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INFLUENCE OF PUBLIC FUNDING ON IMPLEMENTATION OF HEALTH CARE COVERAGE IN KIAMBU COUNTY, KENYA

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Abstract: The specific focus of the study was to establish the influence of public funding on implementation of healthcare coverage in Kiambu County Kenya. The theoretical choice of the study was narrowed down to Amartya Sen's Capability Theory which have been adopted to present a theoretical link between the study variables. A descriptive research design was espoused. Those who participated in the survey comprised of 65 respondents stratified as either county top management employees in the health and treasury ministry as well as the health care service providers (level 2,3,4 and 5). Purposive sampling was adopted to determine that sample size of 65. Quantitative data was obtained from closed ended questions. The method of analysis was descriptive and inferential whereby the outcomes were shown through Tables and Figures. From the findings, public financing had a positive and significant impact on implementation of health coverage in Kenya. The study concludes that public funding positively and significantly influence implementation of health care coverage in Kenya. This study recommends the national and county government to consider focusing on public funding to significantly improve implementation of health coverage in Kenya. This can be achieved by ensuring there is adequate preparation of budgets to guide spending by health facilities, basing budget and expenditures on health facility plans and priorities, allocating expenditures as per facility needs, subscribing to the social insurance scheme (NHIF) and establishment of a cash transfer programmes to include the vulnerable in a healthcare package. This study also recommends national and county government to seek healthcare aid financing through effective healthcare resource mobilization framework from NGOs, government agencies, volunteer foreign entities, volunteer local entities and volunteer citizens.

Keywords: Public Funding, Healthcare coverage

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Introduction

Implementation Healthcare coverage demands that regardless of the ability, people should be capable of accessing healthcare services termed as of quality, at affordable rates without the fear of ending up in extreme poverty (WHO, 2010). Reich *et al.,* (2016) reasoned that health coverage is a foremost priority across countries internationally rushing to achieve the SDGs.

Adoption of healthcare coverage was mostly hastened after the message by WHO (2010) which has led to a number of countries revisiting their health financing strategies. Despite the efforts, a meagre 58 countries, that is a third, have realized health coverage. Even astounding is the datum that these countries are from OECD area inclusive of a few industrialized and emerging ones. The forerunner of this journey was Germany back in the year 2010 (Barnighausen & Sauerborn, 2002).

Practice confirms that advancement towards healthcare coverage desires not only a robust commitment from the political class, but also an articulate financing framework (Kieny & Evans, 2013). There is a stout indication that advancement towards health coverage is the starting point of not only a sustainable economy but also better health. Yet, a report by WHO (2018) approximates a health coverage financing gap in the tune of $176 billion across the world's poorest countries come the year 2030. This revelation is a threat to the ongoing sincere efforts to achievement of health care coverage (Meng & Tang, 2016).

To achieve healthcare coverage, Murray and Frenk (2010) emphasized the importance of financing since they set the pace for availability and affordability of healthcare. Evidence document the role of public funding and social health insurance in achieving equity and access. When funded using private and personal out of pocket plans, it's a burden to the people and doesn't support equity and access.

China has adopted a mixed strategy in financing its healthcare. In the year 2000 for instance, OOP was more than 58 percent. Decades later, the economy has opened up to a market-oriented model and incorporated other models such as public financing and social insurance which has seen a significant reduction in OOP but noteworthy upsurge in accessibility of affordable healthcare (CHSI, 2017).

By 2017, the USA spent 18 per hundred of its GDP on healthcare. Households paid for this care through out-of-pocket medical spending and a complex mix of out-of-pocket premiums, employer premium contributions, taxes, and subsidies that combined to finance private employer-sponsored insurance, no group insurance, and multiple public insurance programs (Jacobs & Selden, 2019).

Problem Statement

The demonstration of how imperative health coverage is was reflected in the year 2012 when the United Nations steadfastness on was a health coverage proved solidly (WHO, 2012). From then, despite the earnest understanding of its vivacity, a paltry 20 countries from low-income category have shown success in implementation. This therefore demonstrates the challenge in its adoption (Stuckler, Feigl, Basu & McKee, 2016).

Global WHO (2018) estimations indicate that close to a hundred 100 million of the global population are annually reduced into a state of poverty on account of exorbitant spending on healthcare. Locally in Kenya, the KIHBS survey of the year 2013 exposed that health disbursement is one of the highest at 40% for the household expenditures. Even though every citizen has a constitutional right to health care, there is scarcity of quality health care from the few institutions. The KIHBS 2015/2016 survey reflected that only 1 in 5 Kenyans (20%) get in touch with Health care coverage while the remaining percentage, don't have.

One of the key determining factors to achievement of health care coverage as demonstrated by the 2013 World Health Report is financing which can ensure financial peril shield from financial devastation owing to health-care outlays (WHO, 2013). It has been demonstrated most of the developing economies over rely on taxes to finance health care coverage thus indirectly burdening its citizens and WHO has thus urged alternative financing strategies to achieve sustainable health care coverage. By analyzing whether financing strategies

influence implementation of path, to recommending sustainable financing plans to achieve health care coverage in this emerging economy.

Objective of the study

This study sought to analyse the influence of public funding on implementation of health care coverage in Kiambu County Kenya.

Value of the Research

In acknowledging that the key to success of health care coverage lies on the financing strategy, this study is timely and can provide answers to some of the critical questions touching on the sustainability of the health coverage program where the consumers, policy makers, county governments and academicians are expected to find the conclusions of this study advantageous.

Literature Review

Theoretical Foundation of the research

Amartya Sen's Capability Theory

The theory was proposed by Amartya Sen (1999) and it argues that a person's capabilities are enabled by the political freedoms, economic facilities and social opportunities at their disposal. In line with this study, the theory presents a basis for linking public financing to universal healthcare coverage. The theory demonstrates that it's a right to economic freedom in getting quality healthcare and thus there is supposed to be no barriers in its access. As a result, it is the role of the government to mobilize resources through public funding strategies in order to provide quality healthcare to the people without asking them to contribute. This should be the idea behind social insurance schemes.

Empirical Literature Review

Public funding and Implementation of Healthcare Coverage

A study by Reich, Harris, Ikegami, Maeda, Cashin, Araujo and Evans (2016) focused on 11 countries and established the lessons in regard to adoption of health coverage program. The study indicated that the success of the program relies on compulsory public funding so as to ascertain that beneficiaries are not burdened. In as much as the study established and acknowledged the role of private financing, it argued that a predominant determinant of the program's performance is public funding.

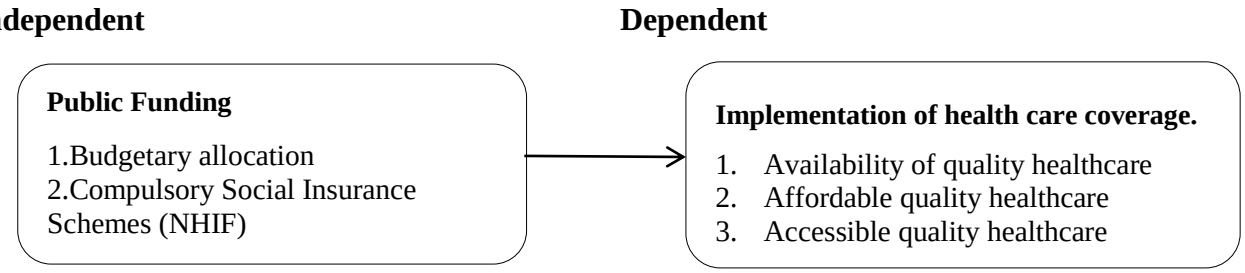
In another study, Tangcharoensathien, Mills and Palu (2015) while interrogating the sustainability of healthcare coverage programs in developing countries revealed that financial availability was a main factor affecting the program. There was a need for the governments to strengthen their initiatives to advance more financial support the programs. In the developed economies, the challenge was financing new trends in the demographics such as an increase in ageing population which increases the demand of the health care services.

Locally, Okech and Lelegwe (2016) conducted a survey and used primary data to determine the sustainability of NHIF as a mode of financing the health coverage programs to ensure healthcare coverage in Kenya. It was established that among other challenges, technical capacity affected the success of the program in Kenya. Lack of adequate competent and skilled medics was among the challenges.

Conceptual Frame Work

It is a figurative form of portraying relationships between variables (Smith, 2015). The predictor variables that is public funding. The dependent variable on the other hand is implementation of Healthcare Coverage among counties in Kenya. The interlace between these is presented.

Fig 1. A Conceptual Model showing public funding on implementation of health care coverage



Source Researchers (2021)

The relationship indicated on figure 1 was envisaged to exist in organizations, but application of different public funding tend to influence implementation of health care coverage. Public funding include, budgetary allocation, compulsory social insurance schemes and cash transfers.

Methodology

Research Design

Kumar (2019) describes research design as the plot through which the research objectives are achieved and, in this survey, it's a descriptive research design. This design has been viewed as necessary especially where in-depth interrogation of concepts is required with an aim of establishing cause-effect (Ledford & Gast, 2018). In the course of establishing what influence public funding on implementation of this health coverage emerged as appropriate.

Population of the study

The target populace for this study was the County top management employees in the health and treasury ministry as well as the health care service providers (level 2,3,4 and 5). The information was obtained from the Human Resource department of Kiambu County while the information regarding the number of healthcare service providers was obtained from the County Integrated Development Plan. Table 1 indicates the breakdown of the populace of interest.

Table 1: Population of the study

Unit	Target Population	%
Top management employees in the County Health Ministry	21	32
Health Care Service Providers	28	43
Top management employees in the County Ministry of Treasury	16	25
Total	**65**	**100**

Source: County Human Resource and Ministry of Health Reports 2021

Sample Population

The study adopted a census survey since the population of the study, 65 county top management employees was small and within the threshold of 200 recommended by Blumberg, Cooper and Schindler (2014). Israel (1967) also argues that when the target population is less than 200, it is appropriate to use a census instead of sampling.

Data collection

The process denotes the assembling of the needful data to test research hypothesis (Clandinin, Cave & Berendonk, 2017). Permissions were obtainable from the administration after the necessary letters and permits have been presented. After that, the forms were left behind to be collected after a fortnight. The questionnaires were self-administered.

Test of Validity and Reliability

To ensure reliability and validity of the research instrument used in this study, a pilot study was conducted at Nairobi county government on 10 questionnares of the same population was used. The response was keyed in to SPSS and then used to establish the reliability results by use of Cronbach Alpha. The results presented in Table 2 indicated that the Public Funding used in the study had Cronbach Alpha values above 0.7. The research tool was hence considered reliable and adequate for the main survey based on the reasoning by Robert (2016).

Table 2: Reliability Test Results

Scale	Cronbach's Alpha	Number of Items	Comment
Public Funding	0.786	8	Reliable
Implementation of universal health coverage	0.812	7	Reliable

Source: Field Data (2021)

Findings &Discussions

Response Rate

A total of 65 questionnaires were administered to the respondents of the study who comprised of county top management employees in the health and treasury ministries and the health care service providers. As 63 questionnaires were completed and returned. This represents a general response rate of 96.9%. This response rate according to the suggestions of Fincham (2008) falls within the recommended threshold of 70% and above considered adequate to conduct statistical analysis to enable generalization of findings.

Demographic Characteristics

The results of the study as shown in 4 indicate that majority of the respondents (57.1%) had diploma/certificate level of academic qualification followed by 34.9% who had undergraduate level of academic qualification while 3.2% of the respondents had postgraduate academic qualification. The results indicated that respondents had adequate level of academic qualification and therefore provided the study with accurate and reliable information.

With regard to the gender of the respondents, the results as shown in figure 5 reveal that female participants were the majority as represented by 66.7% while 33.3% were males which points to gender disparity in the

sample selected for the study. However, the findings also indicate that both genders were involved in this study and thus the findings of the study did not suffer from gender bias.

Majority of the respondents represented by 50.8% had worked in the health sector for a period of between 4 to 7 years followed by 28.6% whose working experience was 8 years or above while 20.6% had working experience of less than 4 years. This implies that majority the respondents had worked in the health sector long enough to provide reliable information for the study.

Descriptive statistics

The first objective of the study was to establish the influence of public funding on implementation of health care coverage in Kiambu County Kenya. To this end, respondents were required to indicate the degree to which they agreed with various statements regarding public funding for health coverage implementation based on a Likert scale of 1-5 (5= Strongly agree; 4 =agree; 3= Neutral; 2= Disagree and 1= Strongly Disagree). The average responses are as shown on Table 3.

Table 3: Descriptive Results on Public Funding

Statement	SD	D	N	A	SA	Mean	Std Dev
The health facility prepares budgets that guide spending	12.7%	4.8%	14.3%	41.3%	27.0%	3.65	1.28
Expenditures are allocated as per the facility needs	3.2%	14.3%	27.0%	42.9%	12.7%	3.48	1.00
Budget and expenditures are based on health facility plans and priorities	6.3%	19.0%	25.4%	31.7%	17.5%	3.35	1.17
Government exchequer on healthcare in the county is sufficient	27.0%	33.3%	23.8%	11.1%	4.8%	2.33	1.14
Majority of the county residents have subscribed to the social insurance scheme (NHIF)	14.3%	14.3%	28.6%	25.4%	17.5%	3.17	1.29
The national government has established a cash transfer programme to include the vulnerable in a healthcare package	28.6%	20.6%	31.7%	15.9%	3.2%	2.44	1.16
The national government gives vouchers to include the vulnerable in a healthcare package	22.2%	34.9%	23.8%	12.7%	6.3%	2.46	1.16
The county assigns a noteworthy portion of its budget to healthcare	14.3%	22.2%	20.6%	31.7%	11.1%	3.03	1.26
Average						**2.99**	**1.18**

Source: Research Data (2021).

The largest proportion of the sampled participants (mean =3.65) agreed that health facilities prepare budgets that guide spending, expenditures are allocated as per the facility needs (mean =3.48), and that budget and expenditures are based on health facility plans and priorities (mean =3.35). Regarding the statements whether government exchequer on healthcare in the county is sufficient, the largest proportion disagreed (mean =2.33). On the same note, the standard deviation value of 1.14 indicated low variation of the responses on this statement. However, as shown by a mean of 3.17, most respondents were neutral regarding the statement that majority of the county residents have subscribed to the social insurance scheme (NHIF).

Similarly, most respondents showed neutrality with regard to the statement that the national government has established a cash transfer programme to include the vulnerable in a healthcare package (mean =2.44). The standard deviation value of 1.16 was an indication that there was low discrepancy of the responses on this statement. With regard to the statement that the national government gives vouchers to include the vulnerable in a healthcare package, the largest perccentage disagreed as represented by a mean of 2.46. Similarly, as shown by a mean of 2.99, most respondents disagreed that the county assigns a noteworthy portion of its budget to healthcare. On average, the results of the study showed that majority of the respondents, mean 2.99, and were neutral regarding statements on public funding.

Implementation of Healthcare Coverage

The measures of implementation of Healthcare Coverage that were used included affordability and availability of quality healthcare, source of vital drugs and apparatus, health providers motivation, workforce industrial actions reduction and availability of Drugs and essential supplies. This section presents the descriptive results of these indicators as shown on Table 4.

Table 4: Descriptive Results on Implementation of Healthcare Coverage

Statement	SD	D	N	A	SA	Mean	Std Dev
There has been an improvement in affordability of quality healthcare in the county	11.1%	12.7%	19.0%	34.9%	22.2%	3.44	1.28
There has been an improvement in availability of quality healthcare in the county	9.5%	11.1%	23.8%	27.0%	28.6%	3.54	1.28
The distance per square meter to the adjacent HC facility in the county has reduced	12.7%	20.6%	31.7%	23.8%	11.1%	3.00	1.19
The source of vital drugs and apparatus in the county has improved significantly	25.4%	14.3%	22.2%	23.8%	14.3%	2.87	1.41
The health providers at the facility are not highly motivated in-service delivery	11.1%	14.3%	28.6%	23.8%	22.2%	3.32	1.28

There has been a decrease in the HC workforce industrial actions as a result of harmonious working relationship with the county government	9.5%	27.0%	23.8%	22.2%	17.5%	3.11	1.26
Drugs and essential supplies at the facility are always available on time and in the right quantity	39.7%	25.4%	17.5%	15.9%	1.6%	2.14	1.16
The current health financing system enhances sustainability of services and programmes at the facility.	15.9%	25.4%	33.3%	20.6%	4.8%	2.73	1.11
Average						**3.02**	**1.25**

Source: Research Data (2021).

From the results as presented in table 4 above, majority of the respondents agreed that there has been an improvement in affordability of quality healthcare in the county (mean = 3.44), and there has been an improvement in availability of quality healthcare in the county (mean =3.54). Standard deviations of 1.28 show low variation with regard to the responses to the above statements. With regard to whether the distance per square meter to the adjacent HC facility in the county has reduced, most respondents were neutral (mean =3). However, the largest percent of respondents disagreed that the source of vital drugs and apparatus in the county has improved significantly (mean =2.87). Similarly, most respondents were neutral with regard to statement that there has been a decrease in the HC workforce industrial actions as a result of harmonious working relationship with the county government as shown by a mean of 3.11. On whether drugs and essential supplies at the facility are always available on time and in the right quantity, most of the respondents disagreed as shown by a mean of 2.14. Most respondents were neutral with regard to statement that the current health financing system enhances sustainability of services and programmes at the facility as shown by a mean of 2.73.

Table 5: influence of public funding on implementation of health care coverage

Model summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
.833	0.693	0.672	0.468078

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Regression	28.736	4	7.184	32.79	.000
Residual	12.708	58	0.219		
Total	41.444	62			

Coefficients [a]

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	0.209	0.28		0.748	0.457
Public financing	0.201	0.084	0.198	2.389	0.02

Dependent Variable: Implementation of universal health coverage

Source: Field Data (2021)

a. Predictors: (Constant), Public Financing

b. Dependent Variable: Implementation of universal health coverage

The model summary results indicate that the Public Funding had a strong positive influence on implementation of health care coverage among counties in Kenya. This is shown by a joint Pearson correlation of 0.833. The model summary results also shows that R-square is 0.693 implying that the public funding mutually account for up to 69.3% of the variation in implementation of healthcare coverage among counties in Kenya

The significance of the regression model was confirmed by the F statistic at 5% (Sig < 0.000). The F calculated statistic of 32.79 was greater than F (4, 58) critical value of 2.531 confirming significance of the regression model. This implies that public funding significant predictors of the deviation in implementation of healthcare coverage among counties in Kenya.

The regression results as shown in Table 5 indicate that public financing positively and significantly influenced implementation of health coverage in Kiambu County, as shown by beta value of 0.201 and p-value of 0.02<0.05. This implies that an improvement in public financing, all other factors held constant at zero would result to significant improvement in implementation of health care coverage. The results are consistent with the findings of Reich et al., (2016) who indicated that the success of the healthcare coverage program relies on compulsory public funding so as to ascertain beneficiaries are not burdened. Accordingly, a predominant determinant of the program's performance is public funding. Similarly, Tangcharoensathien et al., (2015) while interrogating the sustainability of health coverage programs in developing countries revealed that financial availability was a main factor affecting the program with there being need for the governments to strengthen their initiatives to advance more financial support the programs.

Conclusion

To this end, this study concludes that public financing positively and significantly influence implementation of healthcare coverage in Kenya. An improvement in public financing strategies such as preparation of budgets to guide spending by health facilities, allocating expenditures as per facility needs, basing budget and expenditures on health facility plans and priorities, subscribing to the social insurance scheme (NHIF) and establishment of a cash transfer programme by the national government to include the vulnerable in a healthcare package would significantly improve implementation of health coverage in Kenya.

Recommendation

Based on the above findings and conclusions, this study recommends the national and county government to consider focusing on public financing strategies to significantly improve implementation of healthcare coverage in Kenya. This can be achieved by ensuring there is adequate preparation of budgets to guide spending by health facilities, basing budget and expenditures on health facility plans and priorities, allocating expenditures as per facility needs, subscribing to the social insurance scheme (NHIF) and establishment of a cash transfer programmes to include the vulnerable in a healthcare package.

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