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1. Title: Evaluation of the Administrative, Coordination, and Financing Capacity of the Sub-National Malaria Elimination Programs in Nigeria: A Case Study of Cross River State.

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5. Keywords: Malaria; Cross River State; Health workers

1. Authors' contributions:

This work was carried out in collaboration between all authors. Ottoho, Edima O. designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Omang, Donald I. and John, Godwin E. managed the analyses of the study and literature searches. All authors read and approved the final manuscript.

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ABSTRACT

Background: This study appraised the implementers' perspective of the program's existing

administrative and management; coordination and collaboration; and financing and accountability capacities to deliver its malaria prevention and control mandate.

Method: The instrument used was a structured interviewer-administered questionnaire adapted from an already existing National Malaria Programme's Capacity Assessment tool. Being a widely used open-source program tool, a pretest was done to ascertain its suitability and applicability to the study context and for field assistants to gain familiarity with it. The total population sampling method was used due to the small size of the target population. The target population/sample size was therefore 137, comprising the State Malaria Technical Working Group members, key officers of Cross River State Malaria Elimination Program (CRSMEP), and the Local Government Areas (LGA) Malaria implementing teams. It was a descriptive cross-sectional study. Each element per section of the questionnaire was weighted using the Likert scale and calculated using simple percentages.

Results: Research results showed that the malaria program at the State and LGA level have adequate administrative and management capacity with confirmation by 64% and 82.1% of respondents respectively. 80% of respondents confirmed average coordination and collaboration capacity at the State level while 50% of respondents at the LGA level confirmed that the program has adequate coordination and collaboration capacity. For financing and accountability capacity, 36% of respondents affirmed that there is average capacity at the State level while 37.5% confirmed that there is no capacity at LGA level.

Conclusion: The study revealed the program's capacity gaps at State and LGA in the 3 aforementioned key areas. Therefore, interventions to address the capacity gaps are training/re-training of program staff and health workers on program management, administration, and finance, establishing performance management and accountability mechanisms, conducting evidence-based advocacy visits to policymakers for prioritizing allocating and releasing funds for malaria control activities, especially for intervention areas that are not supported by donor/partner organizations.

Keywords: Malaria; Cross River State; Health workers;

INTRODUCTION

Malaria still remains a public health problem in the country. Despite the efforts of the government at all levels with the support of local and international partners, the impact of the disease is being felt even more among the vulnerable population – pregnant women and under-five children who are worst hit because of their depressed immunity¹. According to the 2015 Nigeria Malaria Indicator Survey (MIS) report, Nigeria accounts for more cases and deaths than any other country in the world.

Malaria is a risk for 97% of Nigeria's population. The remaining three percent (3%) of the population live in the malaria free highlands. There are an estimated 100 million malaria cases with over 300,000 deaths per year in Nigeria. This compares with 215,000 deaths per year in Nigeria from HIV/AIDS. Malaria contributes to an estimated 11% of maternal mortality. Malaria accounts for 60% of outpatient visits and 30% of hospitalizations among children under five (5) years of age in Nigeria. Malaria has the greatest prevalence, close to 50%, in children aged six (6) to 59 months in the South West, North Central, and North West².

Nigeria, just like other countries, has over the years, been deeply committed to making progress towards achieving Millennium Development Goals (MDGs) by setting up an effective malaria control program - the National Malaria Elimination (formerly Control) Program (NMEP), domiciled in the National Malaria and Vector Control Division of the Department of Public Health, Federal Ministry of Health. The program is mandated to formulate and facilitate policy and guidelines, coordinate the activities of partners and other stakeholders on malaria control activities, provide technical support to implementing bodies including states, Local Government Areas (LGAs), and stakeholders, mobilize resources, monitor and evaluate progress and outcomes in malaria control efforts³. In order to fulfill its role, the National Malaria Program developed several strategic plans (2002-2008; 2009-2013) to put in place a robust system for malaria control, implemented at the National, state, and LGA levels⁴.

The total malaria burden in Nigeria is contributed by each of the states of the Federation. Malaria control in Cross River (as well as other states) gained prominence following the launching of the Roll Back Malaria (RBM) Initiative in 1998 aimed to ensure the total elimination of malaria, increase social and economic activities, and growth in a malaria-free state. This initiative was strengthened by the establishment of State Malaria Control Programmes (SMCP) in 2004⁵. These interventions are cascaded to Local Government Areas, wards, and communities^{6,7}.

About 99% of Cross River State is favorable to malaria vector species survival as a result of the state's high precipitation and temperature. The State has over time experienced a growing rise in the scourge of vector-borne diseases resulting in millions and thousands of illnesses and deaths, respectively. The risk factors are proximity to a water body, vegetation cover, temperature, rainfall, and altitude⁸. Malaria parasitemia prevalence among children ages 6–59 months in the state was 26%, measured through microscopy, as of 2015. About 60% of ailments recorded in hospitals in Cross River State have been linked to the disease⁷. Malaria is also said to be responsible for 25% of infant mortality, 30% of all childhood deaths, and 11% of maternal mortality in the state. As the fight against the scourge of malaria fever continues, about 60% of ailments recorded in hospitals in Cross River State have been linked to the disease⁸.

In 2017, an estimated US\$ 3.1 billion was invested in malaria control and elimination efforts globally by governments of malaria endemic countries and international partners – an amount slighter higher than the figure reported for 2016⁹. Nearly three quarters (US\$ 2.2

billion) of investments in 2017 were spent in the WHO African Region. In 2017, US\$ 1.4 billion was invested in low-income countries with US\$ 1.2 billion in low-middle-income countries and US\$ 300 million in upper-middle-income countries¹⁰. International funding represented the major source of funding in low-income and lower-middle-income countries, at 87% and 70%, respectively. Governments of endemic countries contributed 28% of total funding (US\$ 900 million) in 2017, a figure unchanged from 2016. Two-thirds of domestically sourced funds were invested in malaria control activities carried out by national malaria programs (NMPs), with the remaining share estimated as the cost of patient care^{11,12}.

In Nigeria, malaria overburdens the already weakened health system and exerts a severe social and economic burden on the nation as it retards the Gross Domestic Productivity (GDP) by 40% annually and costs approximately 480 billion naira in out-of-pocket treatments, prevention costs, and loss of man-hours even with the significant increase in resource availability from the Government and partners over the years with appreciable successes in the core intervention areas¹³. In May 2015, the World Health Assembly adopted a global technical strategy 2016-2030 aimed at a further 90% reduction in global malaria incidence and mortality by the year 2030. Although funding for malaria has remained relatively stable since 2010, the level of investment in 2017 is far from what is required to reach the first two (2) milestones of the Global Technical Strategy, that is, a reduction of at least 40% in malaria case incidence and mortality rates globally by 2020, compared with 2015 levels. This has brought a question of where the loopholes could have been, considering that enormous efforts and resources have been pumped in from different sources in the fight against malaria in Nigeria¹⁴.

Since its inception in 2004, Cross River State Malaria Elimination (CRSMEP) has worked tirelessly with the support of the Federal Government, international and local organizations, line Ministries, Departments, and Agencies (MDAs) in the fight against malaria. The Nigeria Federal Ministry of Health has a strategic plan for malaria – National Malaria Strategic Plan 2014-2020. In order for Cross River State to align with the new thrust in the fight against malaria globally and country-wide, there is a need for further strengthening of the institutional and programmatic roles of State Malaria Elimination Programmes (SMEP) in a manner that the program will be better poised to deliver her mandate of malaria prevention and control. A lot has happened since the inception of CRSMEP, therefore there was need to review/appraise the capacity of the program in key focus areas to deliver on its primary mandate of malaria prevention and control. Thus the study appraised the malaria elimination program's capacity to deliver on its mandate from the perspective of implementing officers in Cross River State.

MATERIALS AND METHODS

Study Setting

Cross River State is a coastal state and lies in the palm forest belt of Nigeria which constitutes one of the more populous areas of the country. It is located in the South-South region. The population of the State as of the 2006 Nigeria population census was 2,888,966 with an annual growth rate of 3.0% and a population density of 125 persons km²^{15,16}. The State comprises 18 Local Government Areas (LGA) that form the major political administrative units with its capital in Calabar^{7,16,17}.

The state's health system consists of 548 Primary Health Care facilities, 17 secondary health facilities, and 2 Tertiary facilities¹⁸. Malaria is a major cause of mortality among pregnant women and infants in the State. About 99% of Cross River State is favorable to malaria vector species survival as a result of the state's high precipitation and

temperature and the more closely the communities to mosquito breeding sites, the greater the risk of malaria infection. Malaria is responsible for 25% of infant mortality, 30% of all childhood deaths, and 11% of maternal mortality in the State¹³.

The study was carried out at the State level and Local Government Area level. At the State level, the study took place at the following locations:

- the Cross River State Malaria Elimination Programme office, situated in the Roll Back Malaria office located at Barracks Road, beside State Emergency Management Agency (SEMA), Calabar;
- The State Ministry of Health Headquarters, Old Secretariat, Calabar Municipality, Calabar and;
- The different line ministries, departments, and agencies involved in malaria elimination activities, mostly located in the State Secretariat, Calabar, and the Roll Back Malaria office premises, Barracks Road, Calabar, Nigeria.

At the LGA level, the study took place at the Health Departments of all the eighteen (18) Local Government Areas' secretariats.

Study Design

The study adopted a descriptive cross-sectional study design. A descriptive cross-sectional study is a study in which a condition and potentially related factors are measured at a specific point in time for a defined population. The study design can be thought of as a "snapshot" of the frequency and characteristics of a condition in a population at a particular point in time and data generated can be used to assess the prevalence of a condition in a population.

Study Population

All Malaria Control Implementation Officers in Cross River State both at the State and LGA levels were eligible and had equal chances of being part of the study. The target population size was one hundred and forty-five (145), being the sum of participants at the State-level, who were twenty-five (25) persons total, and participants at the LGA level, who were one hundred and twenty (120) persons total.

Sampling Technique

The total population was used for the study. Total population sampling involves examining the entire population (i.e., the total population) and it was most appropriate for the study because, being a relatively small study population, involving all members within the population made it easier to get deep insights into the study and reduced risk of missing potential insights from members who otherwise would have been excluded from the study. In addition, using the whole population allows for analytical generalizations about the population being studied.

Instruments for Data Collection

The research was a quantitative study and primary data was collected. The questionnaire used for the study is a structured, interviewer-administered pre-existing questionnaire adopted from the Baseline Capacity Building Needs Assessment tool for assessing Malaria Control/Elimination Programmes. This is a standard and comprehensive tool that was developed in 2003 by merging three tools: Support to National Malaria Programme (SuNMaP) Basic Information collection tool; Peer and Participatory Rapid Health Appraisal for Action (PPRHA) tool for appraising Management Boards and the RBM Needs Assessment and Planning tool by World Health Organization (WHO) and Malaria Consortium. The questionnaire comprises four (4) sections – National/Federal-level, State-level, LGA-level,

and Ward-level sections. Specifically, for this study, the State-level (SMEP/SMOH) section and LGA-level sections of the tool/questionnaire were adopted.

Pre-test

The purpose of pre-testing the questionnaire was to ascertain its clarity and suitability to the study participants and its applicability to the context of the study.

Collection Procedure

Data were collected using the structured, interviewer-administered questionnaire/capacity appraisal tool. These questionnaires were administered to study participants by the principal researcher and supported by four (4) field assistants. The field assistants were staff of reputable research-based non-governmental organizations (NGOs) who were willing to travel to different study locations within Cross River State. They were trained for two days prior to the field visits for familiarization with the questionnaire contents, to ensure a shared understanding of the research process and objectives and consistency in the administration of the questionnaire in the field to reduce the interviewer's bias. The principal researcher led the entire research process to ensure that the procedures and results were in line with research standards.

Methods of Data Analysis

Data collected from this study were analyzed using Microsoft Excel, recorded, and transferred to SPSS for analysis.

RESULTS

The results presented in table 1 show that 13(52%) of respondents rated the organization and structure of the State Malaria Elimination Program (SMEP) as “average”; while 12(48%) believed that the SMEP management capacity is inadequate. More of the respondents 16(64%) affirmed that the State Malaria Elimination Programme composition averagely aligned with the recommendations from the National Malaria Elimination Programme as clearly highlighted in the National Malaria coordination framework. The distribution of respondents at the State level based on their rating on whether there are consistent and frequent meetings by the State office in conformity with what is stipulated by the National Coordination framework shows 16(64%) of respondents rating it as “average”.

In the same vein, 16(64%) also were of the view that all members of the State Malaria elimination Programme to an extent (average) have a clear document outlining their task/duties (Job description). The decision-making authority delegated to the State Malaria Elimination Programme was said to be average by 14(56%) of the respondents whose response was that SMEP has limited (average) power to make decisions. The State specification of the SMEP in line with the national framework recommendations as opined by 16(64%) of respondents was average. Most of the respondents, 12(48%) believed that the vision statement, mission statement, goals, strategies, and targets are available and understood by the SMEP team, therefore it is adequate. The overall summary result of the administrative and management capacity of the SMEP shows that more of the respondents 16(64%) rated it as ‘adequate’ as presented in Figure 1.

Also, as presented in Table 2, the arrangement that exists to coordinate donor-funded work in general in the health sector and malaria in line with national recommendations was rated by 15(60%) of respondents as average. The major funder of malaria programs in the State currently was said by 8(32%) of the respondents to be Global Fund. The result presented in Table 2 shows the financing and accountability capacity of the Cross River State Malaria Elimination Program at the State level. It was indicated by 11(44%) of the respondents that the major source of funding for malaria control/elimination in the State was from funders

including Global fund, Chemonics, and FHI360 amongst others. The management arrangement to promote effective use of financial resources by the SMEP was reported by 6(24%) of respondents to be the existence of periodic external and internal audit system to ensure effective use of financial resources. The major source of funding for malaria elimination activities at the Primary Healthcare Centre and LGA level was said to be from partners (27.7%) as presented in Table 2. The management arrangements that exist at the LGA level to ensure there is an effective use of financial resources in malaria programming was believed to be 'inadequate' as affirmed by 70(62.5%) of the respondents. Also, the accountability arrangement put in place to ensure there is effective accountability in malaria programming was said to be inadequate by 62(55.4%) of respondents. Thus, the result of the data analysis presented in Figure 2 shows that 42(37.5%) of respondents opined that the LGA malaria implementation team does not have adequate capacity for financing and accountability at their level.

Figure 3 presents the results of the analysis of the organizational and management capacity at the LGA level. the result of the analysis shows that the majority of the respondents, 92(82.1%) in their own perspective believe the LGA administrative and management capacity is adequate to carry out the implementation of the malaria prevention interventions at the LGA level.

DISCUSSION

Effective coordination of malaria control activities among stakeholders at the state, LGA, and community levels is an essential requirement for effective national coordination. While National Malaria Elimination Program (NMEP) provides necessary technical, financial, and infrastructural support to the State Malaria Elimination Programs, the coordination of activities of implementing partners and other stakeholders at the State and LGA levels ensure resources within the state are judiciously deployed and activities at these sub-levels are targeted towards achieving the goals and vision of NMEP.

The capacity appraisal of the Cross River Malaria Elimination Program at the State and LGA level revealed what capacity areas existed and the status of functionality or level of effectiveness of each capacity area as well as revealed what additional capacities may be required to fully strengthen the program and possible interventions may address such capacity gaps. In this study, the existing administrative and management, financing and accountability, and coordination and collaboration capacities of the Cross River State Malaria were appraised.

CONCLUSION

Results of this study showed that the malaria program at the State level has adequate administrative and management capacity, average coordination and collaboration capacity, and average capacity for financing and accountability. At the LGA level, results showed that there was adequate administrative and management capacity, and adequate coordination and collaboration capacity. Financing and accountability capacity was non-existent as there are no mechanisms in place to manage and account for finances. A Wilcoxon signed rank test showed that there is a statistically significant difference between the capacity of the malaria program at the State level and the LGA level, implying that the capacity was higher at the State level than at the LGA level. Recommendations for improvement in this regard were the development and implementation of frameworks and policies to guide financing and accountability, internal coordination, and collaboration with external stakeholders. This would entail embedding performance measurement accountability tracking mechanisms cascaded to the lowest levels of the health system. There was a need to consistently advocate to policymakers in order to gain their political commitment especially for improving resource allocation and timely release of funds for activities. In addition, active engagement, and

involvement of all implementing actors were critical for building trust, and promoting accountability.

REFERENCES

1. FMOH & Roll Back Malaria (2014). *National malaria strategic plan 2014–2020*. Abuja, Nigeria: Federal Ministry of Health National Malaria Elimination Programme & Roll Back Malaria. Retrieved from http://www.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/nigeria/nigeria_national_malaria_strategic_plan.pdf
2. National Population Commission (2016). *Nigeria population projections by age and sex from 2006 to 2017*. Abuja, Nigeria: National Population Commission.
3. Federal Ministry of Health [FMOH] (2008). *National malaria control programme coordination framework*. Abuja, Nigeria: National Malaria Elimination Programme, Federal Ministry of Health
4. FMOH (2013). National council on health (NCH) report. Retrieved from: https://www.google.com.ng/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&cad=rjauact=8&ved=0ahUKEwjNzIw08nKAhWK2hoKHSiwA9gQFggyMAQ&url=http%3A%2F%2Fwww.Prinnmnch.org%2Fdocuments%2F54thNCHcommuniqueCouncilapproved_000.doc&usg=AFQjCNGEBEkRupw-NLO1lyYk4hK5Famd7w
5. NMEP (2014). *Baseline Capacity Building Needs Assessment tool for assessing Malaria Control/Elimination Programmes*. Abuja, Nigeria: SuNMaP project, Malaria Consortium.
6. Cross River State Ministry of Health (2009). *State malaria coordination framework and operational guide*. Cross River, Nigeria: Cross River State Ministry of Health.
7. Cross River State Government (2015). *Strategic health development plan (2016–2020)*. Cross River, Nigeria: Cross River State Ministry of Health.
8. Ibor, U., Okoronkwo, E., & Rotimi, E. (2016). Temporal analysis of malaria prevalence in Cross River State, Nigeria. *Journal of Medical Research*, 5(1), 1-7.
9. Warren, A., Wyss, K., Shakarishvili, G., Atun, R., & De-Savigny, D. (2013). Global health initiative investments and health systems strengthening: a content analysis of global fund investments. *Glob Health*, 9 (30), 9-30. doi:10.1186/1744-8603-9-30.
10. Rowe, A.K. (2019). Potential of integrated continuous surveys and quality management to support monitoring, evaluation, and the scale-up of health intervention in developing countries. *American Journal for Tropical Medicine and Hygiene*, 30(80), 971–979.
11. WHO (2018). *2018 World malaria report*. Retrieved from: <https://www.who.int/malaria/media/world-malaria-report-2018/en/>
12. United Nation's Children Fund (UNICEF) & World Health Organization [WHO]. (2015). *Achieving the malaria MDG target: reversing the incidence of malaria 2000–2015*. Retrieved from: <http://www.who.int/mediacentre/news/releases/2015/malaria-mdg-target/en/>
13. National Malaria Elimination Programme (NMEP), *National Population Commission of Nigeria (NPCN)*, *National Bureau of Statistics (NBS)*, & *ICF International*. (2016). Nigeria malaria indicator survey 2015. Abuja, Nigeria, and Rockville, Maryland, USA: NMEP, NPCN, NBS, & ICF International. Retrieved from: <https://dhsprogram.com/pubs/pdf/MIS20/MIS20.pdf>

14. WHO (2015). *Global Technical Strategy for Malaria 2016–2030*. Retrieved from: https://apps.who.int/iris/bitstream/handle/10665/176712/9789241564991_eng.pdf;jsessionid=918F00D4878344437751FB899C1A6143?sequence=1
15. National Population Commission (2010). *2006 Population and housing census of the Federal Republic of Nigeria, Cross River State Priority Tables*. Abuja, Nigeria: National Population Commission.
16. National Population Commission (NPopC) & ICF International (2014). *Nigeria demographic and health survey 2013*. Abuja, Nigeria, and Rockville, Maryland, USA: NPC & ICF International. Retrieved from: <https://dhsprogram.com/pubs/pdf/FR293/FR293.pdf>
17. Ottong, J., Ering, S., & Akpan, F. (2010). The population situation in Cross River State of Nigeria and its implication for socio-economic development: observations from the 1991 and 2006 censuses. *Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS)*, 1(1):36-42.
18. *Cross River State Ministry of Health* (2019). About MOH. Retrieved from: <https://crossriverstate.gov.ng/health/index.php/component/content/article/80-blog/news/80-ncdc-boss-commends-the-state-government-on-disease-management-c-river-set-to-receive-world-class-emergency-operation-center-to-tackle-outbreaks?Itemid=437>

Table 1
Administrative, management, coordination and collaborative capacity of SMEP (n=25)

Administrative and management capacity of SMEP (n=25)		
Variable	Frequency	%
Organization & Structure		
Inadequate	12	48
Average	13	52
Composition of SMEP aligns with National malaria coordination framework		
Inadequate	9	36
Average	16	64
Consistent/frequent meeting held by malaria elimination team		
Inadequate	9	36
Average	16	64
SMEP team members have clear job description		
Inadequate	9	36
Average	16	64
Decision-making authority of SMEP		
Average	14	56
Adequate	11	44
Person specification of SMEP team in relation to NMEP recommendation		
Average	9	36
Adequate	16	64
Availability of vision, plans, goal & target for SMEP		
Inadequate	3	12
Average	10	40
Adequate	12	48
Availability of must-have relevant nat. malaria documents		
Inadequate	3	12
Average	11	44
Adequate	11	44
Coordination and collaborative capacity of SMEP (n=25)		
Coordination of donor funded work for malaria		
Average	15	60
Adequate	10	40
List of donor programme for malaria in the State		
Non-existence	7	28
Global fund	8	32
USAID	3	12
GF and FHI360	2	8
MAPs, GF & Catholic Malaria fund	3	12
Linkages/relationship between SMEP & LGA team		
Inadequate	7	28
Average	18	72
Level of alignment of SMEP plans with national priorities		
Average	17	68
Adequate	8	32
Level of support SMEP receives from NMEP in planning process for malaria interventions		
Average	19	76

Adequate	6	24
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Table 2
Financing and Accountability Capacity of SMEP and LGA malaria implementation team

Financing and Accountability Capacity of SMEP (n=25)		
Variable	Frequency	%
Major source of funding for SMEP		
None	6	24
Partners	11	44
Partners & State	8	32
Management Arrangement to ensure effective use of resources		
None	14	56
Internal & external audit	6	24
Auditing account books periodically	3	12
Approval of Fin. Mgt procedures	2	8
Arrangement to ensure effective accountability		
None	12	48
Internal& external audits	2	8
Engaging State Auditor General	2	8
Existence of effective M & E	2	8
Job specification	3	12
Approvals at all level	4	16
Level of effectiveness of financial arrangements in SMEP		
Average	18	72
Adequate	7	28
Internal and external audit		
Adequate	22	88
Inadequate	3	12
Last external audit conducted		
January, 2017	9	36
February, 2017	8	32
No response	8	32
Financing and accountability capacity of the LGA malaria implementation team (n=112)		
Variable	Frequency	%
Major source of funding for malaria elimination at PHC & LGA level		
No support	42	37.5
State	21	18.8
Partners	31	27.7
State & partners	18	16.1
Level of effectiveness of existing financial & accountability arrangement		
Inadequate	32	28.6
Average	72	64.3
Adequate	8	7.1
Accountability arrangements to ensure effective accountability in malaria programme at LGA		
Inadequate	62	55.4
Average	16	14.3
Adequate	34	30.4

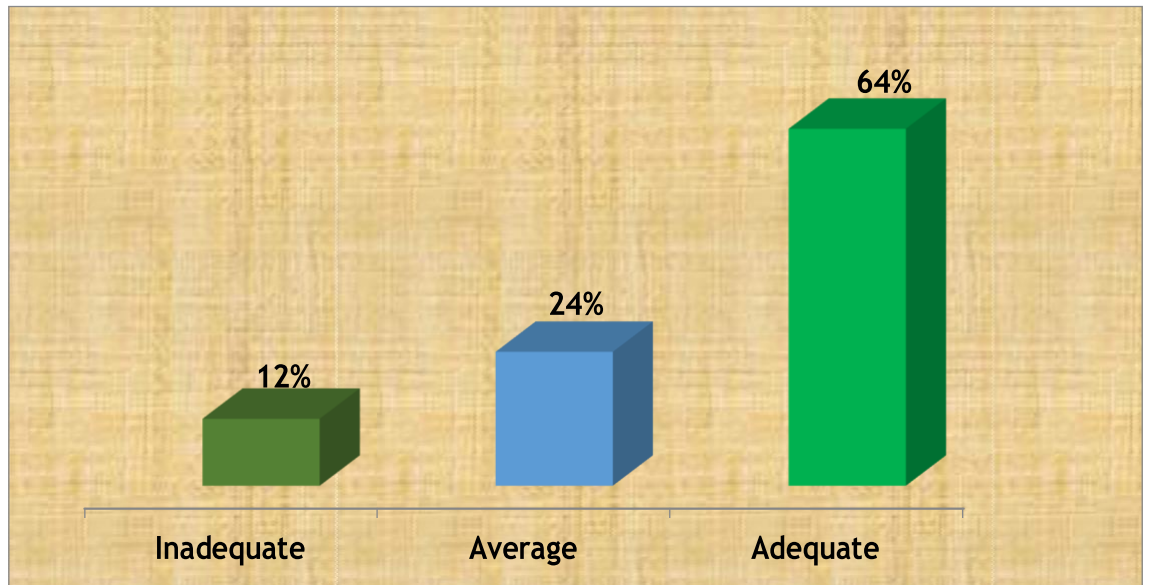


FIG 1: Administrative and Management Capacity of the Cross River SMEP team

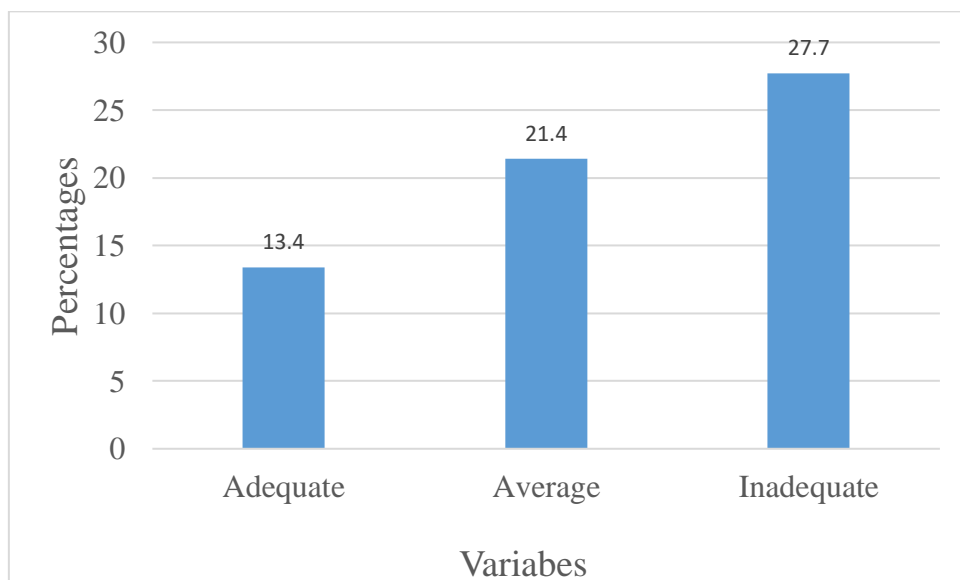


FIG 2: Administrative and management capacity of the LGA malaria team

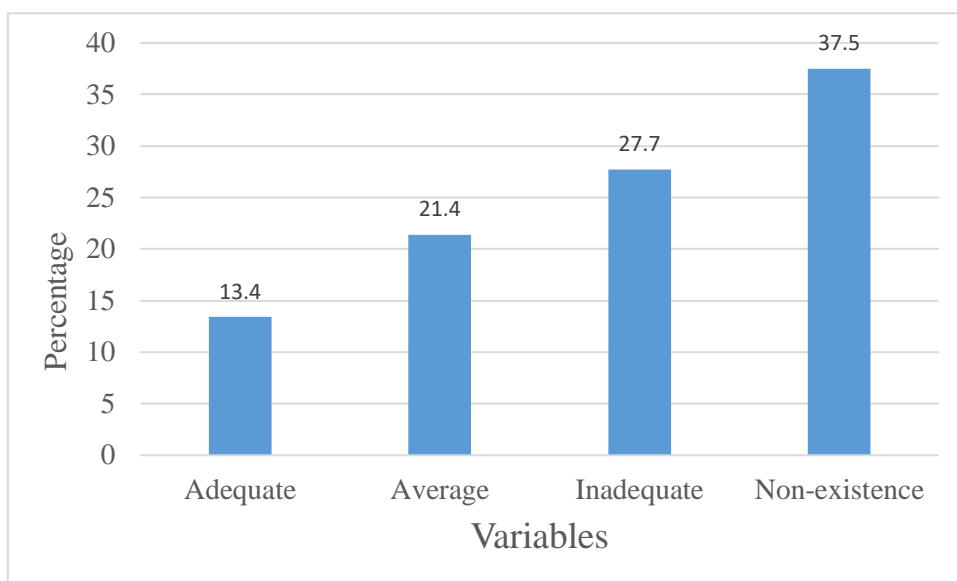


FIG. 4: Financing and accountability capacity of the LGA malaria team