

Research Article

Improving Public Spending Efficiency in Primary Health Care-Public Expenditure Tracking Survey, a Boon for Policymakers: An Experience from Nigeria

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Abstract

Gombe State, facing demographic shifts and growth challenges, partnered with UNICEF to undertake a Public Expenditure Tracking Survey (PETS). The "PETS" examined health budget allocations and funds flow, offering insights into delays, potential leakages, disparities in resource allocation, service delivery assessments, and analyzing staff incentives, behavior, and input quality. The "PETS" covered the entire state comprising 11 Local Government Areas (LGAs) and 114 facilities with the participation of varied stakeholders. A mixed approach of quantitative and qualitative techniques to collect, analyze, and interpret data was used. Quality control measures, including real-time monitoring to enhance data accuracy, were observed. The survey results and data analysis show a worrying decline in Routine Immunization (RI) funding by 47% from the central level to local areas, signaling potential threats and compromise to the successful implementation of crucial immunization programs. A critical finding underscores 88.4% discrepancies between the funds disbursed by the State Primary Health Care Development Agency (SPHCDA) and the funds reported to be received at the LGA level. This inconsistency raises pertinent questions about reporting accuracy and the potential for paucity of documentation at the LGA level. In addition, "PETS" revealed the delays in funds transfers which ranged from four to thirty-five days. The study also found discrepancies in the reporting of RI visits, with 2588 numbers reported at the Local Government Area (LGA) compared to 1939 reported at the Primary Health Center (PHC) level. The report led to enhanced budgetary allocation for RI and improved documentation. In the long term, the findings will ensure a more transparent use of public health funds, reduce waste, pilferage of funds, and enhance healthcare quality and accessibility.

Keywords

Public Expenditure, Economic Governance, Efficiency, Transparency, Funds, Sustainable Development

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1. Introduction

Government expenditure remains an important instrument utilised in the process of development [1]. It plays a pivotal role in the functioning of any economy at almost all stages of growth and development. Most developing and developed countries today use public expenditure to improve income distribution, direct the allocation of resources in desired areas, and influence the composition of national income [2]. Public Expenditure Tracking Surveys (PETS) assess (often diagnostically) the issue of leakage of public funds or resources prior to reaching the intended beneficiary. Beyond measuring leakage of funds, data from these surveys can be used to analyze incentives for and the performance of frontline service providers in government and the private sector [3].

The Gombe Public Expenditure Tracking Survey (GPETS) supported by UNICEF constitutes a crucial element within the broader framework aimed at assessing the efficiency and effectiveness of the Government of Gombe State's Development Agenda (DEVAGOM). The expansive DEVAGOM encompasses overarching goals for the entire state and sector-specific measures, all geared towards advancing progress and achieving predefined targets. Within the health sector, a series of comprehensive financing and institutional reforms have been initiated. This includes significant infrastructural renovations, capacity building for staff, recruitment of qualified health personnel, and the introduction of biometrics across selected facilities in all the LGAs, with plans for expansion to 114 facilities throughout the state [4].

Gombe State, established in 1996, has undergone significant transformations in its demographic, economic, and social landscape over the past two and a half decades. The absence of a comprehensive long-term economic development plan was addressed with the introduction of the Gombe State Development Plan for 2021 to 2030, marking a crucial milestone in the pursuit of sustainable development. This strategic framework draws on past experiences and aims to propel the state into a future marked by robust growth and improved well-being for its residents [5].

One of the pivotal components of the Gombe State Development Plan is the commitment to enhance the health metrics of the state's residents. Recognizing the importance of a healthy populace in driving overall development, the plan outlines key initiatives aimed at fortifying the healthcare sector.

With a population that has grown from 2,365,040 during the 2006 census to a projected 3,960,122 in 2022 [6], Gombe State faces the dual challenge and opportunity of managing a predominantly working-age population while addressing low life expectancy. The state's commitment to improving health outcomes by 2030 is reflected in the development plan and Social Protection Policy, which underscores the need for effective policies and programs across the health sector.

While the state's ambitious development goals are commendable, it is essential to ensure transparency, accountabil-

ity, and efficient utilization of public funds, especially within the health sector. To achieve these, Gombe State recognizes the importance of implementing robust monitoring and evaluation systems. This systematic approach not only tracks the allocation and utilization of funds but also identifies areas for improvement and addresses irregularities, thus fostering a culture of accountability [7].

Pioneering studies conducted by PACT have provided strategic recommendations to successfully reduce waiting times from 2 hours to 45 minutes, reflecting a commitment to enhancing service efficiency. The implementation of free medical schemes covering essential areas such as HIV drugs, Malaria drugs, Tuberculosis treatment, Family Planning Commodities, and Immunization, and extending free health insurance schemes to vulnerable and impoverished populations underscores dedication to comprehensive healthcare accessibility [8]. The GPETS study endeavors to pinpoint areas necessitating strengthening, with the ultimate goal of improving resource allocation, utilization, and service delivery within the healthcare landscape of Gombe State. The study objective is to scrutinize health budget allocations, fund transfers, and expenditures, offering insights into delays, potential leakages, and disparities in resource allocation. The study extends to service delivery assessments, analyzing staff incentives, behavior, and input quality.

1.1. Materials and Method

The GPETS employed a comprehensive and participatory methodology to collect, analyze, and interpret data [9]. A mixed-methods approach was used, combining quantitative and qualitative research techniques [10]. The survey was carried out in five different phases.

1.2. Phase One: Planning and Scoping

This focuses on delineating the scope, nature, and sources of required data, and actively engages stakeholders to secure their buy-in and collaboration in the data collection process. Government officials, health workers, civil society organizations, and community representatives, were engaged to ensure their active involvement and ownership in the survey process.

1.3. Phase Two: Training and Pilot

A four-day training workshop was conducted for competent personnel who were recruited across various key MDAs. The personnel consist of quantitative researchers, qualitative researchers, supervisors, service delivery researchers, and coordinators. The main objective of the training program is to ensure uniformity and minimize measurement errors while interviewing the survey respondents.

1.4. Phase Three: Survey Implementation

Desk review: An extensive review of relevant documents, including budgets, financial reports, and procurement records, policy documents was carried out to understand the flow of funds in the health sector.

Data collection: The survey employed a comprehensive approach, utilizing both quantitative and qualitative research methodologies to gather primary information on healthcare expenditures. The quantitative and qualitative aspects of the study were meticulously conducted, involving representatives from the Health Sector covering 114 Primary Health Care Centers situated throughout the 11 Local Government Areas in Gombe State. The data collection covered a period of 12 calendar months, commencing from October 2022 to September 2023, with the inclusion of client exit interviews to enrich the depth of insights. 30 facilities were sampled from the 114 facilities, 10 patients present in the facilities at the time of visit were sampled per each facility, culminating in 300 respondents across the State.

Quality control: The quantitative questionnaires were coded into the Android phones with in-built quality checks which help to address on-field errors. A visualization dashboard was created to aid online monitoring checks with geographical information capabilities to ensure that data are collected on-site, and enumerators' entries are monitored in real-time. Data validation was carried out with the survey core team immediately after the field visit to ensure all human errors were properly addressed.

1.4. Phase Four: Data Analysis

Cleaned data from the field was analyzed to generate meaningful insights and identify patterns and trends. The analysis framework comprises a comprehensive examination of fund variances and disbursement delays at various levels of the financial allocation process, spanning from the SPHCDA to the facility level throughout the period of the Study. At the first level, scrutinizing the transfer from the State Ministry of Finance (SMoF) to Ministries, Departments, and Agencies (MDAs), specifically the State Primary Health Care Development Agency (SPHCDA) and GoHealth. Assessing variances in the amount sent and received, delays in disbursement, amounts received, and calculating the average variance per quarter across the MDAs.

Moving to the second level, the focus shifts to SPHCDA transfer to Local Government Areas (LGA) and Primary Health Centers (PHC), involving an evaluation of variances between disbursed and received funds. This includes a detailed review of SPHCDA Routine Immunization Supportive Supervision (RISS) and Routine Immunization Operational Expenses (RI OPEX) disbursements from LGA to PHC.

At the third level, a granular analysis of PHC Routine Immunization (RI) funds expenditure between the quarters in

view, provided insights into the utilization of allocated resources at the facility level. This multi-level variance analysis offered an understanding of the financial flow dynamics and potential bottlenecks within the healthcare funding framework.

Finally, determine the perception of patient to service delivery at the point of service delivery (PHCs).

1.5. Phase Five: Reporting and Dissemination

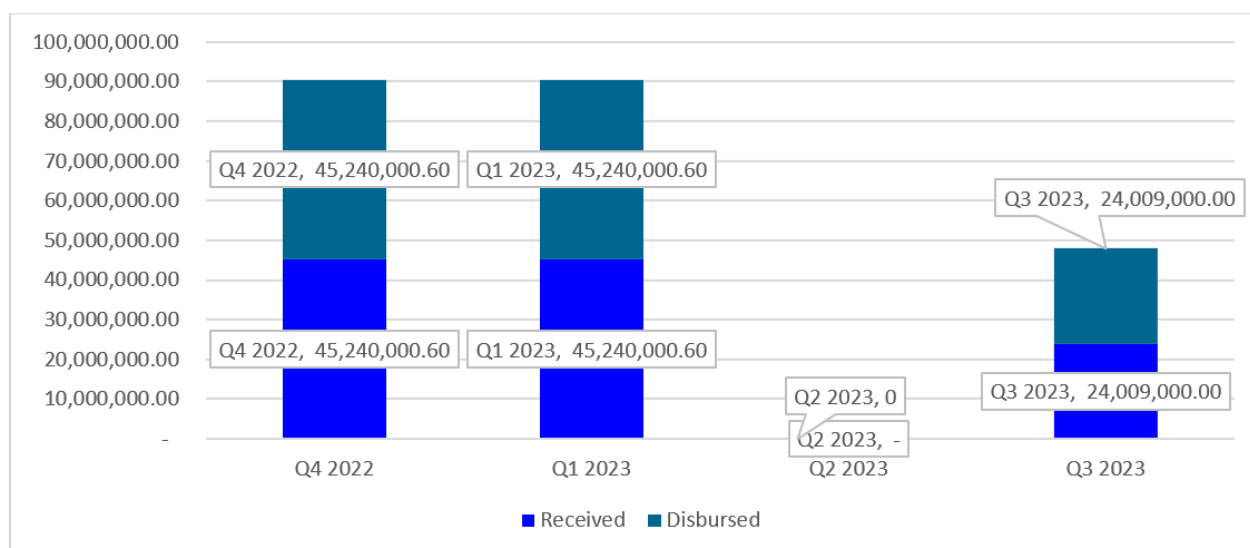
A comprehensive report was prepared, highlighting the survey findings, recommendations, and action points. The report was disseminated to relevant stakeholders.

2. Results and Discussion

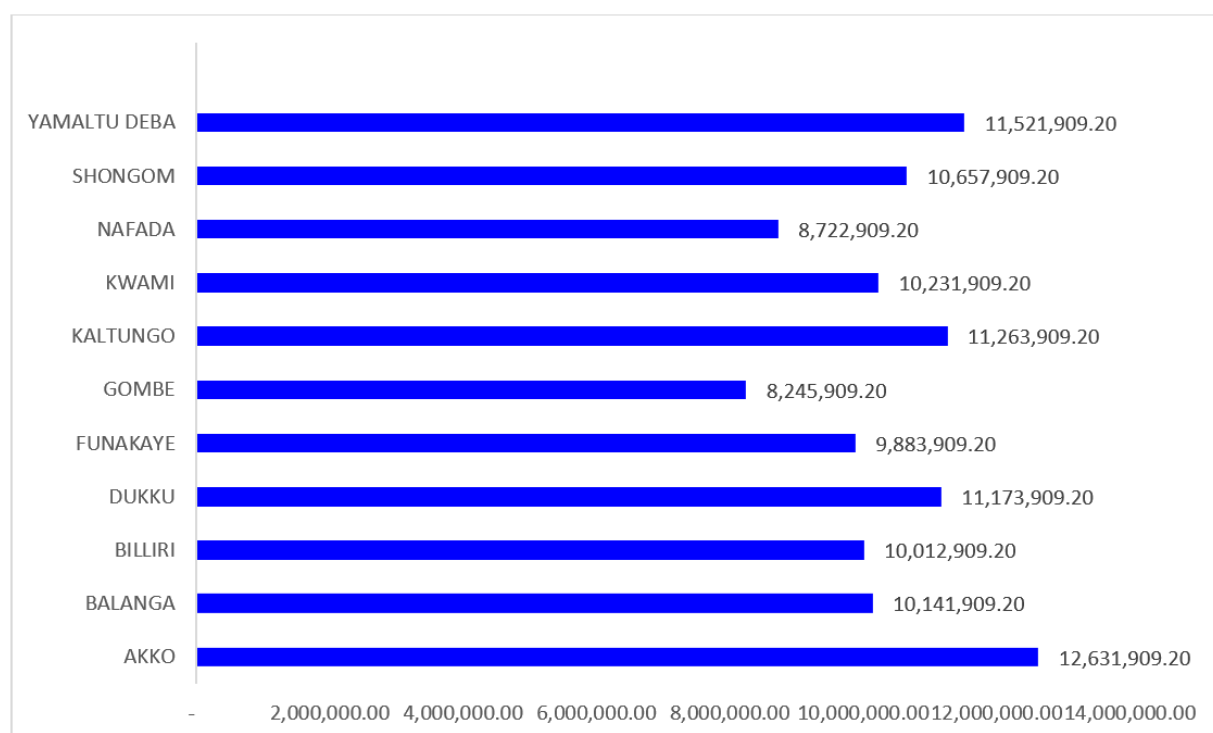
2.1. Amount Received and Disbursed by SPHCDA

The findings on the Routine Immunization Operational Fund provided through GAVI to the SPHCDA for Quarters Q4 2022 to Q3 2023 reveal noteworthy patterns. During Q4 2022 and Q1 2023, there was a consistent allocation and disbursement of ₦45,240,000.60, demonstrating stability in fund flow. However, in Q2 2023, no funds were disbursed, indicating a significant interruption in financial support for routine immunization operations during that period. This interruption could potentially impact the planned activities and services associated with routine immunization as it reported that vaccination coverage has declined in fully self-financing middle-income countries, while high-income countries and Gavi-supported LMICs have seen stable or increased coverage [11]. According to The information provided by the RI focal person in the SPHCDA shows that there were no requests from the State within the period. The resumption of fund disbursement in Q3 2023, although at a reduced amount of ₦24,009,000.00, suggests a partial recovery but also raises questions about the factors contributing to the decrease. The report was obtained from the RI focal persons that funding was reduced during the third quarter of 2023. There is a need to address the reduction in funding, allowing for informed decision-making and strategic adjustments to ensure sustained support for routine immunization programs. From a contribution perspective, GAVI funded 100% of the RI activities in the State during the survey period covered.

Immunization stands out as a prime example of effective public finance utilization. Not only does it function as a global public good, extending benefits to a broader population beyond direct recipients, but it also yields a substantial return on investment [12]. The SPHCDA Routine Immunization Supportive Supervision (RISS) funds allocated to Local Government Areas (LGA) in Gombe State reflect a distribution aimed at bolstering routine immunization activities. The financial allocations for each LGA are as follows:



Source: GPET Survey, 2023

Figure 1. Routine Immunization Received from GAVI to SPHCDA and Disbursed to LGAs.

Source: GPET Survey, 2023

Figure 2. SPHCDA RISS fund sent to the LGA.

These allocations indicate a systematic and varied distribution across LGAs, likely reflecting the specific needs and priorities of each area. Further analysis of the utilization of these funds at the LGA level and the subsequent impact on routine immunization outcomes would provide valuable insights for optimizing resource allocation and enhancing the effectiveness of supportive supervision activities.

Key Informant Interview reveals that there is no variance between the amount received by SPHCDA and the amount received by the RI providers because the approved budget is strictly used for the payments, and it is uniform.

SPHCDA flows to LGA.

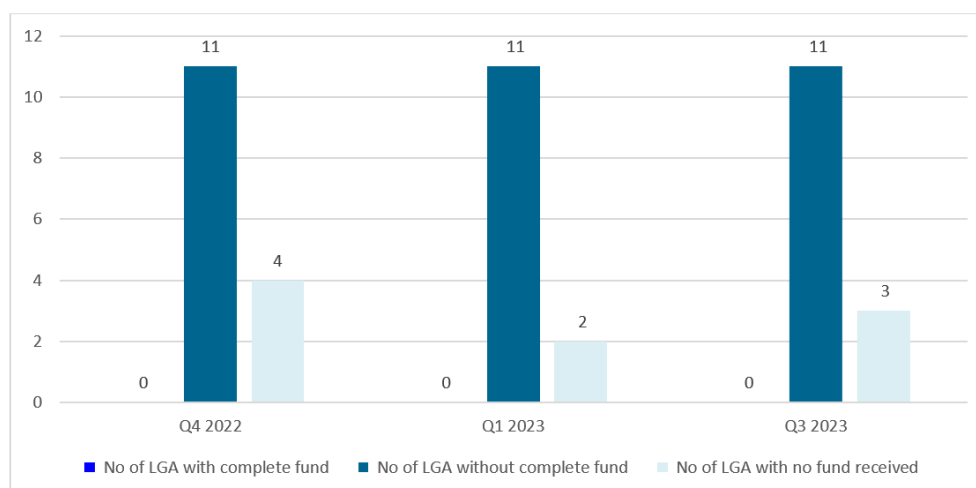
The study reveals that out of the total of ₦114,489,001.20 reported to be reimbursed by the State Primary Health Care

Development Agency (SPHCDA) across the four quarters for the recipient facilities in the state; only 11.6% of the funds were reported to have been received by the personnel from the LGA records this is similar to the study in Tajikistan which revealed less than 50% reduction [13]. Notably, the highest percentage of funds was received in Q1 2023 (16.6%), 9.8% were received in Q4 2022 while the lowest was reported in Q3 2023 (8.7%).

It is imperative to note that RISS payments are quarterly retrospective transfers directed specifically to RISS supervi-

sors, bypassing the Local Immunization Officers at the LGA Primary Health Care department. This peculiarity has uncovered several issues, including:

- 1) Reporting Inconsistency: Discrepancies exist between the number of visits submitted to the SPHCDA by LGA Primary Health Care departments and the corresponding reimbursements received by RISS supervisors.
- 2) Bureaucratic Capture of Funds: The quantitative data strongly suggests a phenomenon of bureaucratic capture at the LGA level.



Source: GPET Survey, 2023

Figure 3. Overall funds received in the year.

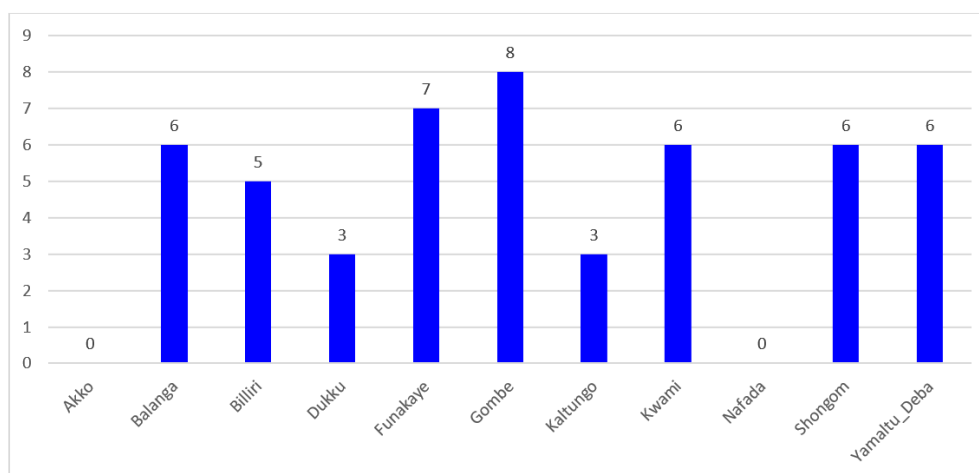
The data analysis reveals a concerning trend, indicating that no Local Government Area (LGA) reported having received complete funds during the three quarters in which disbursements occurred. Specifically, the LGAs of Balanga, Biliri, Kwami, Nafada, Dukku, and Kaltungo reported no funds in one or more quarters. This underscores a significant issue in the disbursement process, raising questions about the equitable allocation and distribution of funds to all LGAs. Or this could be an issue of the documentation process (since the LGA is responsible for submitting the list of RI focal persons to be paid, the LGA is also supposed to have documentation of who and the amount received by each RI focal person to inform proper documentation. In the absence of this, it has now become an issue necessitating the variance observed in the disbursement).

2.2. Delay in Reimbursements

The analysis of Routine Immunization Supportive Super-

vision (RISS) funds disbursed by the State Primary Health Care Development Agency (SPHCDA) to RI focal persons in the Local Government Areas (LGAs) unveils noteworthy patterns regarding delays in reimbursements across the 12 months. The figure below illustrates the number of times each LGA reported having received RI funds during this timeframe.

The reported instances of LGA receipt of RI funds exhibit varying frequencies, underscoring the presence of delays in reimbursements. Notably, LGAs such as Akko and Nafada reported no instances of receiving RI funds, indicating potential systemic challenges or gaps in the reimbursement process or reporting. Contrastingly, LGAs like Gombe reported the highest frequency with 8 occurrences, signaling a more consistent flow of reimbursements. It is worth noting that there was no disbursement of funds for the 2nd quarter of 2023.



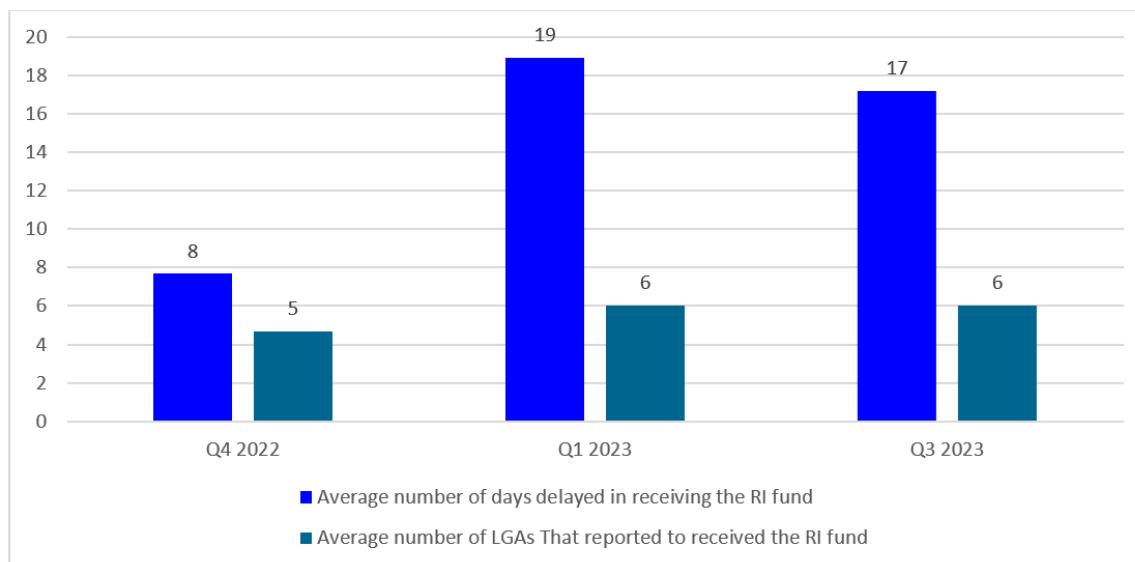
Source: GPET Survey, 2023

Figure 4. Number of times LGA reported to have received RI fund across the 12 Months in view.

Analysis of Delay in Routine Immunization (RI) Fund Disbursement:

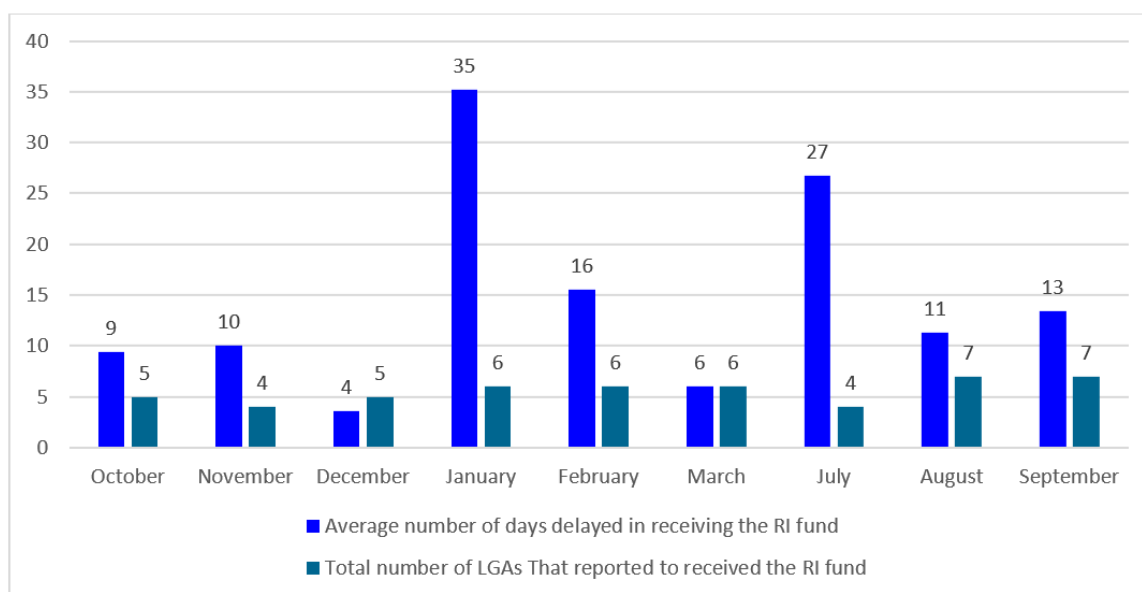
The usual practice for the LGA is to receive the disbursement by the first week of the month, so the delay was calculated for the number of days from the last day of the first week to the time the fund was received. The received date was used in the calculation. An examination of the delay in Routine

Immunization (RI) fund disbursements across the months reveals distinct patterns in both the average number of days delayed and the total number of Local Government Areas (LGAs) reporting to have received the RI fund. These figures underscore fluctuations in the delay periods, with January and July experiencing notably extended delays of 35 and 27 days, respectively.

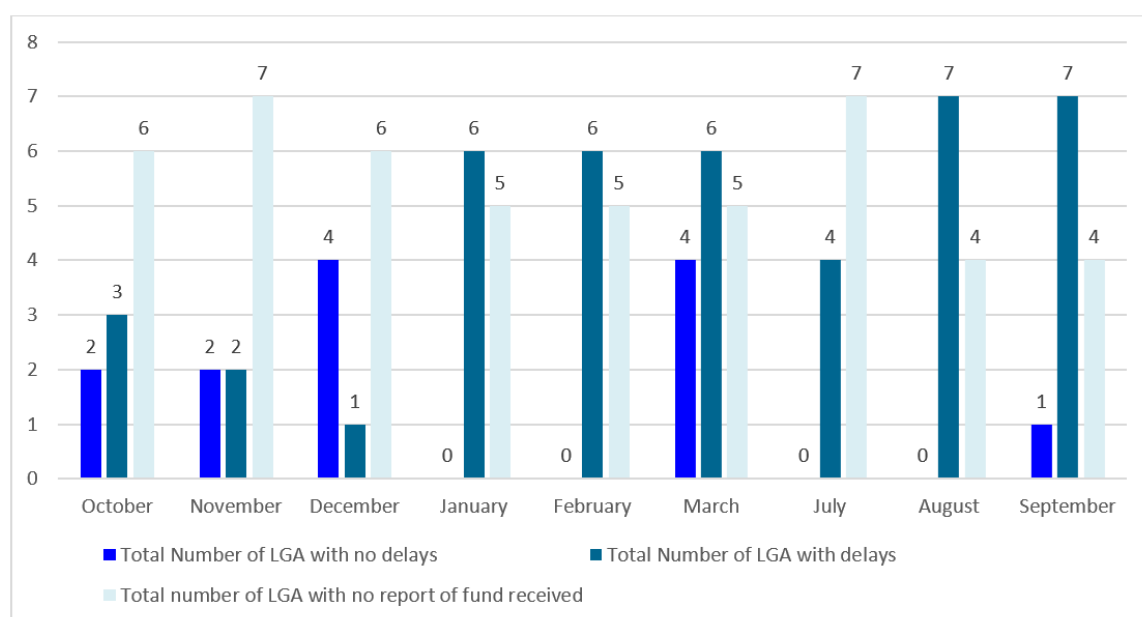


Source: GPET Survey, 2023

Figure 5. Delay in Routine Immunization (RI) Fund Disbursement by Quarter.



Source: GPET Survey, 2023

Figure 6. Delay in Routine Immunization (RI) Fund Disbursement by Month.

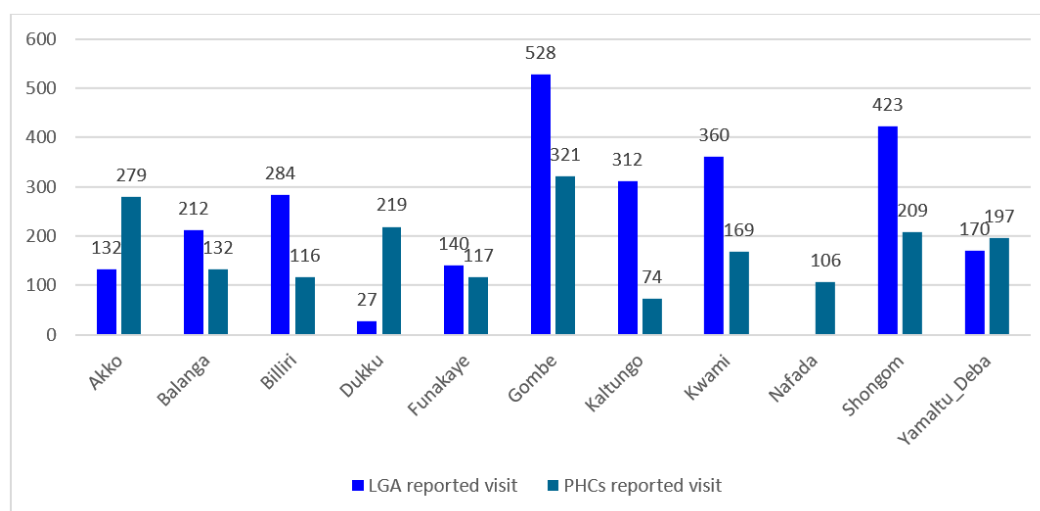
Source: GPET Survey, 2023

Figure 7. Delay in Routine Immunization (RI) Fund Disbursement.

2.3. RI Visit as Reported by the LGA and PHCs

We compared RI visits at the LGA and at the PHCs for the

four quarters. Facilities reported a lower number of visits compared to LGA reports: LGAs reported 2588 visits to the 114 facilities, while PHCs reported a total of 1939 visits from LGA. This discrepancy varied significantly across LGAs.



Source: GPET Survey, 2023

Figure 8. RISS visit.

The data on Routine Immunization (RI) supervision visits across Local Government Areas (LGAs) provides insights into the frequency and distribution of visits, the composition of teams, the number of facilities covered, and the average number of teams per facility. Here is a detailed summary:

Key Informant Interview shows that the delay in receiving RI outreach reimbursement is due to the late request of funds by SPHCDA from the Donors and the late release of funds from the Donors. The absence of a valid explanation for the delay in reimbursement from Local Government Area (LGA) supervisors is a notable concern, highlighting either a deficiency in information disclosure or a reluctance to furnish necessary details. This observed pattern is consistent across all the LGAs, indicating a widespread issue in the communication and transparency aspects of the reimbursement process.

Furthermore, the survey revealed that at the Primary Health Care (PHC) facilities, the in charge was unable to provide any information regarding Routine Immunization (RI) outreach reimbursement. They cited a lack of awareness about fund transfers, emphasizing that the funds are directly channeled to the RI focal persons. This revelation underscores significant gaps in the information flow and accountability procedures within the system.

The dual challenges of non-disclosure or reluctance to share pertinent details by LGA supervisors and the lack of awareness among PHC in-charges about fund transfers to RI focal persons collectively contribute to an environment marked by inadequate information and accountability.

3. Conclusion and Recommendations

3.1. Conclusion

The study reveals a concerning reduction in Routine Immunization (RI) funds, signaling potential threats to the suc-

cessful implementation of crucial immunization programs, this is in line with the findings in Kaduna [14]. This decline, noted during the third quarter of 2023, demands immediate attention and intervention. An alarming finding underscores discrepancies between the funds disbursed by the State Primary Health Care Development Agency (SPHCDA) and the funds reported to be received at the Local Government Area (LGA) level. The analysis of RISS funds disbursed reveals delays in fund transfers, with variations in the average number of days delayed. The main reason cited for the delays in the fund disbursement was the late release of funds from GAVI.

3.2. Recommendations

Based on the findings of the study, the following recommendations are made:

- i. **Funding Reduction:** The State should seek an alternative source of funding to augment the support received from GAVI.
- ii. **Address Discrepancies in Fund Disbursement:** The SPHCDA should implement measures to enhance transparency and accountability in the disbursement and utilization of RISS funds, addressing reporting inconsistencies at the LGA level.
- iii. **Enhance Communication and Information Flow:** The SPHCDA should improve communication between LGA Coordinators, OICs, and RI focal persons to ensure accurate reporting of RI outreach activities, addressing discrepancies and enhancing awareness. This will reopen a dialogue on the necessary reforms and improving communication between the stakeholders [15].
- iv. **Improve Documentation and Accountability Procedures:** The State Government should strengthen documentation and accountability procedures at both SPHCDA and LGA levels to enhance understanding of fund utilization

and program impact.

- v. Thorough Investigation into Delay Reasons: The State should conduct a thorough investigation into the reasons for delays in reimbursements, considering late requests and releases of funds, and implement strategies to mitigate delays.
- vi. Increase PHC funding: The State should enhance financial allocations to Primary Healthcare Centers (PHCs) to bolster their operational capacities, facilitate the provision of quality healthcare services, and address the diverse needs of communities across Gombe State.

Abbreviations

DEVAGOM	Government of Gombe State's Development Agenda
GAVI	Global Alliance for Vaccine
GPETS	Gombe Public Expenditure Tracking Survey
LGAs	Local Government Areas (LGAs)
MDAs	Ministries, Departments, and Agencies
OIC	Officer in Charge
PETS	Public Expenditure Tracking Survey PETS
PHC	Primary Health Center
RI OPEX	Routine Immunization Operational Expenses
RI	Routine Immunization
RISS	Routine Immunization Supportive Supervision
SMoF	State Ministry of Finance
SPHCDA	State Primary Health Care Development Agency
UNICEF	United Nations Children's Fund

Author Contributions

Yusuf Auta: Conceptualization, Formal Analysis, Funding acquisition, Investigation, Methodology, Project administration, Supervision, Writing – original draft

Tushar Rane: Data curation, Funding acquisition, Project administration, Resources, Supervision, Validation, Visualization, Writing – review & editing

Hamidou Poufon: Formal Analysis, Funding acquisition, Project administration, Resources, Writing – review & editing

Alkali Salihu: Project administration, Supervision, Validation

Jalo Ali, mni: Project administration, Supervision, Validation

Conflicts of Interest

The authors declare no conflicts of interest.

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