

Rwanda COVID-19 Vaccination Success Story

Bigirimana Noella^{1,*}, Nsanzabaganwa Christian², Byiringiro Fidele², Hitimana Nadia³, Mutesa Leon^{4,5}, Nsanzimana Sabin¹

¹Rwanda Biomedical Center, Kigali, Rwanda

²Rwanda Military Hospital, Kigali, Rwanda

³Clinton Health Access Initiative (CHAI), Kigali, Rwanda

⁴Centre for Human Genetics, University of Rwanda, Kigali, Rwanda

⁵COVID-19 Joint Task Force Committee, Kigali, Rwanda

INTRODUCTION

From late 2019 when the coronavirus disease (COVID-19) emerged, there were concerns about African countries' ability to withstand the pandemic [1]. As the pandemic was severely affecting Europe and America, overwhelming their healthcare systems. Experts started warning that Africa's weak healthcare systems would not be able to cope [2]. However, a number of African countries, including Rwanda, managed to effectively control the pandemic compared to many advanced countries [3,2]. After the development of COVID-19 vaccines, wealthy countries raced to procure enough doses and this left low-income countries unable to have access to enough vaccines. African countries were able to secure and receive COVID-19 vaccines through COVAX (the COVID-19 global access initiative, co-led by GAVI, the WHO and CEPI) and others [3]. Among the few countries, Rwanda served as an exemplar in controlling the pandemic and conducting successful COVID-19 vaccine rollout during the first quarter of 2021 [5].

*Corresponding author:

Noella Bigirimana
Rwanda Biomedical Center
Kigali-Rwanda
E-mail: noella.bigirimana@rbc.gov.rw

Received: March 21, 2021

Accepted: March 28, 2021

Published: March 31, 2021

Cite this article as: Nsanzabaganwa et al. Rwanda COVID-19 Vaccination Success Story. *Rw. Public Health Bul.* 2021. 3 (1): 10-12.

COORDINATION

Prior to the arrival of the first vaccines, the Joint Task Force Committee (JTFC) and the scientific advisory group for COVID-19 vaccination began establishing possible decentralised strategies for quick and effective rollout [6]. Decisions made for mitigations were decentralized across ministries and local authorities, down to village leaders and Community Health Workers (CHWs) [8]. This approach led to the successful transport of vaccines from central distribution hubs in Kigali to remote areas of the country within 24 hours following vaccines' arrival (Figure 1) [5].

NATIONWIDE DEMOGRAPHIC SCREENING AND PRIORITIZATION

Rwanda's health system follows a decentralized model with emphasis on community involvement [5]. With the help of CHWs and village leaders, surveys were conducted to collect updated demographic information on community members and household structures [3].

Collected data were used to draw vaccination priority lists. Among key populations/groups were target healthcare workers, the elderly population, people with comorbidities and disabilities, teachers, prisoners and refugees within the first

Potential Conflicts of Interest: No potential conflicts of interest disclosed by all authors. **Academic Integrity:** All authors confirm their substantial academic contributions to development of this manuscript as defined by the International Committee of Medical Journal Editors. **Originality:** All authors confirm this manuscript as an original piece of work, and confirm that has not been published elsewhere. **Review:** All authors allow this manuscript to be peer-reviewed by independent reviewers in a double-blind review process. © **Copyright:** The Author(s). This is an Open Access article distributed under the terms of the Creative Commons Attribution License (CC BY-NC-ND), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. **Publisher:** Rwanda Health Communication Centre, KG 302st., Kigali-Rwanda. Print ISSN: 2663 - 4651; Online ISSN: 2663 - 4653. **Website:** <https://rbc.gov.rw/publichealthbulletin/>

hours of the countrywide vaccine rollout [3,9,10].

STRATEGIC AND SETTING BASED VACCINE ALLOCATIONS

Rwanda acquired 437 new refrigerators before the arrival of vaccines in preparation for adequate storage. Upon arrival on March 3rd 2021, Astra-Zeneca vaccines that require 2 to 8 degree Celsius storage temperature [11], were allocated to remote settings without freezers [3,7].



Figure 1: Rwanda ministry of defence helicopter transporting vaccines to remote regions (Adapted from Rwanda Ministry of Health twitter: @RwandaHealth, March 4, 2021).

Meanwhile, Pfizer vaccines that require freezing temperatures (-25 to -15 degrees Celsius) were distributed in the capital city, Kigali, which has the infrastructure to ensure safe storage (Figure 2) [3,12].



Figure 2: COVID-19 vaccines distribution to different healthcare facilities (Adapted from Rwanda Ministry of Health twitter: @RwandaHealth, March 4, 2021).

TRAINING OF HEALTHCARE WORKERS

Healthcare workers were trained on national vaccination rollout guidelines, including hospital directors, doctors, nurses, data managers, surveillance officers, and HCWs, depending on their contribution to service delivery and data management [8].

Staff, logistics, supplies and digital tools for real-time tracking were allocated to all vaccination sites to ensure effective rollout and proper monitoring [3].

COMMUNICATION WITH THE PUBLIC

Rwanda's decentralized healthcare system became pivotal in effective communication to the public since the COVID-19 outbreak declaration in late 2019 [13]. CHWs and village leaders have assisted in educating citizens on prevention measures. When Rwanda was preparing to receive the vaccines, they helped inform the population on the importance and safety of vaccination, addressed myths [5].

In addition, the Government of Rwanda used the media, particularly radio, newspapers and TV interviews as well as social media to keep the population informed and updated (Figure 3).



Figure 3: Rwanda Biomedical Center (Left) in interview about COVID vaccination on national TV (RTV) (Adapted from RwandaTV, March 15, 2021).

Key messages were on ensuring citizen about vaccines' safety, criteria of the priority group, vaccination process and settings and significance of vaccination [3,8].

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