

Barriers and potential facilitators for effective nutrition governance in Tanzania Mainland.

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Abstract

Good nutrition governance is essential for all countries trying to improve nutrition because it forms the foundation from which sustained, and quality nutrition services can be provided at scale. This study determined the barriers and potential facilitators for effective Nutrition governance in Tanzania Mainland. The study adopted a cross sectional study design with mixed approach constituting qualitative and quantitative data collection approaches. Convenient sampling was used to select 184 Council Nutrition officers and 26 Regional Nutrition officers in Tanzania Mainland at phase one of quantitative approach. Semi structured web page administered questionnaires were administered to respondents using survey monkey, whereby descriptive statistics were performed using SPSS Version 20 to determine the barriers and facilitators for effective nutrition governance. In the qualitative phase, purposive sampling was employed in selecting 12 Nutrition officials from 12 Councils in Tanzania Mainland with adequate and those with inadequate nutrition governance. The barriers against and facilitators for effective nutrition governance were identified from quantitative phase whereby more information was explored in qualitative phase. An interview guide was used to interview the 12 Nutrition officers as key informant interview. Finally, thematic texts were analysed using Nvivo software version 11 to identify the themes in qualitative data. Inadequate funding for nutrition services, inadequate supportive supervision, inadequate nutrition assessment and screening and inadequate multisectoral collaboration were key barriers for effective Nutrition governance. Factors that potentially facilitated effective Nutrition governance, as identified by participants, were in service training, supportive supervision and availability of development partners supporting nutrition services.

Keywords: Nutrition, Governance, Barriers, Facilitators, Tanzania Mainland.

Introduction

The government of Tanzania has taken significant measures to strengthen nutrition governance as part of national efforts to improve nutrition. However, little is known on the barriers against and potential facilitators to the implementation of Nutrition services, with a view to eliminating the malnutrition challenges in Tanzania. Despite the global call for improved nutrition governance in the reduction of malnutrition in the world, there is a slow progress in the reduction of malnutrition in Tanzania [1].

Based on the 2015/2016 Tanzania demographic and health survey, the prevalence of stunting was above the average of 30% for Africa and falls within the category of high in public health significance. The absolute numbers of stunted children increased from below 2.0 million in the early 2000's to about

3.0 million in 2010 [2]. A decline was observed in 2015 with 2.7 million stunted children. Wasting in children 0 to 59 months declined from 8% in 1992 to 4.5% in 2015/2016 reaching the World health assembly target of below 5% [3]. However, the absolute numbers of those acutely malnourished are high and also increasing, with some 600,000 children less than five years of age estimated to be acutely malnourished [2].

The United Republic of Tanzania is also undergoing a nutrition transition. The problem of overweight and obesity has been increasing. Overweight in children was around 4 to 5% in 2015/2016 compared to less than one% in the 1990s, while the prevalence of overweight and obesity in women was 28% in 2015 [3].

Global evidence shows that addressing malnutrition requires a strong focus on nutrition governance, relating coordinated

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actions by many actors across sectors and various administrative levels of the Government [4]. Effective governance is thought to be essential in nutrition programme planning and implementation. Inadequate nutrition governance is a key driver for slowing process in reducing malnutrition [5]. Therefore, a slow process in the reduction of the prevalence of malnutrition as evidenced in most African countries, Tanzania inclusive, calls for more attention as a critical success factor in the attempt to alleviate malnutrition.

There is growing evidence on the linkage between malnutrition and the level of nutrition governance, inadequate nutrition governance leads to less reduction of malnutrition rate [6]. Nutrition governance is a key prerequisite for building the necessary enabling environment for reducing malnutrition, particularly through efficient implementation of both nutrition specific and sensitive interventions. Inadequate nutrition governance contributes to a low rate of malnutrition reduction [7]. Good nutrition governance has great influence on the improvement of nutrition status of people; it sustains political will [8].

Low enforcement of laws and nutrition policies by office bearers results into inadequate responsibilities and accountabilities in nutrition programmes [9]. High rates of malnutrition result from inadequate budget planned in the country for nutrition activities [10]. Therefore, the current study was done to determine the barriers against and facilitators for effective governance for nutrition in Tanzania Mainland.

Methodology

Research design

A cross sectional study with mixed method was employed in this study.

Study population

The District Nutrition officers in Tanzania Mainland were selected to participate in this study.

Sampling procedures and sample size

The participants were identified using a purposive sampling technique which involved selecting participants affirmed to have barriers against and facilitators for effective nutrition governance at their Councils from quantitative phase to explore more information in qualitative phase, whereby twelve Council Nutrition officers were selected as key informants from 12 Councils in Tanzania Mainland. The selected council were Councils Arusha City, Kongwa, Bahi, Singida DC, Ikungi, Sikonge, Tabora DC, Uvinza, Kakonko DC, Chato DC, Tunduma TC and Newala TC.

Data collection

Data collection method: In this study, data were collected using semi-structured interviews where participants were asked to give their views and reflect on their experiences of the implementation of nutrition services, coordination, and plans for increasing funding for Nutrition activities. They were asked to focus particularly on those factors that might have been barriers to, or facilitators for effective Nutrition

Governance in their councils. An interview guide containing key themes across multiple contexts and levels of influence was initially developed, based on a review of the landscape analysis on countries' readiness to accelerate action in Nutrition [11].

Data collection tool: Key informant interview guide was used to collect the data. Each interview was audio-recorded. All interviews were conducted in the participant's office or another convenient location at their workplace. The interviews lasted approximately 10-20 minutes. Informed consent was obtained from all participants before starting each interview.

Data processing and analysis: The first phase of data collection on quantitative approach, the data from both Regional and Council Nutrition officers was initially performed using SPSS Version 20 to determine the barriers and facilitators for effective nutrition governance. On the second phase, the quantitative data from 12 interviews were transcribed, and analyzed using the NVIVO software version 11. The deductive process was used by comparing and distinctions of individual responses, including themes that emerged across all the respondents (Bureau of Nutrition, 2010). Emerging themes were interpreted by considering the barriers and potential facilitators for effective nutrition governance, implementation of nutrition services and ideas to tackle nutrition challenges. Quotations from the interview transcripts were translated from Swahili into English and were presented so as to support the themes.

Results

Demographic characteristics of nutrition officers

Started with quantitative approach involving 184 Councils and 26 Regions in Tanzania Mainland, a total of 12 Councils Nutrition officers (Councils NuOs) from 12 Councils participated in the study to explore more information on the barriers and facilitators for effective nutrition governance. The following were the demographic characteristics of the 12 key informant interview participated in the qualitative phase:

The proportion of females was 58% and that of males was 42% (**Table 1**). About 17% and 83% of the interviewed Nutrition officers at Council level were Nutrition focal persons and proper Nutrition officers respectively. Proper nutrition officers were the District nutrition officers with either a Bachelor degree in Nutrition or postgraduate training. Nutrition focal person were the District nutrition officers without nutrition background but coordinate nutrition activities in the councils.

Barriers for effective nutrition governance in Tanzania Mainland

The results obtained from the analysis of barriers for effective nutrition governance at Regional and Council Level, are shown in **Table 2**. About 90.2% of the surveyed nutrition officers at the Council level and 73% at the Regional level responded affirmatively that they were facing barriers in implementing nutrition activities in their workplaces.

Table 1. Demographic characteristics of councils nutrition officers.

Variable	Variable Category	n	%
Sex	Male	5	42
	Female	7	58
Profession	Nutrition focal persons	2	17
Education Level	Proper Nutrition officers	10	83
	Proper Nutrition officers with bachelor degree	7	70
	Nutrition Focal person with bachelor degree	1	50
	Proper Nutrition officers with Master degree	3	30
	Nutrition Focal Persons with master degree	1	33

Table 2. Types of barriers against effective nutrition governance at regional and district levels.

Variables	Variable category	Administrative level			
		Regional		District	
		n	%	n	%
Affirmation of barriers	Yes	19	73	166	90.2
	No	7	27	18	9.8
Kind of barriers Operational barriers	Yes	24	91.8	156	85
	No	2	8.2	28	15
Inadequate Multisectoral Nutrition support	Yes	11	41.8	110	60
	No	15	58.2	74	40
Personal	Yes	2	8.8	9	5
	No	24	91.2	175	95

Types of barriers affecting effective nutrition governance at regional and district levels

The results obtained from the analysis of the barriers against effective nutrition governance at Regional and Council Level is shown in **Table 2**. The kind of barriers facing the District level Nutrition officials were as follows: Environmental barriers (55%), Operational barriers (85%), Inadequate Multisectoral Nutrition support (60%) and Personal barriers (5%). The kind of barriers facing the Regional level Nutrition officials were as follows: Environmental barriers (35.9%), Operational barriers (91.8%), Inadequate Multisectoral Nutrition support (41.8%) and Personal barriers (8.8%).

Potential facilitators for effective nutrition governance at regional and district levels

The results obtained from the analysis of potential facilitators for effective nutrition governance at Regional and Council Level are shown in **Table 3** in which it is revealed that about 59% of the surveyed nutrition officers at the Council level responded affirmatively that they had potential facilitators in the course of implementing nutrition activities to their Councils. At Regional level, about 67% of the surveyed nutrition officers responded affirmatively that they had potential facilitators in the course of implementing nutrition activities in their regions.

Types of potential facilitators for effective nutrition governance at regional and district level

The results obtained from the analysis of potential facilitators for effective nutrition governance at Regional and Council Level, are shown in **Table 3**. Potential facilitators at District level Nutrition officials were as follows: Staff motivation (8%),

In-service orientation and training (85.7%), Good financial management (4.5%), Inter networks across and within sectors (22.3%).

Facilitators at Regional level were as follows: Staff motivation (19%), In-service orientation and training (81%), Good financial management (6%), Inter networks across within sectors (44%).

Key themes about barriers for nutrition governance in Tanzania Mainland

The key themes derived from the interview data were organized within the five pre-specified themes: Environmental barriers; Personal barriers; Operational function; Multisectoral support and Multisectoral Governance for Nutrition. In total, 13 themes on barriers emerged from the analysis of the interview data (**Matrix 1**).

Key barriers against effective nutrition governance

The most prominent themes on barriers against effective Nutrition governance that emerged in the interviews are described as follows:

Inadequate Transport system: Some of Nutrition officers, who involved in this study, mentioned that poor access to roads was making them fail to reach some rural communities. One of participants stated that:

“The government should make sure that the roads are constructed to make it easy to reach rural communities for provision of nutrition services”.

Inadequate budget for nutrition activities: Participants involved in the study mentioned inadequate budget for Nutrition activities as barrier against effective Nutrition

Table 3. Affirmation and types of potential facilitators for effective nutrition governance at regional and district level.

Variables	Variable category	Regional		District	
		n	%	n	%
Affirmation of barriers	Yes	17	67	109	59
	No	9	27	75	41
Kind of facilitators In service training	Yes	21	81	158	85.7
	No	5	19	26	14.3
Good financial management	Yes	2	6	8	4.5
	No	24	94	176	95.5
Inter networks across and within sectors	Yes	11	44	22	22.3
	No	15	56	162	77.7

Matrix 1. Key barriers against and potential facilitators for effective nutrition governance in Tanzania Mainland.

Theme categories	Themes identified
Barriers	
Environmental barriers	<ul style="list-style-type: none"> Inadequate transport system Lack of office for nutritionist
Operational function	<ul style="list-style-type: none"> Funds are not released for implementing nutrition interventions. Inadequate budget for Nutrition activities Inadequate nutrition screening and assessing tools (Length boards, digital weighing scales) There is no specific fund allocated for Nutrition services Scarcity of resource from domestic source (Local government own source).
Multisectoral Nutrition support	<ul style="list-style-type: none"> Lack of interest from nutritional related departments.
Personal barriers	<ul style="list-style-type: none"> Inadequate human resources which lead to accumulation of multi tasks for Nutrition officers lack of office for nutritionist The salary is not enough Lack of access to some of Nutrition data from Health information system (DHIS2).
Multisectoral Nutrition Governance	<ul style="list-style-type: none"> Inadequate support satisfaction Inadequate coordination

governance in Tanzania which undermine nutrition services in the districts. The participants stated that:

“Due to lack of enough budgets for nutrition activities, I am not able to travel to the communities to provide nutrition education and counselling people on nutrition”.

Apart from the inadequate budget for Nutrition activities, there were some participants who reported to have adequate budget for implementing nutrition activities but the problem came only due to delaying time for realizing the fund. On this, one participant stated that:

“Still there is a difficulty in fund releasing to implement nutrition intervention despite the fact that the budget was planned and incorporated in Council Planning and Budget”

Multisectoral nutrition support: The Council nutrition officials perceived the absence of effective Multisectoral Nutrition support as a contributing factor due the failure to track the government progress in reducing malnutrition in the country. One Council Nutrition officer involved in the study noted that there was lack of interest from other departments:

“District directors see nutrition related interventions as subsidiary issues so allocating fund for it is wastage of own source in comparison to education issues”.

Lack of access to some of nutrition data from health information system: Participants mentioned to have had no access to track nutrition data from District Health Information System (DHIS2). Others stated to have access but they were not given password. On this regard, one of the participants said:

“I have access to DHIS2 but I don’t have the password. Therefore, I always use other coordinators’ password. Therefore, I suggest that the Regional/ national levels prepare very comprehensive training that will make the nutrition officer to be actively involved in data collection, analysis and interpretation. Furthermore training should be given to Nutrition officers so as to help them on issue of data availability because Nutrition officers have as yet not received any training on DHIS2”.

Apart from having access to DHIS2 passwords, others stated that there was some of the information such as underweight, low birth weight, Kwashiorkor, anaemia and marasmic kwashiorkor that was easily accessible from the data base, but some of the information like stunting, BMI and wasting could not be accessed from the data base.

Support satisfaction from district /regional Level: Council nutrition officers agreed that there was fair support and therefore satisfaction at Regional/National level. However, one of the participants stated that:

“The support received from the National or Regional level was too little to cover the whole council on implementing Nutrition activities to the health facilities, Wards and Villages”.

Inadequate supportive supervision was also mentioned to be barrier against effective Nutrition governance. Reacting on this, one of the participants stated:

“There is inadequate supportive supervision. Therefore, the National and Regional administrative level must plan to show regular supportive supervision to the Council. It also should plan for regular training on various Nutrition guidelines and

Matrix 2. Key potential facilitators for effective nutrition governance in Tanzania Mainland.

Theme categories	Themes identified
Multisectoral Nutrition Governance	<ul style="list-style-type: none"> • Provided with in-service trainings • Intra and inter-sectoral collaboration (Multisectoral Nutrition steering committees) • Satisfaction with Government Support
Operational function	<ul style="list-style-type: none"> • Technical and financial support • Supportive supervision • Availability of development partners
Personal characteristics	<ul style="list-style-type: none"> • Good communication and collaboration with others • Experience and expertise in Nutrition

other refresher training to update skills and knowledge of District Nutrition officers. As it is now, most of the nutrition officers lack update training therefore make them to be considered as less important cadre”.

Inadequate specific supportive supervision for nutrition services in the districts was also mentioned to be barrier against effective Nutrition governance. Reacting on this, one of the participants stated:

“There is no specific supportive supervision for nutrition activities; hence the Council conducts general supportive supervision which includes all Council Health Management Teams CHMTs”

Key themes about facilitators for nutrition governance in Tanzania Mainland

The key themes derived from the interview data were organized within the pre-specified themes: Multisectoral Governance for Nutrition; Operational function and Personal characteristics. In total, 8 themes on potential facilitators emerged from the analysis of the interview data (**Matrix 2**).

Potential facilitators for effective nutrition governance

Support from regional/national level: Participants acknowledged the support received from Regional/National level for implementing nutrition activities although many participants had suggestions to higher government level to improve nutrition services. On this, one of the participants explained:

“I am somehow satisfied with the support from Regional/National level, but they have to increase their support such as providing Information, communication and educational materials to the Council because as of now there are few of them”.

Also other participants who were categorized from other sectors (Nutrition focal persons) had suggestion to the government for the need of mentoring and coaching on nutrition. Orientation and Nutrition Training

Orientation and training on nutrition through building capacity for nutritionists on plan and budgeting for nutrition interventions were mentioned by participants. On this, one of the participants said:

“I have received mentoring from Tanzania Food and Nutrition Centre TFNC, Sokoine University of Agriculture SUA, Kilimanjaro Christian Medical Centre KCMC, Nelson Mandela University and Cornell university of USA on Building Strong Nutrition Systems in the council”.

Support from village and ward executive officers: Some of the participants acknowledged the support received from the village and ward executive officers on mobilizing communities to attend villages meetings and agenda of nutrition being among the issues discussed in those meeting, including the male members involvement in all matters of nutrition like going to clinics together with their partners. On this, one of the participants explained:

“Am working very close with Village Executive Officers VEOs. Their good collaboration with me in implementing nutrition services in the district has been a facilitator for effective nutrition governance”

Collaboration with nutrition stakeholders: Collaboration with Non-Government Organizations NGOs as Nutrition stakeholders at Councils was mentioned as facilitator for effective Nutrition governance in Tanzania Mainland. One of the participants stated:

“Nutrition projects implemented by different stakeholders in my district has been facilitators for effective Nutrition governance in this district since am working close with them whereby we can plan a joint supervision together with mutual respect for developing and implementing nutrition programmes that will protect and improve health”

Discussion of the Results

Barriers and potential facilitators for effective nutrition governance in Tanzania Mainland

This study critically analyzed barriers and potential facilitators for effective Nutrition governance towards eliminating malnutrition challenges at Regional and District administrative Level in Tanzania Mainland. Both Nutrition officials At Regional and District level identified factors related to organizational capacities and environment factors (Lack of reliable transport system, lack of office for nutritionists, Inadequate fund, inadequate nutrition screening and assessing tools, Inadequate human resources, lack of access to some Nutrition data from DHIS2, inadequate support satisfaction and inadequate coordination) as the barriers to effective Nutrition Governance.

Conversely, Multisectoral Nutrition Governance and Operational function factors (Provision of in-service training, government support satisfaction, Technical and financial support) were the factors most reported as potential factors for effective Nutrition Governance. The study revealed that a lot of effort was still required to eliminate the malnutrition challenges in Tanzania, and in particular, the Nutrition

officials were not sufficiently strong to overcome the barriers as overall Multisectoral Nutrition Governance and operational function were weak.

The findings support many themes from the review which included: Delivery and operational capacity, Individual and organizational factors [12]; Multisectoral Nutrition governance [10] and Funding for Nutrition Activities.

The findings support previous studies in this field. For example, the study conducted in Nepal identified 'lack of financial resources for nutrition' as key barrier for implementing Nutrition activities' [13]. The results also correspond to the finding in much of the literature that there was inadequate support for nutrition activities from other sectors. For example, one study identified 'Inadequate Multisectoral Nutrition coordination' as the barrier to the effective implementation of Nutrition activities in Bangladesh [14]. Good Multi-sectoral Nutrition coordination may influence effective nutrition governance through enhancing the contribution of different sectors and actors on Nutrition funding, coordination, political commitment, enabling policies and guidelines. To get greater insights into the governance for nutrition, it is important to understand more about the nature of factors distressing the effectiveness of the nutrition activities so as to find strategic ways of dealing with them.

Overcoming the barriers for effective nutrition governance as identified in this study will require concurrent, coordinated actions by many actors across sectors and levels of government, strong leadership at multiple levels, incentives, and drivers of political commitment to nutrition activities, and enacting accountability mechanisms to ensure that barriers are being addressed. The barriers for effective nutrition governance can be addressed through formulating strategies to address each barrier and by empowering parties.

Despite facing barriers for effective nutrition governance at Regional and district level in Tanzania Mainland, there were also facilitation factors which were facilitating the implementation of Nutrition activities success. The main facilitators for effective governance for Nutrition occurring at the level of Nutrition official included: in-service training, intra and inter-sectoral collaboration through conducting Multisectoral Nutrition steering committees, supportive supervision and collaboration with development partners in the implementation of nutrition activities. Effective collaboration with development partners and Multisectoral Nutrition coordination platforms have been found to be useful in implementation of nutrition activities [15,16].

The findings of the study revealed that good communication, collaboration with others in sharing challenges facing implementation of nutrition activities, experience and expertise in Nutrition increase effectiveness in daily nutrition activities at the Regional and Council levels in Tanzania Mainland.

Limitation

The findings in this report are subject to at least three limitations. First, Low response rate by some of the officers; Second, Internet challenges; Third, Reallocation of some

Nutrition officers to other districts which led to have unfair information of nutrition services to the current working station.

Conclusion

Inadequate funding for nutrition services, inadequate supportive supervision, inadequate local government own source and inadequate multisectoral collaboration are key barriers for effective Nutrition governance. Despite facing barriers for effective nutrition governance in Tanzania Mainland, there were also facilitation factors which led to successful implementation of Nutrition activities. The main facilitators for effective governance for Nutrition included: in-service training, intra and inter-sectoral collaboration through conducting Multisectoral Nutrition steering committees, supportive supervision and collaboration with development partners in the implementation of nutrition activities. Funding strategies aimed at increasing funding for nutrition activities should be established, also the Districts/ Councils management should continue collaborating with Nutrition stakeholders including NGOs, CSOs, Faith Based Organizations and private sectors in the implementation of Nutrition activities as the main supporter for nutrition services in Tanzania Mainland.

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Ethical Consideration

Permission to undertake the study was obtained from The University of Dodoma (UDOM) ethical committee and President's office- Regional and Administration and Local government. The aim of the research was explained to the respondents. Confidentiality was maintained during the entire study and no data collected could trace the subject from whom they were collected.

Declarations

Ethical approval

Ethical clearance for the research was obtained from The University of Dodoma (UDOM) ethical committee and President's office- Regional and Administration and Local government.

Competing Interest

The authors declare that they have no significant competing financial, professional, or personal interest that might have.

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