

## Vaccination against COVID-19 in Africa

If we are to overcome the COVID-19 pandemic, there is an urgent need to vaccinate worldwide. While vaccination programs are progressing in upper income countries, the same is not true on the African continent. The World Health Organization (WHO) has warned that the world faces a “catastrophic moral failure”, adding that the race to buy vaccines will only prolong the pandemic. There are different opinions regarding vaccination against COVID-19, with conflicts arising from misinformation, politics, and fear of adverse effects versus the scientifically-supported research. The vaccine hesitancy debate had already gained momentum prior to the pandemic, with progressive decline in uptake and utilization seen in maternal and newborn health (MNH) programs in low- and middle-income countries (LMICs). This communication gap between health authorities and populations risks increasing the mistrust of populations who may be easily influenced by the many conflicting statements that are currently circulating.

A survey conducted between August and December 2020 interviewed more than 15 000 adults aged 18 years and over, across 15 African countries: Burkina Faso, Côte d'Ivoire, Democratic Republic of the Congo, Ethiopia, Gabon, Kenya, Malawi, Morocco, Niger, Nigeria, Senegal, South Africa, Sudan, Tunisia, and Uganda. The survey, conducted by the Africa Centres for Disease Control and Prevention (Africa CDC) in partnership with the London School of Hygiene & Tropical Medicine (LSHTM), showed that the predominant majority (79% on average) of respondents in Africa would take a COVID-19 vaccine if it were deemed safe and effective. Data from this survey also showed significant variations in willingness for vaccine uptake across countries and across the five regions in the continent: from 94% and 93%, respectively, in Ethiopia and Niger, to 65% and 59%, respectively, in Senegal and the Democratic Republic of Congo.

Rejection of a COVID-19 vaccine appeared to be linked to beliefs that the disease is man-made, does not exist, or is exaggerated and does not pose a serious threat. Others think they are not at risk of being infected with the virus, while some believe that natural remedies and alternative medicines are safer than vaccines. Individuals who had a positive COVID-19 test believed that they do not need vaccination as they have developed innate immunity.<sup>1</sup> The process of vaccine development, which has been accelerated using modern technologies, is also increasingly being questioned.

The WHO, healthcare professionals, governments, pharmaceutical companies, GAVI (the Vaccine Alliance) and Africa CDC are trusted sources for approval in terms of the safety and efficacy of COVID-19 vaccines. Several practice communities in Africa

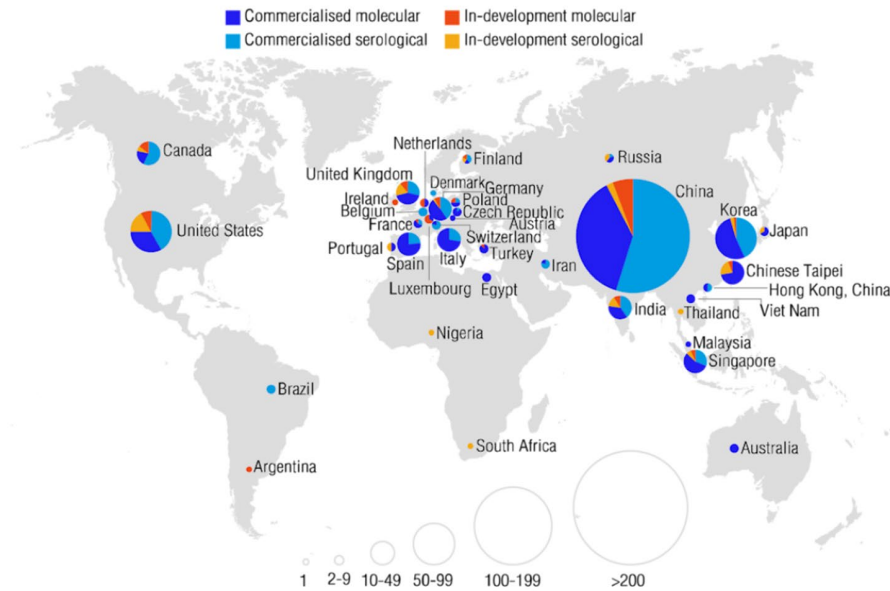
have been established to advance the development and testing of COVID-19 vaccines. Some countries have research bodies and academic partnerships with collaborative academic, research and pharmaceutical industries from high income countries (HICs) to develop and test vaccines (Figure 1). Governments in Africa are also undertaking commitments to purchase COVID-19 vaccines with the hope to begin rolling out vaccination programs and to stratify priority groups during such programs.

There is a critical need for scientific evidence to guide interventions in Africa, and for strategic engagement with communities to address vaccination hesitancy. Given vaccination inequality and inequity<sup>2</sup> between HICs and LMICs it is hoped the COVID-19 Vaccine Global Access (COVAX) initiative co-led by WHO, the Coalition for Epidemic Preparedness Innovations (CEPI) and GAVI, will be a success and provide guidance for all future endeavors. Historically, Africa has not uniformly focused on vaccine-preventable diseases.

To date, there has been inadequate diagnostic testing for COVID-19. It is envisioned that synergies offered from north to south (HICs to LMICs) and south to south (within LMICs) will facilitate access and prove cost-effective.<sup>3</sup> Significant questions remain to be answered for Africa, given that few vaccine studies have been undertaken there, and only since late 2020. For example, which vaccine will be most effective given the varied mechanisms of action and what kind of immune response is anticipated? How will a vaccination campaign be funded and how can the delivery chain, especially for the cold-storage vaccines, be preserved? Data are rapidly being amassed regarding such concerns, particularly given the surge of COVID variants. It is however reassuring that all major vaccines appear to be active against the current variants.

For all populations, unanswered research questions remain about the safety and efficacy of COVID-19 vaccination in pregnancy. Uniformly, FIGO and member societies have advocated for the inclusion of pregnant women in clinical studies. The WHO, the American College of Obstetricians and Gynecologists, and the Society for Maternal Fetal Medicine all stress that both COVID-19 vaccines currently authorized by the US Food and Drug Administration should not be withheld from pregnant individuals who choose to receive the vaccine.<sup>4,5</sup> The approved Pfizer-BioNTech vaccine is not a live-virus vaccination, but an mRNA vaccine.<sup>6</sup> Alternatively, the Royal College of Obstetricians and Gynecologists state there is not sufficient evidence to recommend the routine use of COVID-19 vaccines to pregnant or breast-feeding women, and women who are planning a pregnancy within three months of receiving the first dose are

Panel B. 18 May 2020



Note: The data on FIND are self-reported and the authors have not checked the reliability of the information.

Source: Authors' elaboration based on FIND (2020), SARS-COV-2 Diagnostic pipeline, [https://www.finddx.org/covid-19/pipeline/?section=molecular-assays#diag\\_tab](https://www.finddx.org/covid-19/pipeline/?section=molecular-assays#diag_tab)

FIGURE 1 Number of commercialized and in development tests for COVID 19: Where is Africa?

advised not to have the vaccine.<sup>7</sup> There is silence as far as vaccination trials or administration in pregnancy is concerned in Africa, but there is enduring optimism that successful communication plans, effective vaccination and adequate prevention with social-distancing and masking will prevail.

**ACKNOWLEDGEMENTS**

With input from the FIGO Pregnancy and Non-Communicable Diseases Committee.

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**CONFLICTS OF INTEREST**

The authors have no conflicts of interest.

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