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Cost Effectiveness and Resource Allocation

RESEARCH

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Financing immunisation in Kenya: examining bottlenecks in health sector planning and budgeting at the decentralised level

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Abstract

Background Decentralisation has increasingly been adopted by countries as an important health sector reform aimed at increasing community participation in decision making while enhancing swift response at decentralised levels, to accelerate the attainment of health system goals. Kenya adopted a devolved system of government where health services delivery became a function of the 47 semi-autonomous county governments with planning and budgeting functions practised at both levels of government. This study sought to explore challenges facing health sector planning and budgeting and how they affect immunisation service delivery at the county level.

Methods Data were collected through 77 in-depth interviews of senior county department of health officials across 15 counties in Kenya. We applied an inductive thematic approach in analysing the qualitative data using NVIVO software.

Findings The study found a lack of alignment between planning and budgeting processes, with planning being more inclusive compared to budgeting. Inadequate capacity in conducting planning and budgeting and political interference were reported to hinder the processes. Limited budget allocations and delayed and untimely disbursement of funds were reported to affect execution of health and immunisation budgets. Low prioritisation of preventive health interventions like immunisation due to their perceived intangibility influenced resource allocation to the programs.

Conclusion The findings highlight the need for effective strategies to align planning and budgeting processes, increased technical support to counties to enhance the requisite capacity, and efforts to improve budget execution to improve budget credibility. Counties should plan to increase their funding commitment toward immunisation to ensure sustainability of the program as Kenya transitions from GAVI support.

Keywords Health planning, Health budgeting, Health sector reform, Primary care, Prioritisation, Devolution, Decentralisation, Public financial management, County, GAVI transition, Budget credibility, Kenya

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Background

Immunisation is an important primary health care intervention averting millions of deaths globally [1]. The World Health Assembly in May 2012 ratified the Global Vaccine Action Plan (GVAP) 2011–2020, as a means of ensuring that there is universal access to vaccines across the globe, hence reducing the burden of vaccine preventable diseases [2]. Further, the immunisation agenda 2030 underscores the significance of immunisation in building stronger and resilient primary health care systems for the attainment of universal health coverage (UHC) [2].

Immunisation goals are attainable through adequate financing and full integration of immunisation services within revitalised primary health care programs. This necessitates effective planning and budgeting to ensure that all health system building blocks are adequately resourced [3]. Planning helps to translate health policies into specific activities critical to the overall attainment of health system goals [4]. Moreover, proper planning is necessary to ensure that activities are undertaken at the appropriate time [5]; while budgeting ensures that resources are allocated towards execution of plans [6].

While planning and budgeting have been traditionally undertaken at the central level, countries have increasingly adopted decentralisation as a key health sector reform [7]. Decentralisation is arguably beneficial since it enhances bottom-up planning, ensures increased resources and accountability at the local levels, and leads to improved health outcomes [7–10]. Decentralisation exists in many forms ranging from de-concentration whereby the decentralised unit has the least autonomy to devolution that provides the highest form of local autonomy [7].

Kenya adopted devolution in 2013 following the promulgation of the new constitution in 2010, that led to the creation of 47 semi-autonomous county governments [11]. Health service delivery at subnational level became a function of county governments, with the national government being responsible for health policy formulation and oversight over national referral hospitals [11]. Previous studies have highlighted inadequate capacity for priority setting, delayed funding of county departments of health, and political interference to be some of the challenges facing devolved health systems in Kenya [10, 12, 13].

The immunisation program in Kenya is run by both national and county governments [14]. The national government is responsible for formulation of immunisation policy, oversight, vaccine procurement and transport to regional depots, and immunisation technical support to counties. The counties are responsible for distribution of vaccines from depots to facilities and provision of immunisation logistics and human resources. The immunisation program is funded by national and county governments, GAVI (the vaccine alliance), and other development partners [14].

Planning and budgeting are conducted at both levels of government guided by the Public Financial management (PFM) Act [15]. According to the PFM Act, the budget cycle starts in August (n year) and ends in June ($n+1$ year) and is initiated by the treasury at the respective level of government [15, 16]. At the county level, the county treasury releases a budget circular that outlines the budget preparation schedule including the key dates, methodology of reviewing and projecting expenditures, policy areas, and public participation procedures by the end of August. In September, the county annual development plan is presented and approved by the county assembly (CA) for approval, following public participation. At the same time, the county treasury prepares the county budget review and outlook paper (CBROP), which reviews previous fiscal year's expenditure and outlines the projections for the next fiscal year [15, 16]. The CBROP, presented to the county executive committee by the end of September, is approved by the county assembly by the end of October. By end of February ($n+1$ year), the county treasury presents the county fiscal strategy paper (CFSP) to the CA, which outlines the budget ceilings for various county departments [15, 16]. The CFSB, approved by mid-March by the CA, guides the budget formulation. The initial county budget proposals presented at the CA by the end of April and must be approved by the end of June, to allow for budget implementation from July [15, 16].

GAVI, the Vaccine Alliance, currently provides funding for vaccines, effective planning, and prioritisation of immunisation programs at the county level. As Kenya prepares to transition from GAVI funding, understanding the effect of county planning and budgeting on immunisation programs would be key for program sustainability. This study sought to understand the challenges faced by counties in planning and budgeting for health, with a focus on how these processes affect the immunisation program. Findings from this study will inform policy at subnational level regarding immunisation financing especially in the context of Kenya's transition from GAVI funding.

Methods

Study setting/context

This study was conducted in 15 counties in Kenya between April 2019 and August 2021. Kenya is a lower-middle income country located in East Africa with a devolved system of government composed of one national government and 47 semi-autonomous county governments. Each county has a department of health headed by a county executive committee member (CECM) working together with the county health

management team (CHMT). Immunisation programs in counties are coordinated by Expanded Programme on Immunization (EPI) logisticians, who oversee the implementation of planned immunisation activities in the county in liaison with the National Vaccines and Immunization Program (NVIP). Vaccine procurement is a function of the national government, while counties are responsible for financing all the other non-vaccine components of the EPI program, majorly the operational expenses.

Sampling

For this study, counties were grouped into regions (former provinces) with the number of counties selected per region determined based on the region's sampling weight. In consultation with national level stakeholders at NVIP, purposive sampling was used to select counties per region based on the average immunisation coverage for the period 2014–2017 [17]. For each region, except North Eastern which was excluded due to security and logistical reasons, we selected at least one county with highest average immunisation coverage and one with the lowest immunisation coverage. The final list of selected counties included: Mombasa, Taita Taveta, Makueni, Tharaka Nithi, Kiambu, Muranga, West Pokot, Uasin Gishu, Bomet, Nakuru, Kisumu, Kisii, Kakamega, Bungoma, and Nairobi. We have kept the anonymity of the counties in the subsequent sections of the paper to protect the identity of the study participants.

Recruitment of participants

Participants were purposely selected based on their roles in supporting the county departments of health (CDOH) in planning and budgeting at the county level. Snowballing was employed to identify the diverse range of relevant staff at the county health departments. A comprehensive list of stakeholders was shared with two stakeholders at the national government with knowledge on Kenya immunisation programmes to ensure that it was exhaustive enough for this study. Invitation emails were sent to all the identified participants providing details of the study and explaining the reasons for their participation. For participants that did not respond to the email invitations, follow-up reminders were made via email and phone calls. Overall, we conducted 77 in-depth interviews involving senior county department of health and finance officials. Table 1 summarises the profiles of the interviewees:

Table 1 List of interviewees

Title/Position	Number Interviewed
County Executive Committee Member (Health)	3
Chief Officer of Health/Public Health/Medical Services	7
County Director of Health/Public Health/Medical Services	13
Chief Nursing Officers	5
Director of Nursing Services	2
EPI Logistician	15
CDOH Accountant/Economist/Finance	12
Other CHMT Members	20
TOTAL	**77**

EPI-Expanded Programme on Immunization; CDOH- County Department of Health; CHMT- County Health Management Team

Data collection

Data were collected through in-depth interviews that lasted between 20 and 45 min. Questionnaires were developed and finalised by AOA and JOO. After providing written informed consent, participants were interviewed using a semi-structured interview guide (Supplementary File 1). Interviews were conducted in English language by JOO. Participants were interviewed in a quiet environment within their county premises. Interviews were recorded and audios transcribed by JOO and AOA with support from two research assistants. All transcripts by research assistants were reviewed and quality checks done by the interviewer. Transcripts were anonymized during analysis and reporting. Ethical approval was granted by Moi University-Institutional Ethics and Research Committee (approval number 0003605).

Data analysis

Inductive thematic analysis was applied in coding and analysis of the transcript data by four members of the research team with expertise in public financial management and/or qualitative research (AOA, JOO, EOAW, CA). We used a systematic process to identify emerging themes from the data as proposed by Braun and Clarke [18]. First, the research team immersed themselves in the data by reading the first ten transcripts several times to familiarise with the data and obtain a sense of its breadth. The team members met on several occasions to discuss their initial impressions of the dataset. Secondly, the team generated an initial codebook using an inductive approach. Two members of the team (JOO, EOAW) independently coded the initial set of transcripts after which the team met to agree on the initial codebook that was then applied to the remaining transcripts. Additional codes were added during the analysis as nuanced from the data using an iterative process. Related codes were grouped into overarching themes, which were then reviewed and organised into a coherent pattern. The themes were then given names depending on the distinct challenge facing planning and budgeting for health and immunisation. NVIVO Software was used to facilitate transcript coding and data analysis.

Results

Challenges facing planning and budgeting for health and immunisation

Nonalignment between planning and budgeting processes

Late onset of planning was reported across most counties perceivably due to the lack of clearly defined timelines in law as opposed to budgeting whose timelines are guided by the PFM Act and initiated by the county treasury. Besides, planning depended on availability of resources to convene planning meetings, causing further delays.

> *"There has been an issue of linking the annual work planning and the budgeting. The budget cycle starts in September. Although the annual performance review (APR) normally comes early (between July and September), the actual annual work planning starts in February.... If the APR was done in August, why would you wait until February to start the annual work plan (AWP) development?" (KII 061).*

Delays in the onset of planning resulted in a rushed planning process resulting in budgets that were not informed by plans. Some respondents reported "historical planning" described as the use of planning templates from previous years, due to poor planning and tight timelines.

> *"...we start late, sometimes we do in a hurry so we are not able to capture all things so sometimes we have to duplicate some of the roles we did last year and at times we do not have enough time to implement what was remaining in the previous year ...." (KII 042).*

Conversely, planning was more inclusive compared to the budgeting process. The bottom-up approach applied in planning ensured that various county level stakeholders were involved in formulating county plans from the community, facility, sub-county to county levels. However, budgeting in most counties was done by a smaller team within the CDOH, led or constituted by the chief officer of health.

> *"The challenge is just as I have told you, budgeting is not all inclusive like planning..." (KII 026).*

> *"...the department has a group of people who participate (in budgeting) ...just a small group of people who prepare those budgets, they go to the parliament to defend it..." (KII 002).*

The perceived lack of inclusion of key stakeholders, including immunisation program officers, in the budgeting process implied that important components of budgets for health (and immunisation) programs were overlooked in the final budgets submitted to the assembly for approval. Immunisation program officers reported reduced decision space with regards to influencing resource allocation decisions toward the program.

> *"But the challenge comes in when maybe the adjustments need to be done very quickly without convening a meeting with the department heads. I would find that at that level, an activity has been deleted which I thought to me was a priority. Something else has been left. At one point, the top-level management, the chief officers may make a decision that will affect my program without my consultation." (KII 006).*

Respondents reported reduced morale for planning since planning was perceived as a redundant process that did not contribute to resource allocation decisions.

> *"...there is very minimal involvement so I think that also tends to kill the motivation in the participation in the planning so it looks like it is just a routine exercise...you know...whether you do it or you do not...execution will happen with or without it..." (KII 018).*

Limited budget allocation

Limited budget allocation featured as a key challenge that affects the planning and budgeting for immunisation. Respondents indicated that the allocated funds were seldom enough to implement all the planned activities by the county department of health. Additionally, the funds disbursed were often lower than those requested for during the planning which led to readjustments of the plans to fit the provided funds. The respondents reiterated that the limited budgets, coupled with the high operational costs within the CDOH, strained the prioritisation of planned activities and resulted in inadequate implementation as some important activities were often excluded.

> *"The limited resources. Because now the budget ceiling for the department is a limitation. We are given a ceiling that when you try to accommodate most of the items, it becomes very tricky." (KII 003).*

> *"But normally, you will find that the approved budget is lower. Such that you will find that we also come back and scale down some line items for the budget." (KII 006).*

> *"The first one is reduced funding. The allocation is less than what you really wanted. Because in the annual work plan you can make one worth so much*

but when you compare what you have planned and what you are given, it is less…so that leaves you with a challenge of deciding on priority areas… which one do you prioritise, and which one do you not prioritise." (KII 012).

Delayed disbursement of funds

Delays in disbursement of funds from the national treasury emerged prominently as a challenge, with respondents citing late release of funds which affects the implementation of planned activities. While certain activities can be implemented and the funds claimed later, activities like paying suppliers require cash-in-hand.

"Yes, it is not paid [on time]. You have done the paperwork, you have signed the service agreement with the service provider for that machine, the guy has gone for the service, the guy has come to service the machine, the paperwork is there, and everything is there but payment has not been done. Those are the challenges we face." (KII 001).

The erratic schedule of funds disbursements from the national treasury resulted in a further prioritisation of expenditure by the county treasury deviating from the planned schedule of program implementation.

"Accessing the funds is somehow a process, because it is pegged on the disbursement, from the national. If there are delays in terms of disbursement, then also it affects the activities. As we speak, we have closed the year, but we are two months behind in terms of disbursement from the national government. This also affects the activities." (KII 003).

"It is erratic, and I think it is because of disbursements from the national government. It is not a problem with the county itself because once the funds have come, then we spend them. And when they are not there, we are told we wait until there will be a release from…" (KII 008).

"The challenge we are facing is that we are not funded as per our plan. We budget as the allocation or the budget ceiling but the disbursement of funds delays…" (KII 015).

Failure to execute budgets in a timely fashion renders the unspent budget lines susceptible to reallocation, especially when supplementary budgets are being made. Program budgets could be reallocated either to other programs within the CDOH or to other departments, hence reducing the initial allocation.

"There are a lot of re-allocations. So, you may have planned for a certain activity, but someone somewhere feels maybe this one can wait…I can get this fund and put it on another project which is not a health one." (KII 013).

"Occasionally as you move on there will be reallocation especially with supplementary budget. So, some items might remain unfunded, yet they were in the budget previously…" (KII 027).

Financial management resource and system challenges

The departments faced challenges with systems involved in the control of expenditure which delayed and compromised the process. There were multiple challenges with the integrated financial management information system (IFMIS) that caused delays in the execution of budgets.

"In most cases, expenditures are lower. Why? You will always be told that IFMIS is not working… IFMIS is hanging…you know…things must be procured through IFMIS and then sometimes you are told those things were not uploaded in the system. So, you will find those challenges. And in the long run, there are certain activities that will not be implemented by closure of the financial year. So, you will find the expenditure is slightly down." (KII 008).

Another challenge related to poor systems of accountability and reporting from the health facilities in counties which makes it difficult to conduct the tracking of expenditures and reporting against planned budget items.

"Planning I think mostly it is when you want to plan so that it is bottom up it is not easy especially when the system of accountability have not been set up when the reporting systems have not been set up… you know it becomes easy if you have information say on a quarterly basis because if you ask a facilities to plan or to give you estimates for their electricity or water then you realise it is different compared to the actual expenditures…" (KII 013).

The respondents also mentioned that health facilities did not have proper documentation tools which affected data capture for monitoring health priorities. As one respondent reports about the lack of immunisation registers:

"Another challenge I am facing is the documentation tools as a county we are supposed to print out our own but when I was going round I was seeing some facilities are using outdated ones when I was asking the facility incharges they were saying they have not

been given adequate funds to print the immunisation registers so I was asking them what have you prioritised because immunisation registers should be among the ones you are printing." (KII 016).

Additionally, the departments experienced logistical challenges related to transport, accommodation, and communication, during the implementation of immunisation activities.

"You find sometimes vehicles are a problem, now when you talk about maybe taking immunizations from the central point to those other facilities there, it is a problem, most times fuel is a challenge, vehicles are a challenge so to distribute vaccines is a nightmare." (KII 051)

"The main reason here is issues of transport. That is the main challenge that we have. Because issues of transport are all decided in another department. So, even to get the vehicle to go to maybe wherever you want to go, it is sometimes a challenge." (KII 004)

Participants also perceived that the procurement processes were time consuming and could be made faster.

"The problem is what we can refer to as bureaucracies in procurement. There are so many processes that you must go through for you to procure and account and evaluate what you have done. So, those processes take a lot of time, sometimes become very hard even to exhaust the vote even though maybe there are some things that we have not bought…" (KII 017).

Inadequate technical capacity for planning and budgeting

Lack of expertise to conduct costing of health programs was cited as a major challenge experienced by CHMTs during planning and budgeting. This limits the ability to adequately estimate the resource needs during budgeting.

"The other challenge is in terms of costing exactly the services. It is still challenging because they do not do a proper costing because the idea would be we would want to identify let's say the target population look at the cost of the service and then from there cost and on a quarterly basis…" (KII 027).

"…as a department, our challenge remains in costing…when doing the budget, we are unable to make proper estimates for programs…this interferes with the implementation…you know, we are not experts in this field…" (KII 063).

Further, inadequate capacity in conducting program-based budgeting was brought up as a major challenge: line-item budgeting was prepared alongside program-based budgets. Fortunately, CHMT members in some counties have benefited from partner-led training on planning and budgeting, especially on how to conduct program-based budgeting (PBB). While the training has helped improve capacity at county level on PBB, it was noted that the capacity is still lacking at the lower levels.

"But you see like members of county assemblies (MCAs), the law states that we have to do for them program-based budgets but I can tell you that this is Kenya…our MCAs do not understand program based budgets…so we do for them both the line budgets and the program based budgets…" (KII 034).

"…as a CHMT, we were trained on program-based budgeting…our competence has really improved… the challenge remains at the facility level…mmm… the quality of plans is sometimes very low…the CHMT capacity is better" (KII 045).

Lack of political will in planning and budgeting

Respondents reported a mismatch in the priorities of the CDOH and those of the political wing. While county health management teams preferred investments in public health initiatives and activities focusing on improving service delivery and health outcomes, politicians favoured presumably 'tangible' projects that can be seen by the electorate. This means that health facilities may be constructed but lack requisite staffing and essential supplies to be fully operational. The mismatch has adversely affected resource allocation towards preventive and promotive health programs like immunisation because they are deemed to be 'intangible' compared to curative services whose investments and outcomes are visible in the short-term.

"…remember we are in a political environment. So, sometimes what we plan, especially for services, we find challenges in the assembly, because for them they want to see a structure. For them development means you have put up a dispensary, a new dispensary, maybe you have put an ambulance, which is development the political way. But for us development, we look at it in terms of service. Sometimes what we plan is not approved" (KII 031).

"…political interference which you cannot avoid… we have reached a level that we are feeling we should not concentrate in so many new projects but complete the stalled projects and then we equip those

facilities, but you get that the MCAs… they are the ones passing the budget each and every MCA will like a new facility in his area" (KII 048).

Despite being an important PHC intervention, the immunisation program is often ignored in planning and budgeting as its returns are not immediately visible.

"Politically, its (immunisation) ranking is very low but in the department of health it is ranked high although not well supported. You will hear people talking of immunisation, feeling that it is doing a lot for our children, doing very well for our women, but it is the support which maybe the department doesn't have. But politically it is not a big priority…" (KII 002).

Resource allocation towards programs at the county level depends on whether the program receives support from the national government and partners. Since vaccine procurement function is centralised, counties have continually perceived immunisation to be a national government program, hence the low level of commitment. Nonetheless, some counties were increasingly taking up the financing of immunisation, especially with increased advocacy by different stakeholders.

"…for the financial year 2019–2020 it is at least when they have allocated some finances before that they were not allocating anything they assumed the national program does everything but this time round they have allocated at least 6 million for immunisation…" (KII 029).

However, in other counties, low allocation towards immunisation programming led to facility-level stockouts of essential immunisation commodities and last-mile logistical challenges affecting service delivery.

"…there was a time GAVI bought us some syringes and they were at the national depot so I had to look for support from the county to go and bring them, but the support was not really forthcoming it took me about 4 months until I liaised with a partner who helped me get them. Services had come to a standstill. We had no single immunisation syringe… that was around November last year." (KII 054).

Discussion

This study sought to understand the bottlenecks facing planning and budgeting for health and immunisation programs at the county level in Kenya. We explored senior county managers' experiences with various stages of the PFM cycle from priority setting to execution of budgets. The study found that a bottom-up planning approach was practised, involving several stakeholders, at countylevel guided by various national and county policy documents. However, budgeting was noted to be less inclusive compared to planning, with the two processes reportedly not aligned to each other. While respondents reported improved capacity to conduct planning and budgeting compared to the early days of devolution, inadequate capacity, especially at sub-county and health facility levels, still emerged as a major impediment to effective planning and budgeting. Also, inadequate, and untimely funding of planned activities were reported to affect effective implementation of plans. Political interests were reported to affect priority setting at the county level, overriding those of the CDOHs. This affects the financing of preventive programs like immunisation at the county level.

Health sector decentralisation is argued to increase community participation in implementation of various health policies and enhance social accountability mechanisms [19, 20]. The study found that most counties adopt a bottom-up approach to planning. Health facilities identify priority areas of investment that are cascaded to sub-county and county levels before being consolidated into county AWPs. Though the bottom-up planning approach was reported by county level managers, the finding could be better corroborated with those of sub county and health facility managers. Shayo and colleagues [21] reported that in Tanzania, district managers and health facilities were not consulted by regional managers while setting priorities for the prevention of mother to child transmission (PMTCT) of HIV/AIDS program contrary to previous reports by the regional managers. In Uganda, low public participation was reported to affect the district-level priority setting meetings [22]. Previous studies in Kenya have also reported low participation of communities in priority setting at the local level [23].

Nevertheless, the planning process was reported to be more inclusive than budgeting. Immunisation program officers in some counties reported not being involved in the budgeting process leading to the program's priorities not being funded. This confirms previous findings of a study in a Kenyan county that found budgeting to be less inclusive compared to planning [24]. Also, there was a lack of alignment between plans and budgets, consistent with previous findings both at county [24, 25] and national level [26] in Kenya. While the PFM Act defines the budget cycle with clear timelines, planning was noted to begin late and did not inform the budgeting process, a finding consistent with previous studies [27]. Institutional separation between the planning and budgeting leads to the misalignment since the two processes are led by different officers. The county director of health, who leads

planning, is not a member of the county executive committee. Moreover, the misalignment is attributed to the lack of resources to convene planning meetings, which usually depend on partner support. To address the misalignment between the two processes, the World Bank introduced the medium-term expenditure framework (MTEF) [28], adopted by Kenya in 2001/02. The MTEF helps to map out an estimate of the resource envelope in the medium term. Moreover, the PFM Act 2012 requires counties to adopt program-based budgeting (PBB) as a means of ensuring that budgets are tied to results [15]. If conducted appropriately, PBB would ensure that planning and budgeting processes are performed simultaneously, and budget al.location done based on the target results to be achieved.

Our study revealed varied experiences across counties with regards to the conduct of planning and budgeting, with some counties reporting low capacity of county teams in costing of health programs and conducting PBB. Despite various implementing partners providing technical support to counties, the study found inadequate capacity especially at sub-county and health facility manager level. Lack of capacity has been linked to the practice of historical budget al.locations [25] and inability of the health departments to lobby for more resources to the sector [29]. This calls for renewed efforts to boost the capacity of subnational levels regarding planning and budgeting, especially at the lower levels. However, such technical support should be targeted towards counties with the highest need. A recent study in Kenya found maldistribution of health financing partners across counties and lack of coordination of partner technical support at county level leading to duplication of efforts [30]. Also, fewer partners provided technical support related to budgeting and costing compared to advocacy [30]. Partner provided technical support should be aligned with county priorities.

The study found slow and unpredictable release of funds from the national treasury to affect the implementation of health budgets at the county level. Similar findings were reported in Tanzania where delays and insufficient funding from the central government affected district councils' and health facilities' ability to procure drugs and essential medical supplies [31, 32]. In Zambia, frequent delays in receiving actual budget al.locations from the central government were reported and when funds were received, they were always less than the initial budget al.location [33]. County governments in Kenya are funded through national exchequer transfers and own-source revenue, with the former making a significant proportion of the total revenue [15]. Donors also fund specific activities at the county level either directly or through implementing partners. Delays in receipt of funds were so significant to the extent that funding for activities planned for the first quarter were received in the last quarter of the financial year. The 2022 public expenditure review published by the World Bank reported complex and fragmented funds flow mechanisms in Kenya's devolved settings that ultimately affect service delivery [34]. This implies that resources may not be utilised on high impact activities due to the rush to spend resources towards the end of the financial year. Immunisation programme was affected by stockouts in essential commodities (especially syringes and other non-vaccine supplies) being experienced at the county level due to the lack of funding. An appropriate framework of funds transfers should be implemented to guarantee timely transfers of funds to counties to ensure seamless service delivery.

The study found interests of politicians sometimes conflicting those of CDOHs affecting the sector priority setting process. Politicians were reported to prefer investments with an 'electoral appeal' and thus would influence the projects to be planned by the CDOH. This created a bias towards physical infrastructure projects and curative health care projects at the expense of preventive and promotive programs like immunisation. This finding confirms those of previous studies in Kenya that found county budget al.locations to be influenced by political interests [24, 35, 36], leading to the neglect of the less visible programs like community health services at the expense of curative services [10, 37]. There need to be sustained efforts to engage the political arm of county governments to enhance their understanding of health sector priorities and the role of primary health care (PHC) interventions in the attainment of universal health coverage. This engagement would ensure that CDOHs receive political support from resource allocation to execution of budgets. There may be a need for revised structural policies related to health financing in order to consider priority program spending.

Stronger PFM and governance systems are associated with improved immunisation coverage [38] and reduction in under five mortality [39]. These challenges facing planning and budgeting in Kenya directly affect immunisation financing at the county level. We found varied commitment towards immunisation financing across counties. The national government procures vaccines while counties are responsible for financing all the logistics related to immunisation service delivery [14]. Over time, immunisation has been viewed as a national government program that is also supported by various partners, informing the low domestic budget al.locations. The low support could also be attributed to the lack of understanding by key stakeholders at the county level on the need to invest in immunisation as a program especially due to its perceived 'intangibility'. Inadequate funding towards immunisation affects service delivery

crippling delivery of critical components of the program. Kenya is currently in the accelerated phase of transition from GAVI (The Vaccine Alliance) funding and is expected to fully finance its vaccine needs by 2027 [40]. This translates to significant increase in vaccine procurement budget, further highlighting the need for counties to take a more prominent role in immunisation financing. To ensure sustainability of the immunisation program beyond GAVI support, continuous advocacy with relevant actors is a necessary condition. This is the way to ensure that counties understand the current investments in immunisation and the financial implications during GAVI transition. Moreover, partner support towards EPI operational expenses should be on-budget to enhance increased visibility and preparedness as well as strengthening of national and subnational processes beyond donor support.

Limitations

This study explored the challenges facing counties in planning and budgeting through interviews of senior county department of health and finance officials involved in planning and budgeting across 15 counties in Kenya. Involvement of other key actors in the planning and budgeting process like politicians, sub county and health facility managers would help enrich the findings. In addition, the diverse nature of the 47 counties renders our findings not generalizable to the other counties.

Conclusion

Effective planning and budgeting are prerequisites for adequate resourcing of the health system, especially in decentralised settings like Kenya. The study aimed at exploring the challenges facing county departments of health in planning and budgeting. Based on the reported challenges, we make the following recommendations: (1) Efforts should be made to make planning and budgeting aligned and ensure that all relevant stakeholders are involved in both processes. PBB is one such tool that can promote the alignment of planning and budgeting. (2) There is a need for enhanced capacity of various county teams on how to conduct planning and budgeting and lobbying for increased budget allocation for health. The government and implementing partners should collaborate in enhancing this capacity. (3) County departments of health should continuously engage the political wing at the county level to promote their understanding of and obtain support for health sector priorities. (4) Sustained efforts are required to improve budget execution and accountability leading to increased budget credibility. (5) Continued advocacy is necessary to highlight the need for increased funding towards the immunisation program.

Abbreviations

AWP	Annual Work Plan
APR	Annual Performance Review
CBROP	County Budget Review and Outlook Paper
CDOH	County Department of Health
CHMT	County Health Management Team
GAVI	The Vaccine Alliance
PBB	Program based budgeting
WHO	World Health Organization
UNICEF	United Nations Children's Fund

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Author contributions

AOA conceptualized the study, wrote the protocol, sought for ethical approvals. AOA and JOO collected the data in the field and transcribed the data. AOA and JOO reviewed and performed a quality assessment of interviews. JOO and CA and EOAW independently coded the initial set of transcripts. AOA, JOO, CA, and EOAW applied inductive thematic analysis in coding and analysis of the transcript data. AOA developed the initial manuscript and JOO, CA and EOAW and JN reviewed extensively the manuscript. DJ and JN provided guidance at the conception of the study, development of protocol and reviewed the manuscript.

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Data availability

Data is availabe upon request.

Declarations

Ethics approval and consent to participate

Ethical approval was granted by Moi University-Institutional Ethics and Research Committee (approval number 0003605).

Competing interests

The authors declare no competing interests.

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References

1. UNICEF. Immunization programme. :text=Immunization%20saves%202%20to%203,brings%20them%20life%2Dsaving%20care; 2021. https://www.unicef.org/immunization#:~:text=Immunization%20saves%202%20to%203,brings%20them%20life%2Dsaving%20care.
2. World Health Organisation. (2013) Global Vaccine Action Plan 2011–2020.
3. Rajan D, Barroy H, Stenberg K, Schmets G, Rajan D, Kadandale S. (2016) Budgeting for health–Strategizing national health in the 21st century: a handbook. Geneva. World Health Organization (https://apps.who.int/iris/bitstream/handle/10665/250221/9789241549745-chapter8-eng.pdf.
4. Abel-Smith B. An introduction to health: policy, planning and financing. London, England: Routledge; 2018.
5. Dovlo D, Karamagi HC, Ousman K, Ekekemonono M. Recent developments and the future of health planning in African countries. Inst Hig Med Trop (Lisb). 2017;16:51–3.
6. Rajan D, Barroy H, Stenberg K. Budgeting for health. Strategizing national health in the 21st century: a handbook. Geneva: World Health Organisation; 2016.
7. Saltman R, Busse R, Figueras J. Decentralization in health care: strategies and outcomes. McGraw-hill education (UK); 2006.

8. Jiménez-Rubio D, García-Gómez P. Decentralization of health care systems and health outcomes: evidence from a natural experiment. Soc Sci Med. 2017;188:69–81.
9. Rubio DJ. The impact of decentralization of health services on health outcomes: evidence from Canada. Appl Econ. 2011;43:3907–17.
10. McCollum R, Theobald S, Otiso L, Martineau T, Karuga R, Barasa E. Priority Setting for Health in the context of devolution in Kenya: implications for Health Equity and Community-based primary care. Health Policy Plan. 2018;33:729–42.
11. Republic of Kenya. (2010) The Constitution of Kenya, 2010.
12. Tsofa B, Molyneux S, Gilson L, Goodman C. How does decentralisation affect health sector planning and financial management? A case study of early effects of devolution in Kilifi County, Kenya. Int J Equity Health. 2017;16:151.
13. Nyikuri M, Tsofa B, Barasa E, Okoth P, Molyneux S. Crises and resilience at the Frontline—Public Health Facility Managers under devolution in a Sub-county on the Kenyan coast. PLoS ONE. 2015;10:1–18.
14. Ministry of Health. (2015) Comprehensive Multi-Year Plan for Immunization.
15. The Republic of Kenya. (2012) The Public Finance Management Act, 2012.
16. International Budget Partnership (IBP) Kenya. Kenya's Budget calendar: National and County. International Budget Partnership Kenya; 2022.
17. Kenya National Bureau of Statistics (KNBS). Economic Survey 2018. Kenya National Bureau of Statistics; 2018.
18. Braun V, Clarke V. Using thematic analysis in psychology. Qual Res Psychol. 2006;3:77–101.
19. Bossert TJ, Mitchell AD. Health sector decentralization and local decision-making: decision space, institutional capacities and accountability in Pakistan. Soc Sci Med. 2011;72:39–48.
20. Bossert TJ, Beauvais JC. Decentralization of health systems in Ghana, Zambia, Uganda and the Philippines: a comparative analysis of decision space. Health Policy Plan. 2002;17:14–31.
21. Shayo EH, Mboera LE, Blystad A. Stakeholders' participation in planning and priority setting in the context of a decentralised health care system: the case of prevention of mother to child transmission of HIV programme in Tanzania. BMC Health Serv Res. 2013;13:273.
22. Razavi SD, Kapiriri L, Abelson J, Wilson M. Who is in and who is out? A qualitative analysis of stakeholder participation in priority setting for health in three districts in Uganda. Health Policy Plan. 2019;34:358–69.
23. McCollum R, Taegtmeyer M, Otiso L, Muturi N, Barasa E, Molyneux S, Martineau T, Theobald S. Sometimes it is difficult for us to stand up and change this: an analysis of power within priority-setting for health following devolution in Kenya. BMC Health Serv Res. 2018;18:906.
24. Waithaka D, Tsofa B, Kabia E, Barasa E. Describing and evaluating healthcare priority setting practices at the county level in Kenya. Int J Health Plann Manage. 2018. https://doi.org/10.1002/hpm.2527.
25. Barasa EW, Cleary S, Molyneux S, English M. Setting healthcare priorities: a description and evaluation of the budgeting and planning process in county hospitals in Kenya. Health Policy Plan. 2017;32:329–37.
26. Tsofa B, Molyneux S, Goodman C. Health sector operational planning and budgeting processes in Kenya—never the twain shall meet. Int J Health Plann Manage. 2016;31:260–76.
27. Musiega A, Tsofa B, Nyawira L, et al. Examining the influence of budget execution processes on the efficiency of county health systems in Kenya. Health Policy Plan. 2023;38:351–62.
28. Bank W. (1998) Public expenditure management handbook.
29. Doherty J, Kirigia D, Okoli C, Chuma J, Ezumah N, Ichoku H, Hanson K, McIntyre D. (2018) Does expanding fiscal space lead to improved funding of the health sector in developing countries? Lessons from Kenya, Lagos State (Nigeria) and South Africa. Glob Health Action. https://doi.org/10.1080/16549716.2018.1461338
30. Adjagba A, Oguta JO, Wambiya EO, Akoth C. Strengthening health financing at sub-national level in Kenya: a stakeholder and needs mapping through a mixed methods approach. Pan Afr Med J. 2024. https://doi.org/10.11604/pamj.2024.48.186.44484.
31. Kigume R, Maluka S, Kamuzora P. Decentralisation and health services delivery in Tanzania: analysis of decision space in planning, allocation, and use of financial resources. Int J Health Plann Manage. 2018;33:e621–35.
32. Maluka S, Kamuzora P, Sansebastián M, Byskov J, Ndawi B, Olsen ØE, Hurtig AK. Implementing accountability for reasonableness framework at district level in Tanzania: a realist evaluation. Implement Sci. 2011;6:11.
33. Zulu JM, Michelo C, Msoni C, Hurtig AK, Byskov J, Blystad A. Increased fairness in priority setting processes within the health sector: the case of Kapiri-Mposhi District, Zambia. BMC Health Serv Res. 2014;14:75.
34. World Bank. (2022) Kenya Public Expenditure Review for the Health Sector FY2014/15-FY2019/20. World Bank.
35. Munywoki J, Kagwanja N, Chuma J, Nzinga J, Barasa E, Tsofa B. Tracking health sector priority setting processes and outcomes for human resources for health, five-years after political devolution: a county-level case study in Kenya. Int J Equity Health. 2020;19:165.
36. Tsofa B, Goodman C, Gilson L, Molyneux S. Devolution and its effects on health workforce and commodities management - early implementation experiences in Kilifi County, Kenya. Int J Equity Health. 2017;16:169.
37. McCollum R, Limato R, Otiso L, Theobald S, Taegtmeyer M. Health system governance following devolution: comparing experiences of decentralisation in Kenya and Indonesia. BMJ Glob Health. 2018;3:e000939.
38. Kamadjeu R, Wyka K, Kelvin EA. Governance matters: exploring the impact of governance on routine immunization performance in 54 African countries: a 10-year (2012–2021) analysis using linear mixed models. Vaccine. 2024;42:126293.
39. Tapsoba Y, Silim A, Frimpong KA, Barroy H. Does public financial management save life? Evidence from a quantitative review of PFM and health outcomes in sub-saharan African countries. Health Syst Reform. 2024;10:2298190.
40. GAVI. (2019) Kenya: Key information on co-financing. https://www.gavi.org/sites/default/files/document/co-financing-information-sheet-kenyapdf.pdf

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