# Knowledge and Attitude of Health Managers Towards the Annual Health Sector Planning and Budgeting Process in Bungoma County, Kenya

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## ABSTRACT

*The focus of health planning and budgeting is to identify priorities that, in turn, guide budgetary allocations aimed at improving health outcomes. The shift towards decentralization has necessitated reforms in the planning and budgeting processes. These reforms encompass the enactment of legislation, the formulation of process guidelines, and the utilization of program-based budgeting (PBB). Despite the institutionalization of these reforms, healthcare administrators continue to encounter the challenge of insufficient technical capacity and motivation, which hinders their effective participation in the process. Therefore, this study aimed to examine the knowledge and attitudes of health managers toward the annual health sector planning and budgeting process. A descriptive cross-sectional study design was employed, utilizing both quantitative and qualitative methods. Quantitative data were collected from 170 health managers drawn from all levels of the county health system, while qualitative data were collected from 3 county health executives. Quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS v. 29.0), while qualitative data were thematically analyzed. Fifty-eight percent of the health managers had not received training on the annual planning process, and 81% had not been trained on PBB. Only 41% were oriented on MoH planning guidelines and 40.5% on legal frameworks. Just 42% of health managers were knowledgeable about the planning and budgeting process. Chi-square tests indicated a significant association between training and the knowledge level of health managers, $\chi^2$ (1, N = 170) = 94.76, $p < 0.001$, as well as between the knowledge level and the use of legal frameworks, $\chi^2$ (1, N = 170) = 53.67, $p < 0.001$. Trained health managers displayed higher knowledge and utilization of legal frameworks. Although 93% of health managers acknowledged the process is essential for their units, only 40% affirmed their motivation to participate, and 78% disagreed with having a positive attitude toward the process. Top of Form To enhance the knowledge and attitude of health managers towards planning and budgeting, the county health department should allocate funds for training in the annual planning and budgeting process—including PBB. Additionally, the county health department should implement comprehensive orientation programs for health managers, encompassing the Ministry of Health's planning and budgeting guidelines along with the relevant legal frameworks.*

**Keywords**: Attitude, Devolution, Health Managers, Health Planning and Budgeting, Knowledge
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## I. INTRODUCTION

Public financial management (PFM) reforms are critical to building robust planning and budgeting systems to facilitate the implementation of Universal Health Coverage (UHC). WHO (2018) has affirmed that sustained capacity building of stakeholders involved in the process, including health managers, stands as a key enabler for these reforms. Health managers, who possess substantial knowledge and actively participate in the process, contribute to the formulation of health sector annual plans and budgets. These plans and budgets are designed to align with specific sectorial priorities that have been outlined in strategic plans (Barroy et al., 2019; WHO, 2016). Therefore, health managers need to have sufficient knowledge about the planning and budgeting process to effectively participate.



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In Kenya, following devolution, the annual sectoral planning and budgeting process was entrenched in law through the enactment of the County Governments Act (CGA) of 2012 and the PFM Act of 2012. The PFM Act outlines the budget calendar and elucidates the roles and responsibilities of various actors in PFM. It mandates the use of program-based budgeting (PBB) to guide government revenue allocation, planning, and budgeting, aiming to align fund allocation with sector priorities (Government of Kenya, 2012b). Moreover, the Ministry of Health (MoH) has developed guidelines aligned with these legislations to enhance the annual health sector planning and budgeting (HSPB) process.

In a study conducted in 2013, comparing two county hospitals in Kenya, it was revealed that the health managers had weak technical capacity for planning and budgeting (Barasa et al., 2017). Unfortunately, it seems there has been minimal progress in improving the technical capacity of health managers over time. Recent studies conducted on health sector budgeting in Kenya revealed that health officials have inadequate technical capacities for the budget cycle (Njuguna et al., 2020a) and limited technical knowledge of the PBB (Tsofa et al., 2021). Additionally, a similar study in Uganda revealed that health officials have limited knowledge and skills in using available evidence to inform the budgeting process (Henriksson et al., 2017). An assessment of the district healthcare system in Tanzania following decentralization showed that health managers lacked adequate technical capacities in health budgeting, which led to historical budgeting (Kigume & Maluka, 2018). Further, a recent study on priority setting and resource allocation in high-income countries established that insufficient knowledge of the health decision-makers contributed to the ad-hoc selection of health priorities, and consequently, resource allocations were based on historical allocations (Seixas et al., 2021).

The legal framework that influences planning and budgeting varies from one country to another. It is necessary for the health managers engaged in health sector planning and budgeting to be knowledgeable of these legal frameworks to effectively engage in the process (WHO, 2016). Following devolution in Kenya, several legislations have been developed and institutionalized to direct the planning and budgeting process, including the Constitution, the CGA Act of 2012, and the PFM Act of 2012 (Njuguna et al., 2020a). Despite the availability of these legal frameworks, there has been minimal dissemination of these documents to guide health managers in the process, thus impeding their meaningful involvement (Njuguna et al., 2020a).

The attitude of the health managers plays a critical role in their ability to be motivated to participate effectively in the health planning and budgeting process. Research in this area has demonstrated that health managers at different levels of the healthcare system hold a negative attitude toward the process. A case study conducted in Zambia about planning and budgeting for primary health care revealed that the district and health facility managers perceived the process to be meaningless and done as a matter of procedural requirement because of demotivation (Ngulube et al., 2005). Likewise, a study conducted in Kenya revealed that county hospital managers demonstrated low levels of motivation and were disinterested in participating in the process (Barasa et al., 2017). Additionally, an assessment of the health sector budgeting process in Ghana found that health officials perceive the process as a formal and routine activity, resulting in a lack of interest and minimal active engagement (Atuilik et al., 2019). In contrast, in other settings, health facility administrators are motivated to engage in the process and perceive it to be a valuable and meaningful exercise for their units. In an interventional study in Uganda, Henriksson et al. (2017) reported that the district health managers were motivated and committed to engaging in the HSPB process. The relationship between knowledge and attitude appears to be mutually reinforcing; informed health managers tend to be more competent and thus more motivated to participate in the process.

Previous research in this field has focused on isolated levels of the health system, with minimal quantitative research on health managers' knowledge and attitudes toward the annual planning and budgeting process within the devolved units. Therefore, this study utilized mixed methods to assess the knowledge and attitudes of health managers within the devolved health system toward the process.

### 1.1 Research objectives

i. To determine the knowledge level of the health managers on the annual health sector work planning process.
ii. To assess the dissemination of MOH planning and budgeting guidelines among health managers.
iii. To evaluate the utilization of legal frameworks to guide the annual work planning process.
iv. To assess the attitudes of health managers towards the annual planning and budgeting process.



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## II. METHODOLOGY

### 2.1 Study Area, Design and Population

The study was conducted in Bungoma County, one of the 47 devolved units in Kenya. The study utilized a descriptive cross-sectional design, employing a mixed-methods approach that incorporated both quantitative and qualitative methods in data collection, analysis, and drawing inferences (Shorten & Smith, 2017). The study population consisted of health managers involved in the annual health sector planning and budgeting process. To be eligible for participation in the study, the health managers were required to be involved in the annual planning and budgeting process and affiliated with any of the levels of the county health system.

### 2.2 Sample Size Determination

The complete enumeration method was used to recruit the executive members of the county health department, CHMTs, SCHMTs, and sub-county hospital in-charges (level 4). This is because the number of these health managers is relatively small when compared to the overall population of health managers. For in-charges of level 2 and 3 health facilities, the sample size was determined using a formula recommended by the World Health Organization (WHO) for conducting Service Availability and Readiness Assessments (SARA) for health facilities, which also encompasses health sector planning and budgeting (WHO, 2013).

$$n = [[ (z^2 * p * q) + ME^2] / [ ME^2 + z^2 * p * q / N]] *d$$

Where:

n = sample size, z = confidence level at 95% (1.96), ME = margin of error (0.15), p = the anticipated proportion of health managers with the attribute of interest (0.5), q = 1-p, N = population size and d = design effect (1.0)

**The sample size for Level 2 health facilities**

$$n = [[ (1.96^2 * 0.5 * 0.5) + 0.15^2] / [ 0.15^2 + 1.96^2 * 0.5 * 0.5 / 125]] *1.0 = 32$$

**The sample size for level 3 health facilities**

$$n = [[ (1.96^2 * 0.5 * 0.5) + 0.15^2] / [ 0.15^2 + 1.96^2 * 0.5 * 0.5 / 19]] *1.0 = 13$$

The level 2 and 3 sample sizes were increased by 10% to 35 and 15 respectively following the recommendation of (WHO, 2013) in sampling for health facility assessments to account for anticipated non-responses. The total number of health managers recruited for the quantitative data collection was 170.

### 2.3 Sampling Technique and Data Collection Tools

Purposive sampling was used to recruit the leaders of the county health department, comprising the county executive committee member for health, the chief officer of health, and the county director of health, along with the county health management teams, sub-county health management teams, and in-charges of level four facilities. On the other hand, the in-charges of health centers and dispensaries were selected using simple random sampling.

Health facility managers were interviewed using a semi-structured questionnaire to gather information on their demographic characteristics as well as data related to their training and knowledge of the planning and budgeting process. To evaluate their attitude, a 5-point Likert scale comprising seven items was utilized, with responses ranging from 1 (strongly disagree) to 5 (strongly agree). The results of the semi-structured interviews were further validated through key informant interviews conducted with three executives from the county health department.

### 2.4 Validity and Reliability

Before conducting the main study, a pilot study involving 17 health managers from Trans-Nzoia County was conducted to pre-test the data collection tools. The pilot study results were utilized to evaluate the reliability of the attitude measurement scale using Cronbach's alpha, yielding a score of $\alpha = 0.71$. This score is considered acceptable for internal consistency and reliability, according to Taherdoost (2016). To ensure content validity for the data collection instruments, a comprehensive literature review was undertaken to identify relevant items for measuring the variables of interest.



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### 2.5 Data Analysis

The quantitative data was analyzed using SPSS v. 29.0. Descriptive statistics such as means, standard deviations, and percentages were calculated and presented using graphs and tables. The chi-square test for independence was used to examine the associations between training and the demographic characteristics of the health managers and their knowledge level. The qualitative data, on the other hand, was analyzed using a thematic approach.

### 2.6 Ethical Approval

Ethics approval was obtained from the Masinde Muliro University of Science and Technology Ethics and Review Committee (MMUST/IERC/095/2022). The National Council for Science and Technology (NACOSTI/P/22/19784) granted the research license. All the respondents signed an informed consent form before participating in the study. In addition, ethical considerations associated with data management, for instance, confidentiality and safekeeping were maintained at all stages.

## III. RESULTS

### 3.1 Demographic Characteristics of the Respondents

The total number of health managers interviewed for the quantitative data was 170, of whom 51.8% were male and 48.2% were female. Additionally, 47.6% of them were aged between 35 and 44 years, with a mean age of 42±6.76. Moreover, 48.2% of the health managers had diploma-level education. The majority of these managers had over five years of experience in management (62.9%). The findings were presented in Table 1.

**Table 1**
*Demographic profile of the health managers*

| Sample characteristics | Frequency (n=170) | Percent (%) |
|---|---|---|
| **Sex** | | |
| Male | 88 | 51.8 |
| Female | 82 | 48.2 |
| **Age** | **Mean age = 42±6.76** | |
| 25-34 | 18 | 10.6 |
| 35-44 | 81 | 47.6 |
| 45-54 | 63 | 37.1 |
| 55-64 | 8 | 4.7 |
| **Level of education** | | |
| Diploma | 82 | 48.2 |
| Degree | 76 | 44.7 |
| Masters | 11 | 6.5 |
| Ph. D | 1 | 0.6 |
| **Experience in a management position** | | |
| < 5 years | 63 | 37.1 |
| ≥ 5 years | 107 | 62.9 |

### 3.2 Knowledge of Health Managers on the Annual Health Sector Planning and Budgeting Process

Most health managers, comprising 58% of the respondents, reported that they lacked training in the annual work planning process. Additionally, 81% of them indicated that they had not received training in program-based budgeting (Figure 1).



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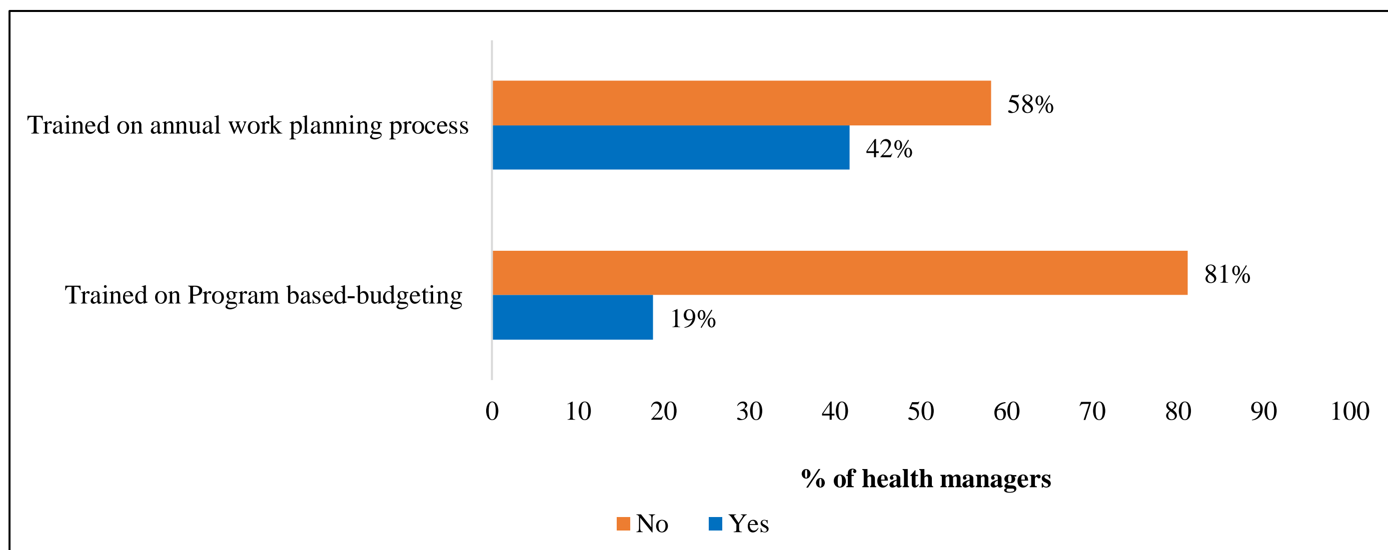


**Figure 1**
*Training of Health Managers on Health Sector Planning and Budgeting Process*

The respondents in the KIIs also expressed concerns over a few health managers trained in the annual HSPB process and the challenges faced.

> *"Due to limited funds, most health managers within the county health system have not received training in program-based budgeting."* KII-3
>
> *"Even though the materials and information on annual health sector planning and budgeting are available on the Ministry of Health website, it is the responsibility of the county department of health to design programs to train the health managers on annual planning and budgeting process which is yet to be achieved due to insufficient training funds*." KII-1

To assess the knowledge level of the health managers regarding the annual work planning and budgeting process, they participated in an assessment that involved responding to 11 questions related to planning, budgeting, and the utilization of legal frameworks to inform the process. Those health managers who achieved a score of 70% or higher were categorized as knowledgeable. Less than half of the health managers representing 42.4% were found to be knowledgeable about the annual planning and budgeting process.

A Chi-square Test of independence was performed to assess the association between health managers' training on the annual planning and budgeting process and their level of knowledge. A p-value less than .05 indicated statistical significance. The analysis revealed a significant association between the training, $\chi^2(1, N=170) = 94.76$, $p < .001$, and the corresponding knowledge level of the health managers on the annual HSPB process. Those who underwent training exhibited a higher likelihood of being knowledgeable (Table 2).

**Table 2**
*Association between Training and Knowledge Level of Health Managers*

| **Characteristic** | **Grouping** | **Knowledgeable (n=170)** | | **Total** | ***p* value** |
|---|---|---|---|---|---|
| | | Yes | No | | |
| Trained | Yes | 61 (84.7) | 10 (10.2) | 71 (41.8) | <.001 |
| | No | 11 (15.3) | 88 (89.8) | 99 (58.2) | |
| | **Total** | **72 (42.4)** | **98 (57.6)** | **170 (100)** | |

Additionally, a Chi-square Test of independence was performed to determine the association between each demographic characteristic and the knowledge level of the health managers. A *p*-value less than .05 indicated statistical significance. There was a significant relationship between the level of education, $\chi^2(1, N=170) = 4.37$, $p = .037$, and the knowledge level of health managers on annual HSPB. However, there was no significant association



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between age, $\chi^2(1, N=170) = 2.55$, $p$ =.111, sex, $\chi^2(1, N=170) = .051$, $p$ =.821, experience $\chi^2(1, N=170) = 1.40$, $p$ =.237 and the level of knowledge of the health managers. The findings were presented in Table 3.

**Table 3**
*Association between demographic characteristics and level of knowledge of health managers*

| Characteristics | Grouping | Knowledgeable (n=170) | | Total | *p* value |
|---|---|---|---|---|---|
| | | Yes | No | | |
| Sex | Male | 38 (52.8) | 50 (51.0) | 88 (51.8) | .821 |
| | Female | 34 (47.2) | 48 (49.0) | 82 (48.2) | |
| | **Total** | **72 (100.0)** | **98 (100.0)** | **170 (100.0)** | |
| Age | ≤ 40 years | 25 (34.7) | 46 (46.9) | 71 (41.8) | .111 |
| | ≥ 40 years | 47 (65.3) | 52 (53.1) | 99 (58.2) | |
| | **Total** | **72 (100.0)** | **98 (100.0))** | **170 (100.0)** | |
| Education level | Diploma | 28 (38.9) | 54 (55.1) | 82 (48.2) | .037* |
| | Degree and above | 44 (61.1) | 44 (44.9) | 88 (51.8) | |
| | **Total** | **72 (100.0)** | **98 (100.0)** | **170 (100.0)** | |
| Experience | < 5 years | 23 (31.9) | 40 (40.8) | 63 (37.1) | .237 |
| | > 5 years | 49 (68.1) | 58 (59.2) | 107 (62.9) | |
| | **Total** | **72 (100.0)** | **98 (100.0)** | **170 (100.0)** | |

One of the key informants commented on the inadequate knowledge of health managers regarding the HSPB process; he said: *"Health managers especially at the sub-counties and health facilities struggle a lot to participate effectively in the formulation of annual health plan and budget due to inadequate knowledge and skills about the process"* KII-2.

### 3.3 Dissemination and provision of planning and budgeting guidelines to health managers

When the respondents were asked about the dissemination of the MoH planning and budgeting guidelines to them, the majority of them representing 59% said no. Moreover, 62% of the respondents stated that they had not been provided with copies of these guidelines. The findings were presented in Figure 2.

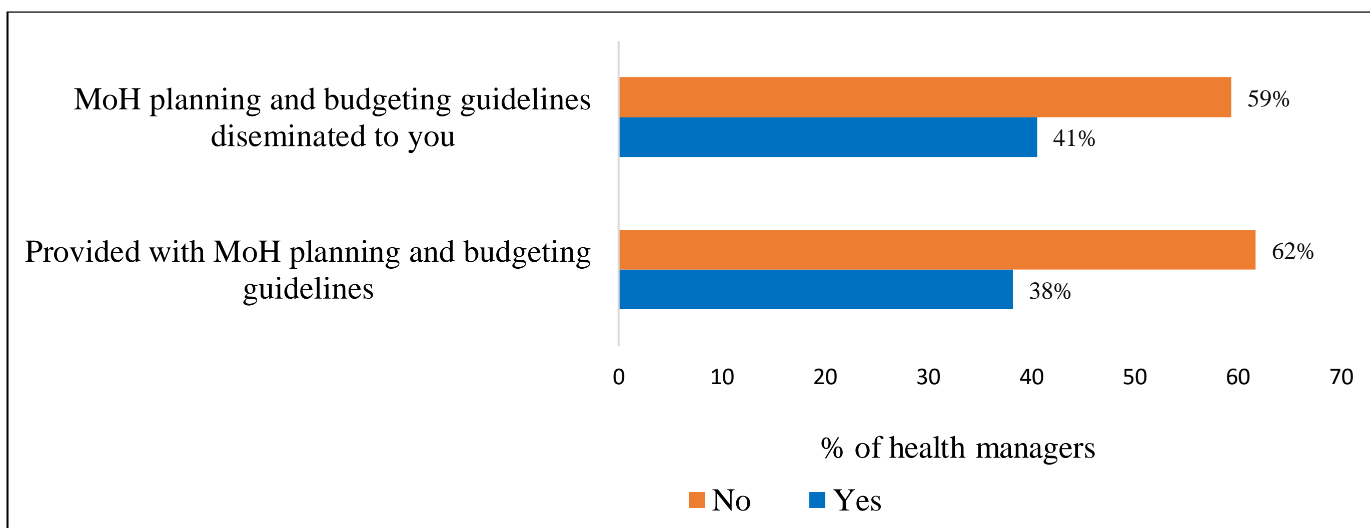


**Figure 2**
*Dissemination and provision of guidelines to health managers*

The key informants also expressed similar views about the dissemination and provision of MoH planning and budgeting guidelines.



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*Since the MoH planning and budgeting guidelines are online (MoH website) we expect the health managers through personal initiatives to download and familiarize themselves with the guidelines, however, this is largely uncommon (*KII-1).

**3.4 Use Legal Frameworks by Health Managers to Inform the Annual Health Sector Planning and Budgeting Process**

When respondents were asked whether they use the available legal documents to guide the formulation of the annual health sector plan and budget, only 46.5% reported that they utilized the legal frameworks, and of these, only 40.5% had been sensitized on the provisions outlined in these legal documents. (Table 4).

**Table 4**

*Use of Legal Frameworks by the Health Managers*

| Variable | Frequency | | Total |
|---|---|---|---|
| | Yes | No | |
| Use of legal frameworks | 79 (46.5) | 91 (53.5) | 170 (100.0) |
| Sensitized on legal frameworks | 32 ( 40.5) | 47 (59.5) | 79 (100.0) |

A Chi-square test of independence was performed between the knowledge status of health managers and the use of legal frameworks. There was a significant association between the two variables, $\chi^2(1, N=170) = 53.67$, $p < .001$. Knowledgeable health managers were likely to use legal documents in developing annual plans and budgets (Table 5).

**Table 5**

*Association between knowledge level of health managers and use of legal frameworks*

| Characteristics | Grouping | Use of legal frameworks (n=170) | | Total | *p* value |
|---|---|---|---|---|---|
| | | Yes | No | | |
| Knowledgeable | Yes | 57 (72.2) | 15 (16.5) | 72 (42.4) | <.001 |
| | No | 22 (27.8) | 76 (83.5) | 98 (57.6) | |
| | **Total** | **79 (100.0)** | **91 (100.0)** | **170 (100.0)** | |

The perspectives shared by the key informants below further illustrate the inadequacies in the utilization of legal frameworks to inform the annual HSPB process among health managers.

*"It seems that health managers fear reading budget documents and usually lack the motivation to familiarize themselves with these legal documents."* KII-2

*"The legal documents are mostly used by the finance department."* KII-3

**3.5 The Attitude of Health Managers towards the Annual Health Sector Planning and Budgeting Process**

The majority of the health managers tended to agree that annual HSPB is essential for their units (93%) and that their participation is beneficial (92%). However, less than half of them (40%) affirmed that they were motivated to actively participate in the process and 78% disagreed that they had a positive attitude toward the process (Figure 3).



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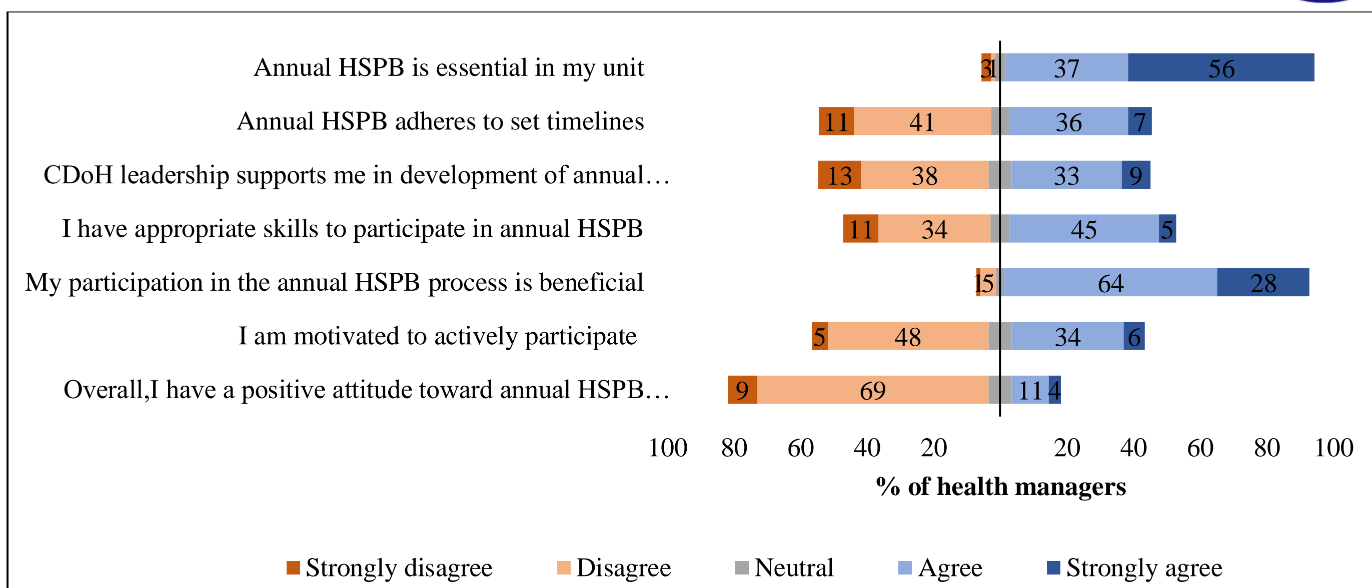


**Figure 3**
*The attitude of health managers on the annual health sector planning and budgeting process*

The key informants expressed similar views concerning health managers' attitudes toward the process. *"The health managers feel disenfranchised from the process because even though they provide their views, more often than not, those views are not included in the final approved budget, as the budget is further rationalized at the treasury."* KII-2

## IV. DISCUSSION

### 4.1 The Knowledge of the Health Managers towards Annual Health Sector Planning and Budgeting Process

The results of the study show that few of the health managers (42% and 19%) have been trained on the annual work planning process and PBB, respectively. This finding corroborates a status report on the implementation of PBB across Africa, which indicated that inadequate knowledge is one of the main stumbling blocks to achieving full implementation of PBB (Worthington, 2013). Similarly, other recent reviews on the use of PBB within the county health system in Kenya also acknowledge the limited capacity of the actors involved as a challenge to the success of PBB (Njuguna, 2020a; Tsofa et al., 2021). As the implementation of PBB in Kenya is still in its early stages, ongoing capacity-building initiatives are necessary to enhance the competencies of health managers and promote their active participation in the process. Since the implementation of PBB has been proposed as one of the public financial management reforms that can lead to alignment between the health sector plans and budgets (Cashin et al., 2017), health systems should invest in continued capacity building for the managers on the same. WHO is committed to and has invested in supporting low- and middle-income countries (LMICs) in building the knowledge base of health managers by creating self-paced eLearning courses. Among these courses is the Public Financial Management course, which extensively covers the budget cycle (WHO, 2021). Therefore, health managers across the region have the opportunity to enhance their knowledge and mastery of the budgeting process in the health sector by utilizing this excellent resource.

The study findings further revealed that less than half of the health managers, representing 42.4%, were found to be knowledgeable about the annual HSPB process. These results corroborate the findings of several other previous studies, which indicate that the majority of health managers have limited knowledge of annual health sector planning and budgeting in Africa (Barasa et al., 2017; Njuguna et al., 2020a, 2020b; McCollum et al., 2018; Tsofa et al., 2017, 2021; Worthington, 2013) and high-income countries alike (Seixas et al., 2021). The limited knowledge among the health managers seems to be due to insufficient capacity-building initiatives on the HSPB process, as revealed in this current study.



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However, this current finding contradicts those of Henriksson et al. (2017) which suggest district health managers in Uganda have adequate knowledge and skills in evidence-based health sector planning and budgeting processes. A possible explanation for this could be the interventions funded by development partners aimed at enhancing the knowledge and skills of the health managers on planning and budgeting as well as strengthening the health system's functions. Similarly, a study conducted by Kigume and Maluka (2018) in Tanzania also showed that decentralized health managers had sufficient knowledge to develop health sector plans and budgets due to continued capacity building.

The finding that a health manager's level of education is significantly associated with their knowledge level is in line with previous research conducted in Iran, which also established a relationship between the educational level of health managers and their knowledge in planning and budgeting (Mosadeghrad et al., 2018). These findings suggest that providing education and training opportunities for health managers can improve their knowledge and subsequently enhance their performance in planning and budgeting. Furthermore, they underscore the significance of attracting and retaining individuals with high levels of education and qualifications to fill management positions in the healthcare sector.

The study also showed no statistically significant relationship between the length of management experience and the knowledge level of the health managers. This result is consistent with a study carried out elsewhere in Kenya, which revealed that hospital managers with mid-level management experience who were actively engaged in the process demonstrated a better understanding of it than those with equivalent experience but were excluded from the process (Barasa et al., 2017). This suggests that experience in management in itself is not sufficient to contribute to the development of aligned health sector plans and budgets. It has to be augmented by other interventions, such as the capacity building of the health managers on the process, as was also expressed by the key informants.

**4.2 Dissemination and Utilization of Planning and Budgeting Guidelines and Associated Legal Frameworks**

The findings of this study also revealed low dissemination of planning and budgeting guidelines, as well as legal frameworks, at 41% and 40.5%, respectively. The MoH guidelines include the operational procedures for county health system annual planning processes (Ministry of Health, 2018) and the MoH simple MTEF guide (Ministry of Health, 2019). The legal frameworks include the CGA (Government of Kenya, 2012a) and the PFM Act (Government of Kenya, 2012b). All these documents are indispensable in steering the health managers and other actors involved in the process to meaningfully participate in the process. This finding is in accordance with a previous study that indicates there has been minimal dissemination of the legal frameworks and annual health sector work planning and budget-making guidelines (Njuguna et al., 2020a). The utilization of planning and budgeting guidelines, along with legal frameworks, is essential for aligning local health sector priorities with periodic and emerging global health goals, as ratified by countries (WHO, 2016).

The few knowledgeable health managers who have demonstrated a limited understanding of the process appear to be a result of the concerned authorities' inadequate dissemination of these documents, which also limits their meaningful participation. While all the guidelines and legal frameworks regarding the planning and budgeting process are available online on the respective ministries' websites, one of the key informants expressed that the health managers were not motivated to download and educate themselves. Therefore, the county health leaders need to go a step further and roll out elaborate dissemination programs of these documents to empower the health managers to proactively engage in the process.

**4.3 The Attitude of the Health Managers towards the Annual Health Sector Planning and Budgeting Process**

Most of the health managers (93%) tended to agree that annual HSPB is beneficial for their units. In line with other studies, health managers agree that HSPB is beneficial in several ways, such as contributing to evidence-informed budgetary allocations and the achievement of policy objectives (WHO, 2016), which contribute to improved health outcomes (Piatti-Fünfkirchen & Schneider, 2018).

Despite these benefits, health managers feel demotivated to proactively engage in planning and budgeting. Only 40% affirmed that they were motivated to actively participate in the process, and 78% disagreed that they had a positive attitude towards the process. These findings are in accordance with those of a Zambian case study about planning and budgeting for primary health care, which revealed that the district and health facility managers perceived the process to be meaningless and done as a matter of procedural requirement because of demotivation occasioned by failure to implement previous plans and budgets (Ngulube et al., 2005). Similarly, another study in Kenya reported that county hospital managers were largely unmotivated and hardly cared to participate in the process (Barasa et al., 2017).



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A review of the healthcare budgeting process in Ghana revealed that health officials view the process as a formal routine and feel disinterested in actively getting involved (Atuilik et al., 2019). Contrary to these findings, Henriksson et al. (2017), through an interventional study in Uganda, found that the district health management team members were highly motivated and committed to engaging in the HSPB process. This may partly be attributed to the intervention targeted toward institutional strengthening and recognition of the best-performing districts by the MoH on planning and budgeting.

The negative attitude of the health managers towards the process could be attributed to the challenges they face. As expressed in their perceptions, potential contributing factors include limited support from county health leadership and inadequate skills related to the process. Addressing these barriers through the development of interventions aimed at enhancing health managers' skills and motivation could cultivate a more positive attitude among them, ultimately leading to the successful development of health sector plans and budgets. Although the study collected comprehensive information from a diverse group of health managers drawn from all levels of the county health system, it is essential to acknowledge that the research was conducted in only one devolved health system. Consequently, the generalizability of the findings may be limited to other contexts and actors.

## V. CONCLUSIONS & RECOMMENDATIONS

### 5.1 Conclusions

The results of this research indicate that a majority of health managers have not received training in the annual work planning and budgeting process, as well as PBB. Additionally, the majority of them have not been oriented on the MoH planning and budgeting guidelines and the legal frameworks. The training of health managers has a transformative impact, as those who were trained exhibited greater knowledge about the process and were more likely to utilize legal frameworks. While most health managers acknowledged the importance of the annual planning and budgeting process, their overall attitude towards the process was predominantly negative.

### 5.2 Recommendations

It is recommended that the county health department allocate funds to provide training for health managers in the annual planning and budgeting process, as well as PBB. Additionally, the county health department should roll out elaborate orientation programs for the health managers on the MoH planning and budgeting guidelines and the associated legal frameworks. Implementing these interventions would empower health managers and, as a result, foster their active and positive engagement in the process.

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