



Maximising Resources for and Impact of Regional Vaccination Campaigns in Nigeria

When the pandemic hit, Gavi, the Vaccine Alliance, engaged Crown Agents to coordinate mitigating actions to reduce risks in supply chain, programme activities, and cash management in COVID-19 vaccine distribution in Nigeria, Ethiopia and Bangladesh. The primary objective of this activity by the Gavi Monitoring Agent (MA) Project Team was to conduct risk monitoring and provide hands-on technical support at the sub-national levels in these countries, effectively addressing lack of impact.

Safeguarding supplies and preventing vaccine wastage of doses worth \$300,000 in Gombe State

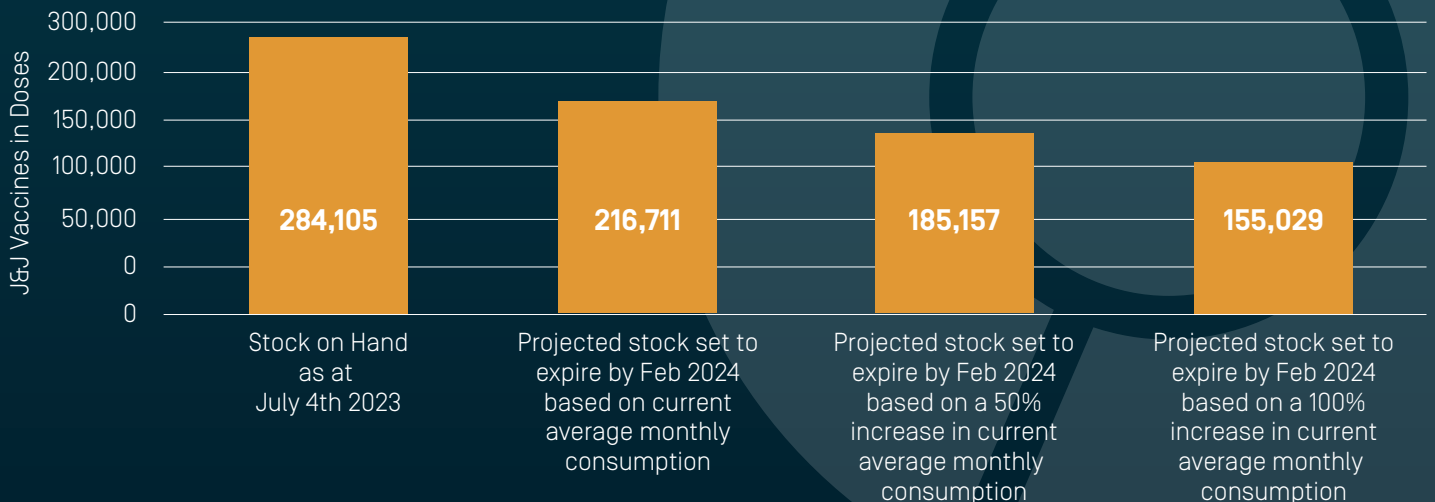


The challenge: A decline in vaccine utilisation

The Gavi Monitoring Agent (MA) Project Team is actively working in Gombe State to mitigate decline in utilisation and ensure the optimal use of available vaccines. By closely monitoring vaccine utilization, expiration dates, and collaborating with relevant stakeholders, the team aims to prevent wastage and maximize the impact of COVID-19 immunization efforts.

By the end of June 2023, Gombe State had achieved a commendable COVID-19 immunization coverage of 93%, showcasing the dedicated efforts of healthcare professionals and the community. During routine analysis, however, concerns arose over the significantly low uptake of vaccines in recent months. An analysis revealed that there were 284,105 doses of unused J&J vaccines in stock of which approximately 76% [216,711 doses] would expire by February 2024 if the current utilization rate persisted.

Chart Showing Projected Volume of Expiries





Our solution: Safeguard resources by monitoring vaccine use and re-allocating supply

To address the potential loss of a substantial quantity of vaccines, the Gavi MA Team in Gombe State conducted a projection model which revealed that even with a 50% or 100% increase in Average Monthly Consumption (AMC), 35% and 45% of the current stock would still expire. Stakeholders, including the State Primary Health Care Development Agency (SPHCDA), the National Primary Health Care Development Agency (NPHCDA), and UNICEF, were urged to collaborate to redistribute at least 50% [142,053 doses] of the vaccines. As a result, the Executive Secretary of the GSPHCDA approved the transfer of 200,000 doses of vaccines, valued at \$300,000, to the regional cold store. This enables redistribution to other States, ensuring full utilization of the vaccines.



Future outlook: Safeguarding resources by maximising vaccine allocations across Nigeria

The proactive approach taken by the Gavi MA Team in Gombe State can serve as a model for other States: By projecting and mitigating the risk of vaccine expiration, this monitoring methodology can be implemented nationwide. This will preserve valuable resources, protect public health, and ensure that vaccines reach those in need across the country.



Through close monitoring of vaccine utilization and expiration dates, the team **successfully prevented the wastage of thousands of doses valued at \$300,000**

“I wish to express our gratitude with regards to your COVID-19 vaccine management in the State. Using scientific data from our Average Monthly Consumption [AMC] Index and stock available convinced the Executive Secretary to return excess quantities of the vaccines back to the North East Zonal Cold stores for further redistribution to States in need.” **Gombe State Cold Chain Officer**

Ensuring accountability in the use of public funds in Gombe State, Nigeria



Our solution:
Developing tracking tools and reassigning work to trusted stakeholders



The challenge:
Missing reporting

To mobilize health workers for vaccination purposes through outreach teams, the State Primary Health Care Development Agency (SPHCDA) ensured 504 teams receive monthly payments of 15,000 naira each.

Unfortunately, the outreach teams had not been fulfilling their accountability obligations, failing to submit reports and properly account for the monthly funds allocated. This lack of accountability posed challenges in effectively evaluating the impact of their work, thereby risking the uptake of COVID-19 vaccinations and routine immunization in the State.

Addressing this concern, the Gavi MA Project team for the North-East Zone provided hands-on support, highlighting the risk associated with the team's behaviour. As a key step, Gombe State withdrew responsibilities from Primary Health Care (PHC) In-Charges who have been involved in misconduct or mishandling of finances. By replacing them with responsible personnel, the State aims to ensure effective management of funds. Newly appointed PHC In-Charges furthermore underwent comprehensive training to equip them with the necessary skills and knowledge to manage funds efficiently and maintain accountability.

To overcome this issue of missing reports by the outreach teams, a committee was set up to verify the utilization of funds by the PHC In-Charges. Individuals found to be non-compliant were redeployed to other positions.

Crown Agents' Field Agents also developed an **Outreach Utilization Tool**. **This tool is a form which helps track important information related to the utilization of funds**, such as compliance and data accuracy.



Strengthening governance and resource allocation for immunization programmes in Rivers State, Nigeria



Our solution: Coordinating stakeholder meetings and encouraging cost-sharing

To address this critical gap, the Project's Zonal Officer initiated extensive stakeholder engagement with partners and government authorities. After discussions with the RSPHCDA, it was revealed that funding challenges hindered the organization of coordination meetings among partners. Crown Agents Nigeria engaged each partner, including UNICEF, WHO, AFENET, eHealth Africa, and KNCV, and successfully brought them onto a common communication platform.

The last coordination meeting in Rivers State took place in October 2022. As a result, only 17% of the target population were fully vaccinated. In contrast, States like Kano and Gombe, which achieved 100% coverage, benefited from effective coordination and collaborative funding. Recognizing this, partners re-established the technical working group meeting in Rivers State, now held monthly since June 21, 2023, to address gaps and align strategies. Before the State takes ownership of these meetings, the partners involved have agreed to share the costs by taking turns in funding them each month. By pooling resources and expertise, this effort can provide opportunities for sustained funding, maximize impact, and create a healthier and more resilient future for all.



The challenge: Strengthening governance and coordination to increase vaccine coverage

Limited and dispersed funding streams pose challenges to governance and coordination efforts in the health space, hindering the establishment of long-term initiatives and diverting resources to other needs. Moreover, coordinating diverse funding sources with varying priorities and requirements can be complex.

However, strong governance and collaborative funding approaches are vital for the successful implementation of health initiatives. Partnerships also enable the sharing of knowledge and a unified strategy amongst stakeholders.

During the Gavi COVAX risk assessment, the Gavi MA Project identified poor governance structures and a lack of coordination as key factors contributing to low COVID-19 vaccine coverage in the State. While partners in Rivers State are doing commendable work, their efforts are often uncoordinated, and the Rivers State Primary HealthCare Agency (RSPHCDA) remains unaware of many initiatives. The absence of regular meetings hampers synergy and collaboration among various agencies in the State.



How Motorcycles are helping vaccines reach over 350,000 children in Gombe State, Nigeria



The challenge: Vaccine logistics hurdles and budget constraints in Gombe State, Nigeria

In Gombe State, Nigeria, sub-state Routine Immunization (RI) monitoring and supervision have long been a challenge. With vast rural areas and limited resources, ensuring the effective delivery of vaccines and the monitoring of immunization coverage has been a daunting task. However, recent initiatives involving the use of motorcycles have brought new hope to this critical aspect of public health.

The sub-state RI monitoring and supervision system aims to ensure that vaccines reach over 350,000 children in Gombe State and that immunization programmes are implemented effectively. This involves regular visits to health centers, assessing vaccine stocks, monitoring cold chain equipment, and evaluating the performance of healthcare workers. However, due to limited transportation options and the vastness of the State, these activities have often been neglected or carried out sporadically.

One of the primary challenges faced in sub-state RI monitoring and supervision in Gombe State is the lack of reliable transportation. Many health workers responsible for monitoring and supervising immunization activities are unable to reach remote areas due to the lack of suitable vehicles. This has resulted in delays in delivering vaccines, inadequate monitoring of vaccine stocks, and limited supervision of healthcare workers. As a result, immunization coverage has suffered, leaving many children vulnerable to vaccine-preventable diseases.

Another challenge is the limited resources available for RI monitoring and supervision. Gombe State, like many other states in the region, faces budget constraints and competing priorities in the healthcare sector. This has led to a lack of funding for transportation, training, and supportive supervision, further hindering the effectiveness of the monitoring and supervision system.





Our solution: **Innovative Logistics**

Crown Agents Nigeria identified the lack of logistics as the root cause of the issue: Traditional vehicles are unable to reach these under-served communities, many of such communities being in Dukku Local Government Area (LGA). At the same time, Crown Agents discovered 20 Gavi donated Motorcycles have been kept in storage for over three months and were not distributed. This led to an advocacy effort to the State Emergency Routine Immunization Coordination Center (SERICC) to solicit that these motorcycles are distributed to 20 LGA health officials to improve vaccine outreach supervision activities.



The results: **More effective vaccine outreach supervision, better health outcomes**

With the provision of motorcycles, supervisors are able to visit health centres more frequently, offering guidance and mentoring to healthcare workers. They are now able to increase their integrated supportive supervisory visits from once a week to three times a week, covering more than 12 health facilities instead of only two. This has also improved access to hard-to-reach areas as well as the performance of healthcare workers to provide better quality services.



Looking forward: **Applying Lessons Learned**

The successful implementation of motorcycles in sub-state RI monitoring and supervision in Gombe State has provided valuable lessons for future initiatives. Firstly, it is essential to involve the local community in the planning and implementation process. Engaging community leaders and obtaining their support can help overcome potential resistance and ensure the sustainability of the intervention. Especially in environments where beneficiaries are difficult to access, it is essential to integrate the use of motorcycles into the existing healthcare system. This includes incorporating them into the budgeting process, ensuring that funds are allocated for the purchase, maintenance, and training associated with this mode of transportation. Additionally, supportive supervision and capacity-building initiatives should be tailored to address the specific needs of health workers using motorcycles.



“Before the distribution of the bikes, supervision hardly happened, maybe once a week to nearby facilities, but now I have been able to visit hard-to-reach facilities like Garin Bulama, Maru, Kamba, Bokkiru and Goringo. The bike has motivated me to do more.”

Local Immunization Officer, Dukku Local Government Area (LGA), Gombe State

Improving cold storage through powerful partnerships to prevent the loss of vaccines worth \$110,00 in Ebonyi State, Nigeria

The constant fluctuations in temperature threatened to compromise the stability of the vaccines, potentially rendering them ineffective.



The challenge: A Cold Storage Breakdown compromises COVID-19 vaccines

The walk-in cold room (WICR) at the Ebonyi State Cold Store encountered a significant setback in June 2023 when it suddenly broke down, causing concern about the preservation of COVID-19 vaccines stored within. Recognizing the urgency of the situation, the issue was promptly escalated to the National Primary Health Care Development Agency (NPHCDA). The NPHCDA swiftly intervened by dispatching a skilled technician to assess and rectify the malfunctioning WICR. Although the technician managed to implement a temporary fix, it was evident that a permanent solution was needed.

Unfortunately, the WICR broke down again after the temporary fix could no longer sustain its functionality. This exacerbated the challenges faced by the Ebonyi State Cold Store and heightened concerns regarding the integrity of the stored vaccines.



Our solution: Permanent Storage

To find a permanent solution, the Gavi MA Project Team made efforts to galvanize support from various COVID-19 programme stakeholders and partners. Amongst others, the resident MA South East Field Agent in the State worked with the State Cold Chain Officer to implement enhanced mechanisms to closely monitor the temperature and integrity of the vaccines. These were deployed whilst the vaccines were kept cool in boxes laced with ice packs that were replaced periodically. In the meantime, the vaccines were transferred to the nearest NPHCDA zonal cold store in neighboring Enugu State.

Our Zonal FA then convened a meeting with the parties involved including the State Cold Chain Officer, representatives of the NPHCDA, UNICEF and WHO in the State to address the imminent risk of COVID-19 vaccine expiry in the neighbouring Enugu State. The breakdown of the walk-in cold room at the State Cold Store coupled with the cessation of immunization activities were key issues discussed, as this could result in the potential loss of the 73,400 doses of the Janssen & Janssen COVID-19 vaccine, with a financial implication of \$110,000.



Solution 1: Distribution of vaccines to nearby health facilities

The distribution of vaccines to nearby health facilities and local government area cold stores with functional cold chain equipment was considered while the WHO offered to use their field vehicle to move as many vaccines as it could to the zonal cold store in Enugu.

Solution 2: Reconfiguring unused freezers for storage

In the intermediate timeframe, there are discussions to reconfigure one of the Ultra Cold Chain freezers for the Pfizer vaccine to now store the J&J vaccine (as there was no more stock of the Pfizer vaccine in-country).

Solution 3: A more stable source of electricity

For the long-term fix, an advocacy visit was made to the Honourable Commissioner of Health in Ebonyi State to get his commitment for a more stable source of electricity to power the cold store.

The Need for Comprehensive Reviews of Cold Storage Facilities

A key lesson learned from this experience is the need for a comprehensive review of cold storage facilities and maintenance protocols across the country. Efforts should be made to strengthen the capacity and resilience of vaccine storage infrastructure to prevent similar incidents in the future, implementing robust risk monitoring processes.

The breakdown of the cold storage facility and the potential loss of a significant volume of vaccines in the state serve as a stark reminder of the vulnerabilities that can arise within the complex immunization supply chain. Ongoing risk monitoring measures, such as the work carried out by the Gavi MA team, can significantly help in ameliorating these risks and safeguarding the vaccine distribution process.

Prevented the loss of **73,400**
COVID-19 vaccines worth
\$110,100

ABOUT CROWN AGENTS

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