Documenting Liberias experience in COVID-19 vaccination

A recount of Liberias experience in the COVID-19 vaccination exercise and how the World Health Organization (WHO) Country Office supported the process

APRIL 2021- JULY 2022

World Health Organization
Liberia

Context
Phase one: April – December 2021

The COVID-19 pandemic has affected nearly all sectors of life, despite its low fatality rate in Liberia. Liberia recorded her first confirmed case of the SARS-CoV-2 virus on March 16, 2020, and the disease spread across the 15 counties progressively. A number of strategies and interventions were adopted by the Government of Liberia (GOL) through the National Incident Management System (IMS), to prepare, respond and contain the outbreak in Liberia. One of these interventions is the rollout of COVID-19 vaccination among high-risk groups in communities. The rollout of vaccination and uptake of COVID vaccine was slow at the beginning of the process partly due to high levels of community resistance and hesitancy, misinformation, and general mistrust in public health interventions. As a result of national efforts through the EPI programme, COVID-19 vaccines were initially slowly introduced at selected sites in Monrovia, with limited involvement of the counties. The main focus at the time were major markets and some temporary sites in Monrovia.

The document takes a recount of series of intensive COVID-19 vaccination campaigns (April 2021 to July 2022), including but not limited to how COVID-19 vaccination started at national level to the counties strategies used including micro-planning, vaccine prepositioning and distribution, demand creation, social mobilization, training of personnel, supervision, monitoring, coordination, printing and distribution of vaccination cards/certificates and data management, challenges, best practices and lessons learnt.

Phase 1- April to December 2021 continued...

Liberia is one of the countries in the African continent that has a successful history of introducing new vaccines. However, the initial deployment of COVID-19 vaccines had its shortfalls as experienced by many countries globally. The initial stages of vaccine roll-out were very slow coupled with unclear strategy due to fear of the unknown, even though the country had previously introduced two new vaccines–Novel Oral Polio Vaccine 2 (NoPV2) and Typhoid Conjugate Vaccine (TCV) in the same year, 2021.

The environment at the time of the vaccine introduction was characterized by:

Inadequate community engagement on the myths and misinformation about COVID-19 vaccination affected demand generation which was relatively slow. In the face of the pandemic, the country had operational and logistical challenges in transporting the vaccines to communities, despite designating roles and responsibilities to relevant stakeholders. Additionally, the constitution and follow-up of vaccination teams was not consistent.

These logistical challenges did have a retro effect on support to counties which included the provision of supplies such as vaccines, and vaccination cards which were not readily available in the counties. This eventually affected the communities' demand and uptake of COVID-19 vaccination because vaccination cards/certificates (the only proof of vaccination) were not readily available in the communities. Some sites encountered delays in receiving allowances, while some had unpaid allowance arrears accumulated from the Tetanus Toxoid Vaccine (TTV) [AEL1] vaccination campaign in 2021, which affected the motivation of the staff on the ground.

Context

Phase two: February– July 2022

Lessons learnt during the COVID-19 response, especially from the Delta (3rd) wave, which caused the highest number of severe disease and deaths from COVID-19, highlighted the urgency of vaccination and informed the strategies for the COVID-19 vaccination in early 2022. Notwithstanding, Omicron was the predominant variant causing the COVID-19 upsurge in December 2021 but with a relatively low mortality rate.

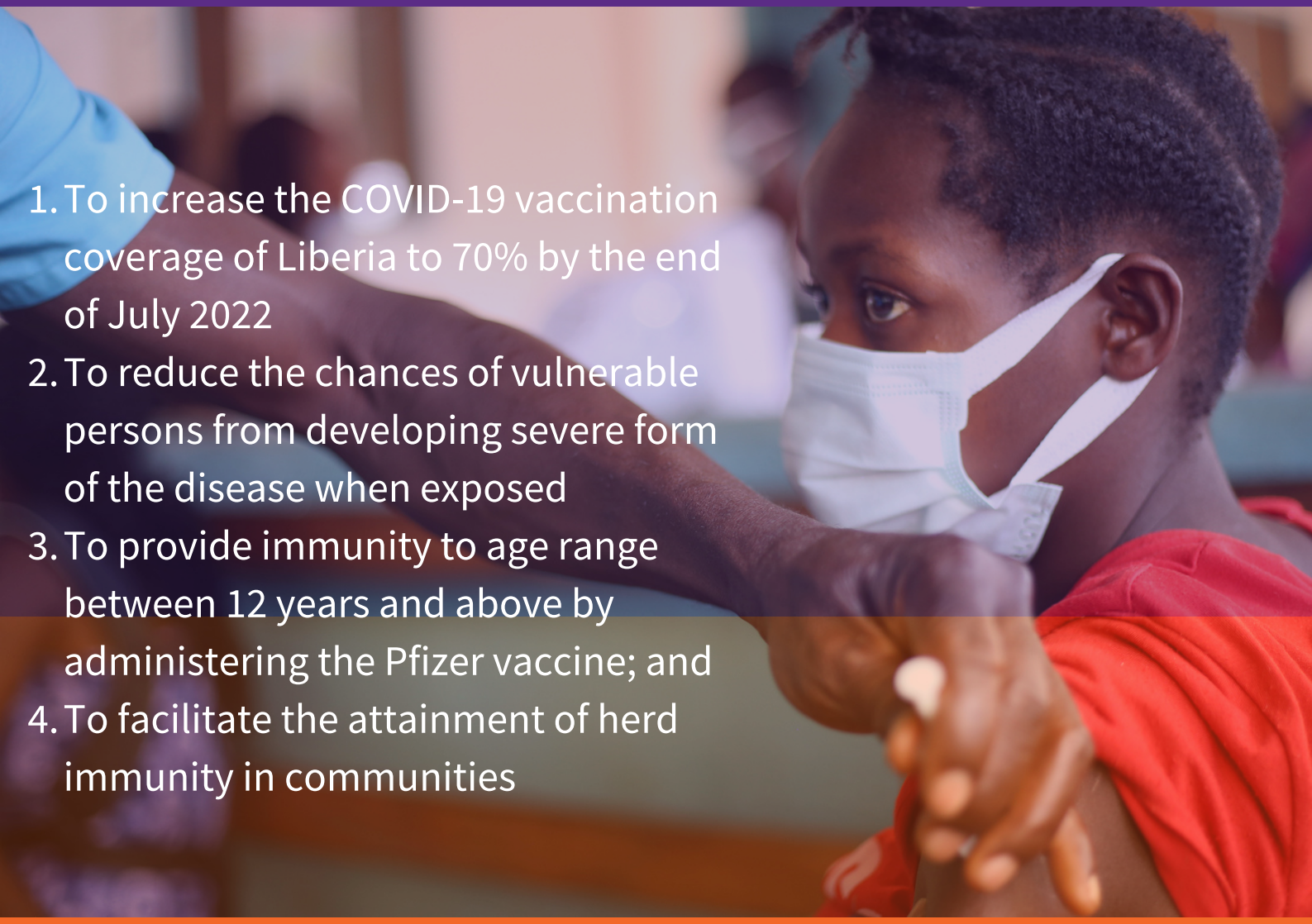
At the beginning of 2022, vaccination was extended to age group 12-17 years with focus on schools but it was a gradual process and initially concentrated in Montserrado county before extending to all counties. During that period at least 471,449 persons were fully vaccinated from March 17-May 22, 2022 achieving an additional 10% of fully vaccinated persons (of the general population) from the previous 22%, making 32%. National partners on the ground also opted to share responsibilities in selected counties with an aim of countering/mitigating the different challenges.

WHO was in charge of paying incentives for vaccination team members, UNICEF was responsible for producing vaccination cards and creating demand, while the MOH facilitated vaccine movement. While these arrangements were good, there were perceived logistical delays and untimely delivery of supplies.

After a while further arrangements were made to allocate counties among the key partners which resulted in the following allotment: WHO – 6 counties, USAID – 7 counties, UNICEF- 1 county and Africa CDC- 1 county. It was therefore agreed that each partner was responsible to work with the County Health Team in planning, implementing and monitoring the overall vaccination exercise in each county. The counties under WHOs responsibility included Grand Bassa, Lofa, Maryland, Montserrado, Nimba and Sinoe respectively. These counties fully vaccinated 340,226 persons from March 17- May 22, 2022.

To ensure that Liberia achieves the 70% target set by WHO by the July 2022, adopting a winning model which leverages on community structures and capacities was key. WHO supported the incorporation of a strong coordination and data driven planning with the County Health Teams, community engagement and participation, timely provision of logistical supplies, prompt payment of allowances to vaccinators and adequate supervision model into the vaccination strategy with funding support from the US Government (USG), German Government, CDC,ECHO, Ministry of Europe and Foreign Affairs-France (MEAE).

COVID-19 vaccination campaign rationale



1. To increase the COVID-19 vaccination coverage of Liberia to 70% by the end of July 2022
2. To reduce the chances of vulnerable persons from developing severe form of the disease when exposed
3. To provide immunity to age range between 12 years and above by administering the Pfizer vaccine; and
4. To facilitate the attainment of herd immunity in communities

COVID-19 vaccination has been shown to contribute to the reduction in transmission, severe illness and deaths from the disease. Such that vaccination of a significant proportion of the population also protects vulnerable people, including those who cannot receive vaccines, or the small proportion of people who might remain at risk of infection after vaccination. Failure to vaccinate widely also enables continued circulation of the virus and generation of other virants which may pose greater risk. Widespread vaccination has contributed to fewer people getting sick and being hospitalized, ultimately alleviating the burden of COVID-19 on healthcare systems. It has also helped allow the states to move back to normal societal functioning and the re-opening of economies.

Campaign strategies in WHO supported counties

In the second phase of the vaccination,WHO envisaged to employ the best strategies to achieve the desired results in the supported counties, following the gaps identified in the first phase.

- The shifting of the planning and implementation to the county level was a game changer. The County Health Teams (CHTs) played a critical role in the vaccine deployment, coupled with the presence of WHO field offices in the WHO-supported counties. This was key in the provision of daily technical support, field monitoring, and gap filling of operational challenges.
- The division of counties among partners to support the County Health Teams in the vaccination exercise was key in close monitoring of performance and identification of bottlenecks and their solutions focusing on but not limited to technical, operational, logistical, and financial support to each county.
- Following the introduction of Pfizer, there was improved coordination with the educational sector by working directly with the various District Education Officers (DEOs), convening Parents and Teachers Association (PTA) meetings where the CHTs with support from WHO would provide details on the vaccine educating parents on Pfizer and the inclusion of the new age group 12 years and above.
- Community ownership: Demand generation driven by the local leaders headed by the Superintendent with involvement of District Commissioners and Town Chiefs as well as engagement of County Education Officers(CEOs) and District Education Officers(DEOs). Women and Youth groups were actively involved.
- Involvement of the Non-Governmental Organisations/Civil Society Organizations was important to avoid duplication and ensure all communities are reached with the vaccines.

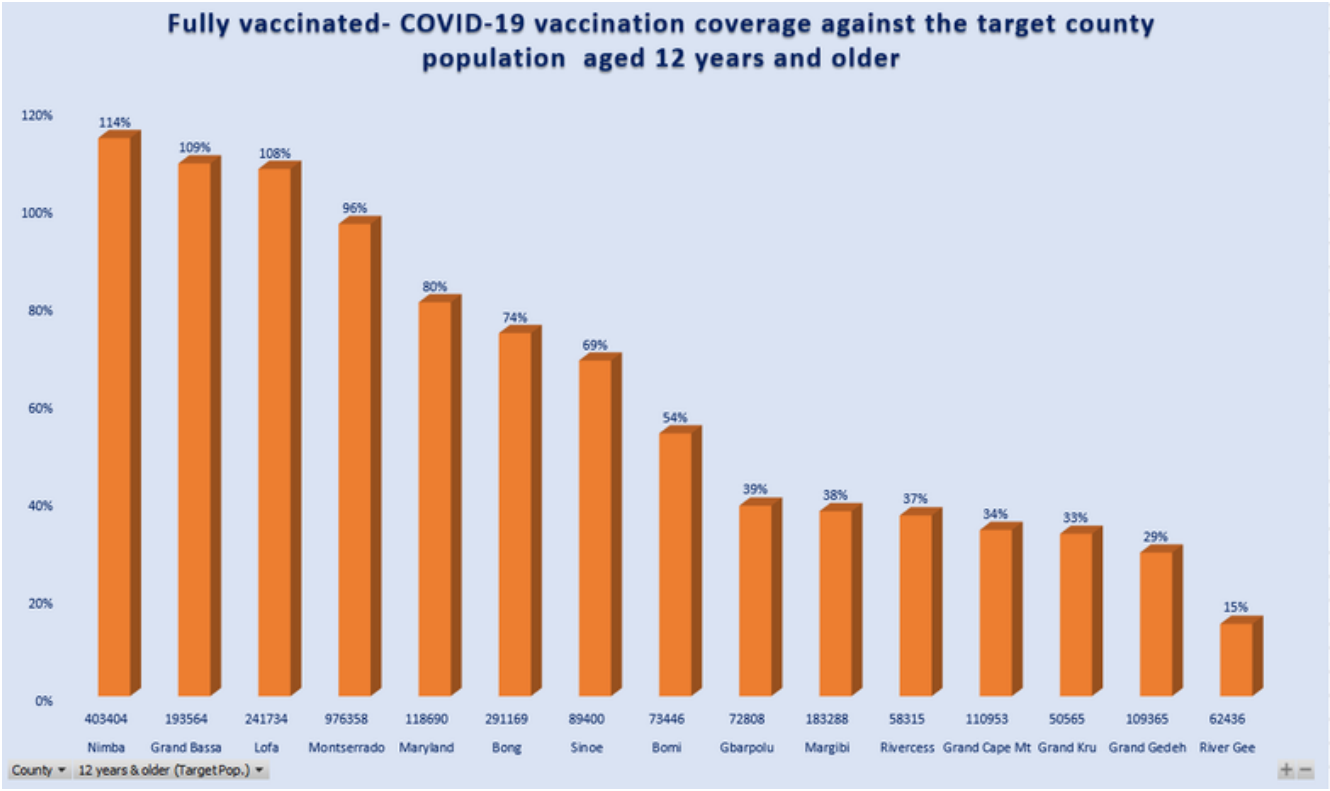
Campaign strategies in WHO supported counties continued...

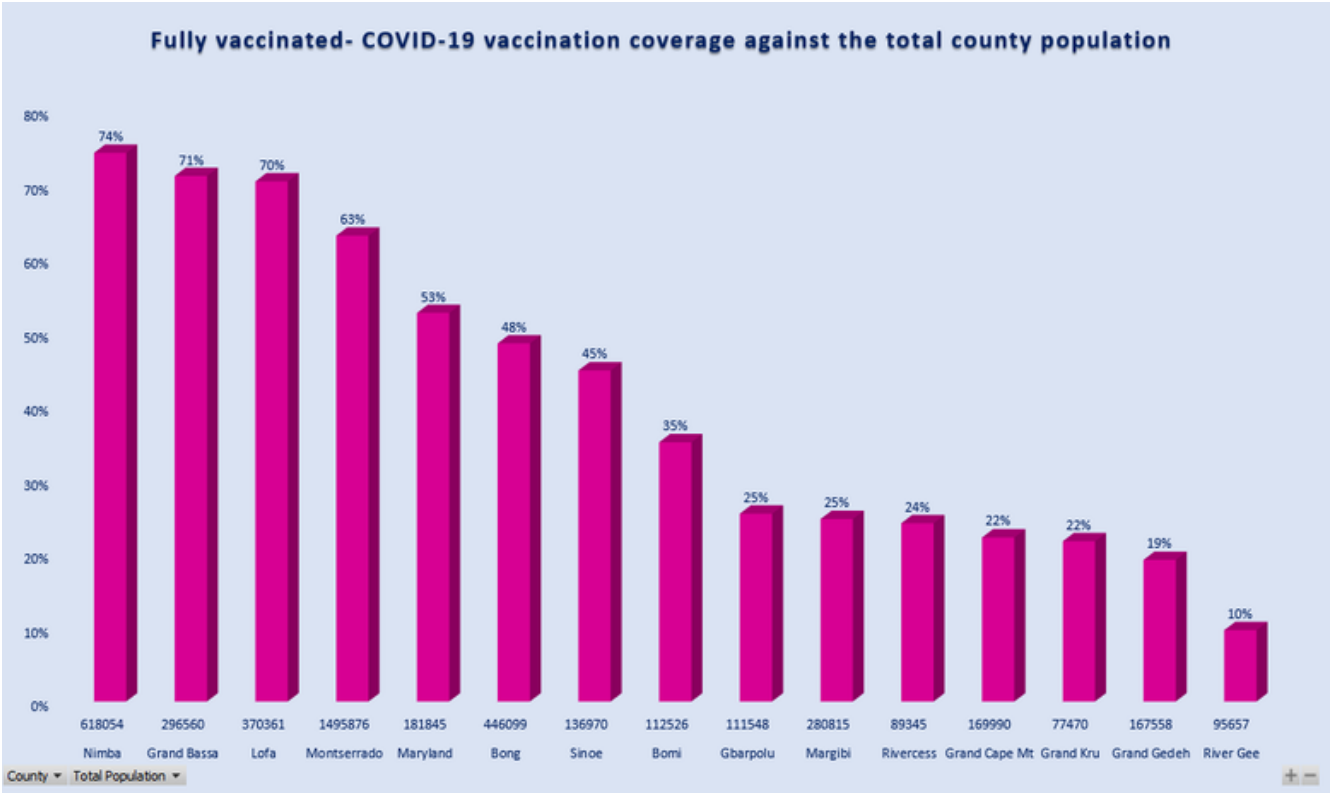
- The shift from passive vaccination to performance-based vaccination using the mobile money payment mechanism proved to be efficient and timely- in keeping teams motivated to produce results. As of the first week of July 2022,Liberia has fully vaccinated 2,498,022 persons which is 54% of the general population. Of the total number of people fully vaccinated, WHO supported counties contributed 65% of the 54% which constitute 2,024,861 persons. This strategy has proved to be one of the best ways to achieve results in community-based activities or projects. The constant use of data/ population distribution in each community to review the number and composition of vaccination teams proved essential.
- WHO opted to disburse operational funds directly to the counties with an aim of increasing motivation and transparency. This ensured timely provision of operational support to the counties of other important components of the vaccination process including supply of vaccines, ledgers, vaccination cards and certificates (as per forecasts).
- Reach all communities through fixed and temporary sites as well as mobile teams using the polio strategies of house to house, farm to farm, etc.
- As part of the consistent monitoring of the process the inception of weekly joint virtual meetings with CHTs, EPI program, field coordinators and WHO to monitor progress, helped to identify and manage operational challenges and propose recommendations/ guidance to improve and scale up the exercise. The extensive monitoring ensured timely movement of vaccines from regional cold chain stores to the counties and teams were strongly supported by WHO field coordinators. This resulted in timely requesting and prepositioning of vaccines and supplies through the use of buffer system.
- Teams were provided with mobile generators and printers to facilitate production of vaccination certificates in the field.
- Flexibility on the usage of operational funds based on specific needs identified by each county with direct guidance by WHO Field coordinators, created a sense of ownership and enhanced enthusiasm of the county teams.
- Once the new strategies were employed, real time changes were made in vaccination teams that were poorly performing by introducing stronger players for better results.
- WHO augmented the logistics capacity by hiring additional vehicles to support the operations in the counties.

Campaign results and statistics

Liberia

Following the administration of the first vaccine in April 2021, the number of people fully vaccinated in the country has greatly improved. As of February 2022, 1,015,942 people were fully vaccinated, accounting for 22% of the set WHO target. This section demonstrates the performance of counties across Liberia as a result of the series of campaigns, cumulatively from April 2021 to the first week of July 2022, where at least 54% of the total population has been fully vaccinated, with 82% of the target population aged 12 years and above, having received at least one dose of vaccine. The distribution of vaccination coverage across counties is illustrated below.

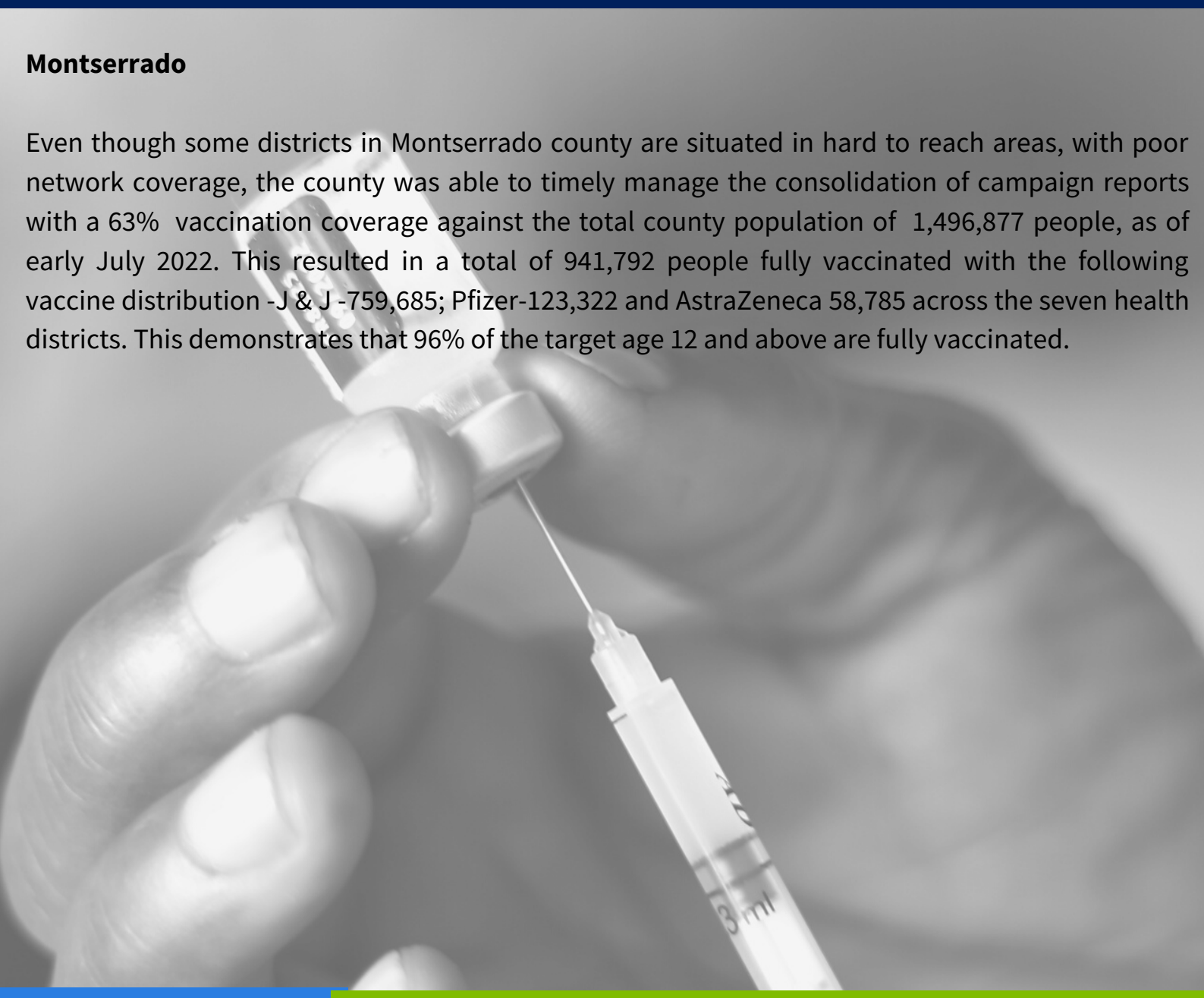




Campaign results and statistics in WHO supported counties

Montserrado

Even though some districts in Montserrado county are situated in hard to reach areas, with poor network coverage, the county was able to timely manage the consolidation of campaign reports with a 63% vaccination coverage against the total county population of 1,496,877 people, as of early July 2022. This resulted in a total of 941,792 people fully vaccinated with the following vaccine distribution -J & J -759,685; Pfizer-123,322 and AstraZeneca 58,785 across the seven health districts. This demonstrates that 96% of the target age 12 and above are fully vaccinated.



63%

coverage of the county population

941,792

persons fully vaccinated

Campaign results and statistics in WHO supported counties continued....

Maryland

During the campaign implementation period, the county vaccinated a total of 107,947 persons with both Johnson and Johnson(J &J) and Pfizer vaccines achieving 80% coverage against the total targeted population (12 years and above), and 53% against the total population of the county. Of the above achievement made during the period under review, J&J accounts for 57% (62,267) and 43% (45,684) Pfizer. Cumulatively from April 2021 to the first week of July 2022, the county had vaccinated 134,441 people receiving at least a single dose of the vaccines and 95,493 persons fully vaccinated (53%).

Grand Bassa

The COVID-19 vaccination in Grand Bassa contributed to a total of 250,386 persons vaccinated against COVID1-19 with 210,631 fully vaccinated representing 71% of the total population and 109% of the target population(12 and above) cumulatively.

Campaign results and statistics in WHO supported counties continued....

Campaign results and statistics in WHO supported counties continued....

Lofa

246,721 people were vaccinated during the campaign. Out of that figure, 70,011 people were vaccinated with Pfizer while, 176,410 were vaccinated with J and J. Cumulatively, from April 2021 to the first week of July 2022, 198,358 people were fully vaccinated against COVID- 19 from a total population of 370,361 people reaching a 70% coverage. Cumulatively 260,350 people have been fully vaccinated.

Nimba

Nimba County, is the second most populated county in Liberia, with an estimated population of 618 055. The county conducted its first COVID-19 vaccination campaign from May 2021 to December 2021 but failed to achieve the 70% target. Cumulatively, as of July 9th, 2022, the county has fully vaccinated 460,693 people with AstraZeneca, J&J, and Pfizer vaccines, accounting for 110% of the eligible persons and 75% fully vaccinated. Of the 460,693 people fully vaccinated, 7,317 refugees received a second dose of AZ and J&J (females = 2,794 and Males = 5,326), while a total of 8,120 refugees were vaccinated with AZ and J&J. 803 did not receive a second dose of AZ. On vaccine specifics, 1,150 refugees (Females = 752; Males = 398) received AZ, while 6,970 refugees (Females =4,574, and Males = 2,396) received J&J.

Sinoe

During the COVID-19 vaccination campaign period in review, Sinoe did encounter administrative and logistical setbacks in the first phase resulting in a slow start but greatly improved over time. As of the first week of July, the county has fully vaccinated 61,286 people with J & J, AstraZeneca, and Pfizer vaccines, representing 45% of the total population and 69% of the eligible population aged 12 years and above cumulatively.

Vaccination coverage among other populations of importance

15,894

Health Workers in Liberia have been fully vaccinated against COVID-19 representing 99% coverage

Males- 7,706

Females- 6,151

8,916

Refugees in Liberia have received COVID-19 vaccination

Males- 5,663

Females- 3,253

Best Practices

1 Leadership and Coordination

- Strong political leadership from all branches of government was instrumental and encouraged people to take the vaccines.
- Collaboration with the development and technical partners, UN system, private sector, Faith-Based Institutions, and Civil Society Organizations was critical.
- The IMS continued to maintain the momentum throughout the COVID-19 response; particularly during vaccine deployment to compliment the weak adherence to social and public health measures.
- Strong national leadership, coordination, collaboration, and partnership through the IMS was critical.
- Dynamic county leadership, adequate community mobilization and motivation of vaccination teams.
- Assigning counties to different partners improved operations, reduced duplication, demonstrated results, and promoted transparency.
- Working directly with school authorities; CEOs, DEOs and PTAs to provide education on the Pfizer vaccine thus increased the 12-17 years old vaccine uptake.

2

Community-based vaccination approach

- Community ownership and taking the vaccines to the communities enhanced trust in the vaccination process which increased the vaccination uptake.
- Putting communities a the center of planning and implementation helped to increase the vaccine uptake.
- The strategy of taking the vaccines to the people proved a winner, as teams moved from house-to-house, street-to-street, and school visits resulting in increased performance of the counties. This worked even better for hard to reach areas.
- Integrating of COVID-19 testing with vaccination increased the demand from communities to be vaccinated.

3

Motivation of teams

Performance-based vaccination and timely provision of technical, operational, logistical, and financial assistance was a game-changer.

4

Documentation

- Regular use of data during planning and implementation helped in resource deployment, achieving desired results and ultimately a recipe for success.
- Onsite (mobile) provision of vaccination codes and printing of certificates as proof of vaccination, increased participation, and vaccination coverage

Best Practices continued...

5

Decentralization and Robust supervision

- Decentralizing decisions to the County Health Teams(CHTs) including operations, finance and planning as well as monitoring.
- Collaboration with partners partners and assigning responsibilities in the field.
- Conducting random monitoring of campaign mobilization activities in communities demonstrated how serious the health teams were with reference to demand generation. The supervisors followed the standard supervision checklist during the exercise, contributing to objectivity and positive outcomes.
- Making follow up calls to community members that were scheduled for 2nd dose and ensuring they are vaccinated
- Institutionalizing a taskforce (comprising of the CHO, county supervisor, partners, etc.) to support teams in communities with high resistance ensured smooth flow of the vaccination exercise

6

Inclusivity

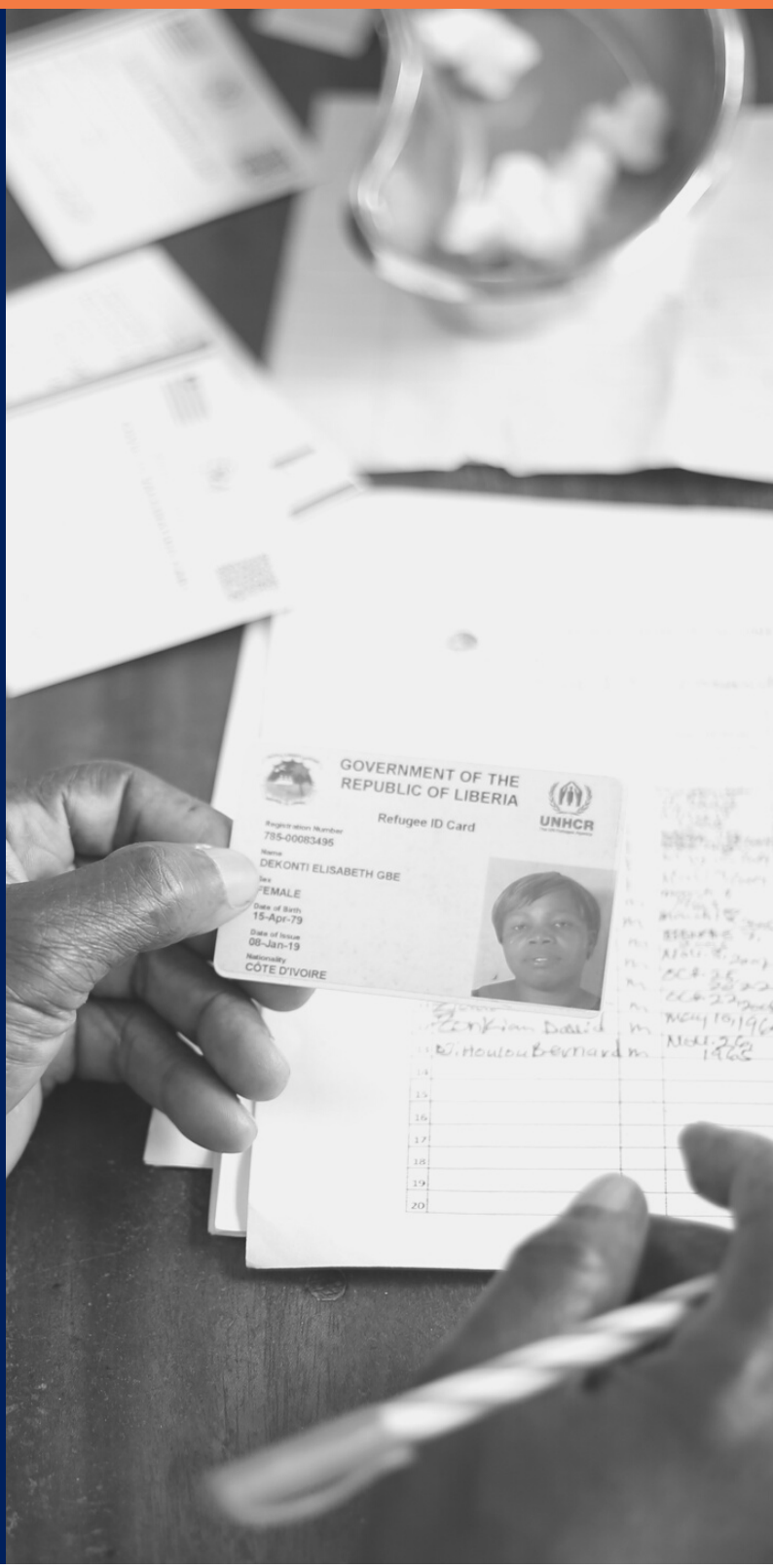
- The inclusion of influential leaders (township commissioners, religoius and tribal leaders, town chiefs, etc.) to work in their communities to create demand, improved community acceptance.
- Deliberate prepositioning of vaccines to reach refugees and other marginalized communities in the spirit of leaving no one behind.
- Involvement of all health partners in campaign activities based on areas of focus, strengthened implementation of the campaign and reduced chances of duplicating functions

Lessons learned

- Political leadership at national and sub-national level: the role played by some county superintendents in championing the vaccination drive was impressive.
- Community ownership: Community leaders are best social mobilizers in their localities.
- Use of data: mapping communities, and applying district and team vaccination targets helped to monitor performance among teams and enabled timely provision of corrective measures.
- Performance based vaccination and timely provision of relevant support encouraged counties to achieve their results.
- Motivation: timely provision of operational funds and payment of allowances were integral in keeping teams motivated on the ground to deliver.
- Taking the vaccine to homes or to the people increased uptake.
- Supply: the supply of bundle vaccines by alternative transportation modes such as airlifts to southeastern counties, reduced frequent vaccine stock-outs in counties.

Challenges

- Vaccine stock outs and shortfalls in the inventory processes affected the flow of the vaccination campaign in some areas. Sub-optimal delivery of vaccines from the depots to the counties affected the vaccination exercise flow. This was the major challenge across all counties– the month of May was hardly hit with stock-outs.
- More people who received the first dose of Pfizer could not get the second dose on time.
- Non-uniform operational support to all counties despite the allocation of responsibilities and counties among national partners.
- Poor access to some communities due to bad road networks which delayed the supply ofvaccines from regional cold chain stores to counties.
- Concurrent outbreak of measles overstretching the human resource capacity in the counties.
- Prompt data entry for age group 12-17 years was a challenge because the online portal was not fully functional to accommodate the new age group. The online platform became fully operational on July 1, 2022.
- Community members not patronizing vaccines at the nearest HCFs which lead to low up take in areas that were not in campaign mode.



Taking COVID-19 vaccination services to the people

Vaccines save lives

Liberia's vaccination progress towards the 70% coverage of the total population

	December 2021	April 2022	July 2022
Total persons vaccinated with atleast 1 dose	1,146.910 (25%)	1,837,436 (40%)	3,091,591 (66%)
Total persons fully vaccinated	986,975 (21%)	1,438,114 (31%)	2,498,022 (54%)

Of the 4,650,676 total national population whose target population(12 years and above) for vaccination is 3,035,497, at least 3,091,591 persons have received a dose of COVID-19 vaccination as of the first week of July 2022- representing 82% coverage against the total target population.

Currently, Liberia is one of the 8 countries in Africa that have fully vaccinated 40-70% of the population and is the only country in West Africa having reached this milestone so far.

1,572,074

vaccinated with atleast 1 dose of CVOID-19 vaccine

1,271,993

fully vaccinated

1,519,517

vaccinated with at least 1 dose of COVID-19 vaccine

1,226,029

fully vaccinated

What next?

Liberia is prepared to embark on the next phase of integrating COVID-19 vaccination

with a target of achieving 90% coverage

by introducing the pediatric vaccines for children aged 5-11 years

and integrating COVID-19 vaccination into routine immunization

Our partners

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CENTERS FOR DISEASE CONTROL AND PREVENTION

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UNITED STATES OF AMERICA

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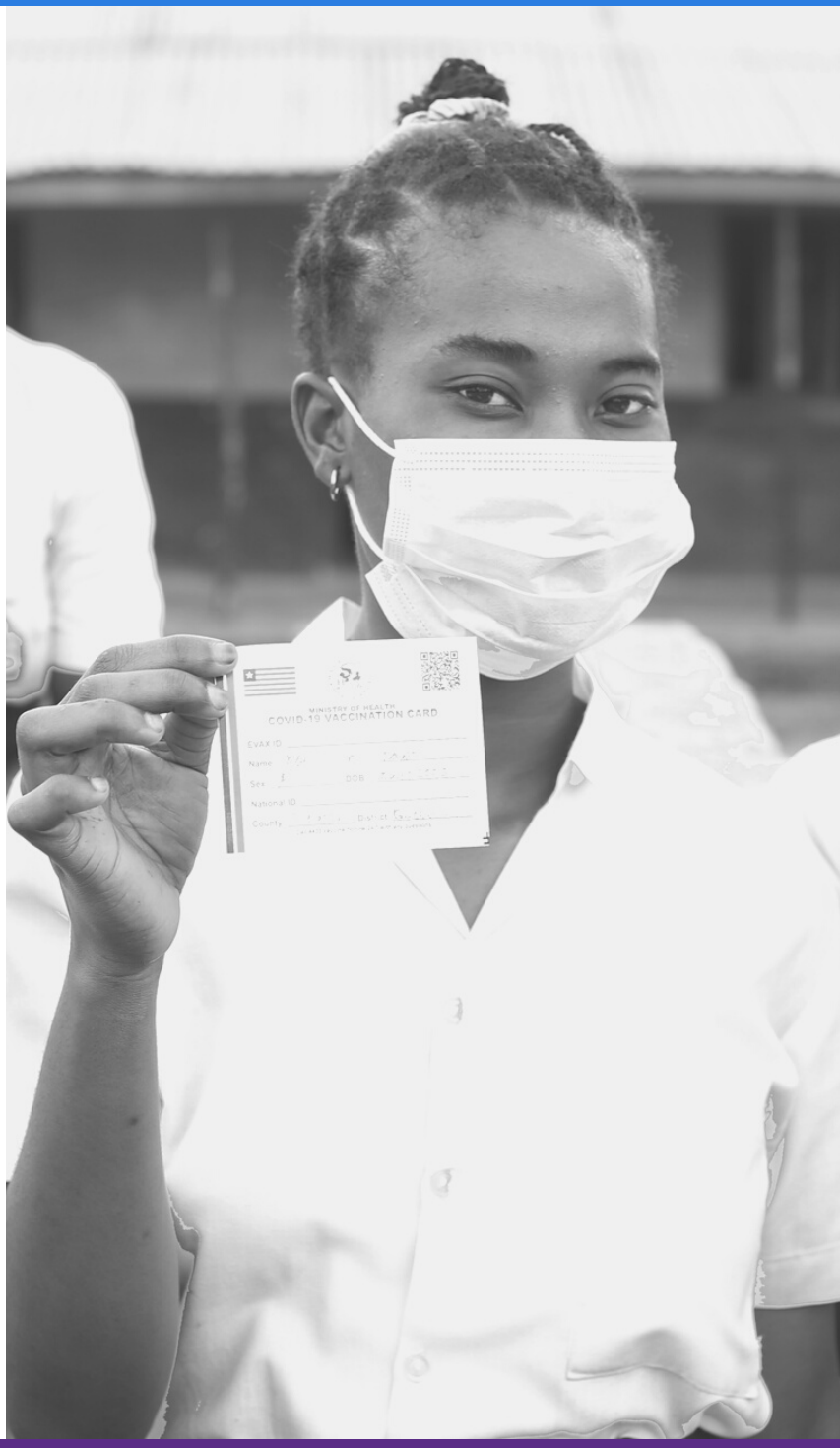

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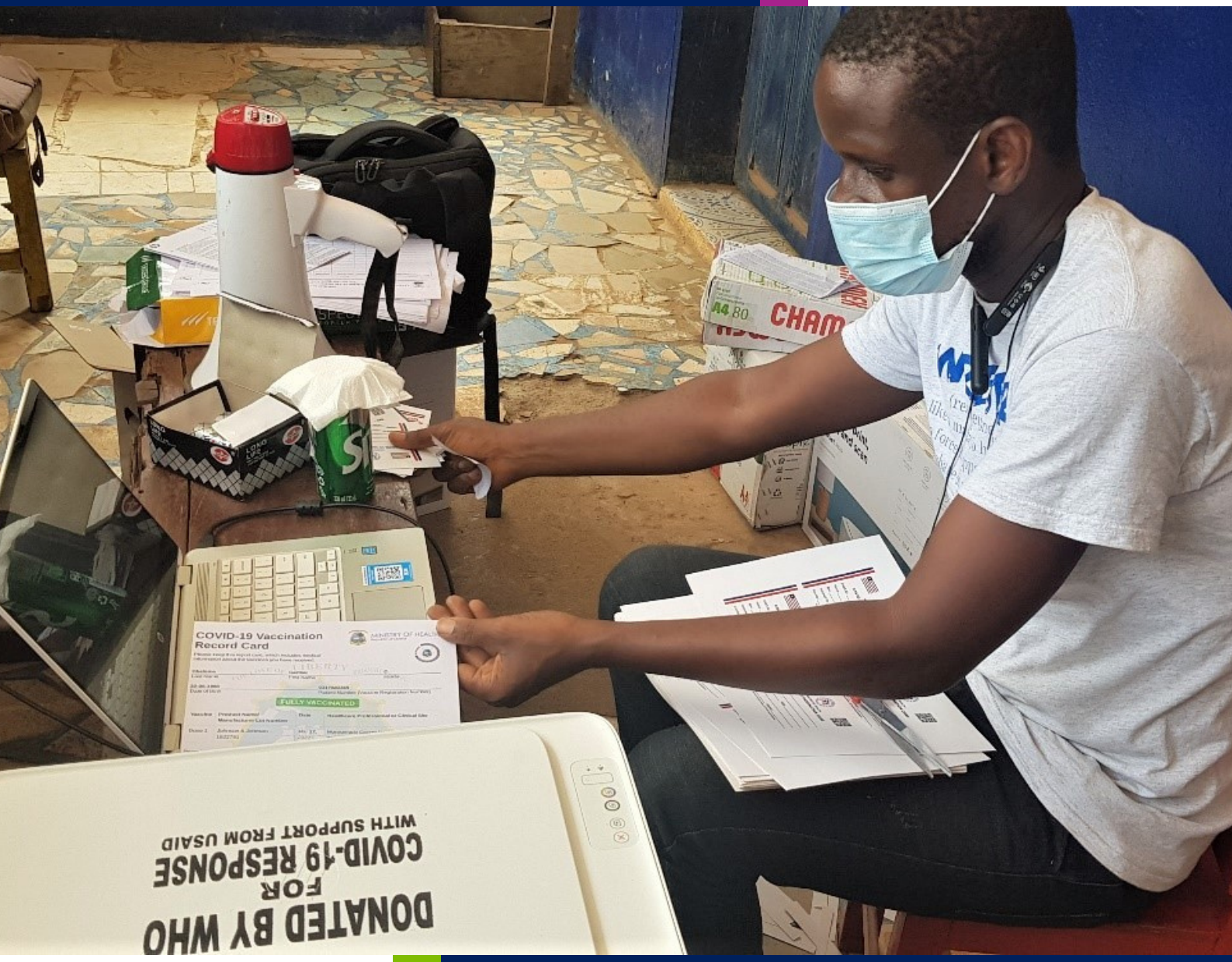

World Health Organization Liberia

For more information, contact:
The WHO Liberia Representative
Dr Peter Clement
Email:clementp@who.int