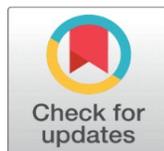


# INFLUENCE OF HEALTH CARE SYSTEMS ON MODERN CONTRACEPTIVE UPTAKE AMONG WOMEN OF THE REPRODUCTIVE AGE IN TURKANA CENTRAL SUB-COUNTY, KENYA

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## ABSTRACT

Modern contraceptives, such as implants, coils, injections, and pills, are methods that interfere with normal ovulation and fertilization processes to prevent conception. These contraceptives play a crucial role in reproductive health and positively impact women's well-being. However, there is global concern about their underutilization. It is against this background that this study sought to investigate the utilization of modern contraceptives among women of reproductive age in Turkana County. The specific objective of this study was to find out how health care system affects the access and utilization of modern contraceptives among women in Turkana Central Sub-County. The systematic sampling method was employed to select study participants, and quantitative data was collected through questionnaires. The Statistical Package for Social Sciences (SPSS) version 20.0 was used to analyze descriptive data and produce frequency tables, graphs, and pie charts. Chi-Square tests with a 95% confidence interval and a 0.05 margin of error were used to establish correlations between research variables. The findings of this study indicate that the healthcare system, such as accessibility to healthcare facilities, the availability of family planning services, healthcare workers' attitudes, and service hours, were crucial in determining the use of contraceptives.

**Keywords:** Health Care Systems, Healthcare Workers' Attitudes, Planning Services

## 1. INTRODUCTION

Modern contraception has a good effect on women's health and is a vital part of reproductive health. When fertilization takes place naturally and without interruption (unprotected coitus), when the spermatozoon is capable and mature, conception can happen at any time during the fertile period. However, there are some circumstances where prevention of unwanted pregnancy is necessary, which can have detrimental effects. Barrier methods (condoms or cervical caps), hormonal methods (the pill), intrauterine devices (IUD), and sterilizations are the several

types of modern contraception. The strategy is based on the woman's overall health, way of life, and interpersonal interactions. [Kawuki et al. \(2022\)](#)

According to the Nations Department of Economics and others (2020), there are 1.1 billion women who need family planning (FP), 851 million of whom use contemporary methods, 85 million of whom use traditional methods, and 172 million of whom have unmet needs for contraception. Contraception use among women of reproductive age (WRA) has increased globally in recent decades, although regional improvement has been unequal. Women in developing nations are especially impacted by the global challenge of low contraceptive use [Kraft et al. \(2022\)](#). Low contraceptive use is linked to a variety of things, such as partner support, peer pressure, peer culture, ethnicity, and age; limited access to services; peer pressure; and peer culture [Boadu \(2022\)](#); [Kantorová et al. \(2020\)](#).

In Kenya, women between the ages of 15 and 49 utilized modern contraceptives in close to 44 percent of cases in 2021, whether they were traditional or modern. Implementing programs that address these factors collectively has the potential to shift the utilization rates of modern contraceptives. Kenya has experienced favorable trends in contraceptive use since its independence, with the percentage of currently married women using modern contraceptive methods increasing from 32% in 2003 to 39% in 2008–09, 53% in 2014, and 57% in 2022 [Nations Department of Economics, U., Affairs, S., and Division, P. \(n.d.\) & KDHS, 2022](#). However, many women still experience unintended pregnancies, contributing to Kenya's high maternal and perinatal mortality. Inequities in access to modern contraceptives in Kenya are caused by the differences in characteristics of the population in different geographic areas, such as Turkana County, which falls behind the country's modern contraceptive use rate by 26.3% ([KDHS, 2022](#)). Targeted approaches need to be employed to address the unique issues that contributed to the slow progress in the utilization of modern contraceptives in the counties where use is sub-optimal, such as sociocultural norms, side effects, and health concerns.

## **2. OBJECTIVES OF THE STUDY**

The general objective of this study was to investigate the utilization of modern contraceptives among women of reproductive age in Turkana County.

The specific objective of this study was to find out how health care system affects the access and utilization of modern contraceptives among women in Turkana Central Sub-County

## **3. LITERATURE**

### **3.1. THE HEALTHCARE SYSTEM FACTOR THAT INFLUENCES MODERN CONTRACEPTIVE UPTAKE**

Contraceptive uptake tends to be lower in rural areas due to several factors, including reduced availability, limited accessibility, affordability issues regarding modern contraceptives, and the attitudes of healthcare workers towards individuals seeking family planning services. Additionally, higher fertility demand often arises in rural settings due to more traditional and agrarian lifestyles compared to urban areas. Notably, contraceptive use is a significant proximate factor influencing fertility rates [Bolarinwa et al. \(2022\)](#).

In decentralized and diverse healthcare systems employing fee-for-service models, there are several structural impediments that can obstruct or postpone access to modern contraceptives and other vital medical treatments, as highlighted

in the study by Makinde et al. (2021). Ideally, the provision of modern contraceptive services should be seamlessly integrated across all tiers of the healthcare system in Kenya, spanning from the national level down to local levels. In certain remote villages, particularly those located more than 5 kilometers away from primary health centers (PHCs), community health workers (CHWs) are stationed at fixed community health posts to deliver counseling, services, and referrals, including support for modern contraceptive uptake. Nevertheless, obstacles such as healthcare expenses (both direct and indirect) as well as the time required for travel frequently serve as barriers to accessing timely and sufficient healthcare in various circumstances, as observed in the research conducted by [Asaolu et al. \(2019\)](#). Furthermore, in Northern Kenya, challenges such as an uneven distribution of healthcare professionals, limited medical training and leadership, inadequate infrastructure, and recurrent resource shortages collectively affect the quality of healthcare and erode patient confidence, as indicated by the studies conducted by [Ooko \(2022\)](#) and [Ontiri et al. \(2021\)](#), particularly concerning the uptake of modern contraceptives.

In countries with fragile healthcare systems, the availability of healthcare services is limited, resulting in low contraceptive uptake among women and young girls, as indicated by [Ontiri et al. \(2021\)](#). Healthcare providers play a crucial role in offering information, counseling, and services related to family planning. They educate both men and women about the benefits and potential side effects of contraceptives, enabling individuals to make informed choices regarding the most suitable family planning method [Mutua et al \(2019\)](#).

## 4. STUDY FINDINGS

### 4.1. DISTRIBUTION OF HEALTHCARE SYSTEM FACTORS

The goal of the study was to show how respondents were distributed in terms of healthcare considerations. It shows that most people, 109 (30.3%), lived 5 to 10 kilometers from healthcare centers, and 96 (26.7%) lived 2 to 4 kilometers away. For family planning services, 307 (85.3%) said they were available, and 285 (79.2%) could afford them. People generally felt that healthcare workers had a good attitude, with 195 (54.2%) thinking positively. Health providers were the main source of family planning info, used by 208 (57.8%) people. About 241 (65.1%) expected services to take less than an hour. Finally, 223 (61.9%) believed there were enough healthcare providers. The outcomes are presented in [Table 1](#) as follows:

**Table 1**

<b>Table 1 Participants' Healthcare System Factor(n=360)</b>			
<b>Variables</b>	<b>Respondents</b>	<b>Frequency (n=360)</b>	<b>Percent (%=100)</b>
<b>Distance to Health Facility</b>	1 km and below	85	23.6
	2 - 4 km	96	26.7
	5- 10 km	109	30.3
	10 km and above	70	19.4
<b>Availability of Family Planning Services</b>	Yes	307	85.3
	No	17	4.7
	Can't tell	36	10
<b>Affordability of Services</b>	Yes	285	79.2
	No	24	6.7
<b>Health Worker Attitude</b>	Poor	20	5.6

	Fair	145	40.3
	Good	195	54.2
<b>Source of Family Planning Information</b>	Community health workers	90	25
	Health providers	208	57.8
	Religion leaders	2	0.6
	Media	28	7.8
	Friends and relatives	32	8.9
<b>Expected Service Time</b>	≤1 Hr.	237	65.8
	1-2 Hrs.	98	27.2
	>2Hrs	25	6.9
<b>Sufficiency of Health Providers</b>	Yes	223	61.9
	No	77	21.4
	Cannot tell	60	16.7

#### 4.2. ASSOCIATION BETWEEN HEALTHCARE SYSTEM FACTORS AND UPTAKE OF MODERN CONTRACEPTIVES

The study explored how various healthcare system factors relate to the adoption of modern contraceptives. The results highlighted that the distance to healthcare facilities had a substantial influence on the use of contraceptives ( $p < 0.000$ ), with the highest usage observed among individuals living within 1 kilometer of a facility, totaling 60 individuals. Additionally, the presence of family planning services displayed a strong correlation ( $p < 0.000$ ), with 181 individuals choosing contraceptives when these services were available, in contrast to only 7 individuals when they were unavailable. Interestingly, the affordability of services didn't demonstrate a significant link, as 171 individuals found the services affordable, while 11 did not ( $p = 0.176$ ). Positive attitudes of healthcare workers significantly encouraged contraceptive uptake ( $p < 0.000$ ), with 123 individuals opting for contraceptives when healthcare workers exhibited favorable attitudes, in contrast to just 7 when attitudes were unfavorable. Notably, the source of family planning information didn't exhibit a significant connection ( $p = 0.119$ ), despite healthcare providers being the primary source for 117 individuals, followed by community health workers at 46. Lastly, the expected service time notably affected contraceptive adoption ( $p = 0.003$ ), with 140 individuals selecting contraceptives when service time was one hour or less, compared to 38 when it exceeded one hour. The sufficiency of healthcare providers strongly influenced uptake ( $p < 0.000$ ), with 153 individuals choosing contraceptives when providers were adequate, while only 26 did so when they were insufficient. The outcomes are presented in Table 2 as follows:

**Table 2**

Table 2 Association between Healthcare System Factors and uptake of Modern Contraceptives (n=360)				
Variables Characteristics		Uptake of modern Contraceptive		Chi-Value Df P-value
		Yes (n=190, 52.8%)	No (n=170, 47.2%)	
<b>Distance to Health Facility</b>	1 km and below	60 (31.6%)	25 (14.7%)	$\chi^2=22.215^a$
	2 – 4 km	56 (29.5%)	40 (23.5%)	df=3
	5– 10 km	48 (25.3%)	61 (35.9%)	p=0.000

	10 km and above	26 (13.7%)	44 (25.9%)	
<b>Availability of Family Planning Services</b>	Yes	181 (95.3%)	126 (74.1%)	$\chi^2=37.833^a$
	No	7 (3.7%)	10 (5.9%)	df=2
	Can't tell	2 (1.1%)	34 (20%)	p=0.000
<b>Affordability of Services</b>	Yes	171 (90%)	114 (67.1%)	$\chi^2=1.835^a$
	No	11 (5.8%)	13 (7.6%)	Df=1
	Health Worker Attitude			P=0.176
	Poor	7 (3.7%)	13 (7.6%)	$\chi^2=18.394^a$
	Fair	60 (31.6%)	85 (50%)	df=2
	Good	123 (64.7%)	72 (42.4%)	p=0.000
<b>Source of Family Planning Information</b>	Community health workers	46 (24.2%)	44 (25.9%)	$\chi^2=7.331^a$
	Health providers	117 (61.6%)	91 (53.5%)	df=4
	Religion leaders	2 (1.1%)	0	p=0.119
	Media	14 (7.4%)	14 (8.2%)	
	Friends and relatives	11 (5.8%)	21 (12.4%)	
<b>Expected Service Time</b>	<1 Hr.	140 (73.7%)	97 (57.1%)	$\chi^2=11.705^a$
	1-2 Hrs.	38 (20%)	60 (35.3%)	df=2
	>2Hrs	12 (6.3%)	13 (7.6%)	p=0.003
<b>Sufficiency of Health Providers</b>	Yes	153 (80.5%)	70 (41.2%)	$\chi^2=62.157^a$
	No	26 (13.6%)	51 (30%)	df=2
	Cannot tell	11 (5.8%)	49 (28.8%)	p=0.000

In terms of the distance to healthcare centres, a significant majority of the respondents reported living within 5 to 10 kilometres of healthcare facilities, while others resided closer, within 2 to 4 kilometres of these centres. These findings collectively suggest that a substantial number of respondents had relatively convenient access to healthcare facilities, while others lived at a moderate distance that could still be considered manageable for accessing healthcare services. This indicates a potentially favourable situation for healthcare access within the surveyed population, in line with the study conducted by [Ormel et al. \(2021\)](#).

Regarding the availability and affordability of modern contraceptive services, according to the report, a substantial majority of the respondents, reported that such services were readily available in their vicinity. Furthermore, more than half of the respondents indicated that they could afford these services. This indicates the accessibility and affordability of modern contraceptives among the surveyed population, supporting reproductive health choices, consistent with [Asaolu et al. \(2019\)](#) findings.

Concerning healthcare worker attitudes, the study found that a notable proportion of respondents, more than half, held positive perceptions of the attitudes displayed by healthcare workers. This suggests that these positive attitudes among healthcare professionals are crucial, as they can create a welcoming and supportive environment for individuals seeking healthcare services, including modern contraceptive uptake. A healthcare worker's demeanour and approach can significantly impact a patient's willingness to engage with healthcare services and can enhance the overall quality of care, promoting better health outcomes and informed decisions about modern contraceptive use within the surveyed population. This contrasts the findings of [Hlongwa et al. \(2021\)](#), which emphasized

negative attitudes among healthcare professionals that result in inadequate contraceptive utilization.

Regarding sources of information on modern contraceptive uptake, the study revealed that healthcare providers were the predominant source, with more than half of the respondents relying on them for information. This finding underscores the pivotal role played by healthcare professionals in disseminating crucial information about modern contraceptive uptake. The significance of healthcare professionals as the main source of knowledge highlights their influence in shaping individuals' knowledge and decision-making processes regarding modern contraceptives. It emphasizes the importance of healthcare professionals not only in delivering healthcare services but also in providing guidance and education on reproductive health, ensuring that people have access to accurate and thorough information to make knowledgeable decisions on the use of modern contraceptives, in agreement with [Mutua et al. \(2019\)](#).

According to the study, most respondents believed that healthcare services will last less than an hour in terms of anticipated service length. This expectation of relatively short service durations is of paramount importance as it contributes to ensuring that individuals can access healthcare services efficiently without enduring prolonged waiting times. This is especially important in the context of modern contraceptive services, when timely access and convenience can have a substantial impact on a person's propensity to seek and use such services. The anticipation of swift service delivery underscores the importance of healthcare facilities and providers in maintaining efficient healthcare service delivery systems that cater to the needs and preferences of the surveyed population, promoting better reproductive health outcomes, consistent with [Lateef et al. \(2022\)](#) study.

Concerning the perceived sufficiency of healthcare providers, a sizable majority of respondents said that there were a sufficient number of healthcare providers in their area. This view of a plentiful healthcare staff is significant because it might create trust and confidence in the healthcare system among the studied population. This suggests that when people believe there are enough healthcare professionals to meet their needs, they are more likely to be encouraged and motivated to seek and use healthcare services, including modern contraception. According to the findings of the study conducted by [Akinade et al. \(2023\)](#), this favourable perception can contribute to enhanced healthcare-seeking behaviour and overall well-being in the community.

## **5. CONCLUSION AND RECOMMENDATIONS**

### **5.1. CONCLUSION**

It is worth to note that the healthcare system in Turkana Central has a close relationship with the uptake of the modern contraceptives. The study established the importance of healthcare system factors in shaping modern contraceptive uptake. Proximity to healthcare facilities and the availability of modern contraceptive services were positively correlated with higher uptake rates. Moreover, the affordability of services, positive attitudes among healthcare workers, shorter service waiting times, and the presence of an adequate number of healthcare providers were all associated with increased modern contraceptive uptake.

## 5.2. RECOMMENDATION

Turning to healthcare system factors, continuous investment in healthcare infrastructure assumes paramount importance. Governments should not only ensure the availability of family planning services but also strive to make them financially accessible to all individuals. Furthermore, healthcare workers should undergo training to deliver these services with a positive demeanor, recognizing that their attitude can profoundly influence an individual's decision to utilize contraceptives. Prioritizing efforts to reduce service waiting times and maintaining an adequate number of healthcare providers should also be pursued zealously to further enhance the uptake of contraceptives.

## CONFLICT OF INTERESTS

None.

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