

## **End-of-Project Report**

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## USAID COVID-19 Vaccination Acceleration Project

State(s)	Anambra, Bauchi, Benue, Cross River, Delta, Imo, Kaduna, Kano, Rivers and Taraba states
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Work plan timeframe	April 2022- Dec 2023
Reporting period	

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## I. Acronyms

CBT	Computer Based Training
ССО	Cold Chain Officer

DSNO	Disease Surveillance and Notification Officer	
EMID	Electronic Management of Immunization Data	
LIO	Local Government Immunization Officer	
M&E	Monitoring and Evaluation	
NCDC	Nigeria Center for Disease Control	
NPHCDA	National Primary Health Care Development Agency	
SCALES	Service Delivery, Communication, Accountability, Logistics, Electronic reporting and Supportive Supervision	
SIO	Stat Immunization Officer	
SDHCDA		
JITCDA	State Primary Health Care Development Agency	
ТВ	State Primary Health Care Development Agency Tuberculosis	
TB TB LON	State Primary Health Care Development Agency Tuberculosis Tuberculosis Local Organizations Network	
TB LON USAID	State Primary Health Care Development AgencyTuberculosisTuberculosis Local Organizations NetworkUnited States' Agency for International Development	

#### 2. Executive Summary

The USAID- Funded Tuberculosis Local Organizing Network (TB LON) regions 1 & 2 project implemented in 14 states of the federation by KNCV Nigeria, received funding from USAID to support Nigeria's efforts towards attaining 70% herd immunity against COVID-19 through

Vaccination. Funding was received in 2022 to implement the COVID-19 Vaccination Acceleration Project in seven states and in 2023 the number of states increased to ten. These states were Anambra, Bauchi, Benue, Cross River, Delta, Imo, Kaduna, Kano, Rivers, and Taraba.

The main goal of the project was to promote COVID-19 vaccine access, acceptability, and uptake, while strengthening adverse drug reaction feedback and timely response, by leveraging on the ongoing USAID-funded TB LON regions I & 2 project structures. At the start of the project, robust stakeholder engagement was carried out at national, state and LGA level. This was to ensure support for the project and alignment of objectives. Capacity building of staff and mobile teams was integral to the project, and traditional and Computer-based training methods were used to build team capacities on COVID-19-related topics.

Vaccinations kicked off in July 2022 with the initial seven states Anambra, Bauchi, Cross River, Imo, Kaduna, Kano, and Taraba.

A total of 338 teams across 169 LGAs were supported in the first seven states and 153 across 71 LGAs in the remaining 3 states. The project focused mainly on the use of mobile vaccination teams and over 99% of the vaccination teams supported were mobile teams. At the cessation of vaccinations in December 2023, a total of 4,902,178 doses of vaccines were administered across the 10 states who received first, last and booster doses. The highest contribution to vaccination achievement came from Kano state with 17% of vaccinations. Contributions from the other state are as follows: Anambra-15%, Bauchi-7%, Benue-11%, Cross River-4%, Delta-10%, Imo- 7%, Kaduna-8%, Rivers-6%, and Taraba-14%.

#### 3. Project Background

The COVID-19 Vaccination Acceleration project had an overall goal of promoting COVID-19 vaccine access, acceptability, and uptake, while strengthening adverse drug reaction feedback and timely response, by leveraging on the ongoing USAID-supported Tuberculosis Local Organizing Network (TB LON) regions 1 & 2 project structures. To ensure acceptance and address the challenges posed by vaccine hesitancy, the project strategically integrated the vaccination program within the KNCV Nigeria TB LON community outreach TB Active Cases Finding (ACF)

intervention while also leveraging on this structure in the supported public and private health facilities. It was implemented in ten states: Anambra, Bauchi, Benue, Cross River, Delta, Imo, Kaduna, Kano, Rivers, and Taraba.

Project objectives included ensuring access to COVID-19 vaccinations at the community level and supporting health system strengthening and integration of services at supported service-delivery points.



Figure 1: GLOVAX implementing states and team composition.



Table 1: Distribution of mobile teams across GLOVAX implementation states

State	LGAs	Teams
Anambra	21	42
Bauchi	20	40
Benue	23	50
Cross River	18	36

Delta	25	55
lmo	27	54
Kaduna	23	46
Kano	44	88
Rivers	23	48
Taraba	16	32
Total	240	491

#### 4. Program Strategies and Activities

#### 4.1 Selection of State-level consultants and LGA volunteers

A critical component of the implementation of the project was the recruitment of staff at the state and LGA level. At the state level, consultants were recruited to serve as state coordinators tasked with the coordination of all aspects of the project at the state level. In the first 7 states, LGA coordinators were engaged across the 169 LGAs. These LGA Coordinators were tasked with the coordination of mobile teams, stakeholder management, data reporting and validation, and management of commodities at the LGA level. In January 2023, the staffing strategy changed from LGA coordinators for individual LGAs to Zonal coordinators who oversaw a cluster of LGAs.

#### 4.2 Situation Assessment

As part of project start-up activities, a situational assessment was conducted across the seven initial implementation states. The assessment covered the following areas of concern:

- Community mobilization Structure
- Operational coordination of vaccination exercise
- Supervision, monitoring, and evaluation systems
- Data management, synchronization, and data communication
- Availability of Vaccines, consumables, and storage facilities
- Cases of Vaccine rejection
- Availability of permanent COVID-19 vaccination mobile teams
- Regularity of daily stipend paid to vaccinators
- Vaccination achievements vs targets
- Availability of IEC materials,
- Available partners supporting COVID19 Vaccination
- Other available public health intervention structures and KNCV-supported facilities with COVAX implementation ongoing

Findings of the assessment were utilized in the drafting of state-specific work plans ensuring that local context was taken into cognizance when deploying strategies. These findings were also shared with the various state actors in the supported states. This activity was also carried out when three additional states were added to the project.

## 4.3 Support continuous sensitization and awareness at LGA, ward, and community levels

Stakeholders' engagement served as one of the bedrocks of the project. Before kick starting activities on the field, it was pertinent that all relevant stakeholders were engaged, and all interest aligned to ensure the success of the project. At the National level, virtual advocacy was paid to the National Primary Health Care Development Agency (NPHCDA). The KNCV Nigeria team made up of the Executive Director, Director Technical programs, GLOVAX project coordinator and GLOVAX Monitoring, and Evaluation Officer paid a virtual courtesy call to the NPHCDA team led by the Director of Disease Control and Immunization. The advocacy was aimed at presenting the project to the NPHCDA and soliciting for support to leverage on COVID-19 vaccination structures already set up by the agency.

A pertinent stakeholder engagement conducted was an advocacy visit paid to the Director General of the Nigeria Center for Disease (NCDC) control and members of his team. The visit aimed at introducing the GLOVAX-project to the NCDC and to discuss areas of collaboration between the GloVax project and the NCDC.

At the state level, state consultants paid advocacy visits to Executive Directors of State Primary Health Care Development Agencies (SPHCDA) in the 10 supported states. Letters of introduction were written from the central office introducing the project to the states. Advocacies were also paid to state Cold Chain Officers (CHOs), State Immunization Officers (SIOs), State Tuberculosis, Leprosy and Buruli Ulcer Program Managers s (STBLCP PMs, Permanent Secretaries of State Ministries of Health (SMOH) as well as other Implementing partners (IPs) to ensure alignment of activities and to avoid duplication of effort. In Bauchi state, an advocacy visit was paid to the Emir of DASS who doubles as the Co-Chair of the COVID-19 task force in the state.

The project strived to ensure coordination within the COVID-19 space at the state level. To this end, the TB LON 1&2 GLOVAX project was integral in the establishment of partner coordination fora in Anambra, Cross River, and Imo states as well as supporting meetings in states where the forum was already in existence. There was active participation in all state-driven coordination activities across the 10 states.

At the LGA level, LGA and zonal coordinators engaged with LGA directors of health, LGA immunization teams, religious leaders, traditional rulers, and community gatekeepers. This ensured the buy-in of stakeholders at the community level to overcome hurdles such as hesitancy and vaccine acceptance.

#### 4.4 Capacity Building of Community Health Volunteers

As part of project start up activities, a Training of Trainers (TOT) was conducted for the first 7 State consultants on the project. The TOT was held virtually in June 2022. The training covered topics such as an Overview of Integrated Active TB Case finding in TB LON I & 2 Project with COVID-19 Vaccination, an Introduction to GLOVAX project, an overview of SCALES strategy, Electronic Management of Immunization data (EMID), Surveillance and Adverse Events Following Immunization, lab services in the context of the GLOVAX project, Monitoring and Evaluation Framework as well as M&E reporting requirements for the GLOVAX project. The training was used as an avenue to take the consultants through the finance and operations requirements of the project.

Step down training was held across the seven supported states. A unified curriculum covering following topics was taught: An overview of Integrated Active TB Case finding in TB LON I & 2 Project with COVID-19 Vaccination, an Introduction to the GLOVAX project, an overview of SCALES strategy, Electronic Management of Immunization data (EMID), Surveillance and Adverse Events Following Immunization, lab services in the context of the GLOVAX project, Monitoring and Evaluation Framework as well as M&E reporting requirements for the GLOVAX project.

Following the addition of three new states, capacity building for state consultants and zonal coordinators was also conducted in March 2023. This training was then stepped down to all 153 mobile teams in the state. The training was carried out in clusters and included members of the LGA immunization teams.

In a bid to support health systems strengthening and to ensure continuous re-training of vaccination teams, the project, through the Africa Diseases Prevention and Research Development Initiative (ADRAP) also designed and developed a Competency Based Training module for LGA coordinators and vaccination teams to build their capacity on COVID-19-related topics. The CBT was deployed across the ten states of implementation.

#### 4.5 Support the uptake of vaccinations across supported states

Over the lifetime of the project, a total of 491 mobile vaccination teams and 4 fixed teams were supported across 240 LGAs in ten states. Each vaccination team comprised of a vaccinator, an EMID recorder, a manual recorder, a social mobilizer, a validator and a TB Screener. The roles of each team member were as follows:

Vaccinator

- Ensure all IPC measures are in place before the commencement of vaccination
- Ensure screening is done according to the guidelines.
- Administer the COVID-19 vaccine according to the schedule.
- Tally every vaccinated client immediately after vaccination and not at the end of the day/ after counting empty vials.
- Observe AEFI for 30 minutes, manage and document accordingly, and refer where necessary
- Communicate to the client about the benefits of immunization and when the next shot is due.
- Record vaccinated clients in the RI/COVID-19 vaccination cards and other data tools.

#### Recorder

- Screen for age eligibility using identification, e.g. Voters card, National ID card, International passport etc.
- Screen for co-morbidity eligibility using Doctor's referral.
- Prefill part I (profile of state/LGA/ward, etc.) of vaccination card before vaccination commences.
- Fill in the COVID-19 register as appropriate.
- Fill part 2 (Client's information) after a client is vaccinated at the vaccination post.
- Issue the card to the client.

#### Validator

- Creates or updates records AFTER the client has received his vaccination.
- Creates record for the client presenting for 1st dose on the EMID system
- Scans the QR code on the card of a returning client and compare the details found on the EMID system with that on the vaccination card / any form of ID presented by the client
- Can also search for client's record using the client's vaccination number
- Update any incorrect record of the client on the EMID system
- Link/re-link QR on client's vaccination card with his/her records on the EMID system where applicable
- Update the client's records with 2nd dose information on the EMID system if its for 2nd dose

Social Mobilizer

- Commence announcement to residents in the catchment areas three (3) days before the vaccination session; the message should include:
- Continue announcements during implementation days.
- Ensure adherence to IPC measures.
- Conduct temperature checks at the point of entrance.
- Ensure the orderly flow of clients at the vaccination sites.
- Participate in community sensitization and dialogue

#### **TB** Screener

- Screen all the beneficiaries at the vaccination site using a screening tool
- Ensure that all the identified presumptive cases provide sputum and transport the sputum to the Gene Xpert testing site and that diagnosed beneficiaries are linked to treatment.
- Document all presumptive cases in the appropriate registers.

These teams were 6-man teams that carried out vaccination in communities employing various strategies to overcome hesitancy and improve access to vaccinations at the community level. Strategies employed to boost vaccination numbers included

- House-to-House vaccinations
- Mass vaccination campaigns
- Community Outreaches
- Integration of TB screening in vaccination activities
- Provision of screening for diabetes, malaria and hypertension as well as incentives such as condoms during vaccination exercises
- Deployment of 16 reconfigured "Wellness on Keke" (WOK) to hard-to-reach areas These WOK were equipped with TB diagnostic equipment and delivered comprehensive integrated services that included vaccination, TB screening, and screening for chronic diseases
- Targeting of specific institutions such as religious institutions, markets, transportation hubs, Schools and universities, government screening exercises, and workplaces
- Flexible scheduling of vaccinations especially in rural areas as well as simplifying the entire vaccination process

#### 4.6 Adverse Events Following Immunization (AEFI) Monitoring

A mandate of the GLOVAX project is to strengthen adverse drug reaction feedback and timely response. AEFIs were identified as one of the causes of hesitancy and vaccine refusal and as such the tracking and reporting of AEFIs was used as a means of instilling confidence in the system. All vaccination teams were trained in the identification of AEFIs and reporting protocols. All identified AEFIs especially those with serious AEFI were line-listed and reported to the LGA DSNOs for follow-up.

As a means of strengthening the AEFI feedback mechanisms the project, through Interra Networks Limited, launched an AEFI hotline to strengthen the feedback mechanism of AEFI reporting. The government of Nigeria was engaged at all levels and DSNO at the LGA level were trained to respond to reports logged through the hotline. The hotline was included on vaccination clients' cards to encourage self-reporting of AEFI.

## 4.7 Engaging the National Call Centre to ensure follow-up via reminder phone calls for complete vaccination of individuals across 7 supported states

Efforts to ensure the country's target of 70% herd immunity by December 2022 included the setup of a national call center for reminder calls to clients for their second dose vaccinations. The GLOVAX project through Interra Networks Limited utilized the national call center to reach vaccinated individuals with reminders for their second and booster doses. Phone numbers were harvested from vaccination registers by zonal and LGA coordinators and shared with Interra Networks for follow-up phone. A major challenge experienced with this intervention was a lack of phone ownership by many clients because a lot of communities targeted were rural communities with limited cellphone network coverage. Wrong cellphone numbers were also given by vaccination clients due to an apprehension of their phone numbers being used for nefarious activities.

#### 4.8 Capacity Building of Community Health Volunteers

As part of project start up activities, a Training of Trainers (TOT) was conducted for the first 7 State consultants on the project. The TOT was held virtually on the 27th Of June 2022. The training covered topics such as an Overview of Integrated Active TB Case finding in TB LON I & 2 Project with COVID-19 Vaccination, an Introduction to COVAX project, an overview of SCALES strategy, Electronic Management of Immunization data (EMID), Surveillance and Adverse Events Following Immunization, lab services in the context of the COVAX project, Monitoring and Evaluation Framework as well as M&E reporting requirements for the COVAX project. The training was used as an avenue to take the consultants through the finance and operations requirements of the project.

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A total of 165 coordinators were trained across xxx states. The outstanding 4 were recruited at a later date and trained on the job.

In a bid to support health systems strengthening, the GLOVAX project through the Africa Diseases Prevention and Research Development Initiative (ADRAP) also designed and developed a training module for LGA coordinators and vaccination teams to build their capacity on COVID-19-related topics. A total of 200 persons (169 LGA coordinators and 31 vaccinators were enrolled in the program.

# 4.9 Support the provision of integrated service with COVID-19 vaccinations and other reasonable medical concerns.

A major strategy used by the project to overcome issues of vaccine hesitancy and improve vaccination uptake was the provision of integrated services. Vaccination teams provided services such as screening for Tuberculosis, screening for malaria, high blood glucose testing and screening for high blood pressure. Consumables to carry out these services were procured and distributed to teams and this intervention provided and avenue to break into communities to vaccinate. It also helped reduce the stigma associated with vaccination as clients felt more comfortable when other services were being provided.

The project also launched 16 innovatively reconfigured tricycles "Well on Keke". These tricycles were fitted a portable digital x-ray machine, a Truenat or TB LAMP machine and consumables for screening of other diseases sphygmomanometer for blood pressure, glucometer strips for blood sugar. The tricycles were deployed to hard-to-reach communities to provide COVID-19 vaccination, TB diagnosis and other integrated services.

#### 4.10 Project supervision and implementation monitoring

The project monitoring was undertaken both physically, through field supervision, and remotely, using virtual platforms. Both the State Consultants and then Local Government Coordinators, and later Zonal Coordinators were trained in providing oversight of field activities of the fixed and mobile teams. This was done using a systematic approach that ensures adherence to established project timelines, quality standards, and effective utilization of project resources. These regular checks and site visits ensured that progress was tracked, challenges identified, and timely support provided to ensure alignment with established project objectives and attainment of project targets. The Zonal Coordinators were mandated to visit each of their teams each month, whereas the State Consultants, three (3) LGAs for supervision.

The central team provided joint supportive supervision bi-monthly to teams in the field with an official of the State Primary Health Care Agency (SPHCDA) using a robust checklist that addressed team composition and capacity, tools availability, documentation, reporting, data quality, and vaccine logistics. The checklist was further digitized using the ODK platform to allow its use by the State Consultants and the Zonal coordinators. The ODK app presented real-time tracking of location, time, and picture uploads of such visits at the sub-national levels and was available to the central team for verification.

#### 4.10.1 Data collection and reporting

First-level data collection was done using the national tools – vaccination register, tally sheet, AEFI line-list, and the Electronic Management of Immunization Data (EMID) platform. As clients get vaccinated, their details are collected and documented by designated team members. Data collected through the register and EMID are case-based. At the close of vaccination activities daily, data reconciliation between records in the register, tally sheet, and uploads to EMID was done by vaccination teams. The aggregated data was then reported to the LGA immunization official using the WhatsApp platform as call-in data, and to the Zonal coordinator. The Zonal coordinator performs the next level of validation before reporting to the central team using Google Forms. The reported data using the Google form is available to the State consultant as view-only access for the second-level validation. The central team performs the third-level validation before reporting to the funder.

#### 4.10.2 Data verification

Off-site data verification was done virtually. The teams were instructed to include the vaccination number generated from the EMID upload against each client's name in the vaccination register. Snapshots of the register were often shared with the zonal coordinators, who randomly select entries to run on the NPHCDA's vaccination verification platforms for authenticity. Additionally, working with the SPHCDA, the teams' EMID attributions on the DHIS2 platform were periodically extracted for validation with the reported aggregated data.

On-site data verification, done during field visits, focused on matching entries in the register with those on the tally sheet and the DHIS2. Where gaps existed, they were adequately tracked and closed, with the update to the reported data provided.

#### 4.10.3 Data Quality Assessment

Data Quality Assessment was carried out quarterly as a joint exercise with the SPHCDA. The robust evaluation of recorded and reported data guaranteed that data utilized throughout the project's duration is of high quality. Both the datasets and processes were interrogated, highlighting strengths, weaknesses, and discrepancies while strengthening the field data management system. This ensured that the information used for analysis and decision-making is trustworthy, far-reaching, and aligns with established standards, offering overall reliability of project data and providing recommendations for enhancing data quality in future endeavors.

#### 5. Program Results

The project made great strides in achieving the targets for the Key Performance Indicators (KPIs) set at the project's outset. Over the eighteen (18) months of active vaccination in the field, a total of 4,902,178 vaccinations were achieved. The earlier set target of 179,123 each for the first and the last doses of vaccination at the beginning of the project was for the first seven supported states for a twelve (12) month period. However, implementing states later increased to ten (10) with the period extending beyond one year.

Kano State had the highest contribution by states at 17%, followed closely by Anambra at 15% with 857,058 and 741,114 vaccinations respectively. Alternatively, Rivers and Cross River contributed the least at 6% and 4% respectively. The project was implemented across the 18 LGAs of Cross River for a period of nine (9) months and implemented in 23 LGAs in Rivers for 10 months. Kano State had the highest number of LGAs (44), same with the number of teams while in Anambra State, implementation ran for 18 months across the 21 LGAs.



Figure 2: Vaccination distribution by states

Slightly more males were vaccinated, with 51% (2,478,064) contribution as opposed to 49% (2,424,114) female contribution. A total of 3,641,705 (74%) vaccinations were given to clients aged 18-49 years and 1,260,473 (26%) were given to those 50 years and above. Only 7% (349,089) of the total vaccinations were first doses, while 69% (3,372,509) were second or last doses, and 24% (1,180,580),

were booster doses. The first doses of Johnson and Johnson (J&J) antigens were recorded as second doses because they are one-shot vaccines. Johnson and Johnson vaccine antigen was used the most in the project and Moderna was the least used. 4,369,964 (89%) vaccinations were done using J&J antigen, 531,578 (11%) done with Pfizer antigen, 360 with AstraZeneca and 276 with Moderna. A few available stocks of AstraZeneca and Moderna antigens were used up at the start of the project. The country ran out of stock of Pfizer in November 2022, and from then onwards, utilized only J&J antigen. J&J received approval within the same period to be used as second and booster doses for other antigens.

Most vaccinations took place at mobile sites while Wellness on Keke (WoK), a component of community-based outreach sites, hosted the fewest vaccinations. Specifically, 2,988,251 (61%) vaccinations occurred at mobile sites, 1,046,525 (21%) at community-based outreach sites, 821,983 (17%) at mass vaccination sites, 33,051 (1%) at fixed sites and 12,368 at WoK.



Sites distribution of vaccinations

Figure 3: Vaccination distribution across sites

#### 5.1 Number of vaccination sites identified and supported.

The project had a target to identify and support 171 sites with at least one site per LGA per state in seven states at the commencement of the project. However, at least 2 mobile teams were engaged per LGA in all supported states. Delta, Rivers, and Benue states had a few LGAs with more than 2 teams based on their wide geographical spread and high population size. Additional four (4) fixed sites were supported in Kaduna and Kano States, with 2 sites per state. A total of 496 mobile and fixed sites were identified and supported by the project across its 10 implementing states.



Figure 4: Supported mobile/ and fixed sites per state.

These 496 teams supported 13,540 unique community outreaches, including the Wellness on Keke (WoK) initiative, and 9,826 unique mass vaccination sites.

# 5.2 Number of people trained on COVID-19 vaccine-related topics with USG Support

The project had worked with the LGA immunization officials to recruit from the pool of already trained immunization support/ad hoc staff. Hands-on training was conducted for all mobile teams before their engagement to be part of the project. Capacity building was in areas of Storage, handling, delivery, and waste management of COVID-19 vaccines; Planning and organizing COVID-19 vaccination sessions; AEFI monitoring for COVID-19 vaccination; Recording and monitoring COVID-19 vaccination; and Communication with the community about COVID-19 vaccination. A total of 3,365 health workers and support staff were trained, with males contributing 57% (1,913) and females, 43% (1,452).

As the project advanced, these trainings were further reinforced through the Competency-Based Training (CBT). The CBT was delivered on COVID-19 vaccinations and screening of chronic disease to strengthen the integrated services section of the project.

# 5.3 Number of people who received a first dose of an approved COVID-19 vaccine (COV-1) with USG direct support (sex, age, and dose)

Pfizer, AstraZeneca and Moderna antigens were available for only a limited time, and at some point when the stock was very low, Pfizer was maximized for second dose only to complete primary series vaccinations based on the directive of the National Primary Health Care Agency (NPHCDA). 349,089 first doses were administered, out of which 174 was of AstraZeneca antigen, 172 of Moderna and

348,743 of Pfizer. 192,666 males received first dose as against 156,423 females that did same. 283,817 first doses were for clients aged 18-49 years while 65,272 were for 50 years and above.

# 5.4 Number of people who received the last recommended dose of the primary series of an approved COVID-19 vaccine (COV-c) with USG direct support (sex, age, and dose)

A total of 3,372,509 vaccinations were for last recommended doses, out of which 3,220,491 were done using J&J antigen, 151,779 with Pfizer, 138 with AstraZeneca and 101 with Moderna. First doses of J&J antigens were recorded and reported as last dose vaccinations. 50.4% (1,701,369) of the last doses were received by males, while 49.6% (1,671,140) were received by females. Clients, aged 18-49 years, had 2,511,663 (74%) last doses as compared to clients aged 50 years and above who had 860,846 (26%) doses. The project engaged a national call-center that provided reminder calls and texts to clients for second and booster doses.

## 5.5 Number of people who received a booster dose of an approved COVID-19 vaccine (COV-2,3,4) with USG direct support (sex, age, and dose)

Pfizer and J&J antigens were used as booster doses for other antigens as directed by NPHCDA. 1,180,580 total booster doses were administered. J&J antigen contributed most with 1,149,473 vaccinations, then Pfizer with 31,056, AstraZeneca 48 and Moderna, 3. More females (596,551) repeated visits for booster doses than males (584,029). 72% (846,225) of booster doses were administered to clients 18-49 years and 28% (334,355) were given to persons aged 50+.



Figure 5: Dose and antigen vaccination distribution

#### 5.6 Number of high-risk fully vaccinated (sex, age, and designation)

798,528 high-risk group clients completed the primary series of COVID-19 vaccinations. 608,030 complete doses were received by key populations, 17,877 by persons with co-morbidity, 2,337 by

People Living with HIV (PLHIV), and 170,248 by healthcare workers. Females made up 50.2% (400,786) while males, 49.8% (397,742). Clients aged 18-49 were 12% (94,666) of the total, and those aged 50+ were 88% (703,862). The generation of vaccine demand among this group was done through the screening of chronic ailments.

# 5.7 Number of Adverse Events Following Immunization (AEFIs) reported (severity and antigen, support level)

AEFIs were actively monitored throughout the project implementation. Minor cases of AEFI were linelisted in the source documents while the serious cases were promptly reported to the Disease Surveillance and Notification Officers (DSNOs) through the reporting form to instance management. All support provided for AEFIs was directly done. A total of 11,153 AEFIs were reported, out of which 11,138 were minor while 15 were serious. 10,772 were from J&J antigen while 381 were from Pfizer.

Number of Tools for planning and conducting safety monitoring developed, adapted, or disseminated with USG support (Topic areas)

There were existing national tools to capture all the KPIs tracked. The project supported logistics in the distribution to teams when and where stock-outs were reported. Additionally, the project designed and internally utilized an integrated services register to document screening cascades for Diabetes, hypertension, malaria, and tuberculosis per client. It also captured clients who received COVID-19 vaccination afterward. These tools were deployed in the last onboarded states – Benue, Delta, and Rivers.

## 5.8 Number of COVID-19 vaccine multisectoral coordination mechanisms that meet regularly with USG partner participation or support.

Strategic group meetings, partner coordination meetings, and other meetings within the COVID-19, routine immunization, and public health spaces were actively participated in by the project team at both the national and state levels.

#### 5.9 Integrated services

The project integrated other on-demand health services as part of its core strategy to generate demand for COVID-19 vaccination and reduce hesitancy. These services include the screening of chronic ailments like tuberculosis, diabetes, and hypertension as well as testing for malaria. Mobile teams were armed with weighing scales, blood sugar, and Blood pressure apparatuses which were deployed during community outreaches and at mass vaccination sites. Diabetes screening was done on clients 45 years and above whereas hypertension screening was done on all persons who presented themselves for it. Persons who showed feverish symptoms were screened for malaria. A total of 8,301 were tested for diabetes, 4,074 tested for malaria and 83,439 were tested for high blood pressure.



Figure 6: Cascade of integrated services during vaccination

#### 6. Lessons Learnt

- Integration of health interventions is key to attaining sustainability in public health programs.
- Tracking and leveraging special events in communities like weddings, funerals, political rallies, community meetings, August meetings, and government screening exercises contributed to wider vaccination coverage.
- Innovative Wellness on Keke (WOK) strategy provision of integrated services such as screening for chronic illnesses (Tuberculosis, Diabetes Mellitus, and Hypertension) was utilized as a means of overcoming vaccination hesitancy
- Working with local context e.g Integration of community town criers into social mobilization within the eastern states facilitated vaccine acceptance.
- Leveraging on TB public messaging "CHECK AM O!" popularized by the National Tuberculosis Leprosy and Program (NTBLCP) also facilitated vaccine acceptance.
- Access was a bigger issue than hesitancy
- Prompt payment of stipends can boost mobile teams' morale toward target achievement

#### 7. Success Stories

#### Prison Outreaches

Incarcerated persons have remained a vulnerable group when it comes to COVID-19 infection due to the prevailing conditions of prisons. The KNCV GLOVAX project targeted prisons as an area of intervention. Although gaining access to the prison proved challenging, the project however

succeeded in visiting 6 prisons across her states of implementation. A total of 573 inmates and staff of prisons were reached and vaccinated.

S/N	State	Number vaccinated (Staff and inmates)
I	Kano	70
2	Taraba	81
3	Bauchi	86
4	Rivers	190
5	Anambra	119
6	Benue	27

Table 2: Vaccinated inmates across correctional centers in 6 states



Vaccination team with prison officials in Tafawa Balewa, LGA Bauchi State



Vaccination of Inmates in the Otukpo Correctional Facility



Vaccination of inmates in Kano state



Vaccination of inmates in Taraba State



Integrated TB and COVID-19 team at the Port Harcourt prisons

#### Mr Muhammed Sani's Story

Muhammed Sani is a 30-year-old motorbike repairer and small-scale farmer married with 5 Children residing in Kanawa village of Ganjuwa Local Government Area of Bauchi state. Before the USAID-KNCV-supported mobile vaccination team came to his village to vaccinate for COVID-19 and conduct TB screening in February 2023, Muhammed had been coughing continuously since around June 2022. He was screened for TB, his sputum was collected for testing, and tested positive for TB. He had hitherto spent a lot of money visiting traditional healers to no avail. In Muhammed's words, "I am glad the team placed me on free treatment and scheduled clinic appearances every 10 days while my wife and children were given TB Prevention Therapeutic drugs for 3 months. My health and well-being has improved and am breathing well without coughing In addition, since the commencement of treatment and the noticeable change in my health, I am now an advocate of TB screening, encouraging anyone in my vicinity with a cough to visit the DOT clinic for free screening and treatment".



Mr Muhammed two months after commencing TB Treatment

#### Youth Empowerment: The Ardo-Kola Vaccinaton Teams' Story

The USAID COVID-19 Project has impacted lives in many ways. One of these is in the empowerment of unemployed youth. The project in conjunction with the states endeavored to include out-of-work health workers and other cadres in the vaccination teams. This made an impact on many lives so much so, that the vaccination teams in Ardo Kola LGA of Taraba state decided to pay it forward. The teams came together and donated bedsheets and pillows to the facility that they were linked to In the words of the vaccinator of Ardo Kola team 1: "The GLOVAX project has really helped us in terms of improving our skills and having a steady source of income. We thought that it was necessary to also give back to our community"



#### **Conference Presentations**

A major success of the project was showcasing the work done and contributing to the body of knowledge at various conferences. Below is the list of abstracts emanating from the project

 Improving COVID-19 Vaccine uptake through the provision of integrated health services: Results from KNCV Nigeria USAID funded COVID-19 Vaccination Acceleration Project – Abstract (Global Vaccine and Immunization Research Conference, Seoul, March 2023)

- Addressing COVID-19 Vaccination Hesitancy: Strategies and lessons learned from an integrated health service delivery with TB screening in Nigeria – Poster (Nigeria Implementing Science Alliance, Abuja, August 2023)
- Leveraging on TB public health messaging to drive vaccination demand in local communities Abstract (The Union World Conference on Lung Health, Paris, November 2023)
- Strategy to improving TB Case finding through Community Intervention Using wellness on Keke Model in Nigeria – Abstract (The Union World Conference on Lung Health, Paris, November 2023)
- Integrated TB and COVID-19 community intervention, a tool for improved TB case detection and COVID-19 vaccine uptake - the event center experience – Abstract (The Union World Conference on Lung Health, Paris, November 2023)
- Reducing The Missed Opportunities in Strengthening TB Awareness in Communities: Leveraging on COVID-19 Vaccination Campaigns in Taraba State Nigeria - the event center experience – Abstract (The Union World Conference on Lung Health, Paris, November 2023)
- Strategic Integration of Active TB Case Finding Into COVID-19 Vaccination Program -Experience From The KNCV Nigeria GLOVAX Project In Anambra And Imo State – Abstract (The Union World Conference on Lung Health, Paris, November 2023)
- Leveraging on active TB case finding using WOK intervention to improve COVID-19 vaccine uptake Abstract (The Union World Conference on Lung Health, Paris, November 2023)



#### 8. Project Photos



Advocacy visit to NCDC

Advocacy visit to the Emir of Dass, Bauchi state





Management Board

Advocacy visit to Rivers State Primary Health Care Advocacy visit to the Honorable Commissioner Delta State Ministry of Health



Mass Vaccination of soldiers in Military Barracks in Kano state



Vaccination of Nomads in Taraba State



Vaccination of High-risk groups in Benue state



A client having his blood pressure checked before vaccination