

Strategies to Enhance COVID-19 Vaccine Uptake among Prioritized Groups, Uganda—Lessons Learned and Recommendations for Future Pandemics

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COVID-19 vaccination was launched in March 2021 in Uganda and initially prioritized persons ≥ 50 years of age, persons with underlying conditions, healthcare workers, teachers, and security forces. However, uptake remained low 5 months after the program launch. Makerere University's Infectious Diseases Institute supported Uganda's Ministry of Health in optimizing COVID-19 vaccination uptake models by using point-of-care, place of worship, and place of work engagement and the Social Assistance Grant for Empowerment model in 47 of 135 districts in Uganda, where we trained influencers to support mobilization for vaccination outreach under each model. During July–December, vaccination rates increased significantly in targeted regions, from 92% to 130% for healthcare workers, 40% to 90% for teachers, 25% to 33% for security personnel, 6% to 15% for persons ≥ 50 years of age, and 6% to 11% for persons with underlying conditions. Our approach could be adopted in other targeted vaccination campaigns for future pandemics.

Globally, the COVID-19 pandemic resulted in >650 million infections and 6.5 million deaths during March 2020–December 2022 (1,2). Uganda recorded its first case of SARS-CoV-2 infection on March 21, 2020; as of January 20, 2023, Uganda had reported $>170,000$ cases and 3,630 deaths (2–4).

SARS-CoV-2 infections can have various clinical manifestations, ranging from asymptomatic infection to mild-to-severe and critical respiratory illnesses requiring hospitalization. Vulnerable populations, such as healthcare workers and persons with underlying conditions, immune dysfunction, or advanced age, are at increased risk for COVID-19, progression to severe disease, and death (5–7).

COVID-19 vaccination is critical in reducing severe disease and death in vulnerable populations while protecting health systems and enabling the relaxation of public health measures (8–11). More important, rapidly vaccinating high-priority groups is crucial for mitigating the effect of the pandemic, similar to emergency immunization response strategies applied during outbreaks of other vaccine-preventable disease (12).

In March 2021, the Ministry of Health in Uganda launched the National COVID-19 Vaccine Deployment Plan. Phase 1 targeted priority populations for vaccination, including healthcare workers, other essential workers (including security personnel and teachers), persons ≥ 50 years of age, and patients with underlying chronic medical conditions (13,14). This approach considered the heightened

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global demand for COVID-19 vaccine limiting availability and driving vaccine inequity to lower-income countries at the time and the disproportionate occurrence of severe COVID-19 disease and death in vulnerable groups in Uganda (15). As such, a phased vaccine deployment approach prioritizing vulnerable groups was crucial to maximize the public health gains from the rollout. However, 5 months into phase 1 rollout, COVID-19 vaccination coverage in those groups remained low (16,17).

To address this shortfall, the US Centers for Disease Control and Prevention (CDC) and the Infectious Diseases Institute (IDI) at Makerere University in Uganda implemented a project to support the Uganda Ministry of Health (MoH) through the Uganda National Expanded Program for Immunization (UNEPI) in accelerating vaccination uptake in high-priority groups. We describe strategies designed and deployed to enhance the COVID-19 vaccination uptake among prioritized groups.

Methods

Project Description Strategy and Context

IDI launched the COVID-19 vaccination project through its Global Health Security Department in July 2021 to increase COVID-19 vaccine uptake among national priority groups through national and subnational implementational support to MoH and UNEPI. The project recruited 3 officers and deployed them at MoH and UNEPI with distinct roles in supporting UNEPI in developing strategies for vaccine advocacy and vaccine safety and technical coordination of all subgranted partners in the regional implementation of vaccine service delivery support. With national-level coordination from the IDI, funding was provided to 4 organizations already receiving funding from the US President's Emergency Plan for AIDS Relief (PEPFAR) for the HIV Comprehensive Care Program through CDC. This funding was designated to support project implementation in 5 regions across 47 districts and 5 cities. The funded implementing partners and areas of coverage included IDI, reaching 12 districts and 1 city in the West Nile Region and the 1 district and 2 cities of Kampala (metropolitan district of Kampala) and Entebbe (metropolitan district of Wakiso); the Rakai Health Sciences Program, reaching 12 districts and 1 city in South Central (Southern Buganda) Region; the AIDS Support Organization (TASO), covering 10 districts of Teso Region and 4 districts of Southern Karamoja Region; and Mildmay Uganda, covering 8 districts in the North Central (Northern Buganda) Region.

Each implementing partner recruited ≥ 4 personnel, including a regional coordinator and data officers. The goal was to layer project implementation into the broader PEPFAR HIV Comprehensive Care Program, which employs a cluster approach with, on average, 4 clusters in each geographic region. MoH technical experts used the adapted version of the World Health Organization (WHO) online COVID Vaccination Training for Health Workers (<https://openwho.org/courses/covid-19-vaccination-healthworkers-en>) to train all regional implementing officers to ensure adequate support of government vaccination activities in the 47 supported districts and 5 cities. Furthermore, this effort was supplemented with supportive supervision visits from the national team to reinforce appropriate project implementation, link stakeholder groups to implementing partners, and roll out the developed vaccination models (Figure 1).

The project aimed to accelerate COVID-19 vaccination among priority populations by developing evidence-based strategies and models for vaccination uptake. We used guidance from the WHO Behavioral and Social Drivers of the Vaccination Framework (18) to inform our approach with interventions that included community engagement, dialogue-based approaches, interpersonal advocacy efforts, and targeted vaccination outreach.

Stakeholder Mapping and Engagement

In partnership with UNEPI, project technical personnel provided national-level assistance in mapping stakeholders associated with priority populations for phase 1 vaccination, engaging them through in-person and virtual teleconference meetings. We discussed the challenges of vaccination uptake among priority populations and brainstormed strategies to address these challenges, highlighting the stakeholders' role.

COVID-19 Vaccination Uptake Models

The strategies described informed the development of COVID-19 vaccination uptake models to accelerate vaccination among priority populations. As part of national-level technical support to the MoH and UNEPI, models were conceptualized and subsequently rolled out at the subnational level, collaborating with subgranted implementing partners in respective districts.

Point-of-Care Vaccination Model

Under this model, we selected high-volume health facilities with specialized clinics for chronic conditions such as HIV, diabetes, and cardiovascular disease.

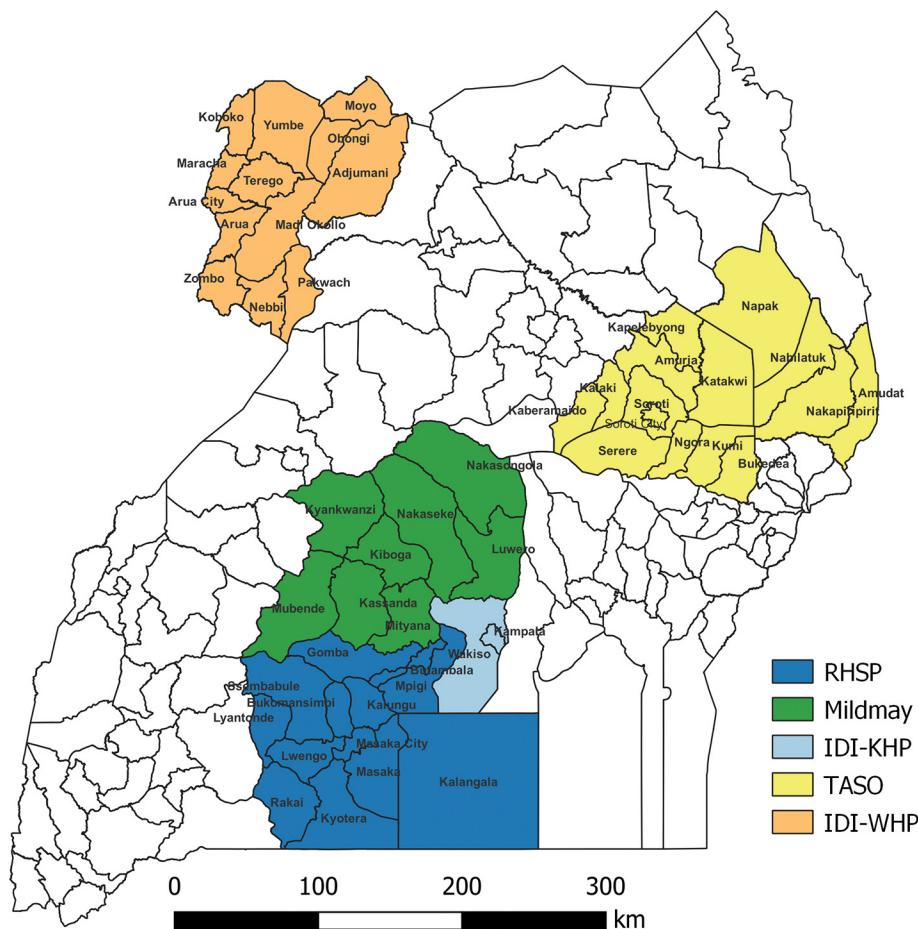


Figure 1. Regional implementation of COVID-19 vaccination project across 47 districts and 5 cities supported by the CDC–PEPFAR Program, Uganda, July 2021–September 2022. CDC, Centers for Diseases Control and Prevention; IDI-KHP, Infectious Diseases Institute–Kampala HIV Project; IDI-WHP, Infectious Diseases Institute–West Nile HIV Project; PEPFAR, US President’s Emergency Plan for AIDS Relief; RHSP, Rakai Health Sciences Program; TASO, The AIDS Support Organization.

We identified healthcare workers and key influencers among patients in these clinics and trained them to be vaccination champions to support interpersonal mobilization for COVID-19 vaccination within the clinics. We distributed information, education, and communication (IEC) materials to assist with mobilization efforts. Furthermore, we built healthcare workers’ capacity to screen and line-list eligible patients for COVID-19 vaccination. District vaccination teams were then linked to work closely with the vaccination champions to conduct targeted outreach on prespecified clinic days.

Place of Work Model

We identified corporate entities and their leaders and used virtual platforms to train the leaders and their staff members to be vaccination champions. During training sessions, we provided essential IEC materials and e-posters to support the interpersonal mobilization of leaders and staff members’ family members and colleagues for COVID-19 vaccination. We then linked district vaccination teams to the corporate entities’ management to conduct vaccination outreaches

at the corporate headquarters or preferred locations, such as playgrounds and recreation centers.

Place of Worship Model

We identified places of worship and their leaders, including key influencers within the congregations, and trained them to be vaccination champions. We provided these persons with IEC materials to support interpersonal mobilization for vaccination. This effort was followed by linking vaccination teams to these places of worship to conduct outreach vaccination outreach after prayer.

Social Assistance Grant for Empowerment (SAGE) Model

The government of Uganda operates a social protection program offering quarterly stipends to persons ≥80 years of age. Those payments are administered at the subcounty level under district Community Development Officers’ (CDO) oversight. We conducted training sessions for the CDOs and influential persons ≥80 years of age, appointing them to be vaccination champions to spearhead interpersonal mobilization efforts. Subsequently, we connected district

vaccination teams with the CDOs and vaccination champions to conduct targeted vaccination outreach near payment sites.

Development of the COVID-19 Vaccination Champions Toolkit

We trained the vaccination champions and key influencers identified for each model described by using the COVID-19 Vaccination Champions Toolkit (Appendix, <https://wwwnc.cdc.gov/EID/article/30/7/23-1001-App1.pdf>) for conducting interpersonal and social mobilization of their communities for vaccination. IDI supported MoH in developing the Vaccination Champion's toolkit, which consists of 3 modules. Module 1 provides an overview of COVID-19 basics, including information on transmission, prevention strategies, and identifying the most vulnerable persons requiring vaccination. Module 2, focused on vaccines, addresses safety concerns and guidelines for reporting adverse effects after immunization. Module 3 focuses on communication strategies related to vaccination, incorporating key insights from WHO's Behavioral and Social Drivers of the Vaccination Framework (18).

We developed the toolkit by adapting existing UNEPI COVID-19 vaccination training materials for healthcare workers for lay audiences, coopting WHO explainers on COVID-19 and vaccines (19), and tailoring the San Francisco Public Health Department and the University of California–San Francisco Vaccine Ambassador training program to the situation of Uganda (20). We convened a 1-day workshop on October 8, 2021, to adapt the drafted toolkit with key inputs from the MoH and UNEPI Advocacy and Risk Communication Department and a patient advocacy group, Community Health Advocacy and Information Network.

We used the mobile communication application WhatsApp as a virtual collaborative platform for sharing electronic IEC materials and updates on vaccine availability and vaccination locations with trained vaccination champions. In addition, we used the platform to counter the evolving misinformation and disinformation surrounding the COVID-19 vaccination program.

Data Management and Ethics Considerations

COVID-19 vaccination uptake was the outcome variable of interest, which we defined as the number of persons vaccinated with a certain dose of the vaccine in a certain period expressed as the proportion of a target population (21). We extracted aggregate COVID-19 vaccination uptake data, categorized by

prioritized groups, from the District Health Information System 2.0 database. We transferred those data, devoid of unique identifier information, to a computer with restricted access. Subsequently, we used the data during March–December 2021 to generate vaccination uptake trend curves for prioritized groups in the PEPFAR-supported districts. This intervention was implemented in response to a public health emergency after receiving authorization from MoH's Office of the Director General of Health Services.

Results

Stakeholder Mapping and Engagement

We engaged 23/30 (77%) of the mapped stakeholders' groups in 6 in-person and 7 virtual meeting sessions. The initial meetings with stakeholders were mainly physical, intended to establish rapport, update stakeholders on the challenges of vaccination in the priority population, and discuss the role they can play. A total of 44 leaders of stakeholder groups participated in the physical meetings and the subsequent virtual meeting that involved training 1,333 members to be vaccination champions. Three of 6 of the initial engagements with the stakeholder leadership blended physical and virtual meetings.

Some of the engagements with the stakeholders lead to key outputs, such as mobilizing members for training as vaccination champions, piloting the models, engaging media to call to action priority populations for vaccination, and conducting targeted outreach of stakeholder members. Specifically, 3 stakeholders designated places of worship for targeted vaccination outreach campaigns (Watoto Ministries, Kakande Ministries, and Gadhafi Mosque). This process resulted in vaccinations from direct mobilization support from the stakeholders after the engagement with stakeholders targeting the key priority populations that are part of the stakeholder membership (Table 1; Figure 2).

COVID-19 Vaccination Uptake by Models

We assessed COVID-19 vaccination by vaccination model (Table 2). During the implementation period of September–December 2021, a total of 75,098 vulnerable priority persons were vaccinated through activities and outreach based on the models. All 4 models were piloted in Kampala, where all stakeholder engagements occurred and were hosted in the IDI and Kampala HIV Project operational region. Those models were subsequently rolled out to other implementing regions. We assessed the percentage of overall COVID-19 vaccinations attributable to each

Table 1. Engagement of stakeholders linked to the priority populations for COVID-19 vaccination, Uganda, July–September 2021

Category	Stakeholders engaged	Physical meeting	Virtual meetings
Healthcare workers	Uganda Medical and Dental Practitioners Council; Uganda Medical Association Uganda Nurses and Midwives Councils; Uganda Nurses and Midwives Union (UNMU) Pharmacy Council; Pharmaceutical Society of Uganda; Allied Health Practitioners Council	9 members, including Uganda Medical and Dental Practitioners Council Registrar and Uganda Medical Association President UNMU President and Uganda Nurses and Midwives Councils Registrar 15 members of the pharmacy council and Pharmaceutical Society of Uganda engaged in both virtual and physical session	70 doctors; 380 infection prevention and control specialists 56 national executive committee personnel to the UNMU and chairpersons countrywide 80 pharmacists sensitized on COVID-19 vaccination
Teachers	Uganda National Teachers Union; Ministry of Education and Sports; Ministry of Local Government	Chairperson, commissioner, and permanent secretary	131 district education officers, 500 private school owners, private teachers association, faith-based schools
Security personnel	Uganda Peoples' Defense Forces; Uganda Police Force; Uganda Prison Services	5 personnel concerned with health and medical matters	
Persons ≥50 years of age	Ministry of Gender, Labour, and Social Development; members of parliament for persons ≥50 years of age; faith-based organizations	Supreme Mufti, church leadership, 3 members of parliament, and the state minister	47 members
Persons with underlying conditions	Community Health and Information Network; Uganda Diabetes Association; Uganda Heart Institute; Uganda Cancer Institute; Uganda AIDS Control Program; corporate entities (Stanbic Bank, UMEME Limited, Diamond Trust Bank)	17 members	

model: point-of-care, 11%; place of worship, 38%; place of work, 8%; and SAGE, 43%.

Phase 1 of the National COVID-19 Vaccine Deployment Plan aimed to vaccinate 4.8 million priority persons (150,000 healthcare workers, 550,000 teachers, 250,000 security personnel, 3,348,500 persons ≥50 years of age, and 500,000 persons with underlying conditions). In July 2021, 5 months into the national COVID-19 vaccination roll-out in Uganda, national-level vaccination uptake among those groups (by receipt of first dose) stood at 94,684/150,000 (63.1%) for healthcare workers, 158,406/550,000 (29%) for teachers, 142,509/250,000 (57%) for security personnel, 276,736/ 3,384,000 (8%) for persons ≥50 years of age, and 25,361/500,000 (5.1%) for persons with underlying conditions. As of November 15, 2021, approximately 4 months into the implementation of project activities from inception in July 2021, vaccination uptake improved to 140,635 (93.8%) for healthcare workers, 376,555 (68.595%) for teachers, 161,491 (64.6%) for security personnel, 511,142 (15.3%) for persons ≥50 years of age, and 40,443 (8.1%) for persons with underlying conditions.

For programmatic tracking, the CDC–PEPFAR supported districts were assigned 72,225 healthcare workers, 264,825 teachers, 120,375 security personnel,

1,612,304 persons ≥50 years of age, and 240,750 persons with underlying conditions as target contributions to the overall national target for priority populations for phase 1. Three months after initiation of project activities in the CDC–PEPFAR supported districts, vaccination uptake improved from 66,561/72,225 (92%) to 93,889/72,225 (130%) for healthcare workers, 105,310/264,825 (40%) to 238,791/264,825 (90%) for teachers, 29,808/120,375 (25%) to 40,041/120,375 (33%) for security personnel, 100,788/1,612,304 (6%) to 235,439/1,612,304 (15%) for persons ≥50 years of age, and 14,878/240,750 (6%) to 26,134/240,750 (11%) for persons with underlying conditions.

By the close of 2021, a total of 115,737/72,225 (160%) healthcare workers, 285,369/264,825 (108%) teachers, 49,773/120,375 (41%) security personnel, 713,776/1,612,304 (44%) persons ≥50 years of age, and 47,892/240,750 (20%) persons with underlying conditions were vaccinated in CDC–PEPFAR supported districts. In terms of the percentage of vaccinations nationwide per target group, those regions contributed 115,737/153,673 (75%) of vaccinations among healthcare workers, 285,369/403,184 (71%) of vaccinations among teachers, 49,773/161,491 (31%) of vaccinations among security personnel, 713,776/1,314,706 (54%) of vaccinations among persons ≥50 years of age, and 47,892/47,555

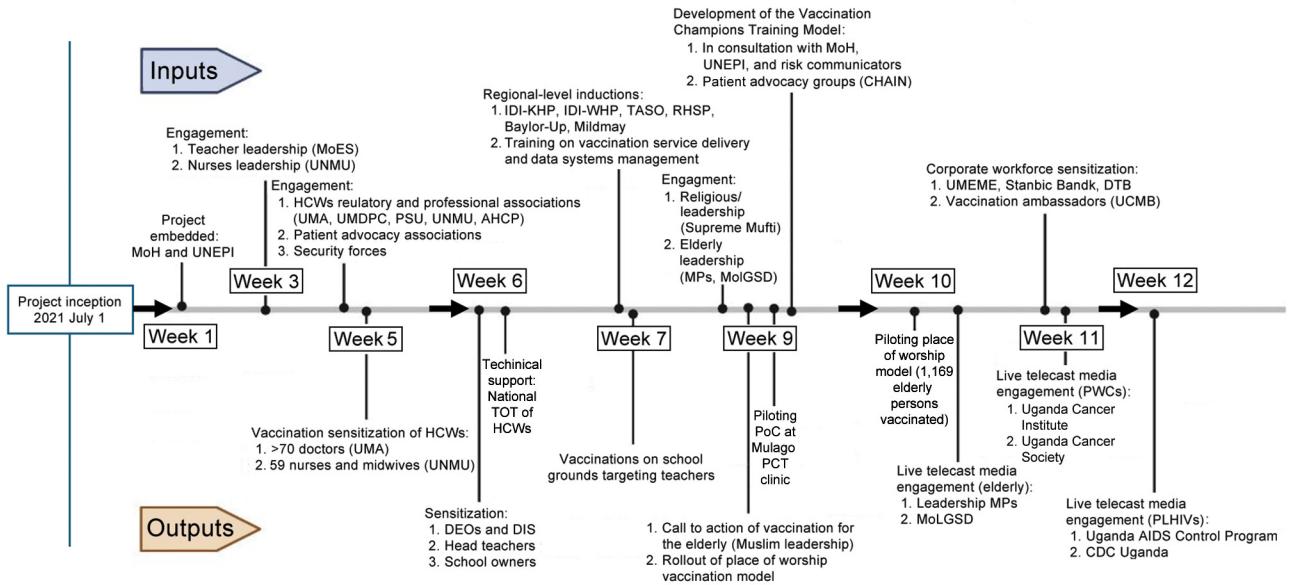


Figure 2. Timeline series of engagements and their respective outputs (starting July 1, 2021) within the first 12 weeks of the COVID-19 vaccination project, Uganda, July–September 2021. ACP, AIDS Control Program; AHPC, Allied Health Practitioners Council; CDC, US Centers for Disease Control and Prevention; CHAIN, Community Health and Information Network; DEOs, District Education Officers; DIS, District Inspector of School; DTB, Diamond Trust Bank; HCWs, healthcare workers; IDI-KHP, Infectious Diseases Institute–Kampala HIV Project; IDI-WHP, Infectious Diseases Institute–West Nile HIV Project; MoES, Ministry of Education and Sports; MoH, Ministry of Health; MoLGSD, Ministry of Gender, Labour, and Social Development; MPs, Members of Parliament; PCT, HIV Prevention Care and Treatment; PoC, point-of-care; PSU, Pharmacy Council, Pharmaceutical Society of Uganda; PWCs, persons with underlying conditions; RHSP, Rakai Health Sciences Program; TASO, The AIDS Support Organization; ToT, training of trainers; UCI, Uganda Cancer Institute; UCMB, Uganda Catholic Medical Bureau; UDA, Uganda Diabetes Association; UHI, Uganda Heart Institute; UMA, Uganda Medical Association; UMDPC, Uganda Medical and Dental Practitioners Council; UNEPI, Uganda National Expanded Program on Immunization; UNMC, Uganda Nurses and Midwives Councils; UNMU, Uganda Nurses and Midwives Union.

(101%) of vaccinations among persons with underlying conditions at the close of 2021 (Figure 3).

Discussion

Targeting priority populations for COVID-19 vaccination has been challenging globally, and countries in sub-Saharan Africa, including Uganda, are no exception (22–25). Despite government efforts to ensure COVID-19 vaccines are available to populations, practical issues, perceptions, and social processes within vulnerable target groups present access challenges that hinder achieving high vaccination coverage in these populations. Our study elucidates

strategies for effectively targeting priority populations for COVID-19 vaccinations. We offer methodologic insights that are transferrable for the effective rollout of vaccination to future pandemics and outbreaks of other vaccine-preventable diseases with identifiable at-risk populations.

This project has demonstrated that stakeholder involvement is essential in planning and targeting vaccination efforts, particularly in the context of COVID-19 vaccination integration into routine healthcare service delivery, to effectively target vulnerable persons and close gaps between government agencies and communities (26,27). Community-based

Table 2. Contribution of vaccination models targeting priority groups for COVID-19 vaccination uptake in CDC–PEPFAR supported districts, Uganda, September–December 2021*

Vaccination model	CDC PEPFAR implementing partners					Total no. (%)
	IDI-KHP	IDI-WHP	Mildmay Uganda	TASO	RHSP	
Point-of-care	4,096	427	0	787	3,020	8,330 (11)
Place of worship	27,284	330	0	316	570	28,500 (38)
Place of work	2,711	1,000	0	1891	200	5,802 (8)
SAGE	694	13,731	1,808	16,233	0	32,466 (43)
Total	34,785	15,488	1,808	19,227	3,790	75,098 (100)

*CDC, Centers for Disease Control and Prevention; IDI-KHP, Infectious Diseases Institute–Kampala HIV Project; IDI-WHP, Infectious Diseases Institute–West Nile HIV Project; PEPFAR, US President’s Emergency Plan for AIDS Relief; RHSP, Rakai Health Sciences Program; SAGE, Social Assistance Grant for Empowerment; TASO, The AIDS Support Organization.

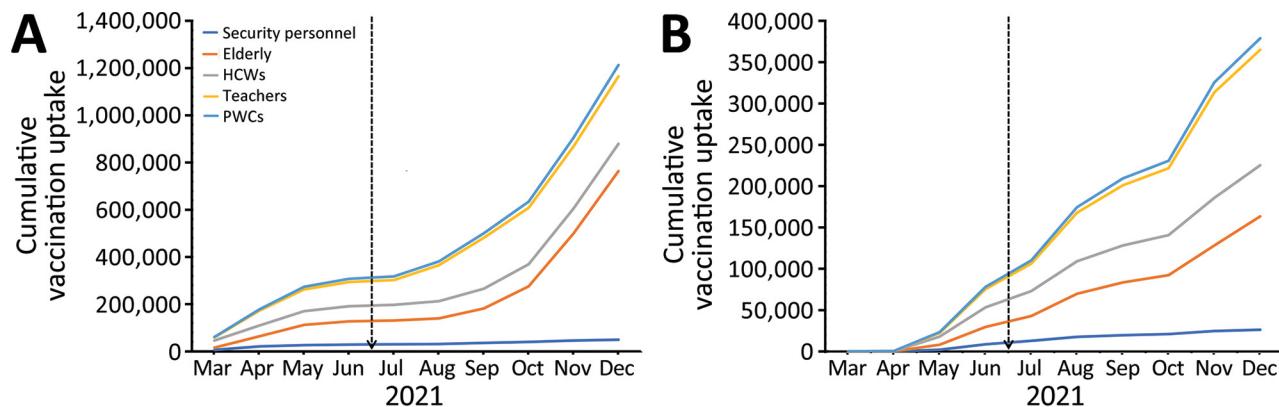


Figure 3. COVID-19 vaccination coverage among priority populations, by receipt of first (A) and second (B) dose, showing project inception date (vertical dashed line) and vaccine uptake trends among priority populations, Uganda, March–December 2021. HCWs, healthcare workers; PWCs, persons with underlying conditions.

stakeholders with ties to target populations play a critical role in fostering vaccination-related interpersonal mobilization. Moreover, local influencers can be mobilized to raise COVID-19 vaccination acceptance rates in priority populations as vaccination champions. Such influencers include religious leaders, community leaders, informed patients, and other notable community representatives. The strategies can be adapted for targeted vaccination campaigns to protect vulnerable populations from future pandemics. Studies have demonstrated that the engagement of influencers in developing and implementing vaccination strategies served to reduce misunderstandings and mistrust regarding COVID-19 vaccinations, rekindled community trust and vaccine confidence, and resulted in increased vaccination rates (28–30).

Using existing public health delivery platforms and community social structures in emergency response efforts can reinforce health systems' resilience to future pandemics. Our project demonstrates the potential of leveraging existing public health infrastructures, as observed with the involvement of the PEPFAR Comprehensive HIV Care Program and other community-based organizations linked to priority populations, to support COVID-19 vaccination efforts. During the past 2 decades, HIV programs have cultivated community structures and a strong presence that have earned trust within communities toward public health programs. Those established systems can serve as a solid foundation upon which other pandemic prevention preparedness and response efforts, such as COVID-19 vaccination, can build on (31–33). Such structures can enhance vaccine access and delivery, especially where community involvement is critical for mobilizing vulnerable populations.

This project also has implications for global health security responses, particularly in rapidly deploying medical countermeasures, such as vaccines, as a part of preparedness and response strategies during outbreaks (33). Those measures can be optimized to suit specific contexts to effectively deliver a successful rapid vaccination campaign as an emergency response targeting vulnerable populations. A cautious approach should be taken in integrating health security with HIV programming because this process might impede the effective delivery of HIV care services caused by the inevitable competition for resources. A crucial aspect to consider is efficient allocation of resources for each initiative to prevent overburdening either program. Integration efforts should prioritize the streamlining of resource allocations to ensure effectiveness.

We did not set out to independently assess the acceptability and feasibility of implementing various models, leaving room for future exploration. Similarly, evaluating interventions' effectiveness was not a primary objective, given the urgent public health crisis posed by the COVID-19 pandemic. Consequently, comparison groups were not established because of potential ethical concerns. However, retrospective investigation is now feasible, necessitating an independent evaluation study. Although we used District Health Information System 2.0 data to report COVID-19 vaccination uptake in supported districts, data backlog and completeness were beyond the project's control. Of note, targets for priority populations were based on estimates from the Uganda Bureau of Statistics and Ministry of Public Service, potentially leading to overperformance caused by underestimation, particularly among healthcare workers, because private sector estimates were not considered.

The vaccination models developed through stakeholder engagement increased COVID-19 vaccine uptake among prioritized groups in supported regions in Uganda. Embracing this approach as part of future pandemic prevention preparedness and response efforts holds promise for enhancing vaccination uptake. Moreover, we highlight the importance of stakeholder engagement in developing models to mobilize priority populations for COVID-19 vaccination, fostering collaboration, and building public confidence in vaccines between government agencies and the communities. Efforts to target persons in high-priority groups should continue to use these models in a tailored approach during the post-COVID-19 era as a critical stabilization and postrecovery strategy for MoH and UNEPI (34).

This project demonstrates that, by leveraging the PEPFAR platform, we effectively and expeditiously deployed vaccination, among other emergency public health interventions, by layering health security on earlier global health initiatives in HIV response. Therefore, we recommend that global health security programs consider adopting these strategies to bolster their resilience and effectively support vaccination programs as part of future pandemic prevention preparedness and response efforts. Such proactive measures will strengthen global health security and safeguard populations against emerging threats.

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Strategies to Enhance COVID-19 Vaccine Uptake among Prioritized Groups, Uganda

Appendix

Vaccination Champions: A Training for Community Mobilizers

Shown on the following pages is the COVID-19 Vaccination Champions Toolkit used to conduct interpersonal and social mobilization of communities for vaccination in this study.

Vaccination Champions

A Training for Community Mobilizers



Training modules

**Introduction
to the
course**

Part 1: COVID 19

Part 2: Vaccines

**Part 3: Vaccine
Communication**



Learning objectives

1

Learn about COVID19, what causes it, how it spreads and how we can prevent it. Recognize priority populations that are targeted for COVID 19 vaccination

2

Know the different types of COVID19 vaccines. Understand how vaccines are monitored for safety

3

Learn how to communicate to people and communities about COVID-19 vaccination

Details of the training



- **Content:** COVID-19 disease, Priority Groups, Vaccines, Safety, Communication
- **Duration:** 90-minutes
- **Target:** District staff, FBO leaders, community leaders, media
- **Train:** Mobilizers
- **Reporting:** Provide activity reports

Definition of vaccination champions



A person who helps someone else overcome a barrier/obstacle to vaccination is a **Vaccination Champion.**

<https://svhealthcare.org/news/vaccination-champions>

Barriers to vaccination



Concerns about safety of the vaccine



Inadequate awareness of vaccination program



Inadequate access to vaccine locations



Misinformation promoting hesitancy



Example: Vaccine champion in Uganda



Thousands of Champions are needed to;

- Talk about the vaccine with their friends, family members, and neighbours
- Listen to the reservations and obstacles and help resolve them

Dr. Paul Buyego

“Let us encourage every one to vaccinate to prevent severe disease, hospitalization and death.”

Vaccination champions – what do they do?

1

Ask about barriers and do what you can to resolve them

2

Share the facts and clear the misinformation

3

Offer to connect them to vaccination centers

4

Share that vaccines are safe and easy to use

5

Share your experience about getting the vaccine



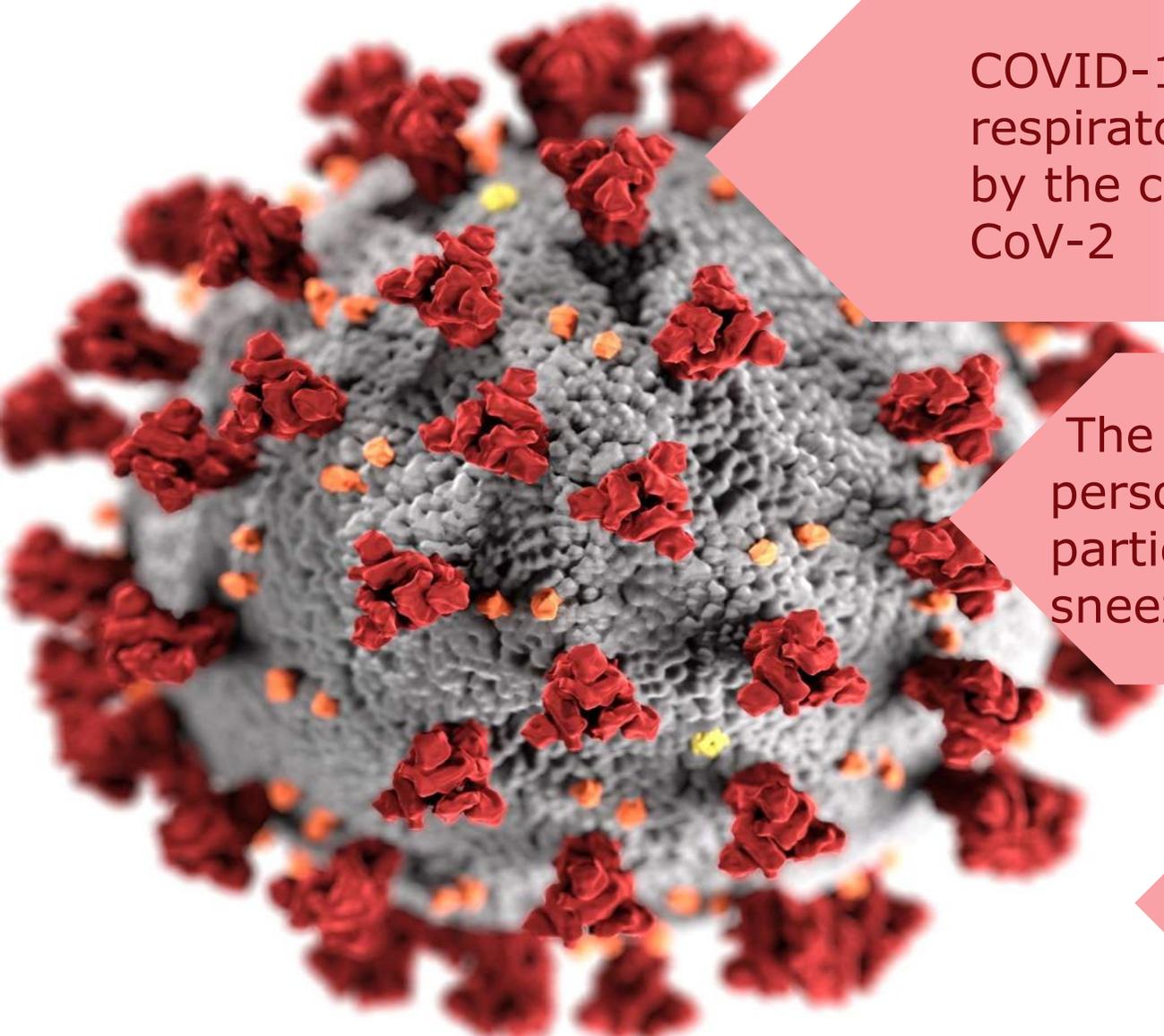
COVID-19

PART 1

**CORONAVIRUS
(COVID-19)
INFORMATION**

A detailed 3D rendering of a coronavirus particle, showing its characteristic spherical shape with a textured, grey outer shell and a red, spiky surface. The particle is set against a dark background, with other smaller particles visible in the distance.

What is COVID-19?



COVID-19 is an infectious respiratory disease caused by the coronavirus, SARS-CoV-2

The virus can spread from an infected person's mouth or nose in small liquid particles (droplets) when they cough, sneeze, talk, sing or breathe heavily

Usually, the virus spreads when people are in direct or close contact (less than 1 meter) with an infected person

What are signs and symptoms of COVID-19?

Common symptoms of COVID-19

- Mild fever,
- Cough,
- Fatigue/weakness/tiredness,
- Shortness of breath,
- Myalgias (muscle aches/pains).
- Complications/problems as a result of COVID-19 include severe disease and may lead to death

PLEASE NOTE:

Anyone can become sick with COVID19, regardless of age and health status.

Older people above the age of 50 and those with underlying or people with chronic(long lasting) medical conditions are more likely to have severe forms of COVID-19

Priority populations for vaccination

Occupation

Are by the nature of their work exposed to COVID-19 infection

- Health workers,
- Security personnel
- Teachers and non-teaching staff in schools .



Weaker immune systems

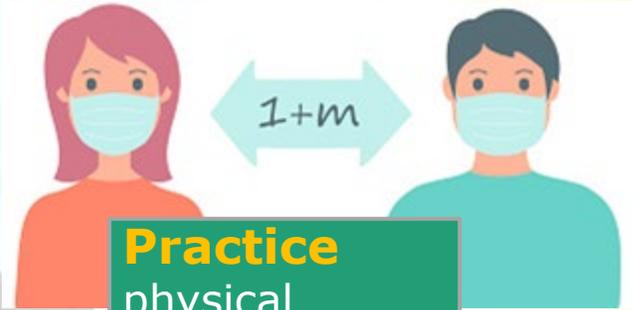
People with weaker immune systems are more likely to need hospital care or die if they get COVID-19)

- Older people 50 years of age and above
- People with underlying conditions such as diabetes, hypertension, heart/liver/kidney disease, cancer and HIV.
- Adults from 18- 49 years of age and Children 12 -17 years with these underlying conditions are prioritized for vaccination

Special groups-Pregnant and Breast-feeding women

- The **benefits** of getting a COVID-19 vaccine far **outweigh risks** for individuals who are pregnant or might become pregnant in the future
- **Vaccines are safe in breastfeeding mothers.**
- The **vaccines do not contain live virus**, so being vaccinated does not pose a risk to the baby.
- **If you are vaccinated** for the coronavirus, there is no need to **delay or discontinue breastfeeding**
- **The vaccines will not stop you from becoming pregnant** in future. Women trying to conceive can be vaccinated with the current COVID-19 vaccines — there is no reason to delay pregnancy after completing the vaccine series.

Information to support patients and protect caregivers when managing COVID-19 at home



Practice

physical distancing of at least 2 meters away from others



Wash your hands regularly with soap and clean water or use an alcohol-based hand sanitizer (at least 60% alcohol content)



Keep rooms well ventilated with open windows



Wear a mask properly, covering your mouth and nose when in public, and while at home when you are caring for an infected person who is under home-based care/isolation

Information to support patients and protect caregivers when managing COVID-19 at home



Avoid touching the eyes, nose and mouth



Avoid touching surfaces and clean surfaces regularly with standard disinfectants



Avoid crowds, hand shaking and hugs

Cough or **sneeze** into a bent elbow or use a tissue if accessible.





THE TAKE-HOME MESSAGE

- COVID-19 is an infectious/contagious respiratory illness

- You can become infected by breathing in droplets from an infected person

- Common symptoms include; fever, shortness of breath these can worsen to more severe COVID-19 disease

- Anyone can get COVID-19, but older people ≥ 50 years and those with underlying medical conditions are more likely to get severe forms of COVID-19 disease

- Most cases of COVID-19 are asymptomatic

- Observe all the SOPs for prevention of COVID-19



COVID-19 vaccines and vaccine safety

PART 2 **Vaccines**



What is the goal of COVID-19 vaccination?



- To prevent and reduce **severe COVID-19 disease and deaths**
- Sustain national health system response
- Restore health and productivity of the Ugandan societies and the economy

Vaccines

The vaccines for COVID-19 are all designed to teach the body's immune system to safely recognize and block the virus that causes COVID-19.



All vaccines have a very high efficacy/usefulness in preventing hospitalization, death and severe disease.

Types of Vaccines



Inactivated or weakened virus vaccines: They use a weakened form of the virus that does not cause disease, but still generates an immune response. **(Sinovac, Sinopharm)**



Viral vector vaccines: These use a virus that has been genetically engineered so that it can't cause disease but produces coronavirus proteins to safely prompt an immune response. **(AstraZeneca , Janssen)**

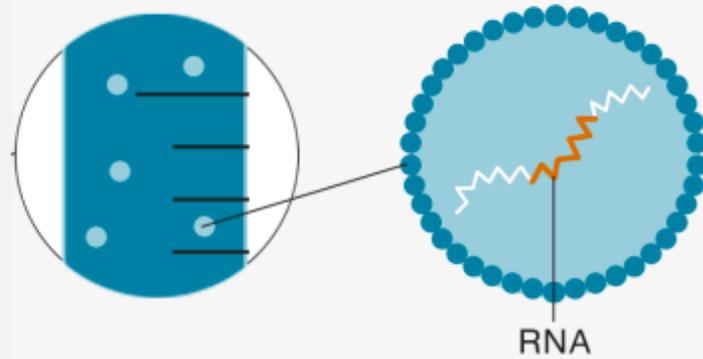


RNA and DNA vaccines: It is a new approach that uses genetically engineered RNA or DNA to generate a protein that safely prompts an immune response. **(Pfizer, Moderna)**

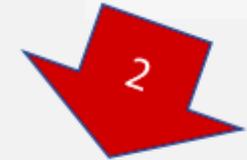
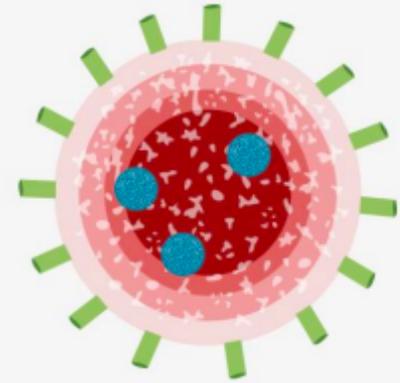
Pfizer & Moderna Vaccines: How They Work



How a messenger RNA (mRNA) vaccine works. Scientists take some inactive virus genetic code that tells cells what to build and coat it in a lipid (fat) so it can enter the body's cells.

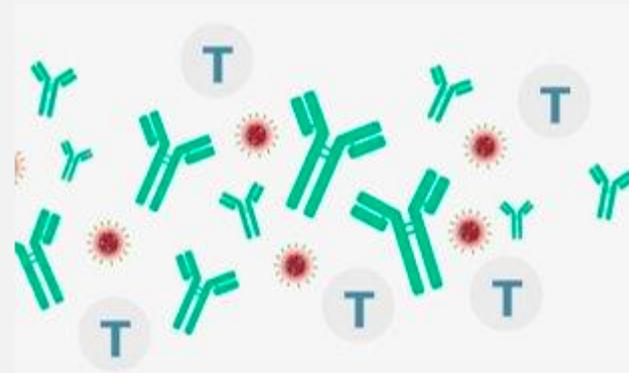
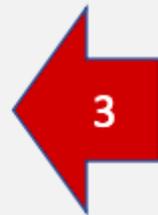
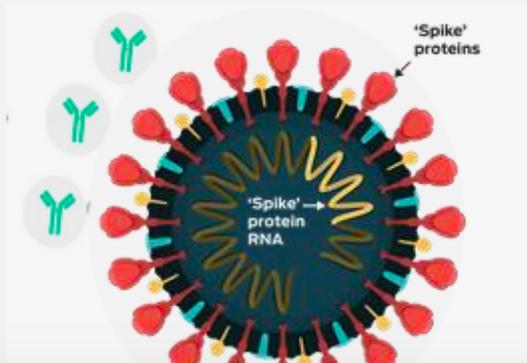


The vaccine enters the cells and tells the cell to produce the protein from the outside of the coronavirus so your body can recognize it later



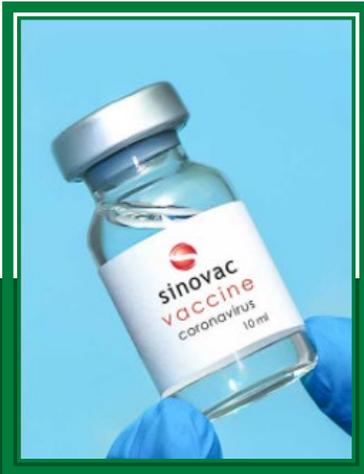
If your body comes in contact with a coronavirus the immune system can now recognize it and fight the virus.

The immune system produces antibodies that recognize the protein from the outside of a coronavirus



COVID-19 vaccines available in Uganda

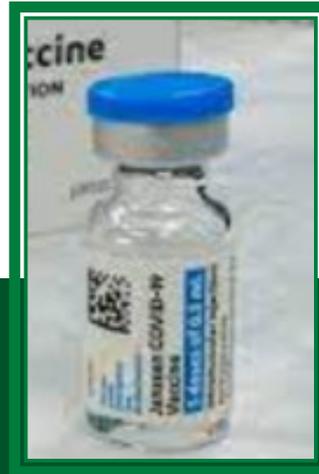
Sinovac



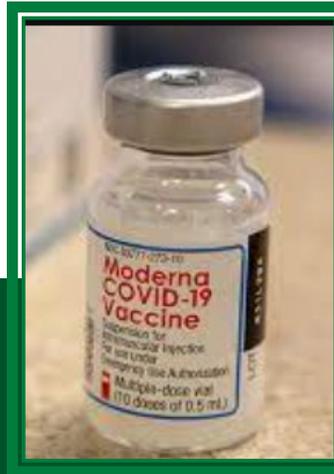
Pfizer



J&J



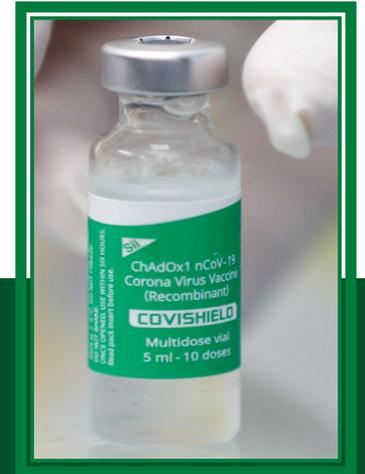
Moderna



Sinopharm



AstraZeneca



COVID-19 Vaccination Models in place for better Targeting of priority population



Point of Care

Leveraging on routine care facilities to target mobilization and vaccination i.e. PLHIV and PWC at NCD clinics



Place of Worship

Religious leaders mobilizing the elderly and PWC through religious leaders for vaccination at places of worship as designated outreach vaccination centres



Vaccination Champions Model

Developing content to training selected KoL on appropriate strategies for community-led mobilization for vaccination



Place of Work Model

Vaccinate a working to reach an older person model; Using workplaces to mobilize families for vaccinations

All COVID-19 vaccines can be administered to:

- **People aged 18 years and above.**
- **Pregnant and lactating women**
- **People with long lasting and underlying illness (from age 12 and above)**
- **People that have recovered from COVID 19.**
 - Given after 3 months
 - No need for COVID-19 testing



Matching, mixing and booster vaccinations (MoH guidance)

Vaccine scheduling— where the 2nd dose is different from the 1st dose

Alternative vaccine boosting –vaccine used for a booster dose may differ from the vaccines used in the initial full vaccination or even for vaccines used under the primary schedule as above.

Boosting recommended after 6 months for fully vaccinated individuals in the following categories

- All adults above 50 years
- All HCW, teachers and non-teaching , security personnel
- People with co-morbidities.
- All fully vaccinated people.

VACCINE ADMINISTRATION

Vaccine Name	Dosage	Dose	Dose interval	Device	Route of Admin.	Site of Admin.
Astrazeneca	0.5 ml	2 doses	8 - 12 weeks	0.5 ml auto-disable (AD) syringe	Intramuscular (IM)	Left Deltoid Muscle
Sinovac	0.5 ml	2 doses	4 weeks	0.5 ml auto-disable (AD) syringe		
Pfizer-BioNTech	0.3 ml	2 doses	3 - 4 weeks	0.3 ml auto-disable (AD) syringe		
Moderna	0.5 ml	2 doses	4 weeks	0.5 ml auto-disable (AD) syringe		
Janssen	0.5 ml	1 dose	N/A	0.5 ml auto-disable (AD) syringe		
Sinopharm	0.5 ml	2 doses	3 - 4 weeks	0.5 ml auto-disable (AD) syringe		

The dose interval is 12 weeks for AZ and 4 weeks for all the rest, except J&J which is only one dose

Eligible categories for COVID 19 booster dose



- All those aged 50 years and above
- Health workers
- Teachers both in pre-primary, primary, secondary and tertiary institutions
- Religious leaders
- Cultural leaders
- Security personnel
- Media
- Drivers and conductors of public transport vehicles
- Bodaboda riders
- Bar and night club workers
- Market workers and vendors

Completion of Primary Series of COVID-19 Vaccines (Matching and mixing/Booster dosing)

	First Dose	Second Dose	Interval between doses
1	AstraZeneca	Pfizer or Moderna	≥8 weeks following dose 1 of AZ
2	Pfizer	AstraZeneca	≥ 4 weeks following dose 1 of Pfizer
3	Moderna	AstraZeneca	≥ 4 weeks following dose 1 of Moderna
4	Sinopharm	AstraZeneca or Pfizer or Moderna	≥ 4 weeks following dose 1 of Sinopharm
5	Sinovac	AstraZeneca or Pfizer or Moderna	≥ 4 weeks following dose 1 of Sinovac

How do we know if COVID-19 vaccines are safe?



COVID-19 vaccines go through a **rigorous, multi-stage** and **testing** before approval.

The National Drug Authority is responsible for the safety and quality of medicines in Uganda and **has approved the vaccines** for use **after a rigorous process of evaluation and approval by the World Health Organization and MOH Uganda.**

Most side-effects are mild and resolve in 1- 2 days

Common side effects:

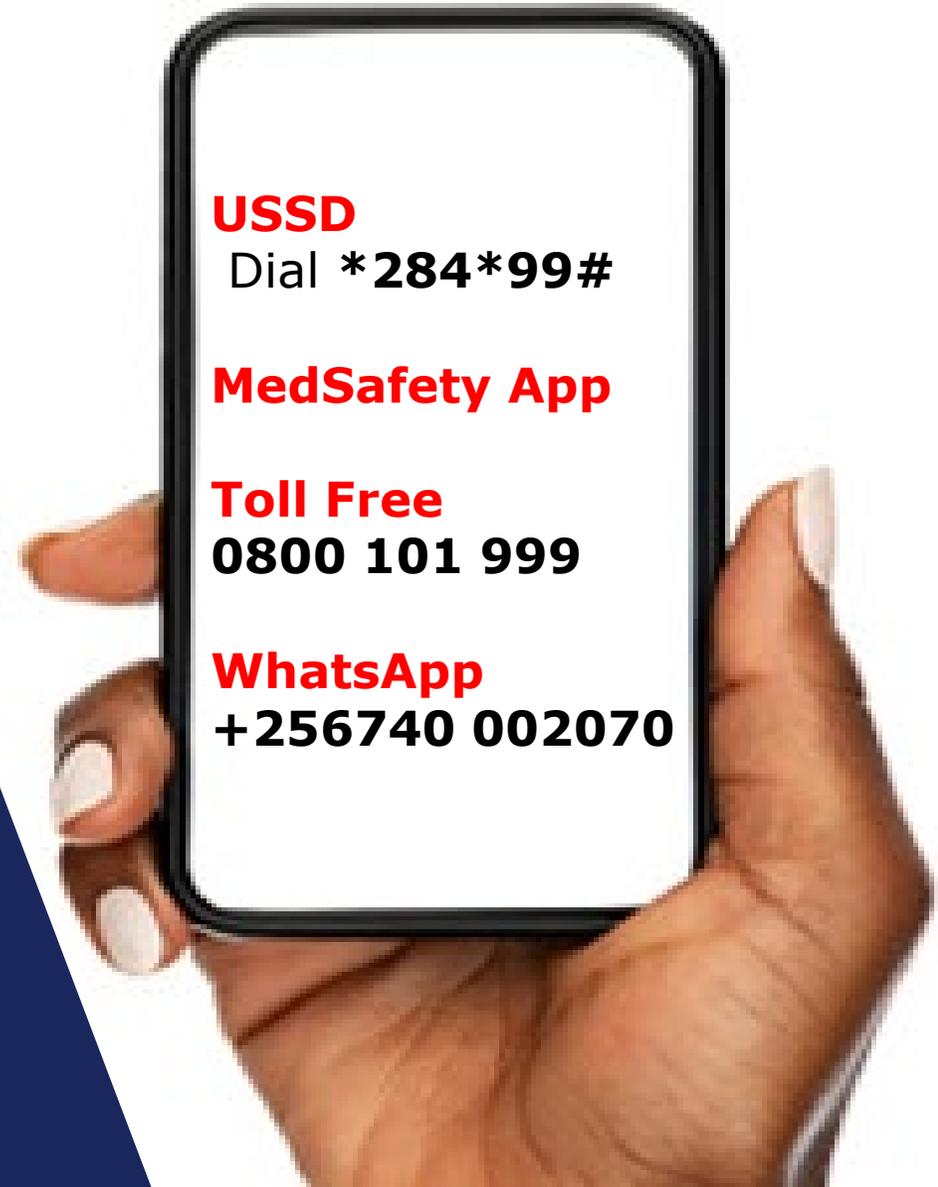
- Fever
- Headache
- Pain at injection site
- Nausea
- Vomiting
- Decreased appetite
- Fatigue
- Tiredness
- Dizziness
- Body chills



Rarely reported side effects:

- Clotting disorder
- Heart problems
- Lymph node swelling

Report any side-effect you may experience to NDA via



USSD

Dial ***284*99#**

MedSafety App

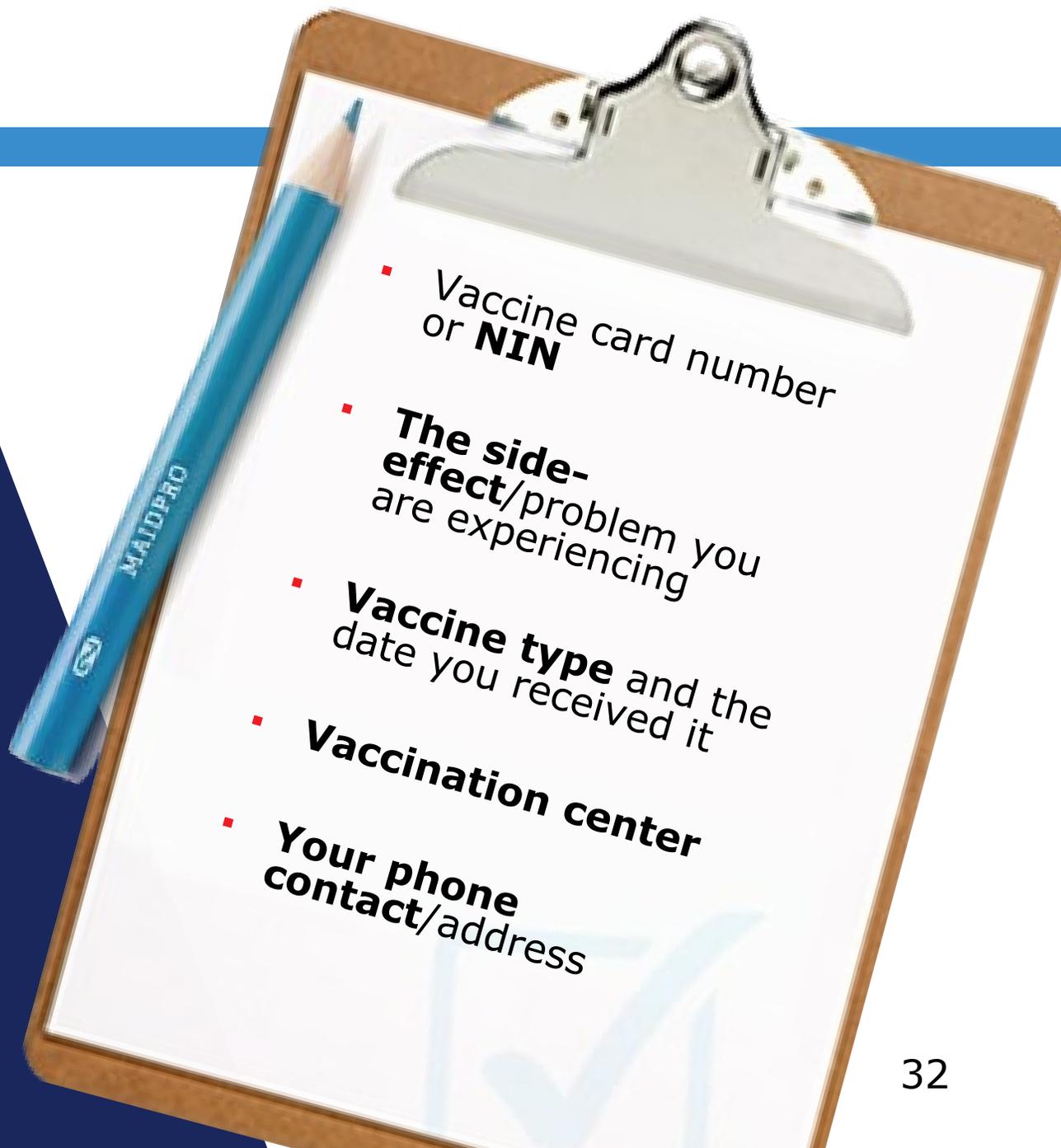
Toll Free

0800 101 999

WhatsApp

+256740 002070

Don't forget to include the following in your report



- Vaccine card number or **NIN**
- **The side-effect/problem** you are experiencing
- **Vaccine type** and the date you received it
- **Vaccination center**
- **Your phone contact/address**

Vaccine PV Interventions cont'd

Animation video; Vaccination safety and reporting



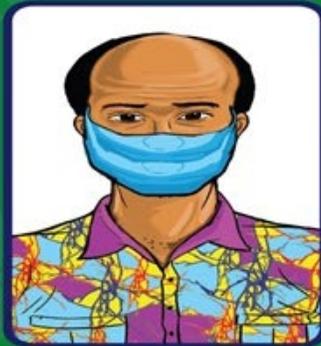
Continue to observe other SOPs



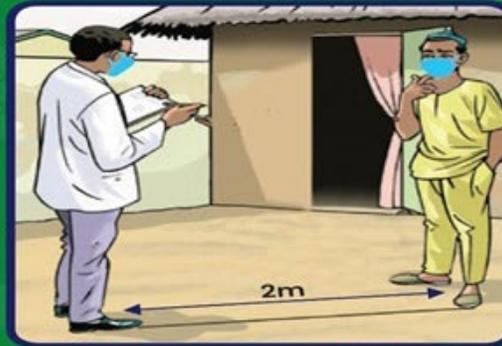
Even after getting your COVID-19 vaccine, it is important to continue observing the preventive measures



Wash your hands regularly with soap and running water or use an alcohol based sanitiser



Wear your mask properly covering your mouth and nose when in public



Keep a distance of at least two (2) metres from others



Avoid shaking hands or hugging



Wear a mask



Avoid gatherings



Wash your hands



Keep your distance

#COVIDVaccinationUG



THE TAKE-HOME MESSAGE

- COVID-19 vaccines are safe, effective and free
- These vaccines have been approved for use in Uganda by the WHO and MoH
 - All vaccines are highly effective against COVID-19



Vaccines are
Safe and **Effective**

- COVID-19 vaccines are **ONLY** recommended for people aged 18 years and above. In Uganda Only Pfizer is recommended for children aged 12 years and above.

- Vaccines can be found in designated sites as are routinely communicated by MoH

- Report any side-effects/problems related to the vaccine to the NDA



How to talk about vaccines

PART 3 Communication



<https://www.who.int/news-room/feature-stories/detail/how-to-talk-about-vaccines>

1.

Listen with empathy

And acknowledge how they're feeling.

I'm a bit worried about the vaccine...

It's okay to have questions or want more information.



2.

Ask open-ended questions

To help you understand their concerns



Could you tell me more about why you feel that way?



3.

Share trusted information

Visit the WHO website or chat to your doctor or nurse to find answers to common questions

How do we know the vaccines are safe?

They've been thoroughly tested and reviewed. If you're interested, I know where we can find more information.



4.

Explore reasons for wanting to get vaccinated

Share your motivations and what helped you overcome any concerns.

I hope my grandparents and I get vaccinated so we can see each other again.



I got vaccinated to feel safer at work.





Strategies for vaccine communication (cont'd)



Tailor	You know your audience: tailor your message to them
Utilize	Utilize trusted sources – including testimonials of respected figures (I got my vaccine buttons, social media)
Provide	Provide clear info on vaccine access
Acknowledge	Acknowledge people's fears and concerns- especially related to trauma and racism in healthcare
Explain	Explain benefits of getting the vaccine, not just the consequences of not doing it



Strategies for vaccine communication



Recognize

Recognize people may need to hear the messages multiple times. Avoid amplifying/repeating misinformation

Avoid

Avoid judgment, embrace curiosity to understand

Avoid

Avoid shaming

Don't talk about

Don't talk about pharmaceutical companies, talk about people behind the vaccines: scientists & doctors



THE TAKE-HOME MESSAGE

- Listen with empathy
 - Ask open ended questions
 - Share or refer to trusted sources of information
 - Explore reasons for wanting to get vaccinated



Sources



- Ministry of Health Uganda
- World Health Organization

<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/covid-19-vaccines/explainers>

- USAID Social and Behavior Change Activity Vaccination Toolkit
- San Francisco Department of Public Health
 - <https://www.sfdph.org/dph/files/ig/vaccine/vaccine-ambassador-training-pdf.pdf>

Acknowledgment



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Makerere University

