEWEE INFORMATION, GEOGRAPHIC LOCATION | | |
|--|---|--|
| 1.1 | Name of interviewee | |
| 1.2 | Sex of interviewee | 1. Male 2. Female |
| 1.3 | Name of school where child/children is/are enrolled in | |
| 1.4 | Name of informal settlement where school of child/children is located | |
| 1.5 | Date of call/interview (DD/MM/YY) | |
| 1.6 | What is the biggest source income for your household at the moment? | 1. Incentive work 2. Skilled permanent labour 3. Unskilled permanent labour 4. Petty trade/hawking 5. Casual work (washing clothes etc) 6. Own business 7. Gifts/Remittances 8. Other (Specify) |
| 2. FEEDING PROGRAMME | | |
| 2.1 | Currently, is there school feeding in the school (school based)? | 1. Yes 2. No |
| 2.2 | If yes to 2.1, are you charged any amount of money towards the school feeding programme? | 3. Yes 4. No |
| 2.3 | If yes to 2.2, how much in Kes are you charged per term? (if annually charged, calculate amount termly) | 1. Kes 0-500 2. Kes 501-1000 3. Kes 1001-1500 4. Kes 1500 and above |

| | |
|---|---|
| | |
| 2.4 | <p>What is your opinion of the rates above? Is this amount</p> <ol style="list-style-type: none"> 1. Too much? 2. Enough? 3. Too low ? |
| 2.5 | <p>How many meals does the program offer daily?</p> <ol style="list-style-type: none"> 1. Mid morning snack 2. Lunch only 3. Snack and lunch (2) meals |
| 3. SUPPORT TO FEEDING PROGRAMME AND CHALLENGES | |
| 3.1 | <p>If no in 2.1, what arrangements do you have for your child in regards to the mid-day meal (lunch)?</p> <ol style="list-style-type: none"> 1. Child carries packed food to school. 2. Provides child with cash to buy food while at school 3. No support to child in regards to the mid-day meal 4. Other (specify) |
| 3.2 | <p>In your opinion, what is your level of support to have a school based school feeding programme in the school?</p> <ol style="list-style-type: none"> 1. Very highly support 2. Highly support 3. Moderately support 4. Low support 5. Do not support |
| 3.2 | <p>In your opinion, what is your level of willingness to support to a parent-led school feeding programme in the school?</p> <ol style="list-style-type: none"> 1. Very highly support 2. Highly support 3. Moderately support 4. Low support 5. Do not support |
| 3.3 | <p>If answer in above is 3 or 4, what is your reason?</p> <ol style="list-style-type: none"> 1. Low financial status for my household 2. I do not support school based feeding. 3. Other (specify) |
| 3.4 | <p>All other factors remaining constant, what is the likelihood of you enrolling your child to a school that has a feeding programme, in comparison to a school that has no feeding?</p> <ol style="list-style-type: none"> 1. Very Highly likely 2. Highly likely 3. Likely 4. Less likely |

| | |
|-----|---|
| | 5. Never |
| 3.5 | <p>What challenges in relation to school feeding programme are you facing as a parent/guardian?</p> <ol style="list-style-type: none"> 1. Financial constraints to support the programme 2. Others (specify) |
| 3.6 | <p>Which opinion would you give to help improve the current school feeding programme status in the school?</p> <ol style="list-style-type: none"> 1. Improved inclusion of parents in support of school feeding programme 2. Reduction/review of school feeding levies charged 3. School to seek support of Government/donors to support feeding 4. Use of energy saving jikos 5. Others (specify) |

5.0 Final interviewer comments (qualitative)

APPENDIX IV: LETTER OF AUTHORIZATION



UNIVERSITY OF NAIROBI
COLLEGE OF HUMANITIES AND SOCIAL SCIENCES
POPULATION STUDIES AND RESEARCH INSTITUTE

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Ref: Q51/88547/2016

29th June, 2021

TO WHOM IT MAY CONCERN

Dear Sir/Madam

RE: RECOMMENDATION: FAITH NYAMAI FOR DATA COLLECTION

Ms. Nyamai is a 2nd year student undertaking a Master's degree in Monitoring and Evaluation of Population and Development Programmes. As part of the requirements for graduation the students are expected to carry out a Research Project. Ms. Nyamai has expressed interest in carrying out data collection for her project in your organization. Her project title is "An Assessment of the impact of school meals on enrolment: A case study of primary schools in Kibera and Mathare informal settlements in Nairobi County".

Your assistance will be highly appreciated.

Yours faithfully

akhasakhala
Anne Khasakhala, PhD
Director, PSRI.

