



CENTRE FOR INFORMATION
TECHNOLOGY AND
DEVELOPMENT

DOCUMENTING THE COVID-19 VACCINATION EXPERIENCES OF NORTHERN STATES OF NIGERIA



EDITED BY

Isa Sadeeq Abubakar & Hassan Shuaibu Musa



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FOREWORD

The Covid-19 pandemic has brought unprecedented challenges to the world and Nigeria is no exception. The country has been grappling with the impact of this deadly virus, which has affected the health, social and economic well-being of its people. The situation has been particularly challenging for the Northern states of Nigeria, where the health infrastructure is already strained and the population more susceptible to the severe impact of the virus due to a variety of factors.

In this context, the Centre for Information Technology and Development (CITAD) supported by the MacArthur Foundation took a proactive approach to tackle hesitancy towards taking the Covid-19 vaccine through the Public Education on Covid-19 Vaccine Project. This project is a timely and critical initiative that aims to increase awareness and uptake of Covid-19 vaccines in the northern states of Nigeria.

In the project, CITAD engaged six partner organizations and twelve social influencers with medical and media background to implement the activities in not only the six focal states for the project-Kano, Kaduna, Kogi, Bauchi, Borno and Plateau, but the entire northern Nigeria and the Federal Capital Territory.

The CITAD Covid-19 Vaccination intervention project is a comprehensive approach that involves community engagement, advocacy and communication to promote vaccine acceptance and uptake. The project programme utilizes various channels, such as social media, radio and community outreach, to reach a wide audience and disseminate accurate information about Covid-19 vaccines.

This book provides a comprehensive overview of the CITAD Covid-19

Vaccination Intervention project, its objectives, strategies and outcomes. It highlights the challenges faced by the Northern states in combating the pandemic and how the programme addressed these challenges. The book also provides insights into the importance of community engagement, advocacy and communication in promoting vaccine acceptance and uptake.

I commend the CITAD for its efforts in tackling the Covid-19 pandemic in the Northern states of Nigeria. This book is a valuable resource for policymakers, health professionals and community leaders, who are working towards promoting vaccine acceptance and uptake in their communities. I hope that the lessons and insights provided in this book will inspire and inform similar initiatives in other parts of Nigeria and beyond.

ABOUT THE EDITORS

Isa Sadeeq Abubakar is a Professor of Public Health with the Department of Community Medicine Bayero University, Kano. He is a Fellow of the West African College of Physicians and a Fellow of Faculty of Health of the Royal College of Physicians with over a hundred publications to his credit. He is presently the Director, Centre for Infectious Diseases Research, Bayero University, Kano.

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ACKNOWLEDGEMENT

Documenting the COVID-19 Vaccination Experience of Northern States of Nigeria is the result of our engagement with state primary healthcare agencies of the 19 states in the north and their own reflection of the work they have done in the effort to promote the uptake of the COVID 19 vaccine in their respective states.

The engagements were part of a larger protection entitled Public Education on COVID-19 Vaccine Project that CITAD implemented with support from MacArthur Foundation. The project was implemented from 2021 and 2023.

CITAD would like to acknowledge the support MacArthur Foundation provided for the project, including the publication of the book. We would like to specifically thank the team of MacArthur Foundation at the Abuja Office including Dr. Kole Shettima, the African Director of the Foundation, Mr. Oladayo Olaide, then Deputy Director at the Nigerian Office, Dr. Amina Salihu, Acting Deputy Director and all other staff of the Foundation. We would like to express our appreciation and gratitude to Prof. Isa Sadeeq Abubakar, Director, Centre for Infectious Diseases Research, Bayero University, Kano and Dr. Hassan Shuaibu Musa of Abubakar Tafawa Balewa University, Bauchi for agreeing to serve as editors for the book, working from rough stretches to create a coherent document, that is this book. We are grateful for the efforts and the commitment they put into the work. We would like to thank deeply the Executive Secretaries of Primary Health Care Development Agencies of nineteen northern states and the Federal Capital Territory for their cooperation and understanding and for sharing their valuable insights of the work they had done in driving the vaccination efforts in their states. We also thank our partners especially those in the six focal states of Bauchi, Borno, Kaduna, Kano, Kogi and Plateau.

To the Public Education on COVID-19 Vaccine Project team and the entire colleagues at the Centre for Information Technology and Development (CITAD), your invaluable commitment is appreciated and we say thank you very much.

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Chapter 1:

Introduction

Even as deaths due to COVID 19 were being recorded across several of the states in the north, a majority of the population was never convinced about COVID 19 but sceptical about the pandemic. This contributed to the speed at which a community infection spread, with some of the states, such as Kaduna, Kano and Borno, recording a large number of infections and even deaths, especially Kano, which experienced what came to be tagged as mysterious deaths in which there was a sharp spike in the number of fatalities in the state, which probably were the peak of the COVID pandemic in the state.

A number of factors were responsible for this attitude by citizens, the most critical being the loss of trust between citizens and their governments. For years, governments have lied to their citizens such that they no longer believe what governments say. Thus, when governments went out with messages that COVID was real and dangerous, the unconvinced citizens read this to mean that governments wanted to use this as a cover to further their pillaging of the public treasury. They did not believe and many were not willing to observe the precautionary advisory measures that the National Centre for Disease Control (NCDC) had issued.

Matters were made worse as state governments announced lockdown orders without adequate plans and arrangements to cushion the effect through an effective and transparent delivery of palliatives, especially for the urban poor, who on a daily basis had to earn their sustenance outside their homes. The result was an ineffective lockdown across the states providing the opportunity for further transmission of the COVID while citizens battled extortion from law enforcement agents trying to

enforce compliance with the lockdown. This only helped to further drive the gap between the governments and their traumatized population.

The lack of trust is not just between citizens and governments, but also within government, which shows that government itself does not trust itself or at least some part of it. While people have died of COVID 19, many states play politics with the number of deaths from the virus. The Kogi State Governor lived in denial by insisting that there was no COVID in his state and arranged for officials of the NCDC to be chased away when they went to start testing for COVID 19. Some states were refusing to ramp up tests, just to give the impression that infection was low. Some are concealed confirmation. With this attitude, clearly government data became unreliable and data is the basis of an effective and coherent response to COVID 19. Moreover, the fact that governments were giving false messages means that they were reinforcing the narrative that COVID was not as serious as it was being presented. This further reinforced the attitude of the public in disobeying safety and preventive measures, leading to the collapse of the lockdown.

Still in some states, the situation was further complicated by violent conflicts. In Kaduna and Plateau, for instance, criminals and hoodlums used the lockdown to unleash mayhem on some communities. On the other hand, in places like Borno and Zamfara States, the activities of insurgents and bandits made it difficult to observe the lockdown as well as the precautionary advisory protocols of NCDC.

By and large, there were many successful campaigns which sensitized people across many of these states by non-state actors. By the time the vaccine search yielded results made available to the public, the attitude among the unconvinced was that the vaccine was unnecessary. Across the states in the north, the attitude to the COVID 19 vaccine can be described as a multi-layered attitudinal response consisting of three

overlapping attitudes, namely:

1. Vaccine resistance: was driven by three issues.
 - a. One more common among the urban poor was lack of trust in government. It was common to hear people say that they could not be given palliatives yet they wanted them to accept injection (get vaccinated). Then, it must be a bad thing.
 - b. The rural poor who found it difficult to accept that COVID 19 was real, therefore, saw no reason for taking an injection to prevent themselves against it.
 - c. The previous history of Pfizer, which tested an unapproved drug in Kano that resulted in many people becoming disabled and others dying as a result, further complicated the disbelieve in the virus and its vaccine.

Many people thought that it was deliberate and developed an attitude not to accept any vaccination, especially in this case. The name Pfizer was frequently cited

2. **Vaccine hesitancy:** this was largely among the elites, who, although they accepted that COVID was real, they have doubts as to the efficacy of drugs. This arose due to misinformation that cast doubts about the drugs, the misrepresentations of incidences and the ambiguous statements of some government officials or healthcare professionals.
3. **Vaccine Information Gap:** this was more acute in the city and other urban centres. People were not sure of where and when to go and take the jab. There was no sufficient information on that.
4. **Vaccine accountability gaps:** a lot of money was going into the procurement, distribution and administration of the vaccine. There was no transparency in these processes. How can

government be held accountable on this?

The reality of vaccine resistance and hesitancy can be seen from the performance of some of the states using data from the primary healthcare development agency. Although the volume of vaccine distribution to the state was small, utilisation of this has also been slow. For example, with a population of 9,401,288, Kano State was allocated a total of 209520 pieces for the first jab. However, a month after the take-off of the vaccination in the state, only 60460 by April 25, 2021 had been used. Similarly, Kaduna State with a population of 6,113,503 got only 180000 vaccine and had used 60918 by April 25, 2021. Although NPHCDA said it passed 50% of its target in both states, it was clear that this was an insignificant number for the population. The figure presents the performance of some selected states in the region along with their combined performance.

Apart from the fact that none of the states had actually exhausted more than half of its allocation, we can see that at the beginning, perhaps due to the publicity generated by the images of Governors taking the vaccine in public, the number of the people who turned up initially was larger than later, as can be seen from the graph. In all the states, the numbers kept increasing until they nearly flattened around 3rd April with a very little increase daily. This increase can better be seen in the combine total where, in some states, it is almost flat (Zamfara, for instance).

Clearly, there is a huge inertia in accepting the vaccine, which needs to be overcome if the country is not to continue for a long stay without hope for the exit of the pandemic period. This is because unconvinced people in the context in which all the protocols, such as social distancing, use of hand sanitizers, etc. have also been jettisoned by the larger population, would be susceptible to infection and continue also to infect other people,

Accordingly, the objectives of the intervention include:

1. Sensitize the public on vaccines safety and effectiveness to

combat vaccine resistance and hesitancy and increase the rate of vaccination acceptance in the state

2. Monitoring the deployment, distribution and use of vaccines in the states to promote accountability and transparency in the management of the vaccines.
3. Increase the level of information about access points for getting the vaccination.

The focus was the whole of the northern part of the country for better control and monitoring, in six more densely states, two from each were chosen of the three zones of the region. The states were selected on the basis of the following criteria:

1. Must have clear evidence of mistrust between government and its citizens
2. Must be where the pandemic had hit hard with a large case of infection at community levels
3. States that experienced conflicts at the time of the pandemic
4. And states where the Governor is or government action has been most instrumental to the spread of doubt about both the virus and the vaccines.

With respect to 1 and 2, Kano, Kaduna, Borno, Bauchi, Plateau and FCT qualified eminently. With 3, Plateau, Kaduna and Borno Zamfara and Benue qualified as well.

With respect to 4, Kogi is the most eminent candidate. In fact, the state was an extreme case where testing could not be done due to the state government's negative attitude. On the basis of the combined criteria, the following states stand as the appropriate candidates:

- North East (Bauchi and Borno)
- Northwest (Kano and Kaduna)
- North Central (Plateau and Kogi)

1. A DESCRIPTION OF ACTIVITIES

Radio Programmes: radio is a major source of information that is seen with credibility. A one hour live complimentary weekly interactive radio programme in one radio station per state for a duration of two quarters (that is, 24 weeks) was aired featuring health practitioners, commentators, religious and traditional leaders, etc to enlighten and educate the public on the efficacy of the vaccine and promote its uptake. The languages to be used were the dominant ones spoken in the given states. Each edition featured a guest with relevant experience and knowledge to help to drive the message about vaccine safety and efficacy. Each episode started with a quick rundown of vaccination performance for that week and ended up with a listing of vaccination access points to guide people on where to go and get vaccinated.

Social Media Engagements: social media was used, especially to reach out to youth with target audience about vaccine safety and efficacy and where people can go for vaccination. This was done on a daily basis posting on Twitter and Facebook. Weekly Twitter chats with professionals or relevant government officials asking them questions that the public need to know were facilitated. Additionally, CITAD online radio ran a daily one hour radio programme educating the public on the need to take the vaccine. Guests were mainly young people, influencers and women, who talked about the vaccine and shared their experience.

Monitoring of Vaccine Distribution and Use: the goal of this was to promote accountability in the health sector. To monitor the deployment, distribution and use of the vaccine, CITAD used a crowd-source map and mapped all the vaccination access points in the states and created directional fliers to guide people to locations to get vaccinated. On every tracking interval, a trained volunteer uploaded data, such as the number of vaccinations carried out, recording key and critical incidences, etc. at that point. The project and additional points of access to the vaccination were established and added to the map

while those that became dormant or were not functioning were noted. The data was analysed over time to reveal areas where there was slow or poor response to vaccination such that sensitization and other actions could be taken.

Vaccine Veracity Youth Ambassadors in Action: three youth from each of the states from the north (one of which must be a female) underwent a two-day training. The training was to enable them to understand non-professional issues about vaccine safety and efficacy and combat misinformation and disinformation about the vaccine. They were trained in the use of social media to disseminate messages about vaccine efficacy and enlighten people about misinformation related to the COVID19 vaccine. The participants were selected on the basis of an advertisement with clear selection criteria, including:

1. Must have active social media accounts (Twitter and Facebook).
2. Must be residents of any of the state from the North.
3. Must have a minimum of National Certificate in Education (NCE).
4. Must have the ability to write clearly in English (writing in an additional local language will be an advantage).
5. Must be willing and ready to meet the social media posting commitments of the programme.

After the training, they were supported with data at the rate of N5000 per week for a period of four weeks. Apart from the first week, data was given on the basis of performance by the ambassadors. They were required on a daily basis to create and post their own messages to a minimum of four on Twitter and two on Facebook. At the end of the four-week period, their performances were evaluated and the ones with the highest reach were given some gifts worth the following:

1. First place: equivalent of a gift worth N100,000
2. Second place: the equivalent of a gift worth N75,000
3. Third place: the equivalent of a gift worth N50,000.

Monitoring and Combating misinformation and disinformation about the Vaccine: a multi-channel tracking and dissemination strategy was developed on a daily basis to scan the media space (Print, radio and social media) and pick out misinformation and disinformation about vaccines and subjected to a counter factual narrative and then disseminated using the same channels in which they were propagated. In countering misinformation and disinformation, the Staff of CITAD, the social influencers and the vaccine veracity ambassadors were used to populate the given channels.

Influencers: social influencers with reach and credibility were leveraged to disseminate key messages. One influencer was selected from each state and supported to create various sensitization and educational programmes to promote the acceptance of COVID 19 Vaccines.

Network of Elites: as mentioned earlier, vaccine hesitancy was largely prevalent among elites. However, in Kano, the elite also provided us with a major platform in responding to the challenges of the COVID 19 pre-vaccine period. This was through the establishment of Kano Against COVID, perhaps the largest non-state and private sector intervention platform in the country. Its membership cut across all the different segments of the country, including academics, media, journalists, business people, professionals, such as lawyers, traditional and religious leaders, leaders of civil society in the state, administrators and others in high positions within the public and private sector, etc. Its performance and reach during the pre-vaccine period made the government leverage its neoteric in mounting its own community sensitization programmes. In each of the six states CITAD looked for elite platforms, such as Kano Against COVID, Interfaith Groups in Kaduna, etc. and partnered with religious groups, other elite groups, including professionals.

Partnering with State Governors: leveraging its work in Kano under Kano Against COVID and its partnership with the governments of Jigawa, Bauchi and Yobe States, CITAD worked with the Governor's Forum, a network of the 36 state Governors, to influence state structure for vaccine rollout and encourage synergy across the region, providing a platform for sensitization, information dissemination and on the ground assessment of critical incidences for timely responses by the state governments, extending information about access points for vaccination in the different states. This as we said in the monitoring sub-activity was available as an online map and people could just click to see the nearest point of vaccination to them. This information was regularly broadcast in the various radio programmes that supported as well as disseminated in the social media. As part of the partnership with the Governors, we convened meetings of Heads of the State Primary Healthcare Agencies to share their experiences, understand the progress they were making with respect to the vaccination and response to the problems they encountered. In addition, a one day-meeting of Commissioners of Health from the States was convened to compare strategies and outcome programmes.

Creation of short videos and fliers: here CITAD as an ICT-based organization used its experienced staff to create online fliers containing messages on safety and efficacy and the need to go for the Covid19 vaccine and disseminated them. In the same vain, short videos were created containing the above mentioned messages and shared on social media, most especially on WhatsApp groups.

Chapter 2:

Review of Northern States Experiences

Review of State Performances

A retrospective analysis of secondary data was used to review the Covid-19 vaccination records of some of the Northern States, which include Kano, Niger, Yobe, Bauchi, Plateau, Kwara, Benue, Zamfara, Katsina, Gombe, Taraba and Borno. The State recorded variable levels of successes in their efforts to vaccinate eligible population. Most of the States recorded measurable achievement in vaccine administration, supply and accountability in addition to improved service delivery. Despite the novelty of both Covid-19 and its vaccine, the northern states were able to significantly cover their Covid-19 vaccine eligible population due to sustained collaboration and partnership in addition to their respective governments' commitments.

The Impacts of the Intervention

Low risk perception regarding Covid-19 among the general public might have contributed to the vaccine hesitancy we experienced. However, the integration of COVID-19 vaccination with other primary health care services provided an opportunity to reach persons that were hitherto unreachable.

Intensification of advocacy, communication and social mobilization (ACSM) activities can greatly improve the health seeking behavior of our people, including the uptake of the COVID-19 vaccination. A perfect example of how most of the Northern states were able to achieve higher vaccination coverage is Kano State's rise from 57,277 to 2,052,261 million within 6 months (Husseini, 2023).

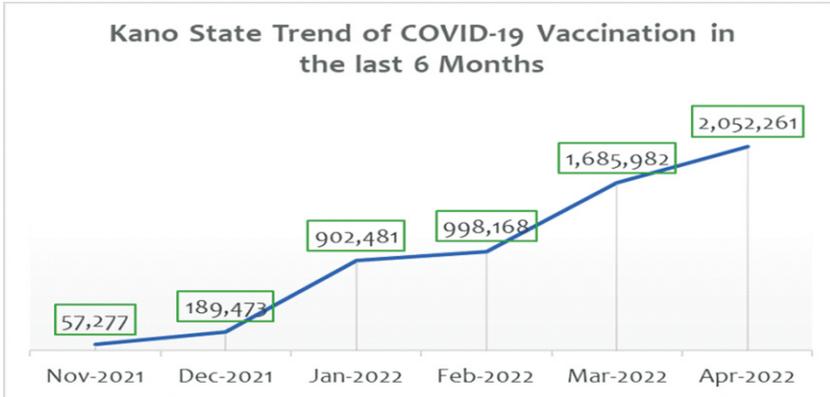


Figure 2.1: Trend of Covid-19 vaccination uptake from November to April 2022

Kano State was able to achieve

- i. The involvement of traditional and religious leaders is necessary in building trust in their subjects and followers in accepting the Covid-19 vaccination and other Covid-19 containment strategies
- ii. Training and retraining is a good strategy improvement in knowledge and addressing hesitancy to the Covid-19 vaccination uptake among health workers and other non-health stakeholders
- iii. Scale up in the number of vaccination teams and integration with routine immunization have been realized to be effective in reaching eligible individuals thereby increasing vaccination coverage
- iv. Developing a state harmonized work-plan has assisted in the effective coordination and utilization of resources
- v. Utilization of the social media platform really assisted in countering mis-information

Lessons Learnt from Kano State

From the inception of the Covid-19 vaccination in Kano State, the following lessons were learned:

1. The creation of the State Level Operations Room for COVID-19 Vaccination eased data transmission from LGAs to the National

Ops Room

2. Using the SPHCMB Zonal structure allowed for easy communication with and tracking of LGAs regarding Covid-19 vaccination
3. Sending SMS as a remainder and direct phone calls to clients in order to properly organize the 2nd dose Covid-19 vaccination increased the State vaccination coverage
4. Strong commitment and support from political leaders/traditional leaders significantly increased the Covid-19 vaccination uptake
5. A good turnout of clients for the Covid-19 vaccination was observed within the metropolitan LGAs of the State

The Challenges Encountered:

1. Inadequate and irregular supply of vaccines and devices
2. The high number of defaulters for 2nd dose Covid-19 vaccination in the State
3. District Health Information Software (DHIS 2) server fluctuations which resulted in a huge discrepancy between call-in data and Electronic Management of Information Data (EMID) data
4. Delay in reporting daily call-in data by some LGAs
5. Lack of dedicated budget for the State Operational room personnel
6. Inadequate pre-shipment information
7. Delay and the over-centralization of payments
8. Due to centralized access to DHIS2 capture and inadequate resources, the State would not line-list and track all the clients due for the second dose.
9. Circulation of rumors and misconceptions about the Covid-19 vaccination
10. Inconsistencies in the budgets allocated (payments of allowances) for vaccination teams

Success Stories

Giving a direct power to the State Immunization Officer (SIO) to take action on any matter arising regarding COVID-19 vaccination at all levels

1. Meeting with all the relevant stakeholders, including Zonal & LGA teams to re-strategize the Covid-19 vaccination.
2. Close monitoring of vaccination teams at all levels, including LGA personnel
3. Daily Operations Room meeting at the State level
4. Regular update meetings with relevant stakeholders at State level
5. Conduct Rallies in Market places, supermalls and other social gatherings to vaccinate eligible clients for Covid-19 vaccination
6. Visits / Vaccinations at strategic places, including Health Institutions, Industries, Banks, Juma'at Masjids, Airports, Pilgrims camps, etc.

Zamfara State Intervention Impact

Zamfara State recorded a gradual and sustained increase in vaccination coverage over the six months review period from April to September 2022 in the administration of the first dose as shown in figure 2.2. A similar outcome was achieved in the administration of the second dose. However, by September the stock of other antigens got exhausted due to the State and National adoption of using Johnson & Johnson nationwide.

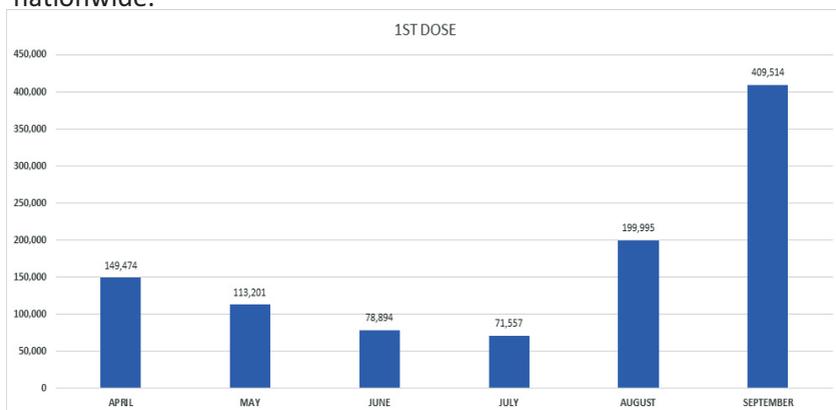


Figure 2. 2: Trends of first dose uptake from April to September 2022 in Zamfara State

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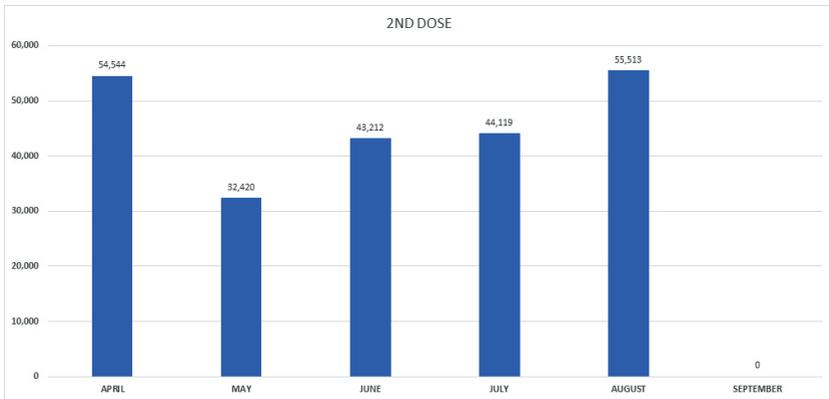


Figure 2. 3: Trends of second dose uptake from April to September 2022 in Zamfara State.

The trend of the second dose vaccination and how it is reported changed significantly, as Johnson and Johnson provides full vaccination. Hence, it is recorded under the second dose while the next dose of the antigen is considered as the booster dose accordingly:

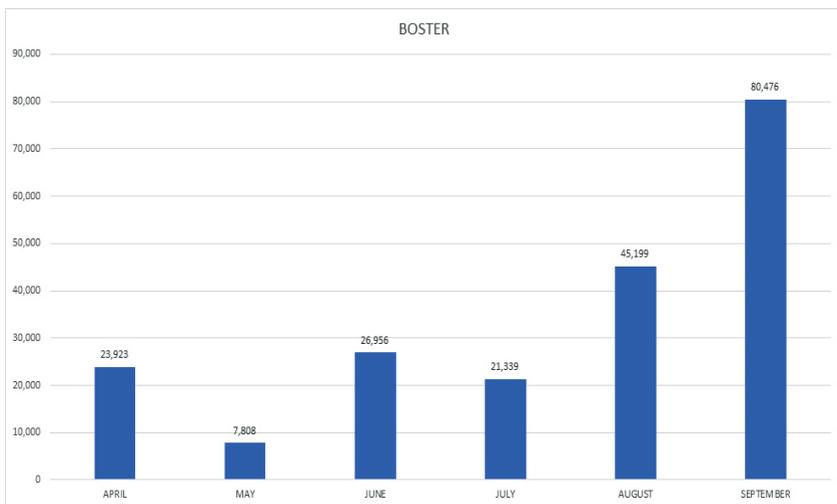


Figure 2. 3: Trends of booster dose uptake from April to September 2022 in Zamfara State.

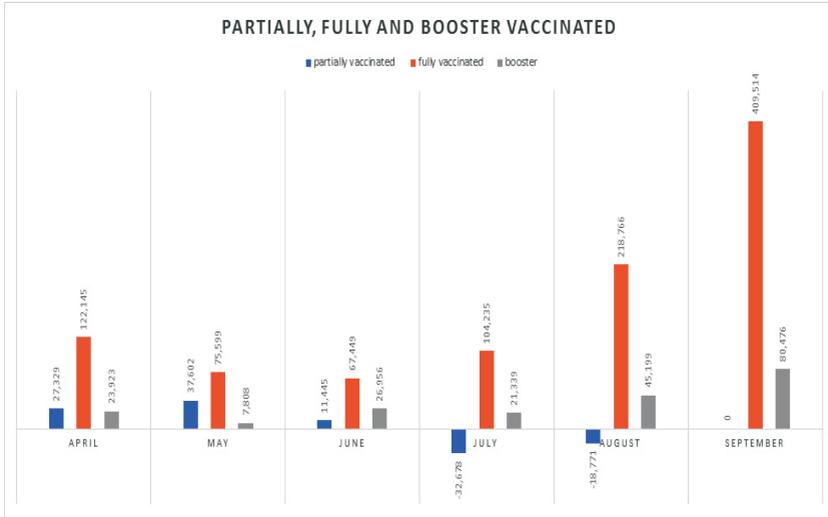
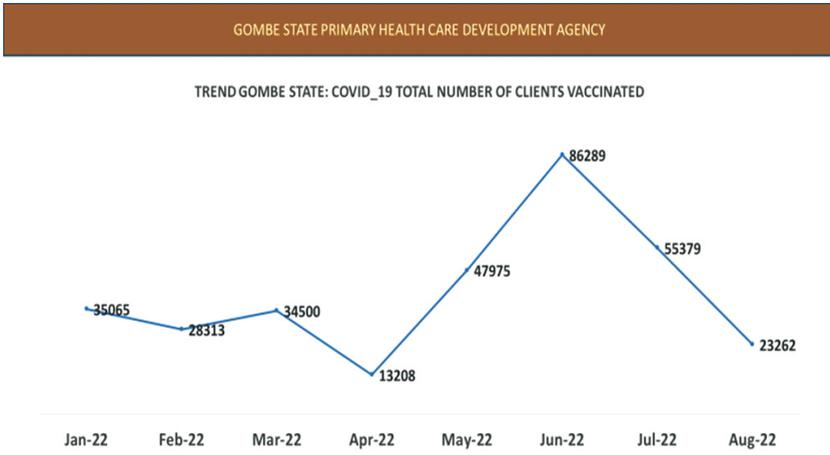


Figure 2. 4: Trends of first, full and booster dose uptake from April to September 2022 in Zamfara State.

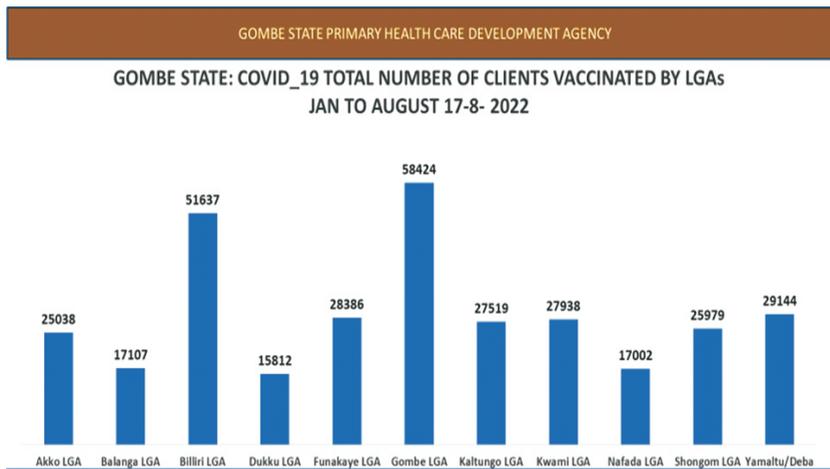
Gombe State's Intervention

Gombe State's intervention commenced with personnel training, stakeholder engagement and the adoption of both a work-plan and daily implementation plans. These were then proceeded by the deployment of vaccines and data collection tools, including supervisors at State-level and from partners (AbdulRahman, 2023).

The State was able to achieve its current vaccination coverage due partly to the political will of the State Government and partnership and the collaboration of NPHCDA, WHO, UNICEF, NAFDAC, NOA and the security personnel. Daily vaccination data was not reported by the teams in the field to the State for validation and onward transmission to the National. The State initially adopted the integration of the measles, meningitis, yellow fever mass vaccination campaign; these contributed significantly to the vaccination coverage achieved between June and July 2022 across all the LGAs.



2.5: Gombe State Trend in the total number of vaccinated individuals per month from January to August 2022



2.6: Total Number of clients vaccinated segregated by LGA from January to August 2022

Bauchi State Intervention Impact

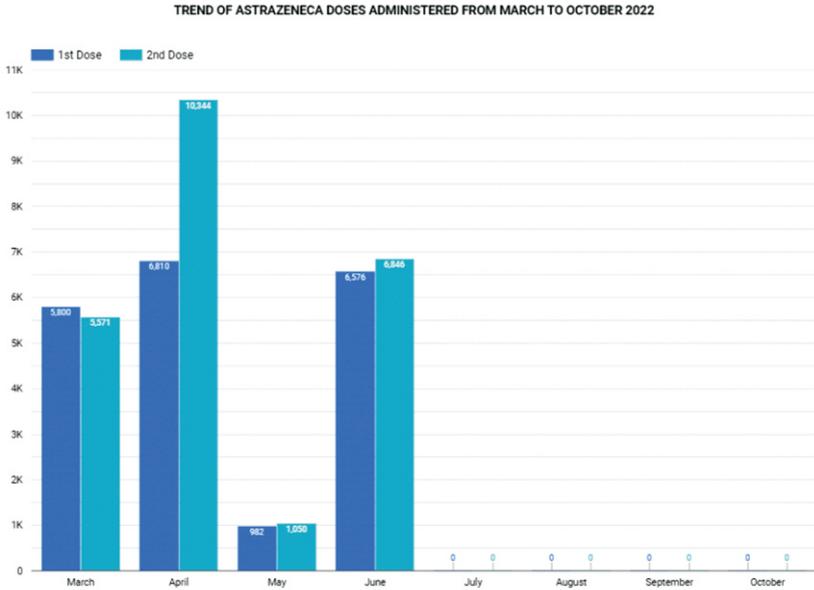
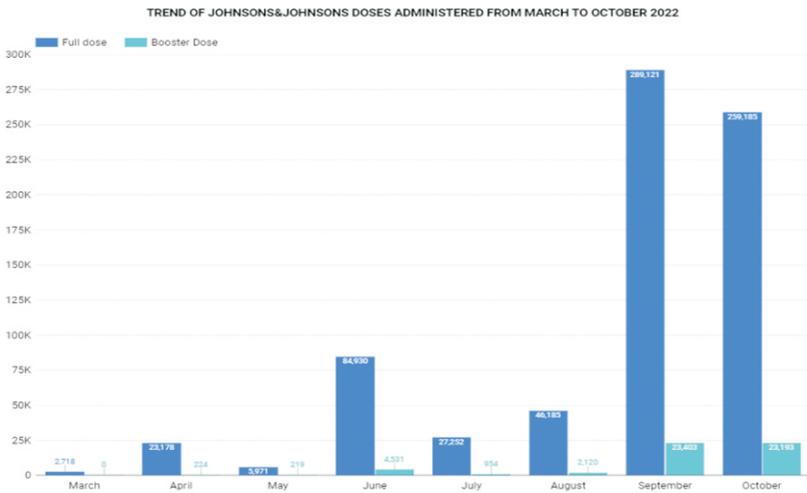


Figure 2.7: Trend of Oxford-Astrazeneca doses administered from March to October 2022 in Bauchi State



2.8: Trend of Pfizer dose administered from March to October 2022 in Bauchi State

TREND OF JOHNSON & JOHNSON FROM MARCH 2022 TO OCTOBER 2022

Lessons Learnt in Bauchi State

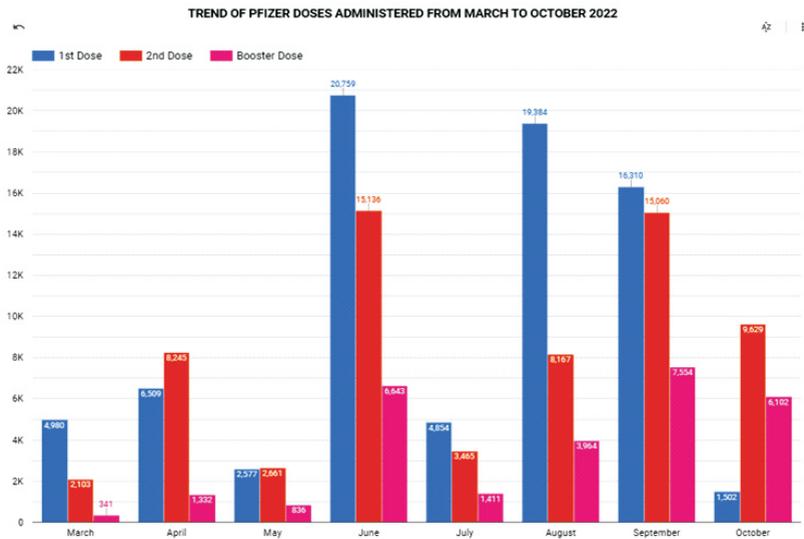


Figure 2.9: Trend of Pfizer doses administered as first, second and booster doses from March to October 2022 in Bauchi State.

Lessons learned during the vaccine administration in Bauchi State:

1. Involvement of traditional and religious leaders is necessary in building trust in their subjects and followers in the accepting Covid-19 vaccination and other Covid-19 containment strategies
2. Training and retraining is a good strategy improvement in knowledge and addressing hesitancy to the Covid-19 vaccination uptake among health workers and other non-health stakeholders
3. Scale up in the number of Vaccination teams and integration with routine immunization were realized to be effective in reaching eligible individuals, thereby increasing the vaccination coverage

4. Developing a state harmonized work-plan has assisted in effective coordination and utilization of resources.
5. Utilization of the social media platform really in assisted in countering mis-information

Success stories

The engagement of additional Covid-19 vaccination teams by the World Health Organization (WHO), United Nations International Children's Emergency Fund (UNICEF), Achieving Health in Nigeria Initiative (AHNi), Centre for Disease Control African Field Epidemiology Network (CDC AFENET), Alliance for International Medical Action (ALIMA), etc greatly increased our coverage, especially in high volume health facilities and their catchment populations.

Engagement of traditional and religious leaders, CHIPS agents, VCMs, CNMs, CORPs, and other community structures for demand creation on Covid-19 and other PHC services. Intensification of supervision by state team members.

Bi-weekly virtual review meeting with LGA PHC Directors, state officers and partners chaired by the Executive Secretary. This provided the opportunity to closely monitor the progress and challenges of all the LGAs and helped us to provide timely feedback and recommendations for improvement. Action points are generated and tracked.

Active participation of LGA Chairmen and traditional leaders in the mobilization of the population.

Weekly live radio call-in programmes where people are not only provided one-way information but allowed to raise their concerns or ask questions and get them addressed. This has boosted the confidence of the population and improved the Covid-19 vaccine uptake

Performance-based incentives. A scorecard was developed and LGAs and wards are ranked. Review of the scorecard has been made an agenda item in all meetings of the State Task Force on Immunization and

other PHC Services, which is chaired by His Excellency the Deputy Governor of Yobe State. Top performing LGAs are recognized and presented with awards.

Challenges

Fatigue and the poor motivation of vaccination team members as a result of the delayed payment of their logistic funds and allowances greatly slowed down our progress.

Weak supervision of vaccination teams by LGA and state supervisors because of delayed and/or inadequate logistic support.

Sub-optimal Advocacy, Communication & Social Mobilization (ACSM) activities at the last mile because of the paucity of funds.

Negative rumors circulating with regards to safety and long-term effects of the Covid-19 vaccines had a serious impact on vaccination uptake by the population in the initial periods of the mass vaccination campaign. We countered this with intensified ACSM activities and getting His Excellency the Executive Governor of Yobe State, Hon. Mai Mala Buni, and other top government functionaries (including all our Emirs and LGA Chairmen) to publicly take the Covid-19 vaccine and provide reassurance to the general public.

Inadequate number of teams allocated to Yobe State by NPHCDA, rumors and misconceptions accentuated vaccine hesitancy and slowed our progress with the Covid-19 vaccination exercise.

Inadequate team allocation by NPHCDA Logistic challenges, especially the delayed payment of teams and supervisors. Data discrepancy between EMID and call-in data.

General Recommendations

- Ensure timely payment to vaccination team members
- Intensify ACSM activities at all levels
- Sustain two-way interaction with the population to get

feedback on how best the communities need to be served/reached.

- Ensure proper coordination of all the Covid-19 vaccination activities of all organizations to improve efficiency, reduce duplications or wastages and ensure equity.

With improved funding support, greater community mobilization and increased synergy/ coordination, we can greatly accelerate the Covid-19 vaccination coverage in Yobe State and Nigeria as a whole.

Impacts of Interventions

Success Stories

Giving direct power to SIO to take action on any matter arising regarding Covid-19 vaccination at all levels. Meeting with all relevant stakeholders, including Zonal & LGA teams to re-strategize Covid-19 vaccination. Close monitoring of vaccination teams at all levels, including LGA personnel. Daily Operations Room meeting at the State level

Regular update meetings with relevant stakeholders at the State level

Conduct Rallies in Market places, supermalls and other social gatherings to vaccinate eligible clients for Covid-19 vaccination

Visits / Vaccinations at strategic places, including Health Institutions, Industries, Banks, Juma'at Masjids, Airports, Pilgrims, etc.

Best Practices

The creation of a State Level Operation Room for Covid-19 Vaccination

The establishment of Covid-19-night vaccination to increase uptake

Sending SMS as a remainder and direct phone calls to properly organize the 2nd dose Covid-19 vaccination and also track defaulters

Strong commitment and support from political leaders/traditional leaders

Engagement of famous celebrities to create demand and increase the uptake of Covid-19 vaccination.

Engagements including Radio & TV stations, social media, etc., to create more awareness and address misconceptions on Covid-19 vaccination

Development and sharing short video clips on Covid-19 vaccination to increase uptake its uptake and minimize vaccine hesitancy

Advocacy visits to 5 Emirate councils of Kano State to create more demand for and increase the uptake of Covid-19 vaccination

Challenges

Inadequate and irregular supply of vaccines and devices

The high number of defaulters for Covid-19 2nd dose vaccination in the State

DHIS 2 server fluctuations, which resulted in a huge discrepancy between call-in data and EMID data

Delay in reporting daily call-in data by some LGAs

Lack of a dedicated budget for the State Ops room personnel

Inadequate pre-shipment information

Delay and the over-centralization of payments

Due to centralized access to DHIS2 capture and inadequate resources, the State cannot line-list and track all the clients due for the second dose

Circulation of rumors and misconceptions about Covid-19 vaccination

Inconsistencies in the budgets allocated (payments of allowances) for vaccination teams

Recommendations

1. Creation of a State Level Operation Room for Covid-19 Vaccination
2. The establishment of Covid-19-night vaccination to increase uptake
3. Sending SMS as a remainder and direct phone calls to properly organize the 2nd dose of the Covid-19 vaccination and also track defaulters
4. Strong commitment and support from political leaders/traditional leaders
5. Engagement of famous celebrities to create demand and increase the uptake of Covid-19 vaccination
6. Media engagements, including Radio & TV stations, social media, etc., to create more awareness and address misconceptions on Covid-19 vaccination.
7. Development and sharing short video clips on Covid-19 vaccination to increase its uptake and minimize vaccine hesitancy

Advocacy visits to 5 Emirate councils of Kano State to create more demand for and increase the uptake of Covid-19 vaccination

Re-strategizing for the Better

In order re-strategize for Covid-19 vaccination, the following could be employed: the lintegration of Covid-19 vaccination with other PHC services. Regular supportive supervision of vaccination sites

Intensify client upload into the DHIS 2 server. Ensure timely payments of personnel what specific issues might have hindered your progress in

recording higher vaccine uptake.

Delay in allocating/giving approval for the engagement of additional vaccination teams for Covid-19 vaccination

Inadequate and irregular supply of vaccines and devices

General recommendations

There should be regular defaulters tracking through sending SMS reminders and direct phone calls to eligible clients for the 2nd dose vaccination

The State EMID FPs should follow up with all EMID recorders to intensify the upload of clients into the DHIS 2 server

LGAs should ensure timely submission of daily call-in data to the State Ops Room

The State should request for the inclusion of a budget for the State Operations room personnel

These should be a timely notification on pre-shipment information with the State

The National should decentralize personnel payments for Covid-19 Vaccination and ensure its timely release

The State should request access to DHIS 2 capture to line-list and track clients due for the 2nd dose

Social mobilization teams should develop strategies to address the rumors and misconceptions about Covid-19 vaccination

CHART SHOWING VACCINATION TREND IN NIGER STATE APRIL, 2021 TO JANUARY, 2022

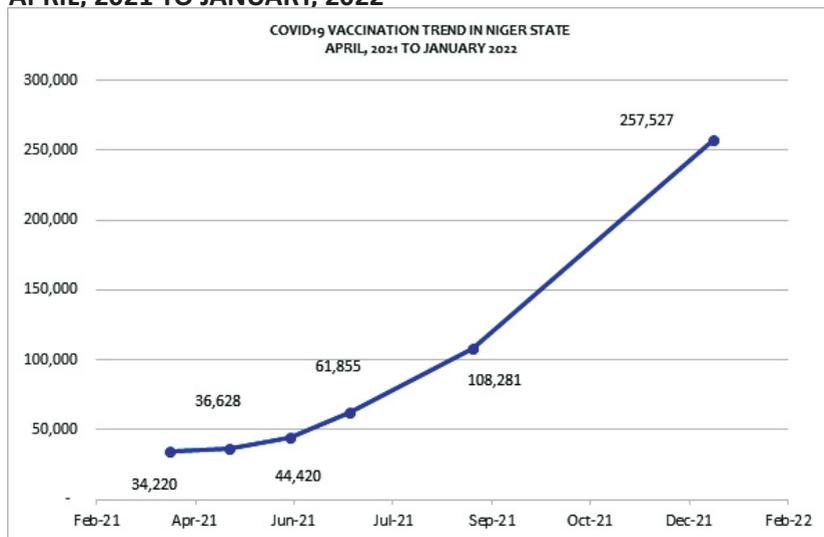


Figure 2.10: Niger State trend of Covid-19 vaccination from February 2021 to December 2021 in Niger State.

Borno State

The Borno State Primary Health Care Development Agency since its establishment has continuously collaborated with PHC program implementation donors and partners either through an MoU or direct support to strategically design and implement RI interventions that will increase the overall PHC coverage across 27 LGAs taking into cognizance the geographical peculiarities and security status of every Settlement (Mala, 2023).

The structure of the state's health service delivery is tied along the primary, secondary and tertiary levels of care. Health Care Service provision is one of the indicators of sustainable development goals with the aims of achieving universal health coverage

The primary level of health care is the entry point and the lowest level of health care to the people.

Categories of settlements

In view of the aforementioned, the service delivery interventions in the state are implemented across 3-categories of settlements;

- Fully Accessible
- Partially Accessible
- Inaccessible Settlements

Accessible settlements: Settlements that can be reached without any security support

? **Fixed session:** Fixed-site service delivered across Primary Health Care facilities in settlements that are less than 2km from the health facilities based on a defined quarterly micro plan and weekly session plan.

? **Outreach session:** This is currently being prioritized for routine immunization and COVID-19 vaccination across the settlements in the state. Outreach Service involves Health Facility staff and volunteers providing immunizations services across settlements within 2km-5km from health facilities on well publicized dates and at well-known locations

? **Mobile session:** Mobile service involves a team going to settlements that are greater than 5km or remote/ hard-to-reach parts of an area and staying there for more than one day to deliver immunizations, for example, to pastoral or nomadic communities.

? **Integrated PHC service delivery:** The SPHCDA is currently supporting the pilot of an integrated PHC service delivery across 15 health facilities in 8 LGAs, where some prioritized PHC services are provided during fixed (ANC, Family planning, Nutrition, Routine Immunizations, IMCI and malaria services)

and outreach sessions (Nutrition, Family planning, Routine Immunization and IMCI) on the same day to improve access to PHC services

- ? **Integrated Campaigns:** Leveraging on immunization campaigns to provide integrated PHC services such as Malaria and Nutrition as well as defaulter tracking, linkage and referrals
- ? **RI intensification activities (zero-dose strategy, PIRI):** Routine review of data to plan and implement additional outreach sessions targeted at zero dose, poor performing and underserved settlements (mostly during weekends)

Partially accessible settlements: Settlements that can be reached with at least CTJF or fewer military support

Since 2018, Borno SPHCDA has implemented the RI Expansion strategy to reach children in partially accessible settlements with routine immunizations that has contributed to expanding access to PHC services to these settlements while also improving the overall RI performance.

The strategy is implemented in two different approaches, which are:

- ? **Mobile RI /Hit and run strategy:** Health workers sweep through contiguous partially accessible settlements delivering RI services
- ? **Integrated fixed post strategy:** Health workers delivers RI and other PHC services (ANC, Malaria, IMCI, Nutrition and family planning) to communities mobilized from contiguous partially accessible settlements at a post in “relatively safe focal” zone

Inaccessible Settlements

Settlements that can be reached with full security personnel (military support), the consistent reports of outbreak led to the Global Polio Eradication Initiative (GPEI) partners and the Government of Borno state to set up the Reach Every Settlement and Reaching Inaccessible

Children (RES & RIC) interventions to expand polio vaccination and surveillance to settlements that are inaccessible to regular vaccination teams. The government collaborated with the military personnel by training them to administer polio vaccination and conduct basic AFP surveillance activities in the inaccessible settlements

2. Provide vaccination data for the period of six months that can be used to show the trend in the vaccination progress of the state.

Routine Immunization as a whole recorded a substantial decrease in the impact on the PEI in the State due to the insurgent activities and weather.

As at December 2022, there was a total of 436 functional health facilities in the state with 399 health facilities offering routine immunization. In total, of 388 functional public health facilities with 354 offered RI whereas a total of 39 functional Secondary & Private health facilities with 18 facilities offered RI in the state.

The Impact of Covid-19 Vaccination Intervention in Borno State

Borno State vaccination data records a slide decrease across all the antigens in the last 2 quarters of 2022. 23,584 children were vaccinated for BCG in August and 20,494 in December, 2022.

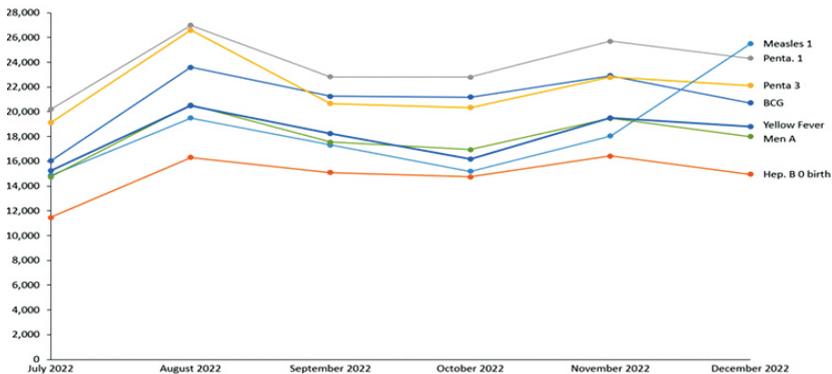


Figure 2.11: Borno State Covid 19 and RI Vaccination record from June to December 2022

Lessons Learnt

Borno State encountered the challenge of the high cost of implementing the RIC/RES Strategy, especially across security compromised areas. The high cost of implementation was largely due to knowledge gap, logistic and transportation challenges especially during RIC implementation.

Other identified lessons during the time of review included lack of direct oversight on the RIC implementation activities due to inaccessibility for civilians due to the security compromised setting (Mala, 2023).

Challenges Encountered

Limited financial resources and security challenges due to the ongoing Boko Haram insurgency are the major constraints encountered in Borno State. The dynamic Security situation within the region particularly affected team deployment and the actual implementation of Covid-19 vaccination in security compromised areas of the State. Other challenges include the lack of human resource for health and inadequate infrastructure.

The Borno State Primary Health Care Development Agency also encountered non-compliance for services and difficulties in vaccine and cold chain management. These challenges were due to the massive destruction of the National grid and other related infrastructures in the State.

Success Stories

In addition to the good vaccination coverage achieved for Covid-19 in the State, the State was able to achieve Polio eradication and was also the best performing State during the yellow fever campaign of 2022. Borno was also the best Performing State for the early initiation of breastfeeding in the recently conducted PAPA LQAS Q4 2022.

Things to Copy from Your State: Inaccessible Settlements

In inaccessible settlements, the RIC Strategy was used to reach unsafe settlements that could only be accessed by the military to reach the trapped populations via military engagement. The military would visit security-compromised settlements to either evacuate or vaccinate inhabitants as well as actively search for AFP cases. All teams implementing teams will be trained prior to the commencement of each implementation round to ensure the team was up to date on what was expected from them.

Kwara State

Review of Kwara State Covid-19 Vaccination Experiences

A major initiative of the Kwara State Primary Healthcare Development Agency, was the establishment of the First Mass Vaccination site in the country. A mass vaccination site was set up within the premises of the State Ministry of Health and it became the go-to place to get the Covid-19 vaccines in the State.

An average of 2000 people are vaccinated daily. Development Partners including UNICEF, WHO, USAID and USCDC-AFENET, supported the mass vaccination campaigns in the State in terms of funding training and advocacy/communication/ social mobilization as well as stipends for vaccination teams.

Worthy of mention is the good practice instituted at late 2021 by CDC-AFENET, which was the performance-based team deployment. Teams were given daily targets to vaccinate and were rewarded with much improved stipends based on targets reached. This tremendously increased our performance in the state (Elelu, 2023).

For hard-to-reach settlements, we recruited teams that were familiar with the terrain for ease of access. Furthermore, other PHC

interventions were also integrated with the Covid-19 vaccination, especially within those hard-to-reach areas.

All our advocacy visits were carried out the out-bottom-up approach with the involvement of community stakeholders at the grass root. We were able to increase vaccine acceptance due to the trust the people had in their community leaders. This increased our coverage substantially (Elelu, 2023).

Lessons Learned

The Kwara State government took ownership and provided necessary leadership for the vaccination exercise. These included the prompt release of funds for additional teams as well as the personal involvement of the Chief Executive of the State and other stakeholders. A high-level advocacy and demand generation team was set up which included a First Class Emir, who is a medical personnel and seasoned administrator; the Permanent Secretary of the Ministry of Communication, Religious Leaders and Civil Society Organizations. This structure assisted in carrying all the stakeholders along (Elelu, 2023).

At the start-up of the campaign, the agency came up with innovative strategies to ensure high coverage for the vaccine by setting up a mass site at the headquarters with experienced medical personnel to respond to issues bordering on misconceptions and Adverse Events Following Immunization (AEFI). We also encouraged making the team highly mobile, with set daily targets per day (Elelu, 2023).

Challenges

Initial lack of logistics funds for the movement of vaccines from the LGAs to the vaccination posts. Increased frequency of vaccine logistics was needed due to the sensitive temperature requirement of the Covid-19 vaccines. This temperature requirement also limited the places we could take vaccines to, especially those without solar direct drive refrigerators (Elelu, 2023).

Also, initial lack of logistics and funds for team movement in hard-to-reach settlements. The funds available were inadequate to move teams to inaccessible terrains, leaving those areas uncovered (Elelu, 2023).

Getting qualified EMID e-recorders to reach the hinterlands; a lot of qualified team members are based in metropolitan LGAs. They were unwilling to move to the hinterlands where they were not residents to act as e-recorders due to additional cost. Thus to some areas we could not deploy teams.

Lack of the proficiency of some of the EMID e-recorders, as the few ones were not initially proficient especially in the rural LGAs. The State also experienced server downtime, resulting in non-synchronization of clients' data on the EMID Platform.

Insecurity was also a major challenge in some parts of Kwara State, such as Ekiti, Kaiama and Moro LGAs and some sporadic reports of community clashes and kidnapping. This affected the deployment of workers to some of the insecure places, although local vigilantes and security operatives were involved in the team at some point (Elelu, 2023).

Success Stories

Worthy of mention is the good practice instituted at late 2021 by CDC-AFENET, which was performance-based team deployment. Teams were given daily targets to vaccinate and rewarded with much improved stipends based on targets reached. This tremendously increased our performance in the state.

Kwara State also utilized the campus storm strategies that ensured we reached a large number of the eligible population. These campus storms were carried out within our higher education institutions. Students were involved in mobilizing fellow students within the campuses and mass sites located in strategic places for the ease of coverage (Elelu, 2023).

For hard-to-reach settlements, we recruited teams that were familiar with the terrain for ease of access. Furthermore, other PHC interventions were also integrated with the Covid-19 vaccination especially within those hard-to-reach areas.

Benue State

Review of Benue State Performance

The COVID-19 vaccination commenced in Benue state in March 2021 using the AstraZeneca vaccine.

AstraZeneca, Moderna, Pfizer and Johnson & Johnson vaccines were in use in the state.

Target population for Covid-19 vaccination was 3,241,298, being 50% of the Benue state total population.

The methodology for administration followed the WHO Strategic Advisory Group of Experts on Immunization 4 stage prioritization roadmap for vaccine administration where the COVID 19 vaccination was targeted into phases based on priority target groups:

Phase1- 1% Health care workers, supported staff, front-line workers & contingencies.

Phase2 - 10% persons 50yrs & above

Phase3 - 17% persons 18yrs - 49yrs

Rest eligible population as vaccines become available 23.4% focus on states & LGAs with highest disease burden (BESPHCDA, 2023).

Impacts of Covid-19 intervention

The Benue State COVID-19 vaccination Target population was 3,241,298 and the total number of citizens that received first dose was 310,488 while at least 10% of the target population received at least one dose of COVID-19 vaccines (BESPHCDA, 2023). The State made tremendous targeted at achieving 50% of Benue State total population, which is 3,241,298, to be able to achieve herd immunity (BESPHCDA, 2023).

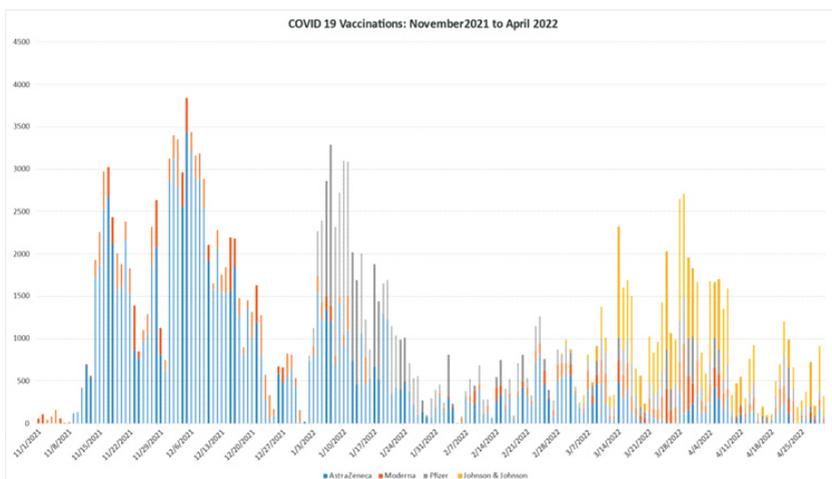


Figure 2.12: Benue State Covid-19 Vaccinations from November 2021 to April 2022

Lessons Learned

Team work consisting of all major stakeholders meeting daily to plan and implement the intervention and adoption of measures that would ensure infection prevention and control. The State adopted increased social mobilization activities to counterbalance harmful rumors and disinformation.

The State also collaborated with non-health stake-holders and applied a robust Monitoring & Evaluation activity, using technological innovations where necessary (BESPHCDA, 2023).

Challenges

Health workers' low uptake of the Covid-19 vaccine increased doubts among the general public and the refusal of the elites resulted in lack of trust in the vaccine, which led to disbelief over the existence of the COVID 19 disease. Vaccine safety efficacy concerned the inability of the vaccine to provide protection against all the known strains of COVID 19 (BESPHCDA, 2023).

The lack of adequate and well-known places of testing and the fear of adverse event following immunization discouraged a good number of individuals that were hitherto willing to receive the vaccine (BESPHCDA, 2023).

Success Stories

The availability of vaccines throughout the State and the accessibility of the vaccination teams deployed across the State resulted in a higher vaccination uptake.

Also, the good program integration and coordination resulted in team work among stakeholders and the vaccination teams resulted in the smooth conduct of vaccination activities state-wide (BESPHCDA, 2023). The improved/increased social mobilization activities engaging traditional chiefs for community participation, involvement and ownership in the COVID 19 uptake as practiced in the State is instrumental to the level of success recorded.

Benue State increased the total number of teams reaching every ward and resulted in increased coverage and vaccination uptake.

Chapter 3:

Methodology

The methodology employed for the review is a quantitative retrospective analysis of the data obtained from the various northern State's presentation of the various Primary Health Care Development Agencies/ Boards. No sample size was required as all the data reported is considered. The overall population of the various State inhabitants that are vaccine eligible were considered as the target population of the review; while the estimated population of all the States by demographical characteristics, gender and age group of the vaccine eligible population was obtained from the States.

Review Approach

A Retrospective Quantitative review of secondary data was used to study, review and analyze presentations made by the various Chairmen of the Northern State Primary Health Care Development Agencies/Boards

Most State presentations were able to achieve improved vaccination coverage due to the adoption of numerous strategies, which include sorting out for their respective State Government's political will, which invariably assisted the various Agencies/Boards in reaching out to the targeted populations. Most States integrated Covid-19 services to RI and other services at PHCs and carried out supportive supervisions in addition to embarking on intensification exercise. In some States, the AAR system was adopted where reminders of scheduled vaccination uptake of either second or booster doses were sent to clients registered phone numbers directly in addition to the role played by traditional institutions and the adoption of night vaccination in some states that contributed to the significant boost in vaccination coverage (Husseini, 2023).

The States intensified uploading vaccination records on the DHIS2 server and ensured the timely payment of vaccination teams in addition to ensuring regular supply of vaccines, data collection tools and devices. Most States used the GIS to determine communities and settlements with low vaccination uptakes and deploy teams in an effort to avoid the oversaturation of communities that had hitherto taken the vaccine over time.

In some States like Plateau, State teams adopted a strategy where all 50 vaccination teams were deployed to only 3 LGAs for a particular period of time to ensure increase in coverage and the achievement of vaccination targets (Miapkwap, 2023).

Chapter 4:

Review Results/Findings

Most States achieved impressive improvement in terms of vaccination coverage and appreciable increase in the Covid-19 vaccination uptake across Northern Nigeria. There all States recorded increased Covid-19 vaccination uptake following an intensification exercise. For instance, Plateau State recorded 23,424 covid vaccinations in just 12 days within which the State embarked in an intensification exercise (Miapkwap, 2023). From May to August 2022, Plateau transmitted from the 22nd position in terms of Covid-19 vaccination coverage to the 8th position and was bale to achieve a significant boost in vaccination uptake in six months from 28,969 in January 2022 to 327,910 in July 2022, as shown in the trend analysis in figure 4.1 below:

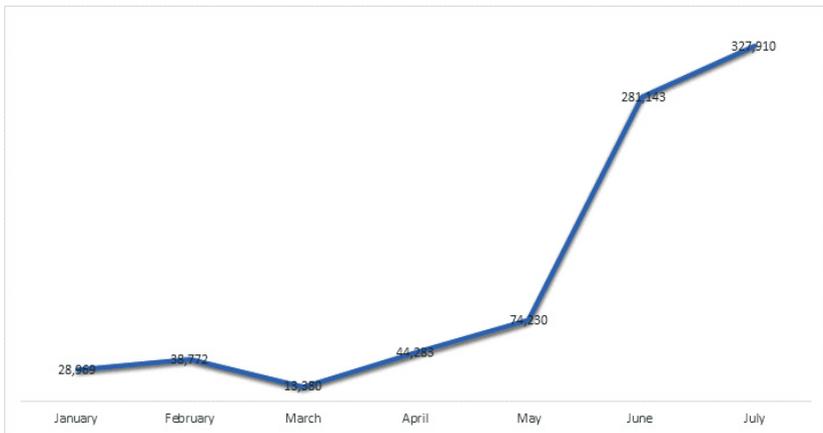


Figure 4.1: Trend analysis showing steady rise in Covid-19 vaccination uptake in Plateau State, North Central-Nigeria.

In like manner, Kano State was able to vaccinate over 2 million of its vaccine eligible population within a 6 month duration. The State was able to achieve that feat because the Primary Health Care Development Agency has given full authority to the SIO and other relevant zonal and LGA stakeholders to re-strategize, monitor and conduct update/review meetings, which invariably provided feedback to the State Operation Room (Husseini, 2023).

The State adopted a strategy that promoted Covid-19 vaccination at public places, market squares, malls, and social gatherings in addition to the deployment of vaccination teams to tertiary institutions, airports, Juma'at Mosques, etc.

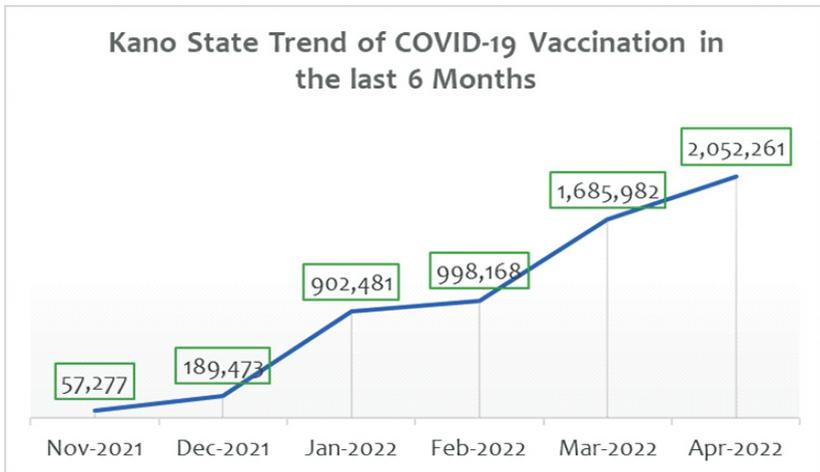


Figure 4.2: Trend analysis indicating a steep rise in Covid-19 vaccination uptake in Kano State from November 2021 to April 2022.

Bauchi State was able to record an unprecedented level of success using religious leaders to promote Covid-19 vaccine safety in radio stations, public engagements, and mosques/churches to convince the vaccine eligible population to take up Covid-19 vaccine. The State provided public enlightenment and knowledge through its health workforce to countered Covid-19 misinformation and disinformation in collaboration and partnership with development partners like CITAD, the United

States Agency for International Development-Integrated Health Project (USAID-IHP), Georgetown Global Health Nigeria (GGHN) and Breakthrough Action-Nigeria (BA-N) to address hesitancy and boost coverage. The State scaled up the total number of vaccination teams and deployed them to communities with low Covid-19 vaccine coverage (Mohammed, 2023).

The integration of routine immunization and other PHC activities and the adoption of a state-wide harmonized work-plan assisted significantly in the coordination, monitoring, and evaluation of the State-wide Covid-19 vaccine uptake, which resulted in wider coverage and increased uptake.

The State recorded massive improvement in the Covid-19 vaccination uptake using Johnson & Johnson from March to October 2022, as shown in figure 4.3 below. The administration of other antigens tapered down due to the gradual phasing out of the antigens, as seen in the doses of Pfizer administered in the State in figure 4.4, which is applicable to all other antigens:

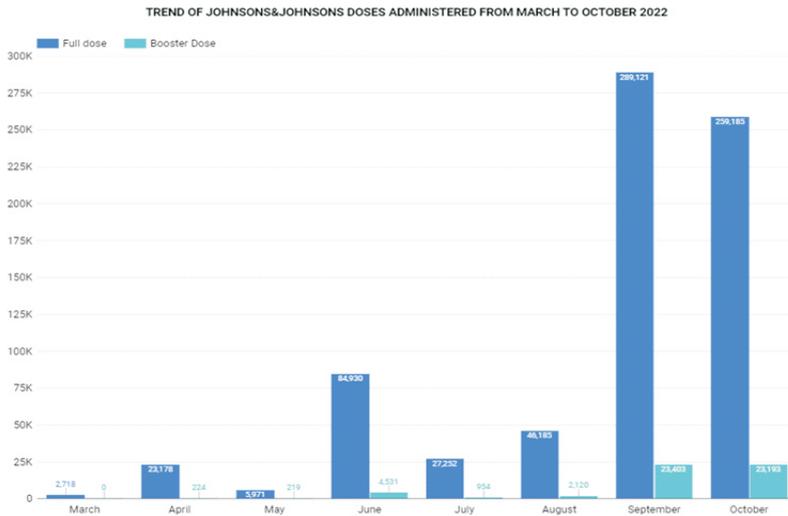


Figure 4.4: Trend of Johnson & Johnson administered in the State between March to October 2022

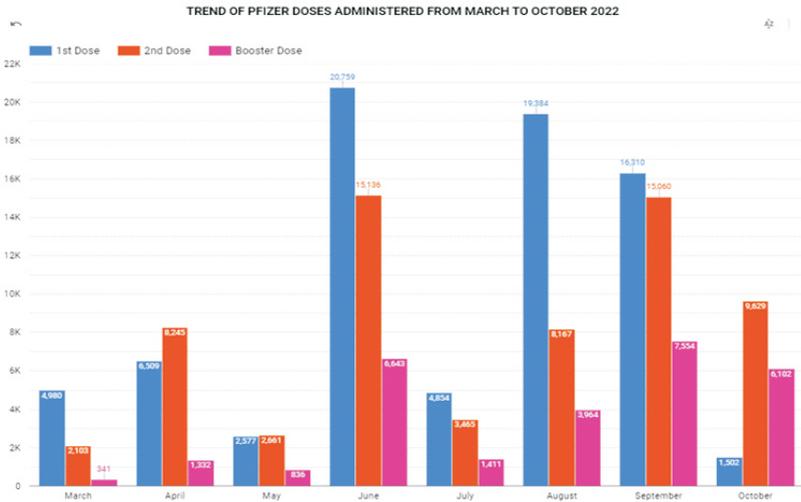


Figure 4.5: Trend of Pfizer doses administered from March to October 2022

Most States like Bauchi adopted the SCALES 3.) strategy, as directed by the National Primary Health Care Development Agency (NPHCDA), where RI services were integrated with Covid-19 vaccination activities, which resulted in the State transiting from 8% to 44% within the time of the review (Mohammed, 2023). The State used extensive community mobilization and the engagement of community resource groups to ensure continued awareness creation and community participation in Covid-19 intervention.

The Yobe State Primary Health Care Management Board was able to achieve increased Covid-19 vaccination across the 17 LGAs of the State through the engagement of additional vaccination teams and the traditional and religious leaders role in addition to support from CHIPS agents, VCMs, CNMs and international organizations like UNICEF, AFENET, ALIMIA, etc. The State was able to steadily boost vaccination figures from 71,253 to 112,724 from January to July 2022 as shown in figure 4.6 below. Other strategies used by the State included periodic intensification and the sustained supportive supervision of all

vaccination teams (Machina, 2023). There was active involvement of LGA PHC Directors, LGA chairmen in the biweekly virtual review meeting and participation in radio call-in programmes where the general public were sensitized and educated about vaccine safety and its efficacy.

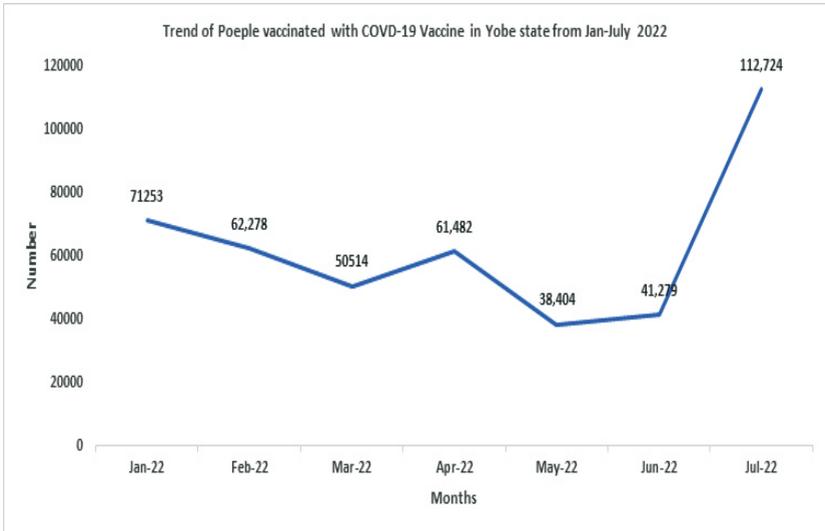


Figure 4.6: Trend of Covid-19 vaccination uptake in Yobe State from January to July 2022.

The Niger State Government through its Primary Health Care Development Agency was able to increase Covid-19 vaccination uptake in the State from 34,220 to 257,527 from April to December 2022.

The State indispensable strategy used in achieving Covid-19 vaccination success was adequate planning and the use of high-profile community figures to secure the buy-in of their communities. Vigorous advocacy and community mobilization in addition to other forms of engagements were instrumental to the States success story (Ibrahim, 2023).

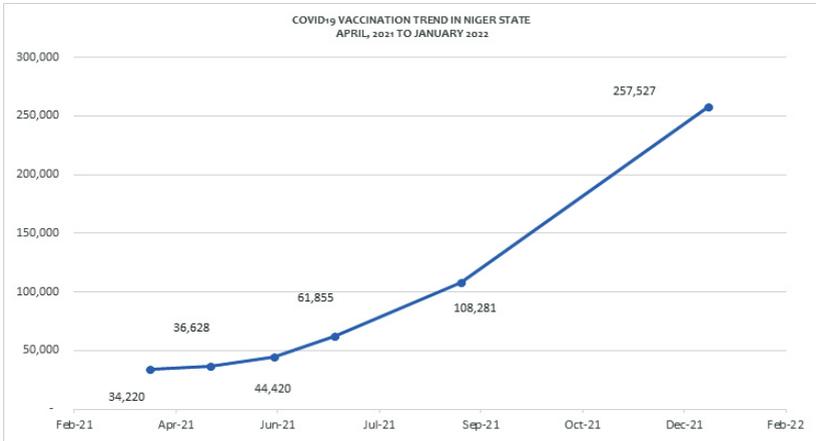


Figure 4.7: Niger State Covid -19 vaccine uptake trend from April to January 2022.

Zamfara State State's success story on the Covid-19 vaccination uptake within the six month review period, as shown in figure 4.8, indicates a steady rise in the uptake of first dose per month to a record high of 409,514 in September 2022:



Figure 4.8: Trend of first dose vaccinations from April to September 2022

The State recorded an appreciable increase in coverage among the vaccine eligible population considered to be partially vaccinated, fully vaccinated and among those who took the booster dose. The State was able to record the highest number of those vaccinated in September due to the use of Johnson & Johnson standing at 409,514 (Tukur, 2023):

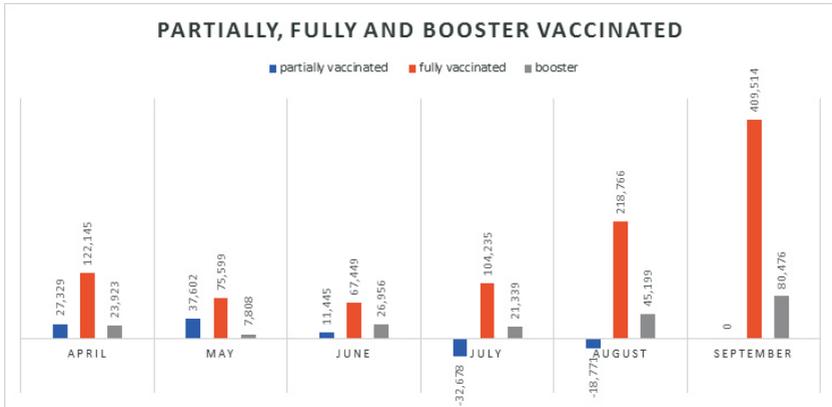


Figure 4.9: Summary of uptake of partial, full, and booster dose Covid-19 vaccine in Zamfara State from April to September 2022.

The Katsina State Covid-19 vaccine uptake advocacy was pioneered by its Executive Governor, of the State Alhaji Aminu Masari. His singular efforts motivated the general public, community leaders, civil servants, and the organized private sector to accept the vaccine. Asthmatic individuals, especially the aged, gave account of reduction in acute attacks following Covid-19 vaccination, especially with Oxford-AstraZeneca. This could serve as a starting point to conduct robust scientific studies to verify this claim and open a new frontier of hope for people with this medical condition (Yahaya, 2023).

Katsina State leveraged on existing structures for Primary Healthcare activities (both facility and community component). These were Routine Immunization, Polio and Non-Polio SIAs, Community Structures for Demand Creation and so on and so forth. The strategies

used for the vaccination were Fixed Posts integrated with other PHC services, Temporary Fixed Posts, Mobile Post and Mass Vaccination. In terms of demand generation, targeted advocacy was used to influence major stakeholders and the general public on all PHC services, including the COVID vaccination (Yahaya, 2023).

Gombe State recorded significant progress in its vaccination activities due to its team planning, engagement, and training of all the personnel involved in logistics, distribution, data management and the administration of the Covid-19 vaccine in all the 11 LGAs of the State. The State adopted widespread social media mobilization, advocacy and community sensitization through constant media engagement, airing jingles and phone-in radio programmes.

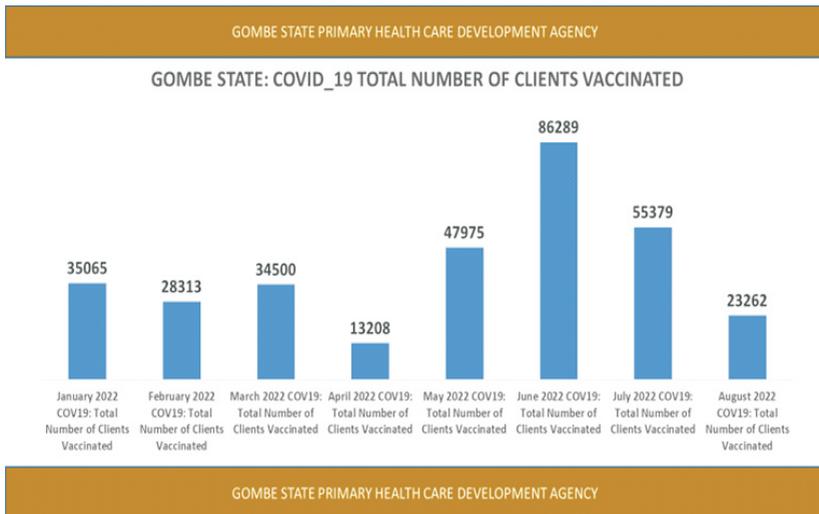


Figure 4.10: Gombe State total Covid-19 vaccination record from January to August 2022

The monthly vaccination record average for Gombe State within the time of review (January-August 2022) is appreciable, as the lowest uptake record was 13,208 and the highest 86,289 recorded in June 2022.

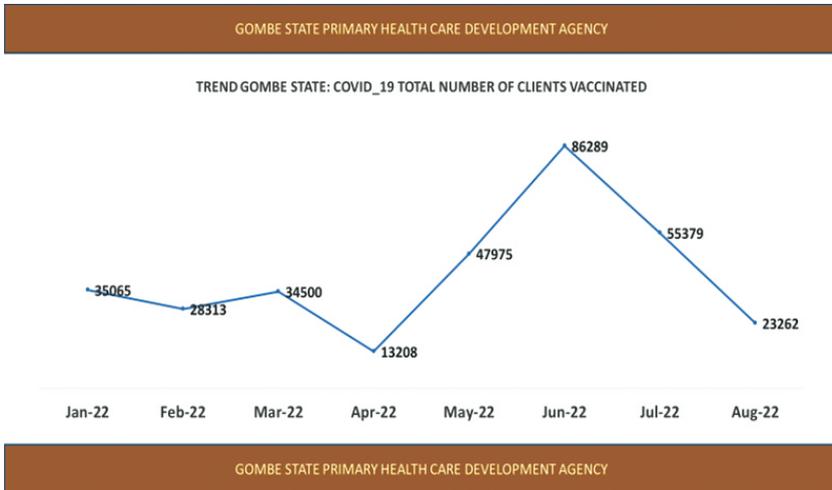


Figure 4.11: Trend analysis of Gombe State total Covid-19 vaccination record from January to August 2022

Gombe State adopted the strategy of evening vaccination during the farming season and deployed vaccination teams to churches and mosques on Fridays and Sundays in addition to other strategies like visiting tertiary educational institutions, NYSC camps and motor stations to provide Covid-19 vaccination services (AbdulRahman, 2023).

Taraba State recorded a steady increase in the uptake of Covid-19 using the Johnson & Johnson antigen within the time in view with a peak registration of 36,302 in July 2022 and another peak recorded for Pfizer of 13,537 in February 2022, as shown in figure 4.12.

Taraba State recorded a raise in the percentage of civil servants using facemasks from 3% to 86% in public offices and buildings. Over the period of 15 months, the State recorded 91% increase in vaccine uptake for first, second and booster doses (Tukura, 2023).

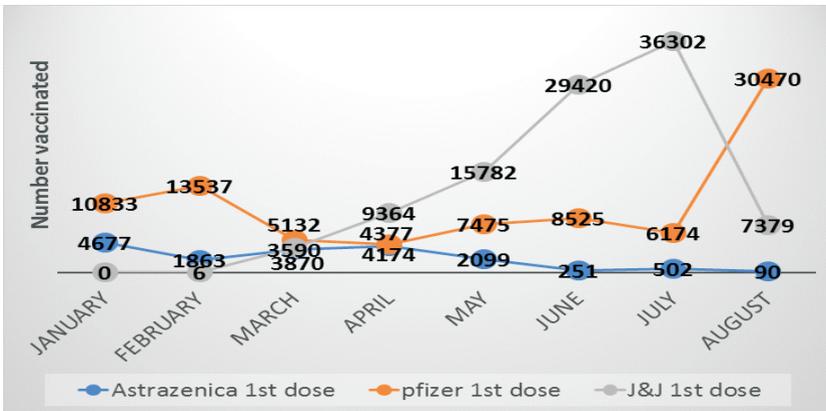


Figure 4.12: Taraba State first dose Covid-19 vaccination uptake from January to August 2022.

Plateau State achieved an impressive vaccination record of about 50,806 for first, second and booster doses in just 12 days during the Covid-19 vaccination intensification exercise. The State was ranked the 25th out of 36 States of the Federation based on its total vaccine coverage in May 2022. However, due to the sustained efforts of the State Government and that of supporting partners, the State is now ranked 8th in terms of Covid-19 vaccination coverage, as shown in figure (Miapkwap, 2023).

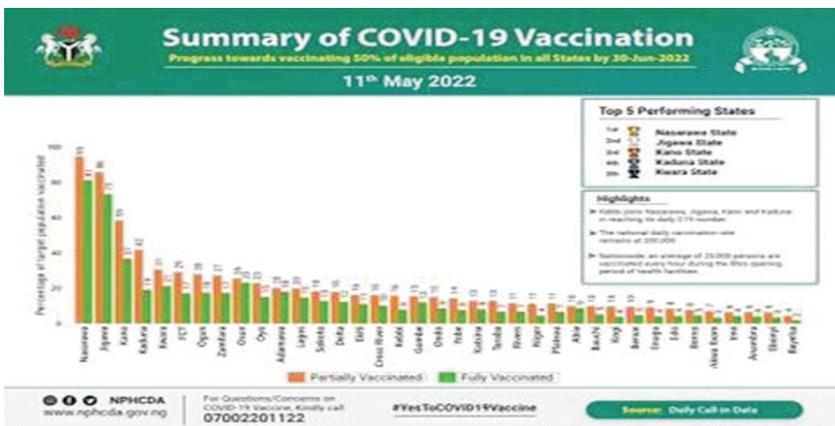


Figure 4.13a Plateau State at 8th Position on 18th August, 2022 After Intensification in selected LGAs.

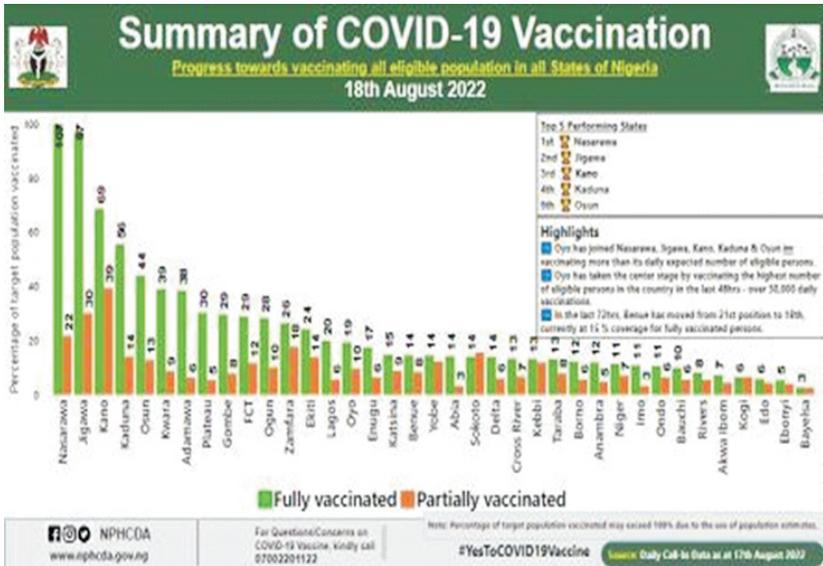


Figure 4.13b Plateau State at 25th Position on 11th May, 2022.

Generally, the results of the intervention across all the States has been impactful and a significant level of coverage has been achieved across almost all the Northern States that benefited from CITADs partnership and intervention to counter myths and misconceptions against Covid-19.

Chapter 5:

Recommendations

The Covid-19 pandemic has affected the world in ways that were previously unimaginable. As of April 2023, the virus had infected over 300 million people globally and caused over 5 million deaths. In Nigeria, the virus has infected over 3 million people and caused over 70,000 deaths. Northern Nigeria had been particularly hard hit, with high rates of infection and mortality. In response, the Nigerian government launched a vaccination campaign to protect the population against the virus. However, vaccination rates in Northern Nigeria have remained low. There is a need for targeted interventions to increase uptake. This book will provide recommendations for Covid-19 vaccination interventions in Northern Nigeria states.

Northern Nigeria states have been disproportionately affected by the Covid-19 pandemic. The region has recorded high rates of infection and mortality and the healthcare system been overwhelmed. The reasons for this include limited access to healthcare, poor infrastructure and high levels of poverty. Additionally, there has been vaccine hesitancy among the population, with many people refusing to take it due to misinformation and distrust.

The Nigerian government launched a vaccination campaign to protect the population against Covid-19. However, vaccination rates in Northern Nigeria states have remained low. As of April 2023, only 20% of the population there had been vaccinated compared to 40% in southern states. There is a need for targeted interventions to increase vaccination uptake in the region.

Recommendations

1. Increase community engagement

One of the main reasons for vaccine hesitancy in Northern Nigeria states is the distrust of the government and the healthcare system. There is a need for increased community engagement to address these concerns and build trust. This can be done through the use of community leaders, religious leaders and other trusted figures to promote the vaccine. These individuals can provide accurate information about it, address concerns and encourage people to get vaccinated. Additionally, community engagement can involve the use of local media to disseminate information about the vaccine and its benefits.

2. Increase accessibility to the vaccine

Limited access to the vaccine has been a barrier to vaccination uptake in Northern Nigeria states. There is the need to increase accessibility to the vaccine by setting up more vaccination centers in the region. This can involve the use of mobile clinics to reach remote areas and the establishment of vaccination centers in public spaces, such as markets and community centers. Additionally, there is a need to ensure that the vaccine is available at all times, including on weekends and public holidays, to accommodate people's schedules.

3. Address vaccine hesitancy

Vaccine hesitancy is a major barrier to vaccination uptake in Northern Nigeria states. There is a need to address vaccine hesitancy through education and awareness campaigns. These campaigns should provide accurate information about the vaccine, its safety and its efficacy. Additionally, the campaigns should address common myths and misconceptions about the vaccine and provide reassurance about its safety. The campaigns should use a variety of media, including social media, radio and television, to reach a wide audience.

4. Involve healthcare workers

Healthcare workers play a critical role in the vaccination campaign. They are responsible for administering the vaccine, providing information about it, and addressing concerns. There is a need to involve healthcare workers in the vaccination campaign by providing them with training and resources to effectively promote the vaccine. Additionally, healthcare workers should be incentivized to promote the vaccine by providing them with bonuses or other rewards.

To the Nigerian Government

To boost the Covid-19 vaccination ramp-up in Nigeria, I recommend the following policy measures:

1. Increase Vaccine Supply: The Nigerian government should work with international organizations, such as the World Health Organization (WHO) and other vaccine manufacturers, to increase the supply of vaccines to Nigeria. This will ensure that more people can be vaccinated in a shorter period.

2. Increase Public Awareness: The government should launch a comprehensive public awareness campaign to educate Nigerians about the importance of getting vaccinated. The campaign should address the concerns and fears that some people have about the vaccine and emphasize the benefits of getting vaccinated.

3. Prioritize High-Risk Groups: The government should prioritize high-risk groups, such as healthcare workers, the elderly and people with underlying health conditions. This will help to reduce the number of severe cases and deaths caused by Covid-19.

4. Increase Vaccination Centers: The government should increase the number of vaccination centers across the country to make it easier for people to get vaccinated. This will also reduce the burden on existing centers and ensure that more people can be vaccinated at the same time.

5. Encourage Private Sector Participation: The government should encourage private sector participation in the vaccination drive. This can be done by providing tax incentives or other benefits to companies that support the vaccination effort, such as providing vaccination sites or transportation for people to get vaccinated.

6. Monitor and Evaluate Progress: The government should monitor and evaluate the progress of the vaccination drive regularly. This will help to identify any challenges or issues that may arise and allow for corrective measures to be taken quickly.

By implementing these policy measures, the Nigerian government can boost the Covid-19 vaccination ramp-up and protect its citizens from the virus.

General recommendations for the prevention of COVID-19 and vaccination are based on the latest scientific knowledge available. However, it is important to note that specific recommendations and guidelines may vary, depending on your location, age, health status and other factors. Therefore, it's always best to follow the guidance of your local health authorities.

To the General Public

To prevent the spread of COVID-19, it is important to:

1. Get vaccinated: COVID-19 vaccines have been shown to be safe and effective at preventing severe illness, hospitalization and death. Getting vaccinated not only protects you but also helps to prevent the spread of the virus to others.

2. Wear a mask: Wear a well-fitting mask that covers your nose and mouth in indoor public settings, crowded outdoor settings and other situations where physical distancing is difficult to maintain.

3. Practice physical distancing: Stay at least 6 feet (about two arms' length) away from others who are not from your household.

4. Practice good hand hygiene: Wash your hands frequently with soap and water for at least 20 seconds or use a hand sanitizer that contains at least 60% alcohol.

5. Avoid large gatherings: Avoid crowded indoor spaces and large gatherings where the risk of transmission is higher.

6. Stay home if you feel unwell: If you have symptoms of COVID-19 or been in close contact with someone who has tested positive for COVID-19, stay home and get tested.

7. Follow local guidelines: Follow the guidelines and recommendations of your local health authorities, which may vary, depending on the level of transmission in your community.

By following these measures, we can all do our part to help to prevent the spread of COVID-19 and protect ourselves and our communities.

Chapter 6:

Conclusion

The novel Coronavirus (SARS-CoV-2) has had a significant impact on the health sector in the northern states of Nigeria. Although the virus has spread across the entire country, the northern states have been particularly vulnerable due to various factors, such as high population density, limited healthcare infrastructure and socioeconomic challenges. **Healthcare Infrastructure and Capacity:** One of the major challenges faced by the northern states of Nigeria is the limited healthcare infrastructure and capacity. Many healthcare facilities lack proper equipment, adequate resources and skilled healthcare professionals to effectively respond to the pandemic. This has caused numerous difficulties in diagnosing, testing and treating Covid-19 patients, leading to increased mortality rates and the spread of the virus. **Testing and Diagnosis:** The availability of testing facilities for Covid-19 has been relatively low in many northern states, which has hindered the effective management of the pandemic.

The Covid-19 pandemic brought unprecedented challenges to the world and the 19 Northern Nigeria States were no exception. Development workers played a pivotal role in addressing the various aspects of the pandemic in the region. This concluding chapter reflects on the accomplishments, challenges and recommendations arising from the intervention

6.1 Summary of Accomplishments

The collaborative efforts of stakeholders have yielded significant achievements in mitigating the impact of Covid-19 in the 19 Northern Nigeria States. The following key accomplishments are noteworthy:

Public Awareness and Education: The 19 State Governments in conjunction with relevant stakeholders and partners had successfully implemented an extensive public awareness and education campaign. This initiative disseminated accurate information about Covid-19 prevention, transmission and vaccination through various channels, including radio, television, social media and community engagements.

Capacity Building: The intervention focused on enhancing the capacity of healthcare workers and frontline responders. States conducted training programs to equip them with the necessary skills and knowledge to effectively respond to the pandemic. This capacity building effort greatly contributed to improving the quality of care provided to Covid-19 patients.

Support to Healthcare Infrastructure: Stakeholders and the 19 Northern States provided critical assistance to healthcare facilities in the region. This support included the provision of personal protective equipment (PPE), medical supplies and equipment necessary for the treatment and prevention of Covid-19.

Community Engagement: Recognizing the importance of community involvement, the States fostered active community engagement. Through community dialogue sessions, local leaders, traditional rulers and community members were sensitized on the pandemic's impact and the importance of adhering to preventive measures.

1.2 The Challenges Encountered and The Lessons Learned

While the intervention made significant strides, several challenges were encountered along the way. These challenges included: The Covid-19 pandemic has undoubtedly been a challenging time for the Northern states of Nigeria. However, certain lessons have emerged, which can help to guide future responses to similar health crises. Here are some of the key lessons learned:

Strengthening Healthcare Infrastructure: The pandemic has exposed the weaknesses in healthcare infrastructure in the Northern states. This has highlighted the urgent need to invest in and strengthen healthcare systems, including the establishment of well-equipped hospitals, clinics and diagnostic centers. This will help in better preparedness and response to any future health emergencies.

The Importance of Public Health Education: The pandemic has shown the critical role of public health education in controlling the spread of the virus. Northern states need to prioritize public health campaigns aimed at educating the public about preventive measures such as hand hygiene, social distancing and the proper use of face masks. Empowering communities with accurate information will improve compliance and reduce the risk of future outbreaks.

Misinformation and Disinformation: The spread of misinformation and disinformation about Covid-19 posed a significant hurdle to the intervention. The 19 Northern States worked tirelessly to counter false narratives and provide accurate information to the public with the support and collaboration of partners and relevant stakeholders.

Limited Resources: The resources available for the intervention were constrained, limiting the scale and reach of some activities. Greater resource allocation would have allowed for wider coverage and more comprehensive support to healthcare facilities and communities.

Vaccine Hesitancy: Vaccine hesitancy emerged as a significant challenge in the region. The 19 State Governments in the North implemented targeted awareness campaigns to address misconceptions and increase vaccine acceptance. However, further efforts are needed to overcome vaccine hesitancy fully.

6.3 Recommendations

Based on the experiences and lessons learned during the Covid-19 intervention in the 19 Northern Nigeria States, the following

recommendations are proposed:

Strengthen Healthcare System: The first recommendation is to invest in and strengthen the healthcare system. This includes increasing the number of healthcare facilities, improving infrastructure and equipping them with necessary resources and medical supplies. This will enhance the capacity for the testing, diagnosis and treatment of Covid-19 cases, as well as provide better healthcare services overall.

Increase Testing Capacity: It is crucial to expand testing capacity. This can be done by establishing more testing centers and deploying mobile testing units to remote areas. Increased testing will enable the early detection and isolation of Covid-19 cases, helping to prevent the spread of the virus.

Enhance Healthcare Workforce: There is a need to recruit and train more healthcare professionals. These include doctors, nurses, laboratory technicians and other supporting staff. These professionals should be equipped with the necessary skills and knowledge to handle Covid-19 cases.

Sustained Awareness Campaigns: Continuous and sustained public awareness campaigns are essential to combat misinformation and maintain vigilance against the spread of Covid-19. CITAD should collaborate with relevant stakeholders to develop comprehensive and localized campaigns that address specific concerns and cater to the diverse population within the region.

Strengthened Healthcare Infrastructure: There is a need to strengthen healthcare infrastructure. This includes improving the capacity of healthcare facilities, ensuring the availability of essential medical supplies and equipment and investing in human resources for healthcare.

Enhanced Research and Data Collection: CITAD should prioritize research and data collection efforts to gain a deeper understanding of the region's specific vulnerabilities, challenges and needs. Data-driven decision-making will enable targeted interventions and resource allocation, leading to more effective pandemic response strategies.

Collaboration and Partnerships: Collaboration among various stakeholders, including government agencies, NGOs, community leaders and international organizations, is vital for a coordinated and comprehensive response to future health crises. The Governments in the 19 Northern States should continue fostering partnerships to leverage collective strengths and resources.

6.4 Conclusion

In conclusion, the intervention by States has made significant contributions to mitigating the impact of Covid-19 in the 19 Northern Nigeria States. The accomplishments in public awareness, capacity building, support to healthcare infrastructure and community engagement are commendable.

However, challenges such as misinformation, limited resources and vaccine hesitancy, underscore the need for sustained efforts and further investment in healthcare infrastructure and public health campaigns. By incorporating the recommendations outlined above, partners and Governments should continue to play a pivotal role in strengthening the region's resilience to future health crises.

The Covid-19 pandemic has been a stark reminder of the importance of preparedness, collaboration and innovation in responding to global health challenges. The intervention by CITAD and the support of the MacArthur Foundation have demonstrated the potential for positive change through coordinated efforts and partnerships. Moving forward, it is crucial to build on these achievements, learn from the lessons and remain vigilant in our commitment to safeguarding the health and well-

being of the communities in the 19 Northern Nigeria States.

Appreciation

In concluding this book on the remarkable interventions against the COVID-19 pandemic in the 19 northern states of Nigeria, it is imperative to express our heartfelt appreciation to the numerous individuals and organizations whose invaluable contributions made this endeavor a success. Their unwavering dedication, tireless efforts and profound impact have played a significant role in mitigating the effects of the pandemic and safeguarding the health and well-being of communities across the region.

First and foremost, we extend our deepest gratitude to the MacArthur Foundation for their visionary support and commitment to combating the COVID-19 crisis in Nigeria. Their generous funding and strategic guidance have provided critical resources and enabled the implementation of innovative interventions that have saved lives and protected communities. The MacArthur Foundation's unwavering dedication to promoting social justice and advancing public health has been truly inspiring.

The Executive Secretaries (ES) of the 19 State Primary Health Care Development Agencies and Boards deserve immense recognition for their exceptional leadership and tireless efforts in coordinating the pandemic response at the state level. Their foresight, strategic planning and effective execution have been instrumental in mobilizing resources, developing robust healthcare systems and implementing evidence-based interventions. Their commitment to public health and their relentless pursuit of excellence have set a benchmark for others to follow.

We must also acknowledge the pivotal role played by partners, Civil Society Organizations (CSOs) and Non- Governmental Organizations (NGOs) for their roles in Covid-19 Response.

To all the frontline healthcare workers, researchers, scientists, policymakers, community leaders and volunteers who have selflessly dedicated their time, expertise and resources to the COVID-19 response, we extend our deepest gratitude. Your unwavering commitment, resilience and sacrifice have been the bedrock of our collective success in combating this unprecedented crisis.

Lastly, we express our heartfelt appreciation to the countless individuals, families and communities, who have endured immense challenges during these trying times. Your resilience, cooperation and adherence to public health guidelines have been pivotal in curbing the spread of the virus and protecting vulnerable populations. Your strength and unity serve as an inspiration to us all.

As we reflect on the remarkable achievements made in the fight against COVID-19 in the 19 northern states of Nigeria, we are reminded that collaboration, empathy and innovation are essential in navigating future crises. The collective efforts of the MacArthur Foundation, the Executive Secretaries of the 19 State Primary Health Care Development Agencies and Boards, CITAD State Social Influencers and CITAD staff have exemplified the power of collaboration and the potential for positive change.

It is our hope that this book serves as a testament to the indomitable spirit and resilience of the Nigerian people and as a catalyst for continued efforts to strengthen healthcare systems, promote equitable access to healthcare and build a more resilient society. Together, we can overcome any challenge and build a future that prioritizes the health and well-being of all.

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About CITAD

Centre for Information Technology and Development (CITAD), is non-profit and nongovernmental organization that focuses on the use of technology for the promotion of good governance, human rights, education, peace building and development in general. With its head Office in Kano, it has other Offices in Federal Capital Territory, and three other Offices in Bauchi State. CITAD's vision is a knowledge-based and self-reliant democratic society. Its' mission is to empower citizens for a just and knowledge-based society that is anchored on sustainable and balanced development using ICTs, Capacity Building, Research and partnership. It was established as a single project (Computer Literacy Project) in 1996 but was expanded in 2000 to include other projects. Now it incorporates six different thematic units.

The organization has a board of Trustees consisting of four people, a Governing Board of 8 people that is responsible for policy making including approval of annual budget as well as recruitment of Senior Staff. A management team headed by the Executive Director implements the programmes of the organization as well as provides management and administrative functions. It has 14 full time Staff, 8 part time and over 30 volunteers spread across the three Offices of the organization.

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