Interaction of Health and Education Institutions in the Roll-out of In-school Adolescents Health Scheme (Eduafya): A Study of Kiambu County, Kenya

By:

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DECLARATION OF ORIGINALITY FORM

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DEDICATION

To my inspiration, wife Daisy and daughter Makena, and all adolescents in Kenya and beyond.

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ACRONYMS AND ABBREVIATIONS

AIDS	Acquired Immunodeficiency Syndrome
APHRC	African Population and Health Research Center
AYSRH	Adolescent and Youth Sexual Reproductive Health
CGK	County Government of Kiambu
EGPAF	Elizabeth Glaser Paediatric AIDS Foundation
FBO	Faith-Based Organisation
GoK	Government of Kenya
HIS	Health Information System
HIV	Human Immunodeficiency Virus
KDHS	Kenya Demographic Health Survey
KII	Key Informant Interview
KNBS	Kenya National Bureau of Statistics
Kshs	Kenya Shillings
LMIC	Low and Middle-Income Countries
MLSP	Ministry of Labour and Social Protection
MoE	Ministry of Education
MoH	Ministry of Health
NCDs	Non-Communicable Diseases
NEMIS	National Education Information System
NHIF	National Health Insurance Fund
PBO	Parliamentary Budget Office
SRH	Sexual Reproductive Health
SSA	Sub-Saharan Africa
STIs	Sexually Transmitted Infections
UHC	Universal Health Care/Coverage
UPI	Unique Personal Identifier
VMMC	Voluntary Medical Male Circumcision
WHO	World Health Organisation

ABSTRACT

The development of sub-Saharan Africa is closely linked to the well-being of its young people. The World Health Organisation notes that Universal Health Coverage cannot be achieved without the inclusion of adolescents' health. Adolescents (10-19 years) comprise a quarter of Kenya's population. Under the "Big 4 Agenda", the Government of Kenya rolled out a comprehensive health insurance scheme for public secondary school students in 2018, as part of UHC. This study assessed the implementation of the scheme through a systems perspective. The roles played, and interaction of primary stakeholders – schools, health facilities and National Health Insurance Fund (NHIF) in Kiambu County were examined. The research was part of a larger IDS study which sought to assess the roll-out of adolescents' universal health scheme in Kenya and implications for their access to and use of sexual and reproductive health services. This study entailed a review of secondary data (NHIF's data and reports), as well as primary data collection from schools, health facilities and NHIF officers. Phone interviews were held with 41 schools and 54 respondents comprising of schools heads and person's in-charge of student health in schools using a semi-structured questionnaire. To understand the role that schools and health facilities played in the implementation of the Eduafya scheme and how their interactions influenced access and use of adolescent health services, ten key informants were interviewed. Qualitative data was analysed through thematic and content analysis, and while quantitative data were subjected to descriptive analysis through SPSS. Results showed a gap in enrolment of students to the scheme as 2,637,667 students against a target of three million were enrolled in the first year. The difference in enrolment was attributed to incomplete registration of students in NEMIS, mainly due to students' lack of required registration documents like birth certificates. The design and planning for roll-out of the scheme was top-down and primarily driven by the government. It involved three central institutions – MoE, MoH and NHIF at the top level. The study also found informational asymmetries on the awareness of the scheme among school representatives, health service providers and NHIF officers. Additionally, health facilities lacked robust health information systems to facilitate data demand and use; lack of standardised Eduafya guidelines and weak communication strategy; and confidentiality and privacy issues in the scheme's implementation. The study recommends that NHIF, schools and health facilities address barriers affecting enrolment in the scheme; and conduct regular sensitisation and feedback meetings between NHIF, schools and health facilities to incorporate their views and experiences in improving the scheme. In addition, bolstering the capacity of health facilities to adequately handle adolescent health, including data demand and use.

CHAPTER 1 : INTRODUCTION

1.1 Background of the Study

Adolescence is a phase of human growth that lies between (after) childhood and (before) adulthood. The exact age of adolescence is contested. While some argue that the right definition for the age of adolescence is 10-24 (Sawyer et al., 2018), the World Health Organisation (WHO) categorises adolescents in the age 10-19 years (Kamau et al., 2006; Viner et al., 2012). This contestation exists as this phase of human growth encompasses elements of major social role transitions and biological growth whose timing varies across time and place (Sawyer et al., 2018). There are different kinds (variations) of adolescents: male, female, married (mature minor), unmarried, those residing in rural and urban areas, vulnerable and under-served as well as in-school and out-of-school adolescents (Kamau et al., 2006).

There are two approaches to the conceptualisation of adolescent health (Abuosi & Anaba, 2019; Petersen & Hamburg, 1986). On the one hand, adolescence is seen as one of the healthiest phases of human growth and development. On the other hand, it is seen as a phase where adolescents face some of the most severe challenges of any human growth phase, characterised by significant illness, injury, and death. Even so, adolescence is characterised by changes in mental, physical, and emotional aspects, mainly due to increased hormonal functions (Dick & Ferguson, 2015; Haruna et al., 2018). These variations affect how adolescents think, make decisions, feel, and interrelate with the environment around them (Walcott, 2008). In reality, evidence suggests that the majority of adolescents are flourishing. Still, many engage in risky behaviour, experience mental and physical health conditions and develop unhealthy lifestyles, all of which potentially endanger their health in adolescence and contribute to poor well-being in later life. Consequently, the view that adolescence is the healthiest phase of life in

comparison to early childhood or adulthood is promptly being eroded (Patton et al., 2016; Sawyer et al., 2012).

The main issues facing adolescents in Sub-Saharan Africa (SSA) include sexual and gender-based violence, drug abuse, teenage pregnancy, detrimental practices such as early forced marriage, and female genital mutilation (FGM), mental health problems, and accidents and injuries. Additionally, HIV especially new infections among adolescent girls, and low uptake of HIV treatment (therefore, low viral suppression) for adolescent boys are also major health issues (NASCOP, 2020). Moreover, non-communicable diseases are the rise in adolescents due to risk factors such as alcohol, tobacco use, and physical inactivity.

Towards addressing these and more health challenges facing adolescents, there have been efforts to address adolescent health, not only in Kenya but also globally, both by government and non-governmental agencies (World Health Organization, 2016). The WHO notes that Universal Health Coverage (UHC) cannot be achieved without keeping adolescents healthy. UHC provides for a holistic outlook of people's health and well-being at all ages, and interlinkages with sustainable development. Additionally, investment in adolescents offers a "triple dividend" in terms of enhancing health now, improving the quality of their life course and contributing to the health of forthcoming generations (Lehtimaki et al., 2019).

In Kenya, the "Big Four" Agenda set priority programmes and reforms, including UHC. In 2017, UHC pilot programmes were initiated as one move of testing and expanding UHC programmes. Further, in 2018, the government rolled out the NHIF health scheme for public secondary schools, namely Eduafya. The Eduafya scheme targeted part of the 'missing population' (adolescents) in universal health coverage (Lehtimaki et al., 2019). However, the focus is on the in-school adolescents leaving out the out-of-school adolescents.

Nonetheless, the programme is necessary as it ensures the health of students while in school. Despite this, and as noted by Berk & Schur (1998) and Millman (1993), the provision of universal healthcare does not often equate to access. Every so often, adolescents face multiple barriers in accessing healthcare (Muchabaiwa & Mbonigaba, 2019). Hence, a need to understand the contribution of this programme in enhancing access to health services among students in public secondary schools.

1.2 Statement of the Problem

Schools, health facilities and NHIF are the critical stakeholders in the implementation of in-school adolescents' universal health scheme in Kenya (Eduafya). Yet, more than two years since the scheme became operational, and having already covered more than 2.7 million students in 2019 (NHIF, 2020), there is a dearth of literature on the synergy and roles that these institutions have played in influencing access and use of Eduafya services by public secondary school students in Kenya; as well as on the challenges they face in the scheme's roll-out. Therefore an assessment of their synergy and role will contribute towards the understanding of the scheme's strengths and gaps towards promoting provision and implementation of an adolescent-specific health programme.

This study is part of a large study conducted by the Institute for Development Studies (IDS) on the roll-out of adolescents' universal health scheme in Kenya and implications for their access and use of sexual and reproductive health services. Whereas the IDS study focuses on sexual reproductive services, this study assesses the interaction between the key implementers of the scheme. The study draws on objective 2 of the main study which broadly seeks to find out whether the provision of NHIF secondary school coverage has enhanced adolescents' access

to and use of health services (sexual reproductive health), and whether there are underlying barriers and challenges to health access.

1.3 Research Questions

The following are the proposed research questions for the study:

1. What is the level of awareness on Eduafya Scheme among representatives of public secondary schools and health care providers and NHIF officers in Kiambu County?
2. How do schools, health facilities, and NHIF officers in Kiambu County interact in the implementation of Eduafya?
3. How do institutional interactions influence access to health services by in-school adolescents in Kiambu County?

1.4 Research Objectives

The overall objective is to assess how schools, health facilities and NHIF interact in the implementation of the Universal Health Scheme (Eduafya) services for secondary school students in Kiambu County and how these interactions influence public secondary school student's access to health services. Specific objectives include:

1. To determine the level of awareness on Eduafya Scheme among representatives of public secondary schools and health care providers and NHIF officers in Kiambu County;
2. To examine how schools, health facilities, and NHIF officers in Kiambu County interact in the implementation of Eduafya;

3. To establish how institutional interactions influence access to health services by in-school adolescents in Kiambu County.

1.5 Justification of the Study

The development of sub-Saharan Africa is closely linked to the well-being of its young people. With increasing enrolment and transition rates in Kenya (MoE, 2016), school-based health interventions provide an avenue for improving the health and well-being of adolescents towards the country's development. Furthermore, healthy, well-nourished children are more likely to engage and learn while in school (Bundy et al., 2018). Kenya's Eduafya as a publicly-funded government programme has the potential to unlock better health and education outcomes and bring the country closer to realising multiple Sustainable Development Goals. Achieving this realisation is hinged upon seamless implementation of the program to ensure that these government investments reap the expected benefits on in-school adolescent health. It is thus crucial that government investments on adolescent health are monitored (Muchabaiwa & Mbonigaba, 2019).

Eduafya targets public secondary school students, whose official age in in Kenya is 13-19 years (MoE, 2014). This age category falls in WHO's definition of adolescents (10-19 years). Therefore, using WHO's life course approach, the target group for this scheme are in-school adolescents. This scheme is especially timely as statistics reveal that in 2018, approximately 32% of the Kenyan household health budget was financed out-of-pocket (Salari et al., 2019). Additionally, only approximately 20% of Kenyans have some form of health insurance (MoH, 2018). Moreover, a further assessment among all the secondary school-going age group (aged 14-17 years), shows that 43.8 per cent are poor (KNBS, 2018). Hence, the scheme is a timely contribution towards improving health of adolescents in Kenya. However, However, the

provision of universal healthcare cannot be equated to access (Berk & Schur, 1998; Millman, 1993). Additionally, adolescents face multiple barriers in accessing healthcare (Muchabaiwa & Mbonigaba, 2019). Hence, there is a need to assess the implementation of this program.

Thus, this study assesses the implementation of Eduafya through a systems perspective. The name "Eduafya" is a portmanteau of Education and Afya (which is Swahili for Health), implying the coming together of education and health ministries in the design, planning and implementation of the scheme. The interaction among and within these three institutions is likely to influence the effectiveness of the scheme. Thus, this study assesses how schools, health facilities and NHIF as education and health ministries' key actors interact and engage in the implementation of the scheme. This will illuminate on the scheme's gaps and successes in its design and implementation, and highlight areas for improvement. Additionally, the study provides for prospects for contributing to scientific knowledge on in-school adolescent health programmes.

The study site is Kiambu County. The county is the second-most populous county in Kenya, after Nairobi, and has the fifth-highest number of adolescents in Kenya (Kenya National Bureau of Statistics, 2019). Additionally, the county provides the right balance of rural and urban schools, hence provides for a good site for the study.

1.6 Scope and Limitation of the Study

The research entailed a review of secondary data and reports provided by NHIF, as well as primary data collected through interviews with schools and health facilities in Kiambu County. The primary data collection involved phone interviews with school heads and school health representatives in three sub-counties out of 13 in Kiambu County. Ten key informants from

health facilities and NHIF were interviewed. As such, the analysis is limited to Kiambu County and may not be generalisable.

CHAPTER 2 : LITERATURE REVIEW

2.1 Introduction

This chapter is a review of the literature and is divided into three parts. The first part delves into the literature on adolescence, adolescent health services and institutional arrangements, programs on UHC, and barriers to access and use of their health services. This part also includes a review of NHIF-provided secondary sources of information. The second part discusses and justifies the theoretical framework of the study, and the last part describes the conceptual framework of the study.

2.1.1 Adolescence

Over the past four decades, the research base in the field of adolescence has expanded significantly. Studies reveal complex outlooks on multiple facets of adolescence and bring to the fore fresh insights and new perspectives on the behaviours associated with this phase. One of these insights is the increased risk-taking that features adolescence. Young people commence to experimentation with drugs and alcohol and initiate sexual intercourse. The outcomes associated with some of these tendencies can be disastrous, as they can affect them in later life (adulthood) (Sawyer et al., 2012). As such, mounting evidence continues to erode the view that adolescence is the healthiest phase of life in comparison to early childhood or adulthood (Patton et al., 2016). Additionally, there is a broader appreciation that biology is only one influence that affects adolescents' growth and development (Crosnoe & Johnson, 2011). Social institutions, members of the community, service providers, parents, and teachers can all play a role in promoting healthy adolescent development and intervene when difficulties arise.

There are more adolescents globally now than ever before. Adolescents comprise a sixth of the world's population, and 23 per cent of Sub-Saharan Africa's population (United Nations, 2019). These are significant numbers for adolescents, and present a time of "opportunity and risk" (Kipke, 1999). When more than 20 per cent of the population is made up of youths (as in SSA, including Kenya), the country is said to have attained a "Youth Bulge" (The World Bank, 2008). A youth bulge happens when infant mortality is reduced yet fertility rates remain high. This results in a high population of young adults and children. A youth bulge can either be a blessing or a curse or lead to either a demographic "dividend" or demographic "bomb"(Mason, 2007). The latter happens when there are low investments and neglect in adolescents and youths, thereby poor education, employment and health outcomes for them. Therefore, these large populations become a burden to their countries in the present, and in future (in adulthood) by being the cradle of social and political instability (Urdal, 2012). Conversely, adequate investment in children and youths provides immense opportunities that could accelerate development in countries. Promoting young people's health and education, and investments in human capital and gender equality would yield countries vast benefits in reducing poverty, improving health, and increasing social, economic and political stability.

2.1.2 Adolescents Health Services, UHC and Sustainable Development

Sexual and reproductive health, mental health, substance use treatment and prevention, and oral health, as areas key to adolescent health services, are mostly available in the health care service provision in a number of countries. However, for those who depend on public financing, these services are not integrated into routine health service provision. Consequently, many adolescents find it difficult to access these specialised services due to inadequate or unskilled personnel, financial restrictions, and the lack of convenient settings that are appropriate for

their phase of development (Lawrence et al., 2009). This reality has led to the recommitment of governments across the World on pursuance of adolescent health. For instance, adolescents are included in the WHO's Global Strategy for Women's, Children's and Adolescents' Health (2016–2030), which most of the SSA countries committed to, including Kenya. The strategy acknowledges the unique health challenges that adolescents and young people face and commits to their well-being and quality of life (World Health Organization, 2016).

In addition, the United Nation's (UN) Sustainable Development Goal (SDG) 3 seeks to lobby countries towards the improvement of health and well-being for all, "at all ages." To achieve this, the World Health Organisation (WHO) notes that governments and partners must adopt a life-course approach to UHC (Kuruvilla et al., 2018). This entails focusing on an individuals' well-being throughout their life (childhood, adolescence and adulthood) while ensuring the full realisation of their rights during all their life phases (Kuruvilla et al., 2018). As a result, globally, some countries have made progress in achieving UHC for all their populations, including adolescents, due to increased prioritisation and investments in adolescent health and development. Yet, others, mostly in the low and middle-income countries (LMIC), have lagged. Thus, this is a potential hindrance to the achievement of SDG 10: reduced inequalities.

High-income countries tend to have adolescent-specific insurance programs (Sawyer et al., 2018). These countries have health insurance schemes for the general population, while at the same time, those that target specific populations, including adolescents. Likewise, other developed countries have ensured that their healthcare systems place particular emphasis on children and adolescents. Both of these approaches safeguard adolescent health by making sure that health problems are captured early in life, which minimises the possibility of emerging later in life. There is growing evidence that demonstrates such focused attention and investment in adolescent health contributes to improved health outcomes for countries.

For instance, Denmark is described as “the epidemiologist's dream” (Frank, 2000; Schmidt et al., 2019) while Sweden tops the World in terms of excellent health of children (Wettergren et al., 2016). Both of these countries have publicly funded health insurance programmes, and their healthcare systems place particular emphasis on children and adolescents. For example, in both countries, children and adolescents’ healthcare is provided free of charge (Christiansen, 2002; Wettergren et al., 2016). There are youth clinics in most of the municipalities in Sweden, and all hospitals have a Child and Adolescent Department. Moreover, there is a web-based youth-friendly clinic whose purpose is to make it easier and more convenient for adolescents and young persons to access current, relevant, and quality-assured health information about sexuality and reproduction, and relationships (Wettergren et al., 2016). Similarly, there is a robust preventative focus on adolescent health in Denmark with physicians regularly conducting school-based health check-ups. Furthermore, Denmark has an elaborate health information management system encompassing government-maintained nationwide registries as well as a unique personal identifier allocated to all citizens and enabling lifelong follow-up (Schmidt et al., 2019).

Equally, in the United States (US), children (up to 17 years) are either covered through Medicaid or Children's Health Insurance Programme (CHIP) (both of which are publicly funded) based on The Federal Poverty Level (FPL). FPL are guidelines that define “who is poor” and is reviewed annually (every January). FPL is based on family size and location and determines the eligibility of many programmes, among them, Medicaid and CHIP (Schoen et al., 2018). CHIP was begun in 1997 and was meant to improve insurance coverage of children. Whereas Medicaid covers the most impoverished children, CHIP covers children in households with incomes higher than financial eligibility for Medicaid but unable to obtain health insurance through a parent's workplace (Perrin & Hall, 2015). The existence of these two programmes initially led to issues of crowd-out, with insured families moving from private to

public insurance coverage (Adams et al., 2019; Newacheck et al., 1999). However, even though older studies showed that CHIP and Medicaid had mixed effects on health utilisation and child health Heberlein et al. (2012), several more recent studies reveal that they have reduced the uninsured rate among children, increased health utilisation and improved health of children (Adams et al., 2019; Bailey et al., 2016; Harrington, 2015; Perrin & Hall, 2015).

There are LMIC such as India who are making efforts towards providing publicly funded health programmes that target adolescents. The state recently (2014) launched Rashtriya Kishor Swasthya Karyakram (RKSK) or National Adolescent Health Programme, which targets adolescents (10-19 years). The programme aimed at addressing their nutrition, sexual and reproductive health, mental health, injuries and violence, substance abuse and NCDs (Rath et al., 2020). The Government of India requested the WHO to review the implementation of the programme, and findings showed that there had been increased investment in community engagement, management structure, clinical service delivery as a result of RKSK (Barua et al., 2020). However, the strategy was primarily inclined towards clinical service provision, yet there were a limited number of health facilities. Thus, even though the strategy sought to complement this with the creation of demand for adolescent services at the community level, services were inaccessible to adolescents in communities, and most of them were unaware (Rath et al., 2020). Moreover, monitoring of the programme was also a big gap.

In Africa, specific public health insurance programmes targeting adolescents are uncommon. There are a few LMIC countries in Africa though that have health insurance programmes specific for sections of adolescents. In South Africa, for instance, in-school adolescents are covered through the Integrated School Health Programme (ISHP), which is under National Health Insurance (NHI) Policy – the national health financing system. NHI is the country's vehicle towards UHC and aims to deliver access to all its citizens without financial hardship, including adolescents (Booysen & Hongoro, 2018). As part of the NHI reforms, ISHP was

initiated in 2012 to cover in-school adolescents (South African National Department of Health, 2012). The ISHP purposes of offering a comprehensive package of health services for children and adolescents, aimed at tackling blockades to education and circumstances contributing to mortality and morbidity. Despite these provisions, studies show that South Africa's health care system is hampered with shortcomings related to human resources, governance, service delivery, medicines and technologies, financing and lack of adolescent-specific indicators in the data information system (Jonas et al., 2019; Rispel, 2016; Surender et al., 2016). These challenges hinder the achievement of UHC, not only for adolescents but for the rest of the populations in the country as well.

2.1.3 Adolescents and their Health in Kenya

Kenya defines adolescents as 10-19 years (MoH, 2015b). Adolescents (10-19 years) comprise 24.5% (11.6 million) of the population (KNBS, 2019). The country has a reasonably favourable national legal and policy environment for health, including adolescent health. The right to health is entrenched within the Kenyan Constitution in Article 45 that states all have a right to the best attainable standard of health. Health is also prioritised in Vision 2030 under the social pillar. The first adolescent-specific health policy was formulated in 2003. Since then, there have been revisions and coverage in different areas of adolescent health.

However, much requires to be done to bridge the gap between policy formulation and implementation in the country. For instance, despite the presence of the Adolescent and Youth-friendly Services policy (first formulated in 2005, and revised in 2016), the Kenya Service Availability and Readiness Assessment Mapping (SARAM) conducted in 2013 by the government of Kenya (GoK) showed that only 12% of public hospitals offer comprehensive youth-friendly services (Government of Kenya, 2014). In addition, the existing health care

services are also not aligned to meet adolescents sexual and health needs, and many healthcare providers are reluctant to offer preventive care services to adolescents (Kamau et al., 2006). Consequently, there are gaps in access to services by adolescents in Kenya, especially in the area of prevention and promotion. This is espoused by recent statistics on adolescent health in Kenya.

Adolescents in Kenya exhibit poor sexual and reproductive health indicators, ranging from low awareness and contraceptive prevalence rate (CPR) including among the sexually active, unintended pregnancies, and early unprotected sexual debut, which has contributed to abortion-related complications (APHRC & MoH, 2013; KNBS, 2015). Likewise, adolescent HIV indicators are also not promising, with over half (51%) of all new HIV infections in Kenya in 2015 arose from adolescents and young people (MoH, 2016a). Also, adolescents contribute significantly to new HIV morbidity and mortality (EGPAF, 2018)., while at the same time have lower Access to and uptake of HIV testing and counselling (HTS) by adolescents is significantly lower than by adults, and antiretroviral therapy (ART) coverage rates are lower for adolescents than for any other age group of persons living with HIV (MoH, 2015a).

Furthermore, according to the Violence Against Children Survey Report (2019), the likelihood of females who underwent childhood violence to experience mental distress is 77.4%. For these females, their possibility for suicidal ideation is 40.7% compared to females who did not experience childhood violence (MLSP, 2019). Correspondingly, 13.5% of females and 2.4% of males ages 13-17 experienced sexual violence, with 33.7% of females and 5.6% of males having been pressured or physically forced in their first sexual experience (MLSP, 2019). Adolescents who undergo sexual abuse are more likely to be exposed to unintended pregnancy, unsafe abortion and Sexually Transmitted Diseases comprising HIV and AIDS. They also suffer challenges of economic exploitation.

2.1.4 School-Based Interventions and Adolescent Health

As adolescents spend most of their time in schools, school environments are conducive for nurturing and promoting adolescent health and development. Studies show that school-based health interventions have the potential to improve adolescent health (Mukamana & Johri, 2016; Salam et al., 2016; Viner et al., 2012). However, other studies reveal that schools' swelling emphasis on academic performance makes them a challenging ground to administer teenage health programs that can have the expected effects on students' health (Herlitz et al., 2020; Keshavarz Mohammadi et al., 2010; Shackleton et al., 2016). How exactly this happens and the role that institutions play in this is an exciting area that has been studied.

Schools in themselves are essential in promoting adolescent health, and they can play some role. Studies show that they can impact adolescents' knowledge, attitude and behaviour through improving the skills and capacity of teachers (Blazar & Kraft, 2018; Darling-Hammond et al., 2020; Nawi & Jamaludin, 2015), and incorporating health education information into their regular teaching practices or exercises (Wen et al., 2010; Xu et al., 2000). Also, schools setting up health-related school policies or formal engagements can affect knowledge and attitude changes among students on health uptake. For instance, schools that established a working group (whose members included teachers, parents, principal, and community leaders) were found to increase knowledge, change attitude and behaviour among students towards smoking (Chen et al., 2014). Additionally, schools that had a formal engagement on how to promptly respond to threats to students' health, such as bullying addressed broader health determinants (Shackleton et al., 2016).

Additionally, there is need for the collaboration of schools with health and other sectors such as the religious groups, parents, and communities are likely to have a positive effect on

adolescent health and well-being. Chen et al. (2014) found that the involvement of communities and especially parents contribute to the success of adolescent health programmes. Equally, there are only a few studies that evaluate the effect of multicomponent interventions (such as those that integrate classroom-based health education with family or community components) on health outcomes. This is because such outcomes necessitate more extended follow-up periods (Mukamana & Johri, 2016). Nonetheless, those that have conducted such evaluations show that multicomponent interventions have a significant likelihood of averting teenage pregnancy and risky sexual behaviours (Blank et al., 2010; Harden et al., 2009).

2.1.5 Eduafya: In-school Adolescent Universal Health Coverage Program in Kenya

In Kenya, similar to South Africa, is the implementation of a targeted programme focused on adolescents, and specifically on in-school adolescents. The programme was initiated as part of the government's initiative towards UHC, one of the government's "Big Four Agenda" (manufacturing, food security, and affordable housing are the other three items on the agenda). The "Big Four Agenda" was the government's commitment towards improving the living standards of Kenya through the prioritisation of these four items in the period 2017-2022 (PBO, 2018). Thus, the government committed to attaining UHC in Kenya by the year 2022. Towards this goal, Kenya rolled out Afya Care program, which was a pilot in four counties (Nyeri, Machakos, Kisumu and Isiolo) that entailed removal of user fees at a large scale towards increasing access to healthcare. In December 2017, the government launched the Eduafya, a 'comprehensive medical insurance cover' for public secondary school students. Consequently, Eduafya was initiated on the 13th of April 2018 when a contract between the Ministry of Education and the Ministry of Health through the National Health Insurance Scheme (NHIF)

was signed (MoE, 2018b; NHIF, 2018). The scheme is renewed annually through a contract with NHIF, MoE and health facilities.

The EduAfya scheme is state-funded and run by the NHIF, and the beneficiaries are students who are enrolled in public secondary schools (NHIF, 2018). The insurance covers public secondary students for the duration of full-time study. Students are exited from the scheme on the 31st of December of the final year of their secondary school education or upon exit from their school. The scheme is aimed at improving access to health care and retention of students in school. It also seeks to reduce medical costs incurred by the parents, improve the general well- being of students, save time and resolve the cases of lack of funds to support medical instances in schools and accidents in schools.

2.1.5.1 Registration of Students

From 18th of March 2019, the integration of the NHIF and NEMIS system was done through an Application Programme Interface (A.P.I) that enabled automated registration of students. In this process, school principals are required to capture (add or update) the student record in the NEMIS database up to the completion of the process. Once this is done, the NHIF system automatically generates an NHIF number for the student that is shared back to the NEMIS system. This ensures that eligible students can access services as soon as they are registered in the NEMIS database.

2.1.5.2 Benefits Package/Scheme Benefits

NHIF states that Eduafya is a comprehensive medical cover and includes the following services: outpatient cover, inpatient cover, emergency road ambulance service, emergency air rescue service, specialised service, optical cover, dental cover and overseas/foreign cover. Additionally, the scheme provides last expense cover, group life cover and group personal accident cover. Appendix D provides detailed information on each benefit.

2.1.5.3 Access of Benefits by Public Secondary School Students

Principals of public secondary schools select the facility that students in their school can use the scheme to access to healthcare services. The NHIF guides the selection of the facility- a list of NHIF accredited health care providers. However, it is also not clear how and whether parents are also made aware of these health facilities so that they know where to refer or take their children to when they are not in school and need healthcare. According to the guidelines, when schools are in session, if a student needs to access services, they are required to present an NHIF Membership card. If the student has not yet received a membership card, a letter of introduction endorsed by the school principal or his/her designate, which should detail the; name of the student, date of birth and their gender, NEMIS / UPI number, and Name of the School. The letter is required to be on official school letterhead or stamped. The guideline is, however, not clear whether the student ID is mandatory if the student has the introduction letter indicating their UPI number. Moreover, the introduction letter also has implications for student privacy and confidentiality as students need to state the reason for seeking health care before they can get permission from the school to access services (Appleford & Mbuthia, 2020).

The guidelines also state that during school holidays when the student is away from the facility of choice, they can access benefits at the nearest declared HCP as guided by the provided list upon pre-authorisation by NHIF. Nevertheless, the guidelines are not explicit neither on what students require to present to the health facility for them to be served nor of the services requiring pre-authorisation (inpatient, outpatient, etc.). Furthermore, NHIF pledges to ensure that mechanisms are in place to ensure a continuum of health care services to guarantee that students' access to services is not interrupted by a student transferring to another public secondary school or when a health care provider ceases to offer services. However, it is not clear exactly how NHIF operationalises this.

Furthermore, the guidelines direct that outpatient services be provided on a choice-basis as guided by the list of accredited health care provider for the cover. Additionally, students can access inpatient care in designated government, faith-based and private-owned healthcare providers. The exception here is for those categorised as 'high-cost healthcare providers' by the Fund which includes but not limited to privately owned facilities. As such, students are only allowed to access inpatient care in designated high-cost healthcare providers' on a referral basis and upon pre-authorisation by NHIF. Also, students can access inpatient care on a referral basis from the selected outpatient care facility.

2.1.5.4 Reimbursement of Services Accessed at Health Care Providers

The guidelines indicate that students are not required to co-pay for services as prescribed under this scheme. The payment mechanism through which NHIF reimburses health facilities for outpatient services rendered to students is known as Fixed-Fee-For-Service (FFFS). Regardless of the treatment provided, health facilities are allowed to claim up to a particular maximum

amount. This amount is also contingent upon the negotiated contracts with NHIF. This amount is based on the level of the health facility as follows:

- Level 2 health facilities (Dispensaries)– Kshs 500;
- Level 3 (A and B) (Health centres) – Kshs 1,000-1,500;
- Level 4 (sub-county hospitals) – Kshs 1,500

According to the guidelines, inpatient services are to be provided comprehensively by health facilities to students and reimbursements guided by the contracts with health care providers. Repayments are based on the category of the health (which also determines negotiated rates with NHIF) (Appleford et al., 2019):

- Category A – government health facilities – NHIF members receive comprehensive care and are not supposed to co-pay for any services offered (both medical and surgical procedures for in-patient members and their declared dependents).
- Category B – Mission health facilities and some middle-level private health facilities – Healthcare providers offer a comprehensive package, as in contract A. This contract has no co-payment requirement. However, members may be required to make a co-payment of up to Kshs 15,000 in surgical cases only.
- Category C – the high-end private health facilities –A daily rebate[1] system applies, and the member is required to pay any amounts over and above the daily rebate. The out-of-pocket top-up is made in case of a deficit after deduction of the NHIF rebate from the total bill.

For referrals, NHIF reimburses for approved services, whereas the existing NHIF overseas treatment guidelines guide reimbursements for healthcare services accessed overseas. For emergency services caused by fire, accidents or any natural disasters obtained at non-accredited

[1] Rebate is the daily amount that a facility is supposed to claim for admission under in-patient services

facilities, NHIF explores the most appropriate modality of reimbursement while making an effort to transfer the casualties to an accredited HCP, once they are stable. Prosthetic devices which include external artificial body parts, such as a prosthetic limb or prosthetic ear, is reimbursed subject to certification by the Kenya Society for Persons with Disability. Finally, the guidelines state that NHIF will not make reimbursements of general claims by individuals.

2.1.5.5 Eduafya National Performance

A review of NHIF documents showed no county-specific Eduafya performance reports. However, the NHIF Eduafya Scheme Performance Report of the 30th of June 2019 revealed that 2,637,667 students had enrolled to the scheme, against a target of 3 million students in Kenya since the programme's inception in May 2018, representing 87.9% achievement. The difference in enrolment was attributed to incomplete registration of students in NEMIS, mainly due to students lack of required registration documents like the birth certificates. This shows that whereas the NHIF programme is intended to reach all students in public secondary schools, some may not benefit due to lack of documents to facilitate registration.

The report further records that inpatient and outpatient benefits together account for 83% of the total medical claims for the scheme. Individually, inpatient accounts for 36% of the total claims, while outpatient accounts for 47%. Optical, Dental and Group Life and Last Expense make the remaining 17% of the claims. The table below shows the costs per the claims as at the 30th of June 2019 per the Scheme Performance Report (2019).

Table 2-1 Breakdown of the costs are per the claims

	Incurred Claims	**% of Incurred Claims**
Inpatient - Local Treatment	457,956,094.09	35.23%
Inpatient - Overseas	20,877,782.00	1.61%
Outpatient	611,711,957.91	47.06%
Optical	284,019.45	0.02%
Dental	1,986,428.00	0.15%
Group Life and Last Expense	207,131,372.00	15.93%
Grand Total	**1,299,947,653.45**	**100%**

Source: NHIF Eduafya Scheme Performance Report (2019)

Though limited studies have reviewed the implementation of the Eduafya scheme, Appleford & Mbuthia (2020) observed that it improved access to health services, particularly in access to ASRH services. Despite this, the authors acknowledge that a lot more was needed in critical aspects of service provision like ensuring confidentiality during the service provision process. A key challenge is a requirement for students to get clearance from schools to get services as this infringes on the privacy and confidentiality of adolescents. Even though this study is the first to delve into the Eduafya scheme, it falls short of discussing specific ways that schools and health facilities interact in the implementation of the scheme, and how this implicates on adolescents access and use of health services. Nonetheless, this rapid review of Eduafya study provides a good background against which this study builds on.

2.1.6 Factors Affecting Adolescent Access and Use of Health Services

Health schemes have the potential to increase adolescents' access to health services. EduAfya intends to broaden in-school adolescent access to services. Whereas this may be achieved, it is essential to understand factors that exist within the system that might prevent adolescents from

fully utilising the services, and raise the question of how such factors have been considered/factored in in the EduAfya programme. Multiple factors can affect access and use of health services by adolescents. Broadly, these can be grouped into three: financial, structural, or socio-cultural factors (Abuosi & Anaba, 2019; Kamau et al., 2006; Mukondwa & Gonah, 2016).

Whereas health insurance may enhance access to services, other indirect costs may prevent a young person from accessing services. Among these is the cost of travel to the facilities and expense of purchasing drugs. In South Africa, financial factors were mentioned in 15 of the 35 sources in a documentary review, meaning 42% of the literature spoke of them (Mukondwa & Gonah, 2016). Equally, a cross-sectional survey in Ghana found that less never pregnant girls were after economic support to address health-related issues, in comparison to young mothers and pregnant girls (Ahorlu et al., 2015). Similarly, a qualitative study in Nepal found that adolescents failed to access health services from health facilities due to adolescents' financial inability to purchase the recommended medicines (Pandey et al., 2019).

Structural factors include lack of privacy and confidentiality, laws and policies requiring parental or partner consent, lack of necessary commodities at health facilities, distance from facilities, long wait times for services, and inconvenient hours (Millman, 1993; MoH, 2015b). Confidentiality-related concern plays a vital role in health services as adolescents fear parental notification services in cases of private health insurance (Brindis et al., 1999; Ford & English, 2002; Reddy et al., 2002). Such concerns eventually became a legal issue (Boonstra & Nash, 2000; English, 1990). Equally, an analysis of nationally-representative surveys of 12-19 year-olds in Ghana, Malawi, Uganda, and Burkina Faso in 2004 had adolescents reporting feeling embarrassed, afraid, or shy to seek these services as the main barrier (Biddlecom et al., 2007). Slight variations were exhibiting between genders in this study with more females than males reporting that they feel embarrassed, afraid, or shy about acquiring either STI treatment or

contraceptive services.[2] This is an obstacle that is ingrained in the social context adjoining adolescent sexuality.

Socio-cultural barriers include discrimination and judgment of adolescents by communities such as health care providers and families; inequitable or harmful gender norms; and restrictive norms and stigma around adolescent and youth sexuality. Guilamo-Ramos et al. (2012) found fathers influence the health behaviour of their adolescent children while Widman, Choukas-Bradley, Noar, Nesi, & Garrett (2016) found mothers provide a protective role in safer sex behaviour through sexual communication among adolescents. Nevertheless, parents and adolescents reported barriers (comprising a lack of knowledge and skills, cultural norms, and taboos) to open dialogue (Bastien et al., 2011). Another quasi-experimental evaluation in Mexico found that parent-focused interventions were an effective and innovative strategy to promote adolescent health services (Campero et al., 2011).

[2] This difference was only statistically significant in Malawi and Uganda, and the reverse was true in Burkina Faso (though this was related to the fact that a more substantial proportion of female adolescents do not know about STIs, compared to males).

2.2 Theoretical Framework

2.2.1 Systems Theory

The systems theory was developed in the 1950s and was initially applied in biological sciences, but has since permeated to other disciplines (Lai & Huili Lin, 2017). The theory defines a system as consisting of various parts that interrelate with each other to realise intended objectives (Meadows, 2009). A system refers to a unified connection of all the components that constitute it. A system exists in an environment which it depends on for its inputs and outputs (Cordon, 2013). These processes need to be viewed as a part of the entire client experience instead of being considered independently (Mele et al., 2010).

The intended outcome in this study, from the interaction of the various subunits, is the provision of health services to in-school adolescents through the EduAfya programme, which would be the centre that binds the system. As such, some fundamental principles of systems theory that is useful within the context of this study.

- The complete system always describes the subparts. In the case of this study, the system in the full implementation of the Eduafya scheme. There are several sub-units in this system: students, department of civil registration, NHIF, schools, MoE, health facilities, MoH and parents. For a harmonious system to exists, these subunits must work in tandem towards the implementation of the scheme.
- Every constituent of a system supports the complete system. The individual roles played by the components in the system contributes to the success of the system. For instance, schools enrol students in NEMIS, identify those to refer to health facilities and so on.

In contrast, health facilities provide adolescent health services to students with the required quality – including adequate and qualified personnel, and medication.

- Any malfunction in any sub-part has a far-reaching effect on the whole system. The subunits in the implementation of the scheme are interlinked and interrelated. For instance, when students do not have birth certificates (due to inefficiencies in the department of civil registration), they cannot be enrolled in NEMIS; therefore, they may not access health services through the scheme.
- For a system to exist, there must be an environment within which it gets its inputs and delivers its outputs. The environment, in this case, is the policy and legal context as well as structures, procedures and responsibilities within the sub-units that dictate relations such as MoE and school interactions and health facilities, MoH and NHIF. Additionally, this environment must be conducive to enhance the performance of every stakeholder, for it can either hinder or promote the performance of the sub-units.
- The management is answerable for the operations of the system through organising and coordinating processes and personnel. NHIF is managing Eduafya scheme on behalf of the Ministry of Education (MoE, 2018b). Therefore, all management functions and responsibilities are undertaken by NHIF; consequently, they are answerable to the stakeholders in the system.
- The worth of output usually defines the efficiency of the method. Full coverage of all public secondary school students and quality provision of adolescent health services are the main outputs in this system. Their success or performance demonstrates the efficiency and effectiveness of the measures undertaken by NHIF and other subunits in the system. When there are gaps or inadequacies in the output (s), questions ought to be raised on the method NHIF is utilising in the management of the system.

This theory best fits this study as it focuses on the connection between the sub-parts of the system instead of that specialised in distinct elements in isolation (Shostack, 1984). A service delivery process anchored on the systems approach provides an end-to-end process that interacts with the client directly. The end-to-end process comprises all the stages which clients pass within the process of service.

2.3 Conceptual Framework

The conceptual framework is hinged on the systems theory as described above and is shown below in *figure 1*. For in-school adolescents to benefit from EduAfya services, they must first and foremost be enrolled in a public secondary school (institution *a*). Students must also be registered with NEMIS under the MoE (Institution *b*). An essential requirement in their enrolment on NEMIS is a birth certificate issued by the department of civil registration (institution *c*). Schools refer their students to health facilities (institution *d*) for service provision, which work under the Ministry of Health (institution *e*) which provides guidance, supervision, and conducive policy environment. The health facility must be accredited to provide Eduafya services by NHIF (institution *f*). This study focuses on three institutions that are key in the implementation of the scheme: *a, d* and *f.* The assumption is that institutions *b, c and* provide complementary support, and given that they are not the direct implementers, hence they are excluded from this framework.

For the outcome (improvement of in-school adolescent health) to be achieved, the sub-units or institutions (*a, d and f*) in this system must work harmoniously and seamlessly like a "well-oiled machine". NHIF engages health facilities to provide health services to students through the scheme. Therefore, public secondary schools need to work harmoniously first within their sub-system (with the Ministry of Education both at the county and national levels) and then

with health facilities. Likewise, health facilities have to work coherently with the Ministry of Health both at the county and national levels (within their sub-units), and with schools. Once this is achieved, positive health outcomes for adolescents (manifested by increased access and use of health services through Eduafya) will be achieved.

In this study, the different institutions are presumed to have specific roles that they play in the implementation of the Eduafya, through an interactive process. Hence, the roles played by public secondary schools, health facilities and NHIF as well as the interactions amongst these three institutions are the independent variables. Specifically, (a) Enrolment into NEMIS; (b) Contractual processes; (c) Reimbursement Processes; (d) Health Facility Selection; (e) School-out Process for Students; and (g) Health Facility-Intake Process for Students are the main issues of focus under the independent variables. The dependent variable is access to Eduafya services by public secondary school students.

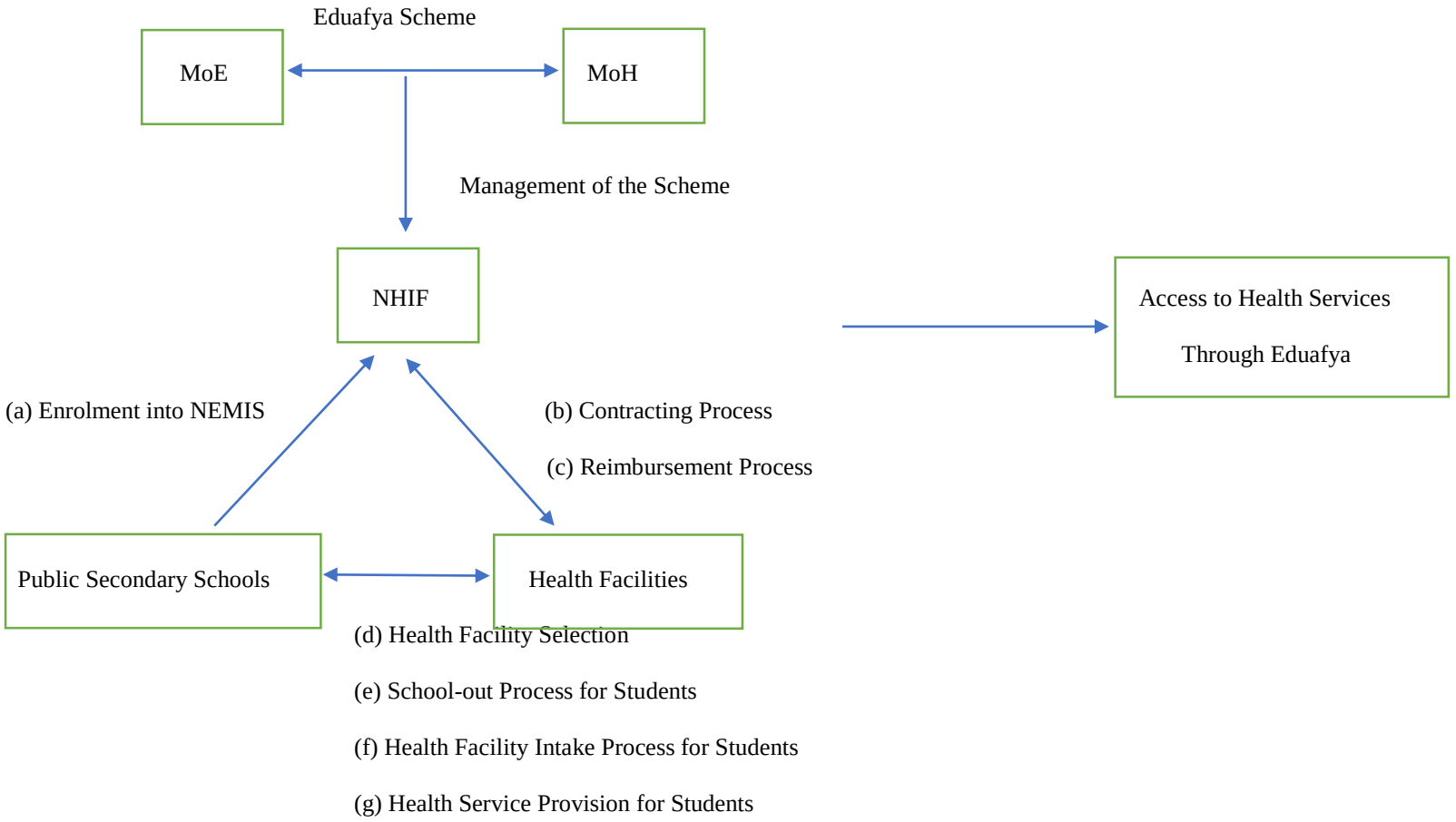

Figure 1 Conceptual Framework

Source: Author's conceptualisation

CHAPTER 3 : METHODOLOGY

3.1 Introduction

This chapter describes the research design, the procedures followed in the collection of data in the field and the coding for data analysis. It also gives a background of the study area, sampling procedures, ethical considerations, as well as challenges encountered during fieldwork.

3.2 Research Design

The overall structure of a study is contingent upon its research design (Rugg & Petre, 2007). This study utilised a descriptive cross-sectional research design. The implementation of Eduafya and potentially related factors were assessed at a specific point in time. The descriptive design helped to disclose the nature of issues involved in a given context, the degree in which they occur and the nexus between them (Bell & Waters, 1981). The study also employed a mixed-method approach, using both qualitative and quantitative research methods.

3.3 Study Site and Population

The study site was Kiambu County in Central Kenya. The County is next to the northern border of Nairobi County. Its capital is Kiambu and has a total of 13 sub-counties. According to the 2019 Kenya Population and Housing Census, the County is second-most populous after Nairobi County, with a total population of 1,706,177 (KNBS, 2019).

Kiambu County provides a good fit as a study site as it provides for the right balance in terms of the rural and urban schools, and has the fifth-highest number of adolescents (KNBS, 2019).

Additionally, the county's gross enrolment rate is 86.4% (County Government of Kiambu, 2018b). The table below shows the age-distribution of adolescents in Kiambu County.

Table 3-1 Adolescents (10-19 years) in Kiambu County

	Male	**Female**	**Total**
10-14 years	113,216	114,114	227,330
15-19 years	101,799	110,122	211,921
Total	215,015	224,236	439,251

Source: Kenya Population and Housing Census (2019)

The study targeted public secondary schools, health facilities and NHIF officers in Kiambu County. According to Kiambu County Director of Education, there are 282 public secondary schools in the County. The schools' distribution in the 13 sub-counties is shown below.

Table 3-2 Distribution of Public Secondary Schools in Kiambu County

	School Category					
Sub-county	**National**	**Extra-County**	**County**	**Sub-county**	**Special Schools**	**Total**
Gatundu North	0	1	7	29	0	**37**
Gatundu South	0	1	14	22	0	**37**
Githunguri	0	2	7	29	1	**39**
Juja	1	0	0	8	0	**9**
Kabete	0	1	5	9	0	**15**
Kiambaa	0	2	1	12	0	**15**
Kiambu	0	5	1	9	0	**15**
Kikuyu	2	0	4	10	0	**16**
Lari	0	3	5	34	0	**42**
Limuru	2	0	5	16	0	**23**
Ruiru	0	0	0	13	0	**13**
Thika East	0	0	2	6	0	**8**
Thika West	1	3	1	6	2	**13**
Total	**6**	**18**	**52**	**203**	**3**	**282**

Source: Kiambu County Education Office (2020)

Kiambu county has 315 health facilities, of which 85 are public, 177 are private, and 53 are Faith-Based and Non-Governmental funded (CGK, 2017). Under the public facilities, the county has two level-5 hospitals (county referral), four level-4 in Gatundu South, Kiambaa, Githunguri, and Kikuyu Constituencies, five level-3 in Githunguri, Gatundu North, Juja, Kiambaa, and Limuru Constituencies. There are 20 level-two (Health Centres) and 54 level-2,

also known as dispensaries which are well distributed within the county (County Government of Kiambu, 2018a).

3.4 Data collection and Sampling

There were two major types of data collected in this research: secondary data sourced from reports and data provided by NHIF and primary data sourced from schools and health facilities through mixed methods. Primary data collection exercise was conducted between September and October 2020. A data needs table specifying the type of data collected, sources and instruments for the research questions are provided in Appendix C.

3.4.1 Secondary data collection

NHIF provided secondary data which included the 2019 NHIF Eduafya annual report and the Eduafya administration guidelines (2019). The 2019 Eduafya report provided information about the state of the scheme in terms of the scheme's structure, utilisation and recommendations. The review of all these NHIF documents partially informed the design of the semi-structured questionnaire for schools as well as the Key Informant Interviews (KIIs) guide for health facilities that were used in primary data collection.

3.4.2 Primary Data Collection and Sampling

3.4.2.1 Schools Data Collection

Convenience and purposive sampling were used to choose three sub-counties (out of the 13 sub-counties in Kiambu County). The former (convenience sampling) was used to select sub-counties based on geographical proximity, while the sub-counties with the highest number of schools were selected through purposive sampling. Based on this, the chosen sub-counties were Githunguri, Kiambu and Ruiru sub-counties. All the public secondary schools (a total of 67 schools) in these sub-counties were eligible for participation in the research, except one school in Githunguri sub-county was a special-school. The school was excluded thus as its dynamics would have been different from the rest of the schools.

Data was collected through phone interviews. To achieve this, contacts of school heads from all the schools in these sub-counties were sought and obtained from the County Director of Education. Four research assistants were trained and engaged in contacting the school heads and conducting interviews with them. Not all the school heads could be reached in the three sub-counties. All school heads who were reached were asked to provide a contact of the person-in-charge of the health of students – if not them (this varied from deputy principal, guidance and counselling teachers, school matrons or boarding teachers).

Data was collected using a semi-structured questionnaire. Phone interviews were all recorded on the interviewers' phones. An average of 28 minutes was used for each phone interview.

3.4.2.2 Health Facilities Data Collection

Purposive sampling was used to select three health facilities involved in data collection. The health facilities mentioned by schools as well as geographical proximity to the schools were the key factors in the selection of the health facilities in the study. Ten key informants (eight from these health facilities) were purposively identified and interviewed based on their interaction with the Eduafya scheme. Additionally, sub-county NHIF Eduafya scheme officers were also interviewed. The covered key informants are shown below.

Table 3-3 Key Informants

Key Informant	Number of KIs Interviewed
Health Facility in-charge/sub-county Medical Officer of Health	1
Health Facility Administrator	1
Sub-county AIDS and STIs Coordinator (SCASCO)	1
Medical Superintendent	2
Maternal and Child Health in-charge	1
Health Facility NHIF officers	3
NHIF Eduafya scheme in-charge sub-county officer	1
Total	10

Source: Field Interviews (2020)

The key informant interviews were conducted face-to-face. The Ministry of Health guidelines on COVID-19 such as social distance, frequent hand sanitisation and use of face masks were adhered to during these interviews. A KII guide was used to guide the interviews while note-taking and recording of the interviews was also done.

3.5 Data Analysis

Both quantitative and qualitative methods of analysing data were employed. Qualitative data, which was gathered using fieldwork notes and recorder, was analysed using thematic and content analysis. The recordings were transcribed, and the transcripts checked for accuracy. Responses from the open-ended parts of the questionnaires were also included. The main ideas were coded. These codes were reviewed to identify recurring opinions and ideas, and these were used to generate themes. Other responses were captured in verbatim through quotes to back interrelated findings.

Quantitative data from the filled semi-structured questionnaire was entered into Statistical Package for the Social Sciences (SPSS v. 22). Descriptive summary statistics such as

frequencies were conducted, aimed at describing the characteristics of the study population. These characteristics included the school respondents, type of schools, and NEMIS coverage in schools. Quantitative data analysed is presented using tables in chapter 4 (four) of this research project paper.

3.6 Ethical Considerations

The National Commission for Science, Technology, and Innovation (NACOSTI) granted authorisation to conduct the research (Appendix E). As stated earlier, this study was part of a larger IDS study; hence the granted research permit, as well as other approvals, included this study. Further approval was sought from NHIF (Appendix F). Authorisations from the Kiambu County Commissioner (Appendix J), the County Director of Education (Appendix G), and the County Director of Health (Appendix I) were also attained before the primary data collection. The County Director of Education prepared a memo to the three sub-counties where the study would be implemented (Appendix H). Informed consent was acquired verbally from the respondents before the interviews commenced.

CHAPTER 4 : FINDINGS AND DISCUSSION

4.1 Introduction

This study assessed the role of institutions in the implementation of Eduafya scheme by using a systems approach. This chapter contains the findings of the study as per the research objectives.

4.2 Objective 1: To determine the level of awareness on Eduafya Scheme among representatives of public secondary schools and health care providers and NHIF officers in Kiambu County

4.2.1 School and Respondents Characteristics

4.2.1.1 Response Rate

As noted earlier under the methodology section in Chapter 3, this study covered school heads, persons in charge of students health such as deputy principals guidance and counselling teachers, school matrons and boarding teachers. A total of 41 school heads and 13 school health-in charges were interviewed.

Table 4-1 School Respondents

Sub-counties	Total Number of Schools	Schools interviewed	Personnel Interviewed
Githunguri	38	26	35
Kiambu	15	7	8
Ruiru	13	8	11
Total	**66**	**41**	**54**

Source: Field Interviews (2020)

For schools, the response rate was 68%, and hence the coverage (of more than 60%) was considered sufficient for undertaking analysis and making conclusions (Gripp et al., 1994).

4.2.1.2 School Respondents

During the interviews, 39 school heads and 15 others (deputy principal, guidance and counselling teachers, school matrons or boarding teachers) were interviewed. The following table shows the respondents who were interviewed.

Table 4-2 Respondents Interviewed

Position/Title of Respondent	**Frequency**	**Per cent**
Principal	39	72.2%
Other	15	27.8%
Total	**54**	**100.0%**

Source: Field Interviews (2020)

4.2.1.3 Type of School

This study covered public secondary schools which were both boarding and day schools distribute by gender, as shown in the table below. Most schools in the survey were day mixed schools (over three-quarters) while boarding schools were few with those of boys accounting for 9.8% and the girls' schools being 4.9%.

Table 4-3 Categories of Public Secondary Schools Interviewed

Type of School	**Frequency**	**Per cent**
Day mixed	32	78%
Boarding boys only	4	9.8%
Boarding girls only	2	4.9%
Day Girls only	2	4.9%
Boarding mixed	1	2.4%
Total	**41**	**100.0%**

Source: Field Interviews (2020)

4.2.1.4 NEMIS – Unique Personal Identification Number (UPI)

The Ministry of Education (MoE) requires all students to be registered on its web-based data management system National Education Management Information System (NEMIS). The system was initiated in 2017 and was rolled out in 2018. Once registered, a student is assigned a Unique Personal Identification Number (UPI) which in the case of this study is used to register them on the NHIF platform.

NEMIS has four modules: institutions, learners, staff and finance modules. It collects data and information from education institutions; processes and reports the status of designed indicators; and is expected to provide the education sector with a solid ground for effective management (MoE, 2018c). According to the MoE, any Kenyan citizen or foreigner enrolled in the Kenya Education system should be registered on NEMIS. Learners are required to provide a valid birth certificate/alien certificate. At the same time, the staff (teaching and non-teaching staff) can be registered into the system by providing a valid ID number/alien number. Those registered into NEMIS are provided with a unique personal code known as Unique Personal Identifier (UPI) (MoE, 2018a).

For public secondary school students to access Eduafya services, they must be enrolled in NEMIS and have a UPI. The following table shows the responses from the school heads on students' enrolment in NEMIS/have UPI. Students' lack of or other issues with their birth certificates such as inaccurate entries of their birth certificate numbers into the system was the main reason given as to why not all students have a UPI number.

Table 4-4 Do all Students have NEMIS/UPI?

Do all students have NEMIS?	Frequency	Per cent
Yes	9	22.0%
No	32	78.0%
Total	**41**	**100.0%**

Source: Field Interviews (2020)

4.2.2 Eduafya Awareness in Schools, Health Facilities and NHIF Officers

This study examined the level of awareness about EduAfya among school heads and persons-in-charge of the health of students in schools as well as a health facility and NHIF staff. Results showed varying levels of awareness demonstrated in inaccurate information to little or no information about EduAfya. A number of head-teachers and persons-in-charge of the heath of students (28%) were not aware of the requirements for a school to do to participate in the scheme. Equally, 20% of them were not aware of students' requirements to access Eduafya benefits. Additionally, there were informational asymmetries even within the schools, with some principals aware of some information, while the other person-in-charge of the health of students unaware and vice versa. Similarly, even though 93% reported that they were aware of Eduafya, only 78% presented accurate information on the scheme as shown in the table below.

Table 4-5 Eduafya Information Accuracy among School Respondents

Responses	Are you aware of Eduafya	Per cent	Is the explanation accurate or not?	Per cent
Yes	50	93%	42	78%
No	4	7%	12	22%
Total	**54**	**100%**	**54**	**100%**

Source: Field Interviews (2020)

KIIs demonstrated this similar trend. For instance, one respondent reported having entirely no idea on the scheme and what it was about and as noted:

I have never heard of it. What does it do? The only one we know about here is Linda Mama (Health Facility Staff, 06/10/2020)

Another KI mentioned that there are still major information gaps in the implementation of the scheme. One of these areas is the lack of clarity on how exactly students are to consume the services.

For example, when students require specialised care that is not available in particular health facilities; who refers where who pays for the ambulance? ... Also during holidays, how do we handle students who come to the health facilities and are not from within the locality of the hospital (therefore do not have introduction letters from their schools)? (Health Facility Staff, 07/10/2020).

Also, it appeared that the NHIF communication strategy on EduAfya is weak or non-existent, and was also not well and effectively shared with the schools and health providers. Some of those interviewed seemed to be advanced in terms of knowledge, while others appeared to have had no additional information, beyond what they got during the initial contact. The updated knowledge of additional information was mainly based on personal initiative. For instance, those who had contacted NHIF were aware that they could serve students during holidays, but others seem to be completely oblivious of this fact stating that they could not serve students during the school break as they would have no clearance from the schools. Moreover, there was a lack of NHIF-provided reference document such a policy or programme manual in all the schools interviewed, and in one of the two health facilities interviewed. Also, there had only been one sensitisation session held by NHIF on Eduafya since the inception of the programme. NHIF officer informed that the second annual sensitisation that was due to be conducted in the year 2020 had not been held due to the interruption as a result of COVID-19.

Informational asymmetries were also evident in terms of the benefits package for students under the scheme. According to all the health facilities interviewed, when students become pregnant, they are no longer covered by Eduafya. NHIF officers at the health facilities reported that health facilities enrol them for Linda Mama as they are no longer eligible for Eduafya scheme. Contra wise, according to NHIF sub-county officer, pregnant students are also covered under Eduafya. Students are allowed to use Eduafya or Linda Mama during pregnancy. As not all health facilities offer Linda Mama services, students being attended in such health facilities are permitted to serve them and claim through Eduafya, as noted by NHIF Eduafya sub-county officer:

> *We have had instances where students use Eduafya in place of Linda Mama, and we have reimbursed their claims (NHIF Eduafya sub-county officer 06/10/2020).*

The low levels of awareness and misinformation also manifested among NHIF officers. For instance, one NHIF officer based in a health facility reported that Eduafya only covers outpatient costs and does not cover inpatient and other expenses. Likewise, more than one NHIF officer and health facility staff said that Voluntary Medical Male Circumcision (VMMC) is not part of the benefits package.

> *VMMC is considered a cosmetic issue, therefore not covered not only by Eduafya but also by NHIF. So far, we have not had a student requires VMMC. The only way this would be covered is it's a botched procedure or had complications. (NHIF Officer, 06/10/2020.*

4.3 Objective 2: To examine how schools, health facilities, and NHIF officers in Kiambu County interact in the implementation of Eduafya

4.3.1 Contractual Processes

As discussed in the review of NHIF-provided documents in Chapter 2, health facilities have different contracts with NHIF. These contracts form the basis upon which health facilities' interact with NHIF. The study found that health facilities were unsure of the contractual process for the scheme. For instance, they were not aware whether the scheme's contract should be a different contract to the one their health facilities have with NHIF or it should be the same contract. Additionally, one of the health facilities lacked their NHIF contract, hence were unsure of the benefit package for the scheme. Furthermore, none of the health facilities had a copy of the scheme's implementation manual or policy or standard operating procedures. All these reasons contributed to the varying levels of awareness and standardisation in the implementation of the scheme.

4.3.2 Reimbursement Processes

As discussed earlier in Chapter 2, the payment mechanism put in place by NHIF for this scheme is Fixed-Fee-For-Service. During the study, health facilities reported that they often charge the maximum allowed amount, depending on the contracts that they have with NHIF. This means they rarely charge the invoice (they do not base this on the treatment accorded to students). The interviewed NHIF officers also confirmed this. The logic used by the health facilities was that some students incur costs in treatment than the capped amount, and therefore they balance this with those who incur fewer costs.

However, in the interviews with public health facilities, they expressed that in their view, NHIF reimbursement processes are in favour of private health facilities at their expense. They (public health facilities) argued that private health facilities are paid much more than them even when they have provided the same service. This matter was also brought to the limelight on high-level discussions; first by a Member of Parliament in 2018, through a proposal to amend the NHIF Act to charge uniform fees for medical procedures and drugs across different hospitals (Mutai, 2018). Secondly, and more recently, by the Cabinet Secretary for Health, when he directed that NHIF standardises the rates for private and public health facilities (Sanga, 2020). A public health facility staff stated that NHIF intentionally frustrates clients seeking services from public health facilities such as through delays for authorisation.

> *There are delays in approvals in public health facilities, which drive patients away from public health facilities, and towards private health facilities … NHIF is a public entity and should be there to enable or support public health facilities, and not frustrate/disadvantage them at the expense of private health facilities (Health Service Provider, 07/10/2020).*

On the other hand, NHIF officers reported that their role is to provide their members with a list of accredited health facilities. It is their members' choice where they receive services. Based on their (members') preference (where they may get attended quicker, drugs/medication, and so on), they decide which health facility to go to. NHIF also stated that they process claims from the public and private health facilities equally, without any prejudice. An NHIF officer said the following about why NHIF reimburses private health facilities higher than public health facilities:

> *Rebates may be lesser for government health facility compared to private since the former receives additional funding from the government – in terms of monetary*

resources, government-employed; hence they get more support from the government. The latter get everything sourced from what they generate; thus, their rebates are higher (NHIF officer, 08/10/2020).

4.3.3 Health Facility Selection

In choosing the facilities, schools considered some factors such as the quality of services in the different health facilities and proximity. Three-quarters of the school respondents informed that they selected health facilities based on the latter. Once the school has chosen the health facility to refer their students to, it becomes the referral facility for the school. In practice, once a facility is selected, students are not given the freedom to opt for an alternative facility of their choice, as noted by 61% of the respondents. However, in some cases, and according to 39% of the respondents, students can choose a health facility (but only from the options provided by the school). If the student does is not able to choose from any of these facilities, the school contacts their parents to take them to the facilities of their choice.

4.3.4 School-out Process for Students

Most of the schools reported that their role in the Eduafya scheme is to support students in registration on NEMIS, identification of health facilities to be used as referral points by the school, and screening of students to filter out those to go to the hospital and those to be provided with medicine at the school. Additionally, schools also prepare students leave-out forms of introduction letters which the students produce at the health facilities to get services. The letters indicate the student's NEMIS number and confirm that they are bonafide students. A few schools (12 – nine-day mixed; one boy's boarding; and two girls boarding school) accompany students to the health facility or provide means of transport for them. A total of 9 school

representatives interviewed (four principals and five school health in-charges) were unaware of the role their school played in the scheme.

Furthermore, most schools detailed a clear and consistent procedure of facilitating students to access health services through Eduafya. Even though this varied from school to school, the typical aspects entailed a process whereby the sick/unwell student reports to a teacher (this could be the class teacher, teacher on duty, deputy principal or principal) who conducts an initial screening to ascertain the seriousness of the case and determine if they need to leave the school for a health facility. In this, there is a possibility of introducing bias. In some schools, there is a likelihood that students of the rich would get preferential treatment. Therefore it may be necessary to minimise gatekeeping. However, as noted by several schools, they have put these measures to ensure that students do not leave school either because they just want to be out of school or because they want to miss a particular lesson. In schools that have nurses, the teachers will refer the student to the school nurse to conduct this screening, provide medication and/or refer the student to the health facility if deemed necessary. In schools that do not have school nurses, teachers refer to the "serious" cases to the health facility, and in a few schools, organise for a teacher or nurse to accompany the student.

There are instances when students do not meet the requirements of these procedures and therefore, cannot access health services through Eduafya. Only 50% of the respondents reported that all students could successfully go through procedures (that they mentioned) and can access health services through Eduafya. For instance, students without NEMIS number are not referred to access health services. In such cases, either their parents are contacted if the issue is serious or they remain in school.

Equally, a significant number of respondents (37%) reported that there are instances where students are reluctant to seek certain health services through the Eduafya programme. These

reasons were several, and can broadly be grouped into individual, school-based, health facility and home/parents-based as shown in the table below.

Table 4-6 Reasons for Students' reluctance to seek services through Eduafya

Category	Illustrative Quotes
Individual-based	…. when the services sought by students are sexual-related such as STIs and pregnancies, they shy away;
	…. when students know that they are faking their illnesses;
	…. when students feel they are ailing from minor conditions;
	… poor students who are afraid of costs;
	… when they have pre-existing conditions or chronic diseases
School-based	… when they lack a means of transport;
	… the school is not aware of the services offered through Eduafya
Health Facility-based	… lack of medication in health facilities;
	… lack of some services from some health facilities;
	… distance from school to health facility;
	… some believe that private hospitals are better than public hospitals
Home/parent-based	… due to the religious background of parents;
	… some parents disallow their children to use public health facilities

Source: Field Interviews (2020)

4.3.5 Health Facility-Intake Process for Students

When the student gets to the health facility, they must produce a leave-out form or introduction letter from the school (which indicates their UPI) for them to be served. This is mandatory when the school is in session.

> *When in school, NHIF recommends that students have a letter from the school/principal to control cases of absenteeism. This enables the school to account for their students at any one point in time (NHIF Officer, 06/10/2020).*

Interviews with health facility personnel found that when students lack this, and they need health services (during school sessions), the NHIF officer at the health facility calls the principal of the school to confirm that the student belongs to their school.

Some school respondents stated that there had been instances where students have been denied services at health facilities due to lack of NEMIS. Consequently, some of them have been referring students to health facilities with other students' NEMIS/UPI number. This is especially in cases where students need health services but are not enrolled in NEMIS, therefore lack UPI number. None of the health facilities reported being aware of this and expressed that as long as a student has an introduction letter, they provide the services and use the UPI number indicated to make claims from NHIF. For the health facilities, thus, it is difficult for them to know the true identities of students. Therefore they entirely depend on the introduction letters.

During holidays and weekends (for day schools), students are still able to access health services through Eduafya provided they produce a copy of their birth certificate, guardians' copy of ID, school ID or both. According to the NHIF officers in health facilities, the NHIF e-system can recognise a student either through UPI or birth certificate number. They need to guardian's copy of ID to "ascertain the student is from home."

> *When schools are not in sessions, such as during weekends and holidays, students require to produce their NEMIS, and health facility is still encouraged to get in touch with principals (NHIF Officer, 06/10/2020).*

4.3.6 Health Service Provision for Students

During the interviews with health facility staff, they informed that common clinical conditions that students present at the health facility include Upper Respiratory Tract Infection (URTI), and abdominal discomfort. Others have minor and soft tissue injuries, skin conditions such as cellulitis and scabies, and Peptic ulcer disease (PUD). However, health facilities confessed that from their experience so far, more students' issues are non-clinical rather than clinical. This finding resonates with other studies that found that school health programmes are not aligned to adolescent health needs (Salam et al., 2016; Weiss & Ferrand, 2019). Similarly, even though the Eduafya benefit package states that it caters for both curative and preventive services at the health facility, the services that health facilities mentioned are curative.

Of the three HFs whose key personnel were interviewed, only one reported that when a student (in uniform) come to the HF to seek services, they are attended to first. The rest of the HF stated that students have to queue together with other patients and wait to be served. According to a health service provider from one of the HFs interviewed, this is a major gap in how the programme was packaged.

> *Also, the way the programme was designed is problematic. When dealing with adolescents and youths, the programme should have first ensured that HFs have youth-friendly centres/clinics, so that when students get there, they can get services tailored to their needs (Health service provider, 07/10/2020).*

A robust health information system is crucial in any health system. In this study, no health facility had a system that disaggregated Eduafya data from the rest of the patient data. Eduafya data was recorded in registers that also capture the rest of the populations' data. As a result, it

was difficult to retrieve Eduafya-specific data, especially on services provided at health facilities. This is a gap that renders internal and external monitoring challenging.

Follow-up on students' health status is necessary to ensure effective management of conditions, especially in boarding schools. In practice, schools do not always follow-up on students treatment; they either have a weak or no follow up strategy with health facilities after their students have been served. Apart from a few schools that reported that they have someone from the school such as a teacher or school nurse to accompany students to the health facility, and some have a provision in the leave-out form or introduction letters for health facilities to acknowledge that they served the student (which the student must produce on returning to the school for filing), most reported not have any follow up mechanisms with health facilities. Conversely, some schools reported once students get sick, they contact their parents and expect that parents take responsibility for their children.

4.4 Objective 3: To establish how institutional interaction influence access to health services by in-school adolescents in Kiambu County.

Eduafya, as a targeted scheme on adolescents and focused particularly on in-school adolescents, is one of a few such initiatives by any government in Africa. Hence, the Kenyan government should be applauded for rolling out the scheme nationally as part of Universal Health Coverage. Additionally, health insurance has the potential to increase utilisation of health services across different population groups, including adolescents (Bailey et al., 2016; Newacheck et al., 1999; Nosratnejad & Shami, 2017; Tilahun et al., 2018; Wang et al., 2018; Woldemichael & Bank, 2015). Eduafya has an almost full coverage of all secondary school students, thus has the potential to increase utilisation of health services among adolescents in Kenya. This study found areas where the scheme has made progress towards this goal, and as

well, identified vital aspects that require strengthening to achieve improved outcomes on adolescent health in Kenya.

Informational Asymmetries are a Barrier to Adolescent Health Service utilisation

Awareness has the potential to improve access and use of health services. Several studies have shown that increasing awareness, not only of the service users but also of other stakeholders such as teachers and parents can improve access and use of service by up to 14-fold (Ayehu et al., 2016; Biddlecom et al., 2007; Lou et al., 2004). This study found awareness of Eduafya is relatively high among schools, health facilities and NHIF officers, but there is mixed and conflicting information about Eduafya. Informational asymmetry is a barrier to access and use of health services. For instance, all the health facilities, schools and NHIF officers were unaware that voluntary medical male circumcision (VMMC) is part of the Eduafya benefit cover, even though it is.

Similarly, an NHIF officer at a health facility reported that inpatient services are not covered under Eduafya. It is thus possible that students seeking these services could not access them, even though they should. Additionally, schools reported that there had been instances when students not registered on NEMIS and lacking a UPI number are not served in health facilities (therefore they were not referring those without UPI number to use the cover in health facilities). Conversely, NHIF and health facilities reported that students can (and do) still access services even without NEMIS (only that health facilities cannot claim payment until such students have the NEMIS number). Thus, such information and awareness gaps are barriers to access and use of adolescent health services and may undo what the scheme is designed to achieve.

Lack of Standardised Eduafya Guidelines and Weak Communication Strategy

One possible cause of the informational asymmetries evidenced is the lack of standardised guidelines on the scheme among schools and health facilities. This means that they lack a point of reference in case they need to clarify an issue regarding the scheme. Additionally, most of the respondents seemed to have had no additional information beyond what they got during the initial contact. This portrays to the inadequacies in the communication strategy of the scheme. Among the respondents and KIIs, there were a few who had updated and accurate information; they attributed this to interpersonal relationships with NHIF personnel, or other informed personnel in their networks. Lack of standardisation of guidelines and lack of or inadequate regular updates on the scheme could make access to services by all students unequal. From a rule design and compliance perspective, rule formalisation conveys legitimacy, better organisational learning, more ownership and greater scrutiny. Therefore, as managers of the scheme, NHIF ought to ensure a proper communication strategy is in place and operationalised. Additionally, NHIF needs to issue standard guidelines and regular updates to schools and health facility heads to ensure that students who need to access health services do so, especially in this time of COVID-19 when staying at home might be prolonged.

Lack of a robust health information system for the scheme is a missed opportunity

A robust health information system (HIS) is vital in any health programme; its necessity cannot be overstated. It is one of the six building blocks of a health system (WHO, 2010). It is vital to decision making through data generation, compilation, analysis and synthesis and communication and use (Hodge, 2012). This is one area most developing countries are deficient, and this contributes to countless missed opportunities to improve service provision (Braa et al., 2007). This study's findings were consistent with this fact. It was difficult for health facilities and NHIF sub-county offices to retrieve Eduafya-specific data, especially

which would show trends in service provision in a specified period. This means that these institutions cannot assess such data, and use it to inform their service provision, improve quality of services or know where to emphasise on in dealing with both students and schools. Even if they attempted, it would be laborious and take a lot of time doing so. This is because the easiest way for them to do that would be through physically going through the registers such as outpatient registers. Such a log captures information for all patients. This is a gap, not only in the implementation of the scheme, but also, in programming and delivery of adolescent health.

Confidentiality and Privacy Issues in Eduafya Implementation

Confidentiality and privacy are critical in the implementation of adolescent health programmes (Bankole & Malarcher, 2010; Erulkar et al., 2005; Kamau et al., 2006; Mazur et al., 2018; Sawyer et al., 2018). Issues of confidentiality were raised in the Eduafya scheme (Appleford & Mbuthia, 2020), and this study found the same practices that would infringe on adolescents' privacy were still persistent. This study found that at the school level, teachers determine the seriousness of students' health issues to ascertain, which ones require referral to the health facility. While this was justified as a means of protecting misuse of the scheme and reducing cases of absenteeism of students, it raises critical concerns for adolescents' health and well-being. Questions regarding the criteria for determining the "seriousness" of the issues presented by the students and the likelihood that students can fake for a case to appear serious, while others may have "serious" cases, and still be denied access to health services. Additionally, adolescents are likely to tell their guardians or parents 'what they think they want to hear' (Kamau et al., 2006). Thus, while schools have a function to play in safeguarding students, which may have led to the current practice of students requiring permission to visit a health facility, reasons for seeking care should remain private so that students can seek more sensitive services should they require these. For this to happen, students would need to know that these are available and offered confidentially.

The Need for Youth Friendly Service Provision

Several studies show that youth-friendly service provision increases health service uptake among adolescents (Dickson-tetteh et al., 2001; Godia et al., 2014; Mazur et al., 2018) (Bensussen-Walls & Saewyc, 2001). Nonetheless, only 12% of public hospitals offer comprehensive youth-friendly services in Kenya (Government of Kenya, 2014). This is despite having adolescent and youth-friendly service policy first in 2005 and revised in 2016 (MoH, 2005, 2016b). Thus, in Kenya, similar to South Africa (Jonas et al., 2019), the availability of a YFS policy is not a guarantee to the provision of YFS in health facilities. This is a demonstration that there is still a gap between policy formulation and implementation. Additionally, for adolescents and young people, short waiting time, confidentiality and friendly staff are the most imperative features in their definition of YFS (Erulkar et al., 2005). Yet, in this study, health facilities reported dealing with students as they do with other patients. Hence, this is a possible barrier to their access and use of health services.

Public vs Private Health Facility Interactions with NHIF

Health financing is vital on the road towards UHC (Bump, 2015; Chuma & Okungu, 2011; Fried et al., 2013). The processes by which funds are collected, pooled, disbursed to purchase health services for populations are critical questions that need careful consideration. The government of Kenya has identified NHIF as the vehicle on the road towards UHC in the country (Okech & Lelegwe, 2015). One main issue that came up in this study is how NHIF deals with private and public health facilities in the processing of claims, and mainly, on the differentiated payment rates, based on this. As discussed in the finding, this is an issue that has been discussed in parliament in 2018 through a proposed amendment bill and even recently by the Cabinet Secretary of Health. During this study, NHIF officers reasoned that public health

facilities have lower negotiated rates as they are government-funded, hence receive more support from the government than private health facilities.

However, Kenya's constitution provides that all citizens have a right to quality healthcare, and the government-mandated to guarantee this (Government of Kenya, 2010). Hence, the government has a major role in supporting and strengthening public health facilities to provide quality healthcare to citizens and thereby achieving its constitutional mandate. Additionally, even though it can be argued that the government incentivises the private health facilities to reduce the burden of the provision of healthcare on public health facilities, it is also true that the government has no business financing private healthcare provision. When public health facilities express unfairness from NHIF in terms of processing of payments, they may not be motivated to provide services to adolescents. Therefore, this could be a weak point in their willingness to provide adolescent health services.

CHAPTER 5 : SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This study assessed the roles and interactions of health and education institutions in the roll-out of in-school adolescents' health scheme (Eduafya), by determining the level of awareness of the scheme and examining fundamental interactions amongst these institutions. Further, the study explored how all these hinder or promote access to and use of adolescent health services. This chapter summarises and concludes the study. Finally, recommendations for practice, policy and further research are deliberated based on the study.

5.2 Summary

The study assessed Eduafya scheme to understand the implementation of one of the government's avenues towards realising universal health coverage in Kenya. Through a systems perspective, primary implementers of the scheme were engaged to understand out how they have interacted with the scheme and with each other in the implementation of the scheme. The research was undertaken in three sub-counties of Kiambu County.

Secondary data comprising of the schemes annual performance report for the 2018/2019 period and the Eduafya administration guidelines (2019). Primary data from semi-structured interviews with 54 school heads and persons in charge of student health from 41 public secondary schools in Kiambu County and ten key informants from health facilities and NHIF were also interviewed.

Results showed that there were varying awareness levels amongst schools, health facilities and NHIF officers. Some health service providers were utterly unaware of the scheme, while some

lacked clarity on key issues on Eduafya such as contractual processes, benefits package & services. There were those advanced in terms of knowledge and updates on the scheme, while at the same time, others had no additional information beyond what they got during the initial contact. As such, updates on the scheme are shared selectively and based on individual schools and health facilities initiative. Thus, the NHIF communication strategy on EduAfya is weak or non-existent. Equally, health facilities were unaware of the scheme's contracting processes and lacked implementation guidelines (SOPs), policy or programme manual for reference. Only one sensitisation forum held by NHIF since the inception of the scheme.

Schools' and health facilities' interaction in this scheme mainly began with the integration of the NHIF and NEMIS system to enable automated registration of students. Since then, public secondary school students have been accessing health services from health facilities contracted by NHIF to provide Eduafya services all over the country. Schools identify health facilities to refer their students to (NHIF advises them to select those near the school). Students seeking healthcare are then provided with an introduction letter by their schools and go to the health facility for service provision. Perceptions that private health facilities were favoured than public health facilities in the NHIF EduAfya payment of claims processes were also noted. Moreover, most of the services provided by health facilities are more curative than preventive, despite the latter being the most needed services by adolescents.

Furthermore, both health facilities and NHIF lack a robust health information system for the scheme. Hence, missed opportunities to target and focus health services towards adolescent health needs adequately. There were also confidentiality and privacy issues noted in how students are handled, informational asymmetries on the scheme, lack of standardised eduafya guidelines and weak communication strategy, as well as the lack of youth friendly centres in health facilities are all potential barriers to access to health services by adolescents.

5.3 Conclusion

This study was out to assess how schools and health facilities interact in the implementation of the Universal Health Scheme (Eduafya) services for secondary school students in Kiambu County and how these interactions influence public secondary school student's access and use of health services. Results indicate the design and planning for roll-out of the scheme was top-down, and mainly driven by the government. It involved three institutions – MoE, MoH and NHIF at the top level. The lower levels were not involved in the design of the scheme or what to include in the benefits package. They merely learnt about the scheme when it was rolled out, and for most schools, there was no further communication regarding the scheme from NHIF. At the same time, the adolescents, who are the direct beneficiaries of the programme, were not involved in the design and roll-out of the scheme. Thus, there have been gaps in implementation. Interviews with the schools showed that students do not have a mechanism for giving feedback on the effectiveness of the scheme in addressing their health needs.

The above notwithstanding, results show that the school health EduAfya scheme has increased adolescent health services access. However, the exact extent to which it has done this is yet to be determined as health facilities', and NHIF data is not disaggregated by the scheme, nor on beneficiaries. The scheme's data is captured with the rest of the patients' data, hence challenging to tease out adolescent health services. As such, some shortcomings need to be addressed through a multi-stakeholder approach. The addressing of these gaps in the government programme will lead to a more harmonious working between MoE and MoH as well as sustainability of adolescent-responsive systems, to the benefit of the health of the country's young people and therefore Kenya's development.

5.4 Recommendations

This study makes recommendations on strengthening the Eduafya scheme, as well as the systems around the scheme to improve health outcomes for in-school adolescents:

- The levels of low awareness on the scheme across multiple stakeholders are worrying. There is need to NHIF to conduct mass and regular sensitisation forums with stakeholders, especially schools and health facilities. Additionally, NHIF should formulate and operationalise a communication strategy that clearly defines communication channels, frequency, and personnel to be involved in passing down communication and updates to relevant stakeholders promptly.
- NHIF to support schools and health facilities through their sub-county offices to come up with strategies of engagement. This will ensure that expectations are managed from both the parties and roles in improving adolescent health outcomes clearly defined. This will strengthen school- health facility interaction towards advancing the quality of services offered to students and ensure pro-activeness of the system is enhanced to identify and address adolescent health issues early and in advance before escalation.
- Health facilities need systems in place to handle adolescents and young people, who comprise more than a third of Kenya's population. The government had begun this exercise and formulated National Guidelines for Provision of Adolescents and Youth Friendly Services (originally in 2005 and revised in 2016) as well as training of health service providers on the same (Youth Friendly Service Provision). However, health facilities still lack systems that demonstrate that this has been operationalised. Health facilities can use some of the reimbursements from NHIF for Eduafya services to set up Youth Friendly Centres, and with support from key stakeholders such as the Ministry of Health, county government and NHIF. Additionally, from the interviews conducted, it is clear that

stakeholders feel there has been neglect of adolescent and young people health by their devolved units. Devolved governments should therefore put more emphasis and resources on adolescent and youth health.

- A multi-stakeholder engagement is required to address the persistent problem of birth certificates in the country. Even though things have improved in as far as processes in the Birth and Death Registration Office is concerned, there is still much more to be done as there is still a significant number of students without birth certificates. NHIF and MoE can also consider finding an alternative to birth certificates to ensure that even students who lack these are also covered under Eduafya.
- NHIF to work with the Ministry of Health towards improving health information systems for Eduafya. This will ensure that adolescent-specific data is captured, and therefore can be used to improve on service delivery. Additionally, put in place mechanisms for ensuring data demand and use is fostered towards enhancing the quality of services offered through the scheme.

5.5 Suggested Further Research

This study only focused on Kiambu County and covered three public health facilities in the county. There is thus the need for studies that cover more scope in terms of additional health facilities, including private health facilities and more counties as well. Additionally, this study did not cover special schools. Thus, future studies need to interrogate how the devolution of services affects vulnerable populations. Furthermore, even though this study had initially aimed to incorporate secondary school students as respondents, the effects of COVID-19 in the country made this impossible. As such, future studies should include them as they are the primary beneficiaries of the scheme.

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APPENDICES

Appendix A: Semi-structured Questionnaire for Secondary School Heads

Introduction:
The Institute for Development Studies (IDS), University of Nairobi, with funding from the *Hivos Southern Africa Regional SRHR Fund*, is undertaking a research project focusing on the roll-out of the universal health coverage (UHC) scheme for public secondary schools in Kenya – the **Eduafya**. The Eduafya programme is rolled-out through the National Hospital Insurance Fund (NHIF) scheme for students in public secondary schools in Kenya. It is one of the government's 'Big-Four' Agenda on UHC and was launched in 2018. This research is aimed at understanding how the roll-out of the Edu-Afya health scheme has impacted on students (in-school adolescents), and whether it has enhanced adolescents *(boys and girls)* access to health services, and more so to the sexual and reproductive health (SRH) services. It also seeks to understand whether the scheme is responding to the unique sexual and reproductive health needs of adolescents (age and gender-specific), service provision (preventive, promotive or curative), and the inclusiveness of services.

I (we) have contacted you because you are the Principal (Representative) of …… Secondary School. I (we) would like to talk to you about your school's experience with the Eduafya Scheme. Specifically, I/we would like to know what you have identified as the main strengths, barriers, and gaps (policy, facility-level, societal, gender, etc.) in the scheme concerning the following: enhancing (or hindering) students' (in-school adolescents) interaction, access and consistent use of health services and mainly the sexual and reproductive health services. I (we) wish to kindly request you to grant me an interview to discuss these issues. For the information not with you at the moment, we can get in touch with you later and document this. Please note that participation in the study is voluntary. The information that you are going to share with me (us) will be treated with confidentiality and will be used only for this study. There will be no monetary compensation for participating in the study.

Given that this is a telephone interview, I (we) request for your permission to audio-record the interview to save time. Again, the recorded interviews (conversations) will be used only for this study and will only be accessible to the research team members. Should you require any additional information or have any questions or concerns that you may want to raise, feel free to contact the following persons via email or telephone: Dr Anne Kamau, Researcher, Institute for Development Studies (IDS), University of Nairobi. Email: anne.kamau@uonbi.ac.ke; tel. 0711-966332; OR Job Muriithi, Co-investigator, Email: jobkims@students.uonbi.ac.ke; Tel. 0715-484131.

Section A: General Information

Date of the Interview: ……	**The start time of the interview:** ……
Name of School: ……..……	**County/ Sub-county:** 1. Kiambu (a) Githunguri (b) Ruiru (c) Kiambu 2. Murang' a …… 3. Nairobi ……..
Respondent name (optional):	**Position/job title**

……..……..……..……	1. Principal Other (Specify) ……..……

Section B: School Characteristics

B1.	Type of school *(tick applicable)*	1. Day mixed school 2. Day boys-only school 3. Day girls-only school 4. Boarding mixed school 5. Boarding boys-only school 6. Boarding girls-only school 7. Other (specify) ……	
B2.	School Sponsor	1. Yes *2.* No	
B3.	School Sponsor	If yes, specify ……..	
B4.	How old is the school?	Indicate year started (if known) ……	
B5.	Number of students *(by gender if mixed school)*	Boys: …….	Girls: …….
B6.	Number of students *(by class if known)*	Form 1: …… Form 2: …… Form 3: …… Form 4: ……	Form 1: …… Form 2: …… Form 3: …… Form 4: ……
B7.	Do all students have the *National Education Management Information System (NEMIS)* registration?	1. Yes 2. No (explain why) …….. …… …….. …….. ……	

Section C: Eduafya School Health Programme Registration

C1.	Are you aware of the Eduafya health scheme for public secondary schools?	1. Yes 2. No (skip to G1)
C2.	If yes, please share with me what you know about the scheme	…….. …… …….. …….. ……
C3.	What is required for a school to be enrolled (participate) in the Eduafya scheme?	…….. …… …….. …….. ……
C4.	What is required for students to enrol (be eligible) in the	……..

	Eduafya scheme?– probe for NEMIS registration, age, etc.	…… …….. …….. ……

Section D: School's Role in Access to Eduafya Services

D1.	What is your school's role in the Eduafya scheme?	…….. …… …….. …….. ……
D2.	Have your students been accessing health services through Eduafya?	1. Yes 2. No
D3.	Please explain your response to D2 above.	…….. …… …….. ……..
D4.	How often are students allowed to use the services through the Eduafya programme? Probe for school restrictions.	…….. …… …….. …….. ……
D5.	What is the school procedure for facilitating students to access health services through Eduafya?	…….. …… …….. …….. ……
D6.	Are there instances where students fail to meet the required criteria? Please explain	…….. …… …….. ……..
D7.	Are there additional criteria that the school uses to allow students to access the Eduafya services? Please explain	…….. …… …….. ……..
D8.	Are there instances where the school is unable to approve students' access to health services? Please explain	…….. …… …….. …….. ……

Section E: Interaction with the Health Care system

E1.	How does the school determine the health facility to refer students to seek services from? Please explain	…….. …… …….. …….. ……
E2.	Are the students allowed to choose the health facility to seek services from? Please explain	…….. …… …….. …….. ……
E3.	What documentation does the student require from the school to access health services?	…….. …… …….. …….. ……
E4.	How does the school ensure that students get the desired health care services?	…….. …… …….. …….. ……
E5.	Are there instances where students are reluctant to seek certain health services through the Eduafya programme?	1. Yes 2. No
E6.	If yes, what services?	…….. …… ……..
E7.	If yes, why?	…….. …… …….. ……..
E8.	Are there instances where students have been denied access to health services through the scheme at the health facility?	1. Yes 2. No
E9.	If yes, please explain	…….. …… …….. ……..

E10.	Does the school have a feedback mechanism for getting feedback on students' experience with the services?	1. Yes 2. No
E11.	If yes, please explain	…….. …… …….. ……..
E12.	How have the students rated the services?	…….. …… …….. ……..
E13.	Does the school have a mechanism or system of ensuring students do not misuse/abuse Eduafya services? Please explain	…….. …… …….. …….. ……

Section F: Adolescents' Sexual and Reproductive Health (ASRH) Services Use

I am now going to ask you specifically about adolescents' sexual and reproductive health services (ASRH).

F1.	What are the ASRH services included in the Eduafya programme? *(E.g. probe for menstrual hygiene, sexual health education and information, prenatal care, contraception, STIs including HIV prevention, management and treatment, etc.?)*	…….. …… …….. …….. ……
F2.	Are there certain ASRH services that are excluded?	…….. …… …….. ……..
F3.	Are students comfortable to access and use SRH services through the Eduafya programme? Please explain.	…….. …… …….. ……..
F4.	In your view, should ASRH services be part of the Eduafya programme?	1. Yes 2. No

F5.	Please explain your response above	…….. …… …….. …….. ……
F6.	What challenges, if any, do the students face in accessing ASRH services through Eduafya?	…….. …… …….. …….. ……
F7.	Are there any challenges that students face in accessing Eduafya services in general? Probe for financial, mobility, socio-cultural, etc.	…….. …… …….. …….. ……
F8.	Are there any other challenges that the school faces regarding the Eduafya services?	…….. …… …….. …….. ……
F9.	What has the school done to address these challenges?	…….. …… …….. …….. ……
F10.	What else can be done to address the challenges?	…….. …… …….. …….. ……
F11.	Is there anything else that you would like to share with me?	…….. …… …….. …….. ……
F12.	Before we conclude, we would like to talk to someone else who directly deals with the students' health issues *(if not you)*. Please give me their contacts.	…….. …… …….. ……..

Section G: Schools not benefiting from Eduafya program

*Ask the following questions if C1 is **NO***

G1.	If you are not aware of Eduafya or not benefiting from the program, how does the school handle health issues?	…….. …… …….. …….. ……
G2.	Is there anything else that you would like to share with me?	…….. …… ……..
G3.	Before we conclude, we would like to talk to someone else who directly deals with the students' health issues *(if not you).* Please give me their contacts.	…….. …… …….. ……..

Thank you very much for your time.

Time interview ended: ……

Appendix B: Key Informant Interview Guide for Health Care Providers

Introduction:

The Institute for Development Studies (IDS), University of Nairobi, with funding from the Hivos Southern Africa Regional SRHR Fund, is undertaking a research project focusing on the rollout of the UHC scheme for adolescents in secondary schools in Nairobi and Central Kenya. The project seeks to examine how the programme roll-out is impacting on access and use of sexual and reproductive health (SRH) services. This is with the understanding that the UHC programme is part of the government of Kenya 'Big-Four' Agenda. The National Hospital Insurance Fund (NHIF) scheme for secondary schools was launched in 2018 and targets students attending public secondary schools in Kenya. This research on seeks to investigate whether the roll-out of adolescents' NHIF universal health scheme has enhanced adolescents (boys and girls) access to and use of SRH services (preventive, age, gender and need specific), and whether the services promote inclusiveness.

I/We have contacted you because you are based at a health facility that is enrolled in the provision of under the Eduafya programme, and I/we would like to talk to you about your experience with service provision. Specifically, I/we would like to know from you what you have identified (so far) as the programme strengths, barriers and gaps (policy, facility-level, societal, gender etc.) of the NHIF secondary school health scheme in enhancing (or hindering) secondary school adolescents interaction, access and consistent use of SRH services. I/we are kindly requesting you to participate in the study. Please note that participation is voluntary and that you could withdraw at any time. The information that you are going to share with me/us will be treated with confidentiality and will be used only for this study. There will be no monetary compensation for participating in the study.

Given that this is a telephone interview, I/we seek your permission to audio-record the interviews. Please note that the recorded interviews (conversations) will be used only for this study, and will only be accessible to the research team members. Should you require any additional information or have any questions or concerns that you may want to raise, feel free to contact the following persons via email or telephone: Dr Anne Kamau, Researcher, Institute for Development Studies (IDS), University of Nairobi. Email: anne.kamau@uonbi.ac.ke; tel. 0711-966332; OR Job Muriithi, Co-investigator, Email: jobkims@students.uonbi.ac.ke; Tel. 0715-484131.

Section A: General Information

1. Date of the Interview	County:
2. Name of the respondent	Job title/description
3. Contact (Optional)	
4. Name of Health facility	
5. Type of facility (tick applicable)	Government (dispensary) Government (health centre) Government (County – Level 5) Government (other specify……..) Private Other (specify)……
6. Number of health staff at the facility	
7. Number of staff trained in adolescents' health	

Section B: Health Facility Programme Basic Information

1. Are you aware of the NHIF secondary school health programme (Eduafya? Please explain……
2. How long have you interacted with Eduafya?
3. How exactly have you interacted with Eduafya?
4. Briefly share with me your experience with the NHIF secondary school health programme (Eduafya).
5. What health services does the Eduafya package include?
6. What would you say is the best feature of Eduafya?

7. Are there some health services that are excluded from the Eduafya package? Please explain (probe for family planning, prenatal care, contraception, STIs treatment etc.)
8. How is the Eduafya programme structured? – E.g. are there quotas, restrictions on the number of users per student (patient) etc.

Section C: Health Provider Role in Access to ASRH Services

1. What would you say is your role in the Eduafya scheme?
2. What are the facility requirements for students to use/access health services through the Eduafya programme?
3. In general, what services are most frequently used by students (no individual students or school details – ensure you maintain confidentiality?)
4. Are there some services that the students wish to access but and lacked or were unable to use due to restrictions? Please explain.
5. Are there some instances where students are reluctant to seek certain health services through the Eduafya programme? (i) Yes…… (Please explain) (ii) No……
6. Are there instances when students are turned away or are denied services (e.g. because of eligibility, cost issues?) Please Explain……

Section D: Interaction with the Health Care system

1. Once the health facility has provided services, what else are you required to do?
2. From your interaction with students who have accessed the Eduafya services, how have they felt about (rated) the services/scheme?
3. What major challenges (if any) has the health facility faced in providing health services through the Eduafya programme?
4. What has the facility done to address these challenges?
5. What else can be done to address the challenges and ensure that students have access to needed quality health services?
6. Have you been trained on the provision of adolescent and youth-friendly service provision?
7. If yes, when were you trained?
8. Who conducted the training, what was the scope of this training, and how regular is it?
9. Is there anything else that you would like to share with me?

Thank you very much for your time

Time interview ended: …….

Appendix C: Data Needs Table

#	Research Question	Data Needs	Type of Data	Data Source	Instrument
1	What is the level of awareness on Eduafya Scheme among Public Secondary Schools and Health Facilities?	(a) Awareness amongst school representatives, health facilities and NHIF officers	Qualitative Quantitative	Schools heads School health in-charges Health Facility Staff NHIF officers	Semi-structured questionnaire Key Informants Guide
2	How do schools, health facilities, and NHIF interact in the implementation of Eduafya?	(a) Contractual Process (b) Reimbursement Processes (c) Health Facility Selection (d) School-out Process for Students (e) Health Facility intake Process for Students (f) Health Service Provision for students	Qualitative Quantitative	Schools heads School health in-charges Health Facility Staff NHIF officers	Semi-structured questionnaire Key Informants Guide
3	How do institutional interactions influence access to adolescent health services?	(a) Barriers and promoters of adolescent health access	Qualitative	Schools heads School health in-charges Health Facility Staff NHIF officers	Semi-structured questionnaire Key Informants Guide

Appendix D: NHIF Eduafya Benefit Package

Outpatient	• Caters for both curative and preventive services at the health facility. • The cover will be categorised into two levels of care mainly: o General Outpatient Services: Outpatient services provided by or on the order of a clinician/ physician who is licensed as a general practitioner. o Specialised Outpatient Services: Outpatient services provided by a specialist on referral by a clinician/physician. • The outpatient scheme caters for all routine outpatient services as per Kenya essential package for health (KEPH). These include: Routine outpatient consultation; Diagnostic Laboratory and Radiology services; Prescribed physiotherapy/hydrotherapy; Outpatient optical care and treatment consisting of consultation, eye testing and a prescription for ophthalmic treatment; Outpatient Male circumcision; Prescribed drugs and dressings; Also; o Optical services: Caters for expenses related to eye treatment, including Consultation; Eye testing; Prescription for ophthalmic treatment and Prescription of spectacles; Accident related inpatient ophthalmological cases will be covered under the standard inpatient benefits to the full inpatient limit in a comprehensive NHIF inpatient contracted health care facility. Optical refraction services shall be accessed in Optical Units in Government health facilities. Exclusions: correction of refractive errors and cost of glasses and frames; Laser correction of eyesight, Cosmetic, anti-glare and photochromatic lenses o Dental services: This benefit caters for outpatient dental procedures, which include but not limited to: Extraction which provides for surgical extraction, anaesthetic fees, hospital and operating theatre cost; root canal; Fillings; Dental X-ray Services; Accident related inpatient Dental cases will be covered under the standard inpatient surgical benefits to the full inpatient limit in a comprehensive NHIF inpatient contracted health care facility. Dental services shall be accessed in Dental Units in Government health facilities. Exclusions: The cover does not include the cost of replacement of old dentures, bridges, plates and Orthodontic treatment of cosmetic nature o Vaccine Options: tetanus vaccines, anti-rabies, yellow fever and anti-snake venom. Any other vaccines shall be dispensed subject to approval by relevant authorities. o Chronic, Pre-existing conditions & HIV/AIDS, including the cost of ARVs covered up to the full outpatient cover, specialised renal conditions, and oncology diseases. o Ambulance Services. • Referral for specialised services which includes the following: Drug and Substance Abuse Rehabilitation Services as by NHIF Essential Benefit Package guidelines to accredited rehabilitation healthcare providers; Renal services as per NHIF policy guidelines; Specialised radiological diagnostic services, i.e. Ultrasound CT scan and MRI as per NHIF policy guidelines; Treatment of Chronic ailments, e.g. Diabetes and Hypertension etc.; Cancer medical care and treatment

	services which include radiotherapy services, chemotherapy services or surgical intervention as per NHIF policy guidelines. Services shall be accessed in NHIF defined contract A and B health facilities.
Inpatient	• Inpatient shall be on a referral basis from a recognised NHIF outpatient HCP. This cover includes medical and surgical conditions. It consists of the following: Hospital accommodation charges; Pre-hospitalisation diagnostic services; Doctor's (physician, surgeon & anaesthetist) fees; Nursing charges; Drugs/medicines, dressings and internal surgical appliances; Diagnostic laboratory services; Rehabilitation services; Operating theatre services; Radiological diagnostics, e.g. x-ray, ultrasound, CT scan, MRI, E.C.G.; Inpatient physiotherapy; Surgical services. Access shall be in contract A and B facilities, unless on cases of services not available in these facilities, in which case NHIF approval shall be required.
Emergency Road Rescue	Ambulance services for transportation and transfer of a member for treatment from a place of incident or on referral where adequate care is not available to the next available NHIF accredited hospital within the territorial limits of Kenya.
Emergency Air Rescue	Emergency Air Rescue Services will be provided for transportation and transfer of a sick/injured member to an NHIF accredited facility where emergency road rescue is not feasible.
Overseas Treatment	Treatment costs arising from a condition that warrants treatment overseas because the treatment is not available in Kenya will be covered subject to preauthorisation from NHIF. Where emergency treatment is required when a student has travelled abroad on official school trips is also subject to preauthorisation from NHIF.
Last Expense	NHIF shall upon written notification of the death of a Member while this cover is in force, pay to the next of kin or such other person or persons as the MoE may in writing direct, the amount specified in the limits within two (2) days to cater for the funeral expenses subject to provision of a fully completed Claim Form, Copy of burial permit and birth certificate.
Group Life Cover	NHIF shall upon written notification of the death of a Member while this cover is in force, pay to the next of kin or such other person or persons as the MoE may in writing direct, the amount specified in the limits to cater for death benefits subject to provision of a fully completed Claim Form, Original death certificate, Original burial permit and Original birth certificate.

Source: NHIF, 2019

Appendix E: NACOSTI Research License

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **988057**

Date of Issue: **26/August/2020**

RESEARCH LICENSE

This is to Certify that Dr.. Anne Wairimu Kamau of University of Nairobi, has been licensed to conduct research in Kiambu, Muranga, Nairobi, Nyeri on the topic: Roll-out of Adolescents Universal Health Scheme in Kenya and Implications for Access and Use of Sexual and Reproductive Health Services for the period ending : 26/August/2021.

License No: **NACOSTI/P/20/6219**

988057

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix F: NHIF Authorisation

Afya Yetu. Bima Yetu

HF/PUB/13/VOL. II/170

23rd September 2020

Prof. Karuti Kanyinga
Institute for Development Studies
University of Nairobi
NAIROBI.

Dear Sir,

RE: REQUEST FOR ACCESS TO DATA FOR THE STUDY ON "ROLL-OUT OF ADOLESCENTS UNIVERSAL HEALTH SCHEME IN KENYA AND IMPLICATIONS FOR ACCESS AND USE OF SEXUAL AND REPRODUCTIVE HEALTH SERVICES"

Reference is made to your letter dated 11th August 2020, in which you requested the Management of National Hospital Insurance Fund (NHIF) to grant you access to the Fund's data for a study on "roll-out-out of adolescents universal health scheme in Kenya and implications for adolescents access to sexual and reproductive health services". In the application, you sought to be granted reasonable access to EduAfya NHIF data in order to study the pattern of use of EduAfya supported health services in addition to engaging Senior NHIF officials and programme staff regarding the EduAfya health insurance.

We are pleased to inform you that your request has been granted and the authorization is for the duration of the study, with effect from the date of this letter. Further, you are advised to report to the Manager, Research & Policy at NHIF Head office on the 8th floor before embarking on the exercise. Upon completion, you will be expected to submit a copy of your research report to NHIF Chief Executive Officers' office.

If you need further assistance, do not hesitate to contact the undersigned and we look forward to the study outcome.

Yours faithfully,

DR. PETER KAMUNYO GATHEGE
CHIEF EXECUTIVE OFFICER

National Hospital Insurance Fund, Ragati Road P.O. Box 30443 - 00100 Nairobi, Kenya
Tel: (020) - 2723255/6, 2723246, 2714793/94 Fax: 2714806 E-mail:info@nhif.or.ke Website: www.nhif.or.ke

KENYA VISION 2030

Appendix G: Kiambu County Director of Education Authorisation

MINISTRY OF EDUCATION
State Department of Early Learning & Basic Education

Telephone:Kiambu (office) 0768 970412

Email:directoreducationkiambu@yahoo.com
When replying please quote

COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY
P. O. Box 2300
KIAMBU

KBU/CDE/DEPT 8/VOL. I

10th September, 2020

Dr. Anne Wairimu Kamau
University of Nairobi
P.O Box 30197 - 00100
NAIROBI

RE: RESEARCH AUTHORIZATION

Reference is made to NACOSTI letter License No: NACOSTI/P/20/6219 dated 26th August, 2020.

You have been authorized to conduct research on ***"Roll-out of Adolescents Universal Health Scheme in Kenya and implications for access and use of sexual and reproductive health services"*** in Kiambu Count, Kenya for a period ending 26th August, 2021

You are also requested to share with this office a copy of the research findings.

COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY
10 SEP 2020
P.O. Box 2300 - 00900
KIAMBU

VICTORIA W. MULILI
COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY

MY EDUCATION, MY FUTURE ***MY EDUCATION, MY FUTURE***

Appendix H: Kiambu County Director of Education Memo to Sub-county Directors of Education

MINISTRY OF EDUCATION

State Department of Early Learning & Basic Education

Telephone:Kiambu (office) 0768 970412

Email:directoreducationkiambu@yahoo.com
When replying please quote

COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY
P. O. Box 2300
KIAMBU

KBU/CDE/DEPT 8/VOL. I

17th September, 2020

The Principals Secondary Schools
- Kiambu
- Ruiru
- Githunguri

Thro'
The Sub-County Directors of Education
- KIAMBU
- RUIRU
- GITHUNGURI

RE: RESEARCH AUTHORIZATION

Mr. Herbert Wamwalwa will conduct a research on effects of Edu-Afya Policy in your schools.

Please accord him the necessary assistance.

COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY
17 SEP 20
P. O. Box 2300 - 00900
KIAMBU

VICTORIA W. MULILI
COUNTY DIRECTOR OF EDUCATION
KIAMBU COUNTY

MY EDUCATION, MY FUTURE *MY EDUCATION, MY FUTURE*

Appendix I: Kiambu County Director of Health Authorisation

COUNTY GOVERNMENT OF KIAMBU
DEPARTMENT OF HEALTH SERVICES

All correspondence should be addressed to HEAD
HRDU – HEALTH DEPARTMENT
Email address: mndiritu@gmail.com
mkwasa@live.com
Tel. Nos: 0721641516
0721974655

HEALTH RESEARCH AND DEVELOPMENT
UNIT
P. O. BOX 2344 – 00900
KIAMBU

Ref. No.: KIAMBU/HRDU/20/09/22/RA_KAMAU Date: 22nd SEPT 2020

TO WHOM IT MAY CONCERN

RE: CLEARANCE TO CONDUCT RESEARCH IN KIAMBU COUNTY

Kindly note that we have received a request by Dr. Anne Wairimu Kamau of University of Nairobi to carry out research in Kiambu County, the research topic being on "**Roll-out of Adolescents Universal Health Scheme in Kenya and Implications for Access and Use of Sexual and Reproductive Health Services**"

We have duly inspected her documents and found that she has been cleared by NACOSTI to carry out the research for a period ending **26th August 2021**. She thus does not need any further clearance with another regulatory body in order to conduct research within the county of Kiambu.

However, it is incumbent upon the institution where she is carrying out research to ensure that she receives adequate supervision during the process of conducting the research. This note also accords her the duty to provide a feedback on her research to the county at the conclusion of her research.

DR. MWANCHA KWASA
COUNTY CLINICAL RESEARCH OFFICER
KIAMBU COUNTY

Appendix J: Kiambu County Commissioner Authorisation

(58)

OFFICE OF THE PRESIDENT
MINISTRY OF INTERIOR AND CO-ORDINATION OF NATIONAL GOVERNMENT
COUNTY COMMISSIONER, KIAMBU

Telephone: 066-2022709

Fax: 066-2022644
E-mail: countycommkiambu@yahoo.com
When replying please quote

County Commissioner
Kiambu County
P.O. Box 32-00900
KIAMBU

Ref.No: **ED.12/1(A)/VOL.IV/58**

21st September, 2020

Dr.. Anne Wairimu Kamau,
University of Nairobi,
P.O. Box 30197-00100,
NAIROBI - KENYA

RE: RESEARCH AUTHORIZATION

Reference is made to National Commission for Science, Technology and Innovation Letter Ref No. **NACOSTI/P/20/6219** Dated **26TH August, 2020**.

You have been authorized to conduct research on ***"Roll-out of Adolescents Universal Health Scheme in Kenya and Implications for Access and Use of Sexual and Reproductive Health Services"*** The data collection will be carried out in ***Kiambu County*** *for a period ending* **26th August, 2021.**

You are requested to share your findings with the County Education Office, Kiambu, upon completion of your research.

Festus Kimeu
FOR: COUNTY COMMISSIONER
KIAMBU COUNTY

Cc National Commission for Science, Technology and Innovation
P.O. Box 30623-00100
NAIROBI

County Director of Education
KIAMBU COUNTY

County Director of Health
KIAMBU COUNTY

All Deputy County Commissioners (***For information and record purposes***)
KIAMBU COUNTY

"Our Youth our Future. Join us for a Drug and Substance free County".