

## AFRO Weekly COVID-19 Literature Update

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its information management cell, together with  
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Due to the abundance of information and literature produced on COVID-19 in the world in general and in Africa in particular, the WHO Regional Office for Africa is publishing a weekly "Weekly COVID Literature Update" to highlight the most important literature. Each week we will select some articles per topic as well as reports and grey literature when available.

The aim is to provide an easy-to-read summary of each publication. This Bulletin is organised according to several categories of interest.

The publications shared are the result of a bibliographic research work carried out regularly on several online information sources with a major search strategy "COVID-19 AND Africa" in combination with the following keywords: **epidemiology (response activities OR hygiene practices OR social distancing OR case management), vaccination, public perceptions, other diseases and other sectors**. For this issue, the list of information sources is as follows: WHO Covid-19 database, PubMed, BioMed Central, Lancet (including sister journals), One library, African Index Medicus, Nature (including sister journals), Science (including sister journals), PLOS, Google scholar, Oxford University Press, Taylor & Francis, Springer, the BMJ.

The list is subject to change and kindly note that the choice of the publications to be included in this update is subjective.

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En raison de l'abondance d'informations et de littérature produites sur la COVID-19 dans le monde en général et en Afrique en particulier, le Bureau régional de l'OMS pour l'Afrique publie chaque semaine "Weekly COVID Literature Update" pour mettre en évidence la littérature la plus importante. Chaque semaine, nous sélectionnerons quelques articles par sujet ainsi que les rapports et la littérature grise quand c'est disponible.

L'objectif est de fournir un résumé facile à lire de chaque publication. Ce bulletin est organisé suivant plusieurs catégories d'intérêt.

Les publications partagées sont le résultat d'un travail de recherche bibliographique effectué régulièrement sur plusieurs sources d'information en ligne avec une comme stratégie de recherche majeure "COVID-19 ET Afrique" combinés aux mots clés suivants : **epidemiology (response activities OR hygiene practices OR social distancing OR case management), vaccination, public perceptions, other diseases and other sectors**. Pour ce numéro, la liste des sources d'information utilisées est la suivante : WHO Covid-19 database, PubMed, BioMed Central, Lancet (including sister journals), One library, African Index Medicus, Nature (including sister journals), Science (including sister journals), PLOS, Google scholar, Oxford University Press, Taylor & Francis, Springer, the BMJ.

Cette liste est susceptible d'être modifiée. Veuillez noter que le choix des publications à inclure dans cette mise à jour est subjectif.

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Devido à abundância de informação e literatura produzida sobre a COVID-19 no mundo em geral e em África em particular, o Escritório Regional da OMS para África está a publicar semanalmente uma "Weekly COVID Literature Update" para destacar a literatura mais importante. Cada semana iremos seleccionar alguns artigos por tópico, bem como relatórios e literatura cinzenta, quando disponível.

O objectivo é fornecer um resumo de fácil leitura de cada publicação. Este boletim está organizado de acordo com várias categorias de interesse.

As publicações partilhadas são o resultado de um trabalho de pesquisa bibliográfica realizado regularmente em várias fontes de informação em linha com uma grande estratégia de pesquisa "COVID-19 E África" em combinação com as seguintes palavras-chave: **epidemiology ( response activities OR hygiene practices OR social distancing OR case management), vaccination, public perceptions , other diseases and other sectors**. Para esta edição, a lista de fontes de informação é a seguinte: WHO Covid-19 database, PubMed, BioMed Central, Lancet (including sister journals), One library, African Index Medicus, Nature (including sister journals), Science (including sister journals), PLOS, Google scholar, Oxford University Press, Taylor & Francis, Springer, the BMJ.

A lista está sujeita a alterações e note-se que a escolha das publicações a serem incluídas nesta actualização é subjectiva.

# Contents

## **A. COVID-19 epidemiology/ surveillance (trends/ distribution)**

1. The first year of the COVID-19 pandemic in the ECOWAS region
2. Prevalence of SARS-CoV-2 antibodies in the Republic of Congo in mid-2021
3. Modelling and forecasting new cases of Covid-19 in Nigeria: Comparison of regression, ARIMA and machine learning models
4. The COVID-19 Pandemic and Explaining Outcomes in Africa: Could Genomic Variation Add to the Debate?
5. Symptomatology, prognosis, and clinical findings of Monkeypox infected patients during COVID-19 era: A systematic-review
6. High prevalence of SARS-CoV-2 antibodies in pregnant women, after the second wave of infections in the inner city of Johannesburg, Gauteng Province, South Africa
7. Global SARS-CoV-2 seroprevalence from January 2020 to April 2022: A systematic review and meta-analysis of standardized population-based studies
8. Whole-genome sequence analysis reveals the circulation of multiple SARS-CoV-2 variants of concern in Nairobi and neighboring counties, Kenya between March and July 2021
9. Shifts in global mobility dictate the synchrony of SARS-CoV-2 epidemic waves

## **B. COVID-19 response activities (hygiene practices, social distancing, case management)**

1. Individual and household risk factors for COVID-19 infection among household members of COVID-19 patients in home-based care in western Uganda, 2020
2. Challenges, best practices, and lessons learned from oral cholera mass vaccination campaign in urban Cameroon during the COVID-19 era
3. Safety and efficacy of four drug regimens versus standard-of-care for the treatment of symptomatic outpatients with COVID-19: A randomised, open-label, multi-arm, phase 2 clinical trial

4. Adaptations and staff experiences in delivering parenting programmes and other family support services in three community-based organisations in Cape Town, South Africa during the COVID pandemic
5. COVID-19 and state coordinated responses in South Africa's emerging developmental state
6. Disability inclusiveness in Covid-19 pandemic policies in West Africa: "Are we left behind?"
7. Coronavirus Antibody Responses before COVID-19 Pandemic, Africa and Thailand
8. Strategies to address conspiracy beliefs and misinformation on COVID-19 in South Africa: A narrative literature review
9. Living with COVID-19 and preparing for future pandemics: revisiting lessons from the HIV pandemic
10. La sécurité sanitaire globale et la coopération internationale dans la lutte contre la Covid-19

### **C. COVID-19 vaccination**

1. COVID-19 Vaccination in Africa: A Case of Unsatisfied Expectation and ill-Preparedness
2. Factors associated with willingness to take COVID-19 vaccine among pregnant women at Gondar town, Northwest Ethiopia: A multicenter institution-based cross-sectional study
3. Predictors of unwillingness to receive COVID -19 vaccines among Ethiopian Medical students
4. Segmentation of African countries based on infection and death rates of COVID-19 before vaccination: A rigid population to source for workforce amidst the pandemic?
5. Willingness to Accept COVID-19 Vaccine and Associated Factors Among Adult Household Members in Dire Dawa City Administration, East Ethiopia
6. COVID-19 vaccine acceptance and its socio-demographic and emotional determinants: a multi-country cross-sectional study

### **D. COVID-19 public perceptions and effects**

1. Exploring primary healthcare practitioners' experiences regarding the coronavirus disease 2019 (COVID-19) pandemic in KwaZulu-Natal, South Africa
2. Nursing students' perception on their readiness to combat gender-based violence during the COVID-19 pandemic
3. Knowledge, attitudes and perceived behavioral modification of chiropractic students returning to clinical training in South Africa amid the COVID-19 pandemic

## **E. COVID-19 effects on other diseases and sectors**

1. Haematological predictors of poor outcome among COVID-19 patients admitted to an intensive care unit of a tertiary hospital in South Africa
2. Risk factors for severe COVID-19 among HIV-infected and-uninfected individuals in South Africa, April 2020- March 2022 – data from sentinel surveillance
3. COVID-19 and the informal economy in a small-town in South Africa: governance implications in the post-COVID era
4. COVID-19 and price stability in Eastern Africa: How effective were the governments' policy response measures?
5. Reaction of African stocks markets to disequilibrium episodes of the COVID-19 infection: Evidence from the top hit African countries
6. Gendered and differential effects of the COVID-19 pandemic on paid and unpaid work in Nigeria
7. The balanced obligation in an era of global pandemic: Ghana's foreign policy in a Limbo
8. Rift Valley Fever Outbreak during COVID-19 Surge, Uganda, 2021
9. To what extent did African countries prepare mechanisms to ensure transparency and accountability of the COVID-19 extra-budgetary funds?
10. Respiratory illness virus infections with special emphasis on COVID-19
11. Impact of COVID-19 on the wellbeing of children with epilepsy including Nodding Syndrome in Uganda: A qualitative study
12. Re-emerging zoonotic disease Leptospirosis in Tanzania amid the ongoing COVID-19 pandemic: Needs attention – Correspondence

## TOPICS

### A. COVID-19 EPIDEMIOLOGY/ SURVEILLANCE (trends/ distribution)

**Title:** The first year of the COVID-19 pandemic in the ECOWAS region

**Journal:** Ghana Medical Journal

**Publish Date:** October 2022

**URL:** <https://www.ajol.info/index.php/gmj/article/download/234868/221871>

**Abstract:**

**Objective:** to analyse the pandemic after one year in terms of the evolution of morbidity and mortality and factors that may contribute to this evolution

**Design:** This is a secondary analysis of data gathered to respond to the COVID-19 pandemic. The number of cases, incidence rate, cumulative incidence rate, number of deaths, case fatality rate and their trends were analysed during the first year of the pandemic. Testing and other public health measures were also described according to the information available.

**Settings:** The 15 States members of the Economic Community of West African States (ECOWAS) were considered.

**Results:** As of 31st March 2021, the ECOWAS region reported 429,760 COVID-19 cases and 5,620 deaths. In the first year, 1,110.75 persons were infected per million, while 1.31% of the confirmed patients died. The ECOWAS region represents 30% of the African population. One year after the start of COVID-19 in ECOWAS, this region reported 10% of the cases and 10% of the deaths in the continent. Cumulatively, the region has had two major epidemic waves; however, countries show different patterns. The case fatality rate presented a fast growth in the first months and then decreased to a plateau.

**Conclusion:** We learn that the context of COVID-19 is specific to each country. This analysis shows the importance of better understanding each country's response. During this first year of the pandemic, the problem of variants of concern and the vaccination were not posed.

**Title:** Prevalence of SARS-CoV-2 antibodies in the Republic of Congo in mid-2021

**Journal:** IJID Regions

**Publish Date:** November 2022

**URL:** <https://doi.org/10.1016/j.ijregi.2022.09.012>

**Abstract:**

**Objectives**

To estimate the seroprevalence of severe acute respiratory syndrome coronavirus-2 (SARS-CoV-2) antibodies in the general population in the Republic of Congo.

**Methods**

In this cross-sectional study, conducted from June to July 2021, participants were recruited from the general population in three districts in the Republic of Congo. Eligible participants were tested for anti-SARS-CoV-2 antibodies using a rapid diagnostic assay.

**Results**

Overall, 31.8% [95% confidence interval (CI) 29.5–34.0] of the 1669 participants tested positive for anti-SARS-CoV-2 antibodies. Higher prevalence was observed in the rural region (37.3%, 95% CI 31.0–44.1%) than the urban region (30.9%, 95% CI 28.5–33.3); however, the difference was not significant. The risk of testing positive for anti-SARS-CoV-2 antibodies increased significantly with age, ranging from 22.5% (95% CI 18.1–27.5) in 15–24 year olds to 47.9% (95% CI 39.3–56.5) in 55–64 year olds.

### **Conclusions**

The antibody levels observed in this survey correlate with a moderate rate of virus circulation, which correlates with the low number of confirmed cases of coronavirus disease 2019 in the Republic of Congo.

**Title:** Modelling and forecasting new cases of Covid-19 in Nigeria: Comparison of regression, ARIMA and machine learning models

**Journal:** Scientific African

**Publish Date:** November 2022

**URL:** <https://doi.org/10.1016/j.sciaf.2022.e01404>

### **Abstract:**

Covid-19 remains a global pandemic threatening hundreds of countries in the world. The impact of Covid-19 has been felt in almost every aspect of life and it has introduced globally, a new normal of livelihood. This global pandemic has triggered unparalleled global health and economic crisis. Therefore, modelling and forecasting the dynamics of this pandemic is very crucial as it will help in decision making and strategic planning. Nigeria as the most populous country in Africa and most populous black nation in the world has been adversely affected by Covid-19 pandemic. This study models and compares forecasting performance of regression, ARIMA and Machine Learning models in predicting new cases of Covid-19 in Nigeria. The study obtained data on daily new cases of Covid-19 in Nigeria between 27th February, 2020 and 30th November, 2021. Graphical analysis showed that Nigeria had witnessed three waves of Covid-19 with the first wave between 27th February, 2020 and 23rd October, 2020, the second wave between 24th October, 2020 and 20th June, 2021 and the third wave between 21st June, 2021 and 30th November, 2021. The second wave recorded the highest spikes in new cases compared to the first wave and third wave. Result reveals that in terms of forecasting performance, inverse regression model outperformed other regression models considered as it shows lowest RMSE of 0.4130 compared with other regression models. Also, the ARIMA (4, 1, 4) outperformed other ARIMA models as it reveals the highest  $R^2$  of 0.856 (85.6%), least RMSE (0.6364), AIC (-8.6024) and BIC (-8.5299). Result reveals that Fine tree which is one of the Machine Learning models is more reliable in forecasting new cases of Covid-19 in Nigeria compared to other models as Fine tree gave the highest  $R^2$  of 0.90 (90.0%) and least RMSE of 0.22165. Result of 15 days forecasting indicates that Covid-19 pandemic is not over yet in Nigeria as new cases of Covid-19 is projected to increase on 15/12/2021 with predicted new cases of 988 compared with that of 14/12/2021, where only 729 new cases was predicted. This therefore emphasizes the need to strengthen and maintain the existing Covid-19 preventive measures in Nigeria.

**Title:** The COVID-19 Pandemic and Explaining Outcomes in Africa: Could Genomic Variation Add to the Debate?



**Journal:** OMICS

**Publish Date:** November 2022

**URL:** <https://doi.org/10.1089/omi.2022.0108>

**Abstract:**

Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the etiological agent of COVID-19, emanated from the Wuhan Province in China and rapidly spread across the globe causing extensive morbidity and mortality rate, and affecting the global economy and livelihoods. Contrary to early predictions of “body bags” across Africa, the African COVID-19 pandemic was marked by apparent low case numbers and an overall mortality rate when compared with the other geographical regions. Factors used to describe this unexpected pattern included a younger population, a swifter and more effective national health policy, limited testing capacities, and the possibility of inadequate reporting of the cases, among others. However, despite genomics contributing to interindividual variations in many diseases across the world, there are inadequate genomic and multiomics data on COVID-19 in Africa that prevent richer transdisciplinary discussions on the contribution of genomics to the spread of COVID-19 pandemic. To invite future debates on comparative studies of COVID-19 genomics and the pandemic spread around the world regions, this expert review evaluates the reported frequency distribution of genetic variants in candidate genes that are likely to affect COVID-19 infection dynamics/disease outcomes. We propose here that genomic variation should be considered among the many factors determining the COVID-19 infection and its outcomes in African populations and across the world.

**Title:** Symptomatology, prognosis, and clinical findings of Monkeypox infected patients during COVID-19 era: A systematic-review

**Journal:** Immunity, Inflammation and Disease

**Publish Date:** November 2022

**URL:** <https://doi.org/10.1002/iid3.722>

**Abstract:**

**Abstract Background** The recent outbreak of Human Monkeypox (MPXV) in nonendemic regions of the world is of great concern. **Objective** We aimed to systematically analyze the current epidemiology, clinical presentation, and outcomes of the Monkeypox virus. **Method** Systematic literature was conducted in PubMed, Embase, Google Scholar, and Scopus using predefined MESH terms by using “AND” and “OR.” The following search terms were used: Monkeypox [MeSH] OR “Monkeypox virus” [MeSH] OR “POX” OR “Monkeypox” AND “Outbreak” AND “Outcomes” from December 2019 till 14th June 2022 without restrictions of language. **Results** A total of 1074 (99.90%) patients tested positive for Monkeypox virus through RT-PCR while 1 (0.09) patient was suspected. There was a gender difference with male predominance (54.23% vs. 45.48%) compared with female patients. Mean age ( $\pm$ SD) of patients was  $20.66 \pm 16.45$  years. The major symptoms were rash (100%), fever (96%), and other important symptoms were upper respiratory symptoms (97%), headache (95%), vomiting (95%), oral ulcers (96%), conjunctivitis (96%) and lymphadenopathy (85%). The average mean duration of treatment was 5 days, while the mean hospitalization duration was  $13.3 \pm 6.37$  days. The outcome of 20 patients was available, 19 of 20 patients recovered fully from monkeypox, however, 1 patient was not able to survive resulting in death. **Conclusion** The recent monkeypox virus outbreak has



shown that the virus could transmit in ways that were not previously expected. Further research is needed to understand the possible outcomes and association with humans and their different organ systems.

**Title:** High prevalence of SARS-CoV-2 antibodies in pregnant women, after the second wave of infections in the inner city of Johannesburg, Gauteng Province, South Africa

**Journal:** International Journal of Infectious Diseases

**Publish Date:** November 5, 2022

**URL:** <https://doi.org/10.1016/j.ijid.2022.10.036>

**Abstract:**

**Objectives**

After South Africa's second wave of COVID-19, this study estimated the SARS-CoV-2 seroprevalence among pregnant women in inner-city Johannesburg, South Africa.

**Methods**

In this cross-sectional survey, 500 non-COVID-19-vaccinated pregnant women (aged  $\geq 12$  years) were enrolled, and demographic and clinical data were collected. Serum samples were tested using the Wantai SARS-CoV-2 spike Ab ELISA and Roche Elecsys® Anti-SARS-CoV-2 nucleocapsid antibody assays. Seropositivity was defined as SARS-CoV-2 antibodies on either (primary) or both (secondary) assays. Univariate Poisson regression assessed risk factors associated with seropositivity.

**Results**

Median age was 27.4 years and HIV prevalence 26.7%. SARS-CoV-2 seroprevalence was 64.0% (95% CI:59.6%–68.2%) on the primary and 54% (95%CI:49.5-58.4) on the secondary measure. Most (96.6%) SARS-CoV-2-seropositive women reported no symptoms. On the Roche assay, we detected lower seroprevalence among women living with HIV (WLHIV) compared to HIV uninfected women (48.9% vs 61.7%,  $p=0.018$ ), and especially low levels among WLHIV with a CD4<350 cells/ml compared to women without immune suppression (22.2% vs 56.4%, prevalence rate ratio=0.4; 95%CI:0.2–0.9;  $p=0.046$ ).

**Conclusions**

Pregnant women attending routine antenatal care had a high SARS-CoV-2 seroprevalence after the 2<sup>nd</sup> wave in South Africa, with most having had asymptomatic infections. Seroprevalence surveys in pregnant women present a feasible method of monitoring the course of the pandemic over time.

**Title:** Global SARS-CoV-2 seroprevalence from January 2020 to April 2022: A systematic review and meta-analysis of standardized population-based studies

**Journal:** PLoS Medicine

**Publish Date:** November 10, 2022

**URL:** <https://doi.org/10.1371/journal.pmed.1004107>

**Abstract**

**Background:** Our understanding of the global scale of Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2) infection remains incomplete: Routine surveillance data underestimate infection and cannot infer on population immunity; there is a predominance of asymptomatic infections, and uneven access to diagnostics. We meta-analyzed SARS-CoV-2 seroprevalence studies, standardized to those described in

the World Health Organization's Unity protocol (WHO Unity) for general population seroepidemiological studies, to estimate the extent of population infection and seropositivity to the virus 2 years into the pandemic.

**Methods and findings:** We conducted a systematic review and meta-analysis, searching MEDLINE, Embase, Web of Science, preprints, and grey literature for SARS-CoV-2 seroprevalence published between January 1, 2020 and May 20, 2022. The review protocol is registered with PROSPERO (CRD42020183634). We included general population cross-sectional and cohort studies meeting an assay quality threshold (90% sensitivity, 97% specificity; exceptions for humanitarian settings). We excluded studies with an unclear or closed population sample frame. Eligible studies—those aligned with the WHO Unity protocol—were extracted and critically appraised in duplicate, with risk of bias evaluated using a modified Joanna Briggs Institute checklist. We meta-analyzed seroprevalence by country and month, pooling to estimate regional and global seroprevalence over time; compared seroprevalence from infection to confirmed cases to estimate underascertainment; meta-analyzed differences in seroprevalence between demographic subgroups such as age and sex; and identified national factors associated with seroprevalence using meta-regression. We identified 513 full texts reporting 965 distinct seroprevalence studies (41% low- and middle-income countries [LMICs]) sampling 5,346,069 participants between January 2020 and April 2022, including 459 low/moderate risk of bias studies with national/subnational scope in further analysis. By September 2021, global SARS-CoV-2 seroprevalence from infection or vaccination was 59.2%, 95% CI [56.1% to 62.2%]. Overall seroprevalence rose steeply in 2021 due to infection in some regions (e.g., 26.6% [24.6 to 28.8] to 86.7% [84.6% to 88.5%] in Africa in December 2021) and vaccination and infection in others (e.g., 9.6% [8.3% to 11.0%] in June 2020 to 95.9% [92.6% to 97.8%] in December 2021, in European high-income countries [HICs]). After the emergence of Omicron in March 2022, infection-induced seroprevalence rose to 47.9% [41.0% to 54.9%] in Europe HIC and 33.7% [31.6% to 36.0%] in Americas HIC. In 2021 Quarter Three (July to September), median seroprevalence to cumulative incidence ratios ranged from around 2:1 in the Americas and Europe HICs to over 100:1 in Africa (LMICs). Children 0 to 9 years and adults 60+ were at lower risk of seropositivity than adults 20 to 29 ( $p < 0.001$  and  $p = 0.005$ , respectively). In a multivariable model using prevaccination data, stringent public health and social measures were associated with lower seroprevalence ( $p = 0.02$ ). The main limitations of our methodology include that some estimates were driven by certain countries or populations being overrepresented.

**Conclusions:** In this study, we observed that global seroprevalence has risen considerably over time and with regional variation; however, over one-third of the global population are seronegative to the SARS-CoV-2 virus. Our estimates of infections based on seroprevalence far exceed reported Coronavirus Disease 2019 (COVID-19) cases. Quality and standardized seroprevalence studies are essential to inform COVID-19 response, particularly in resource-limited regions.

**Title:** Whole-genome sequence analysis reveals the circulation of multiple SARS-CoV-2 variants of concern in Nairobi and neighboring counties, Kenya between March and July 2021

**Journal:** Virology Journal

**Publish Date:** November 8, 2022

**URL:** <https://doi.org/10.1186/s12985-022-01895-y>

**Abstract:**

The emergence and rapid spread of SARS-CoV-2 variants of concern (VOC) have been linked to new waves of COVID-19 epidemics occurring in different regions of the world. The VOC have acquired adaptive mutations that have enhanced virus transmissibility, increased virulence, and reduced response to neutralizing antibodies. Kenya has experienced six waves of COVID-19 epidemics. In this study, we analyzed 64 genome sequences of SARS-CoV-2 strains that circulated in Nairobi and neighboring counties, Kenya between March 2021 and July 2021. Viral RNA was extracted from RT-PCR confirmed COVID-19 cases, followed by sequencing using the ARTIC network protocol and Oxford Nanopore Technologies. Analysis of the sequence data was performed using different bioinformatics methods. Our analyses revealed that during the study period, three SARS-CoV-2 variants of concern (VOC) circulated in Nairobi and nearby counties in Kenya. The Alpha (B.1.1.7) lineage predominated (62.7%), followed by Delta (B.1.617.2, 35.8%) and Beta (B.1.351, 1.5%). Notably, the Alpha (B.1.1.7) VOC were most frequent from March 2021 to May 2021, while the Delta (B.1.617.2) dominated beginning June 2021 through July 2021. Sequence comparisons revealed that all the Kenyan viruses were genetically similar to those that circulated in other regions. Although the majority of Kenyan viruses clustered together in their respective phylogenetic lineages/clades, a significant number were interspersed among foreign strains. Between March and July 2021, our study's findings indicate the prevalence of multiple lineages of SAR-CoV-2 VOC in Nairobi and nearby counties in Kenya. The data suggest that the recent increase in SARS-CoV-2 infection, particularly in Nairobi and Kenya as a whole, is attributable to the introduction and community transmission of SARS-CoV-2 VOC among the populace. In conclusion, the findings provide a snapshot of the SARS-CoV-2 variants that circulated in Kenya during the study period.

**Title:** Shifts in global mobility dictate the synchrony of SARS-CoV-2 epidemic waves

**Journal:** Journal of Travel Medicine

**Publish Date:** November 11, 2022

**URL:** <https://doi.org/10.1093/jtm/taac134>

**Abstract:**

**Background**

Human mobility changed in unprecedented ways during the SARS-CoV-2 pandemic. In March and April 2020, when lockdowns and large travel restrictions began in most countries, global air-travel almost entirely halted (92% decrease in commercial global air travel in the months between February and April 2020). Initial recovery in global air travel started around July 2020 and subsequently nearly tripled between May and July 2021. Here, we aim to establish a preliminary link between global mobility patterns and the synchrony of SARS-CoV-2 epidemic waves across the world.

**Methods**

We compare epidemic peaks and human global mobility in two time periods: November 2020 to February 2021 (when just over 70 million passengers travelled), and November 2021 to February 2022 (when more than 200 million passengers travelled). We calculate the time interval during which continental epidemic peaks occurred for both of these time

periods, and we calculate the pairwise correlations of epidemic waves between all pairs of countries for the same time periods.

### **Results**

We find that as air travel increases at the end of 2021, epidemic peaks around the world are more synchronous with one another, both globally and regionally. Continental epidemic peaks occur globally within a 20 day interval at the end of 2021 compared to 73 days at the end of 2020, and epidemic waves globally are more correlated with one another at the end of 2021.

### **Conclusions**

This suggests that the rebound in human mobility dictates the synchrony of global and regional epidemic waves. In line with theoretical work, we show that in a more connected world, epidemic dynamics are more synchronized.

## **B. COVID-19 RESPONSE ACTIVITIES (hygiene practices, social distancing, case management)**

**Title:** Individual and household risk factors for COVID-19 infection among household members of COVID-19 patients in home-based care in western Uganda, 2020

**Journal:** IJID Regions

**Publish Date:** November 11, 2022

**URL:** <https://doi.org/10.1016/j.ijregi.2022.11.002>

### **Abstract:**

#### **Objective**

To investigate factors associated with COVID-19 among household members of patients in home-based care (HBC) in western Uganda.

#### **Methods**

We conducted a case-control and cohort study. Cases were RT-PCR-confirmed SARS-CoV-2 diagnosed 1-30 November 2020 among persons in HBC in Kasese or Kabarole Districts. We compared 78 case-households ( $\geq 1$  secondary case) to 59 control-households (no secondary cases). The cohort included all case-household members. Data were captured by in-person questionnaire. We regressed to calculate odds and risk ratios.

#### **Results**

Case-households were larger than control-households (mean 5.8 vs 4.3 members,  $p < 0.0001$ ). Having  $\geq 1$  household member per room (aOR=4.5, 95%CI 2.0-9.9) or symptom development (aOR=2.3, 95%CI 1.1-5.0), interaction (aOR=4.6, 95%CI 1.4-14.7) with primary case-patient increased odds of case-household status. Households assessed for suitability for HBC reduced odds of case-household status (aOR=0.4, 95%CI=0.2-0.8). Interacting with primary case-patient (aRR=1.7, 95%CI 1.1-2.8) increased the risk of individual infection among household members.

#### **Conclusion**

Household and individual factors influence secondary infection risk in HBC. Decisions about HBC should be made with these in mind.

**Title:** Challenges, best practices, and lessons learned from oral cholera mass vaccination campaign in urban Cameroon during the COVID-19 era

**Journal:** Vaccine

**Publish Date:** November 8, 2022

**URL:** <https://doi.org/10.1016/j.vaccine.2022.08.025>

**Abstract**

**Background:** Since 1971, Cameroon has been facing an ever-growing series of cholera epidemics; despite all the efforts made by the government to address this substantial public health problem. In 2020, in addition to the COVID-19 pandemic, Cameroon recorded a high cholera case fatality rate of 5.3% following epidemics noted in the South, Littoral, and South-West regions which is far higher than the 1% World Health Organization acceptable rate.

**Methodology/principal findings:** The Ministry of Public Health organized a reactive vaccination campaign against cholera to address the high mortality rate in the affected health districts. The first round was in August 2020 and the second in March 2021. We conducted a cross-sectional study and reviewed this vaccination campaign's challenges, best practices, and lessons. The vaccination coverage for the two doses of the oral cholera vaccine was 80.4%, with a refusal rate as high as 67%. People 20 years and above recorded the lowest vaccination coverage. The main challenge was misinformation about the cholera vaccine. The best practice was thorough population sensitization through community actors.

**Conclusion:** Proper communication will always brave the odds of hesitancy and favor mass population vaccination to thwart hesitancy and consolidate herd immunity.

**Title:** Safety and efficacy of four drug regimens versus standard-of-care for the treatment of symptomatic outpatients with COVID-19: A randomised, open-label, multi-arm, phase 2 clinical trial

**Journal:** EBioMedicine

**Publish Date:** November 2022

**URL:** <https://doi.org/10.1016/j.ebiom.2022.104322>

**Abstract**

**Background:** This exploratory study investigated four repurposed anti-infective drug regimens in outpatients with COVID-19.

**Methods:** This phase 2, single centre, randomised, open-label, clinical trial was conducted in South Africa between 3rd September 2020 and 23rd August 2021. Symptomatic outpatients aged 18-65 years, with RT-PCR confirmed SARS-CoV-2 infection were computer randomised (1:1:1:1) to standard-of-care (SOC) with paracetamol, or SOC plus artesunate-amodiaquine (ASAQ), pyronaridine-artesunate (PA), favipiravir plus nitazoxanide (FPV + NTZ), or sofosbuvir-daclatasvir (SOF-DCV). The primary endpoint was the incidence of viral clearance, i.e., the proportion of patients with a negative SARS-CoV-2 RT-PCR on day 7, compared to SOC using a log-binomial model in the modified intention-to-treat (mITT) population.

**Findings:** The mITT population included 186 patients: mean age (SD) 34.9 (10.3) years, body weight 78.2 (17.1) kg. Day 7 SARS-CoV-2 clearance rates (n/N; risk ratio [95% CI]) were: SOC 34.2% (13/38), ASAQ 38.5% (15/39; 0.80 [0.44, 1.47]), PA 30.3% (10/33; 0.69 [0.37, 1.29]), FPV + NTZ 27.0% (10/37; 0.60 [0.31, 1.18]) and SOF-DCV 23.5% (8/34; 0.47 [0.22, 1.00]). Three lower respiratory tract infections occurred (PA 6.1% [2/33]; SOF-DCV 2.9% [1/34]); two required hospitalisation (PA, SOF-DCV). There were no deaths. Adverse

events occurred in 55.3% (105/190) of patients, including one serious adverse event (pancytopenia; FPV + NTZ).

**Interpretation:** There was no statistical difference in viral clearance for any regimen compared to SOC. All treatments were well tolerated.

**Title:** COVID-19 and state coordinated responses in South Africa's emerging developmental state

**Journal:** Development Studies Research

**Publish Date:** December 2022

**URL:** <https://doi.org/10.1080/21665095.2022.2098791>

**Abstract:**

It is no longer debatable that the socio-economic impact of COVID-19 caused a resurgence in the role of the state and propelled the need for novel responses reinforced by the structural component of the state. The structural component of the state refers to the administrative power, resources and capacity of the state to mitigate the impact of the pandemic in the context of COVID-19. This paper explores the relationship between the central and local states in coordinating efforts to attenuate and respond to the pandemic, and the meaning of state-led responses for South Africa's developmental state ambition. The South African government demonstrated political willingness to utilize its structural component by distributing its administrative capacity, resources and power to all the spheres of government to fight the pandemic through its stimulus package. The country's pandemic responses reveal good implications for strengthening institutional arrangements and consolidating a well-coordinated and capable developmental state.

**Title:** Disability inclusiveness in Covid-19 pandemic policies in West Africa: "Are we left behind?"

**Journal:** Cogent Social Sciences

**Publish Date:** December 2022

**URL:** <https://doi.org/10.1080/23311886.2022.2079803>

**Abstract**

People with Disabilities (PwDs) suffer and are susceptible to social inequalities, especially during the Covid-19 pandemic. In West Africa, these are influenced by how services geared towards PwDs are administered. This study explores the government policies implemented in West Africa during the Covid-19 pandemic and their impact on PwDs in line with the SDGs with disability targets. Thematic analysis was adopted to analyze eighty-one (81) documents, including legislation, reports and official documents that communicated measures taken in response to Covid-19 and SDGs with disability targets. The study found that various governments outlined pragmatic steps to address the needs of PwDs. It was unraveled that the policies and recommendations that the governments have published on disability inclusiveness in response to Covid-19 did not reflected in the lives PwDs. This is evident based on the difficulty PwDs have to go through to access all the available benefits. It takes a while to see such policies and recommendations reflected in the lives of PwDs. Measuring the expected improvements in the lives of PwDs relative to the SGD's attainment can not happen overnight. This study is the first of its kind in West Africa and urges various governments to pay close attention to their policies to improve their policies toward PwDs. The study recognizes governments' vital role in ensuring that PwDs are



better off, especially during the Covid-19 pandemic. However, the government needs to provide adequate education on how PwDs will readily access policies to better their lives.

**Title:** Coronavirus Antibody Responses before COVID-19 Pandemic, Africa and Thailand

**Journal:** Emerging Infectious Diseases

**Publish Date:** November 2022

**URL:** <https://doi.org/10.3201/eid2811.221041>

**Abstract:**

Prior immune responses to coronaviruses might affect human SARS-CoV-2 response. We screened 2,565 serum and plasma samples collected from 2013 through early 2020, before the COVID-19 pandemic began, from 2,250 persons in 4 countries in Africa (Kenya, Nigeria, Tanzania, and Uganda) and in Thailand, including persons living with HIV-1. We detected IgG responses to SARS-CoV-2 spike (S) subunit 2 protein in 1.8% of participants. Profiling against 23 coronavirus antigens revealed that responses to S, subunit 2, or subunit 1 proteins were significantly more frequent than responses to the receptor-binding domain, S-Trimer, or nucleocapsid proteins ( $p < 0.0001$ ). We observed similar responses in persons with or without HIV-1. Among all coronavirus antigens tested, SARS-CoV-2, SARS-CoV-1, and Middle East respiratory syndrome coronavirus antibody responses were much higher in participants from Africa than in participants from Thailand ( $p < 0.01$ ). We noted less pronounced differences for endemic coronaviruses. Serosurveys could affect vaccine and monoclonal antibody distribution across global populations.

**Title:** Strategies to address conspiracy beliefs and misinformation on COVID-19 in South Africa: A narrative literature review

**Journal:** Health SA Gesondheid

**Publish Date:** November 8, 2022

**URL:** <https://doi.org/10.4102/hsag.v27i0.1851>

**Abstract**

Conspiracy theories and misinformation have been explored extensively however, strategies to minimise their impact in the context of coronavirus disease 2019 (COVID-19) vaccines are limited. This study aimed to explore strategies that can be used to reduce the negative effects of conspiracies and misinformation about SARS-CoV-2. This review was carried out based on accessed literature on beliefs in misinformation about the COVID-19 pandemic. A comprehensive search of databases, such as Google Scholar, EBSCOhost and African Journals between 2019 and 2022 yielded qualitative and quantitative studies. Two themes emerged, namely underlying motives for conspiracy theories and belief in misinformation about the pandemic and ways to overcome them. The latter included: (1) strengthening critical scanning of information, (2) critical review to address misinformation and (3) establishing approaches for managing conspiracy theories. A proposal is made to address conspiracy beliefs about COVID-19 infection.

**Contribution:** This is believed to be the first review that describes strategies to mitigate belief in conspiracies and misinformation to promote vaccination.

**Title:** Living with COVID-19 and preparing for future pandemics: revisiting lessons from the HIV pandemic

**Journal:** The Lancet HIV

**Publish Date:** November 2022

**URL:** [https://doi.org/10.1016/S2352-3018\(22\)00301-0](https://doi.org/10.1016/S2352-3018(22)00301-0)

**Abstract:**

In April, 2020, just months into the COVID-19 pandemic, an international group of public health researchers published three lessons learned from the HIV pandemic for the response to COVID-19, which were to: anticipate health inequalities, create an enabling environment to support behavioural change, and engage a multidisciplinary effort. We revisit these lessons in light of more than 2 years' experience with the COVID-19 pandemic. With specific examples, we detail how inequalities have played out within and between countries, highlight factors that support or impede the creation of enabling environments, and note ongoing issues with the scarcity of integrated science and health system approaches. We argue that to better apply lessons learned as the COVID-19 pandemic matures and other infectious disease outbreaks emerge, it will be imperative to create dialogue among polarised perspectives, identify shared priorities, and draw on multidisciplinary evidence.

**Title:** La sécurité sanitaire globale et la coopération internationale dans la lutte contre la Covid-19

**Journal:** Mouvements et Enjeux Sociaux

**Publish Date:** October 2022

**URL:** [https://mesrids.org/wp-content/uploads/2022/10/MES\\_n%C2%B0124\\_Septembre\\_Octobre-2022\\_Kambale-et-Kavunga.pdf](https://mesrids.org/wp-content/uploads/2022/10/MES_n%C2%B0124_Septembre_Octobre-2022_Kambale-et-Kavunga.pdf)

**Abstract:**

L'expansion rapide de la pandémie à COVID-19 a démontré la vulnérabilité de tous les pays au-delà des frontières nationales. Le traitement de la COVID-19 dans les relations internationales a fortement été influencé par l'approche portée par la Chine qui a imposé son rythme de gestion de la pandémie en usant d'une capacité d'influence sur l'information et de la diplomatie « du coronavirus ». Même face à une urgence sanitaire, les puissances mondiales ne sont pas prêtes à sortir du conflit entre la préservation de la souveraineté et la nécessité de sécurité collective. A contrario, la Covid-19 s'est rapidement hissée au rang d'enjeu de diplomatie internationale à cause de la lutte pour le « soft power » autour du contrôle de la santé du monde. L'Afrique a fait montre d'une capacité à faire un saut qualitatif et à tirer avantage de la situation de crise comme opportunité pour un nouveau départ. L'Afrique peut profiter du contexte pour réaliser un saut technologique en engageant ses capacités de production de médicament, non seulement contre la COVID-19, mais aussi contre les nombreuses pandémies qui secouent le continent.

## C. COVID-19 VACCINATION

**Title:** COVID-19 Vaccination in Africa: A Case of Unsatisfied Expectation and ill-Preparedness

**Journal:** Vaccine X

**Publish Date:** November 2022

**URL:** <https://doi.org/10.1016%2Fj.jvacx.2022.100234>

**Abstract:**

With a population of 1.3 billion people, of which 56% reside in rural settings, Africa seemed ill-prepared to handle the distribution of a COVID-19 vaccine. In addition, the capacity needed for a successful COVID-19 vaccination campaign in Africa surpassed the available resources in local and state health agencies. As a result, African governments were advised to coordinate resources, health officials, and vaccinators, including local health practitioners, medical technicians, and pharmacists for the largest-ever vaccination campaign in Africa. Although the rolling out of the SARS-COV-2 vaccine was, as expected, slow in many African countries, and not yet enough to cover the entire population in Africa, the mass vaccination campaign in Africa must continue to ensure that priority for vaccination is extended beyond front-liners (healthcare workers) and specific high-risk populations, which has largely been the case in some African countries. This article highlights the overarching areas that we believe need to be prioritized to enhance Africa's effectiveness and coverage in the mass COVID-19 vaccination program.

**Title:** Factors associated with willingness to take COVID-19 vaccine among pregnant women at Gondar town, Northwest Ethiopia: A multicenter institution-based cross-sectional study

**Journal:** PLoS One

**Publish Date:** November 2022

**URL:** <https://doi.org/10.1371/journal.pone.0276763>

**Abstract:**

**Background:** Coronavirus disease has spread worldwide since late 2019. Vaccination is critical in controlling this pandemic. However, vaccine acceptance among pregnant women is not well-studied. Therefore, this study aimed to assess the COVID-19 vaccine acceptance and associated factors among pregnant women attending antenatal care clinics in Gondar town, Northwest Ethiopia.

**Methods:** An institution-based cross-sectional study was conducted among pregnant women attending antenatal care clinics at Gondar town, Northwest Ethiopia, 2021. About 510 study subjects were selected using a systematic random sampling technique from August 25 to September 10/2021. Data collection was done by using an interviewer-administered, structured questionnaire. Epi-info 7.2 was used to enter data and then exported to SPSS version 25 software for analysis. Bivariable and multivariable binary logistic regression models were used to identify factors associated with the outcome variable. Variables with a p-value < 0.2 in the bivariable analysis were entered into the multivariable analysis to control for possible confounders. Statistical significance is determined using an adjusted odds ratio and 95% confidence interval (CI) at a p-value of < 0.05.

**Results:** Of 510 participants, 211 (41.4%) were willing to take COVID-19 vaccines. Maternal age  $\geq$  35 years (AOR: 5.678, 95% CI: 1.775-18.166), having contact history with COVID-19 diagnosed people (AOR: 7.724, 95% CI: 2.183, 27.329), having a pre-existing chronic disease (AOR: 3.131, 95% CI: 1.700-5.766), good knowledge about COVID-19 vaccine (AOR: 2.391, 95% CI: 1.144, 4.998) and good attitude towards COVID-19 vaccine (AOR: 2.128, 95% CI: 1.348) were significantly associated with the outcome variable.

**Conclusions:** The willingness to take COVID-19 vaccine among pregnant mothers was low. Age, contact history with COVID-19 diagnosed people, chronic disease, knowledge, and attitude towards COVID-19 vaccine were factors associated with COVID-19 vaccine

willingness. To enhance the COVID-19 vaccine acceptance, the government with different stakeholders should strengthen public education about the importance of getting COVID-19 vaccine.

**Title:** Predictors of unwillingness to receive COVID -19 vaccines among Ethiopian Medical students

**Journal:** PLoS One

**Publish Date:** November 4, 2022

**URL:** <https://doi.org/10.1371/journal.pone.0276857>

**Abstract:**

**Introduction:** Medical students are among the potential risky population for the transmission of COVID 19 infections; their willingness to receive COVID 19 vaccine is not well studied. Thus, this study assessed Predictors of Unwillingness to receive COVID -19 vaccines among Ethiopian Medical students.

**Methods:** From the 25th of May, 2020 to the 26th of June, 2021, an institution-based cross-sectional study was done at Mizan-Tepi University Teaching Hospital, On 313 medical students from each department and batch were chosen using a multistage sampling approach. A bivariate and multivariable logistic regression were done to identify the predictors of Unwillingness to receive COVID -19 vaccines. Figures, tables, and graphs were used to present the findings. The adjusted odds ratio and its 95% confidence interval were provided.

**Results:** In this study 124 (40.7%) 95% CI (35.1,46.4) medical students were not willing to receive the COVID-19 vaccine. And also increased in the age of the student [AOR 0.43, 95% CI; (.29,.63)], Knowledge status about COVID 19 infection transmission, risk factors and control behavior [AOR 1.45, 95% CI; (1.14, 1.85)], perceived susceptibility to COVID 19 infection [AOR 1.70 (1.15, 2.51)], perceived severity of COVID 19 infection [AOR 1.26 (1.01, 1.57)], perceived benefit of COVID 19 vaccine [AOR .58(.38, .88)], positive attitude towards COVID 19 vaccines [AOR .46(.35, .62)], and confidence in safety and efficacy of the vaccine and public authorities decision in the best interest of the community [AOR 1.93(1.24, 2.99)] were predictors of non-willingness to receive COVID 19 vaccine.

**Conclusion:** Non-willingness to accept the COVID 19 vaccine was predicted by student age, elements in the Health belief model such as anticipated susceptibility, severity, and benefit, and a positive attitude and trust in the vaccine.

**Title:** Segmentation of African countries based on infection and death rates of COVID-19 before vaccination: A rigid population to source for workforce amidst the pandemic?

**Journal:** Scientific African

**Publish Date:** November 2022

**URL:** <https://doi.org/10.1016/j.sciaf.2022.e01430>

**Abstract:**

This study established segments among African countries to show the hierarchies of COVID-19 infection and death rates across the continent before the commencement of vaccination. Four clusters were extracted, each consisting of countries with a similar number of cumulative infections and deaths per 100 thousand population. When compared with the pre-vaccination figures from Europe, Americas, and Asia, it was observed that the African population exhibited a good level of rigidity and resilience to the pandemic, pre-

vaccination. Majority of African countries - evaluating to 84% - were clustered into the segment with low infection and low death rates. Only 4% of the countries were clustered into the higher infection and highest death rates segment. This is an indication of the rigidity of a greater part of the African population to COVID-19 before vaccination. To forestall total business shutdown in the event of a similar pandemic in the future, multinational corporations could explore their workforce from the African population given the level of rigidity exhibited pre-vaccination.

**Title:** Willingness to Accept COVID-19 Vaccine and Associated Factors Among Adult Household Members in Dire Dawa City Administration, East Ethiopia

**Journal:** DovePress

**Publish Date:** November 2022

**URL:** <https://doi.org/10.2147/PPA.S380393>

**Abstract:**

**Background:** COVID-19 vaccine is a vital strategy to prevent and control this pandemic. This will depend principally on people's acceptance of COVID-19 vaccine. We aimed to determine the willingness to accept COVID vaccine among adult household members of Dire Dawa city administration.

**Methods:** A community-based cross-sectional study was conducted among randomly selected 634 adult household members in the Dire Dawa city administration during January 16– 31/2022. Data were collected using face-to-face interview. Extent of willingness was estimated using participants' self-report. Bivariate and multivariate logistic regression models were fitted, and statistical significance was set at  $p$ -value < 0.05.

**Results:** The estimated willingness to accept COVID-19 vaccine was 28.4% (95% CI 25.1, 31.5) in the study setting. The odds of willingness to accept COVID-19 vaccine was higher for household members living without at least one chronic disease (AOR 1.7, 95% CI 1.10, 2.70), who had good knowledge score (AOR 2.3, 95% CI 1.31, 2.18) and positive attitude score (AOR 5.5, 95% CI 2.1, 14.5) compared to their counterparts, respectively. The estimated willingness to accept COVID-19 vaccine among household members with good knowledge score was 47.4 (95% CI 42.1, 52.7) and 15.5 (95% CI 8.7, 22.2) among those with poor knowledge. Nearly, 90% of the study participants had limited knowledge about COVID 19 vaccine.

**Conclusion:** The estimated willingness to accept COVID-19 vaccine in the study setting is very low and far from the set target to be reached by the end of 2022. Being free from chronic disease, and having good knowledge and positive attitude about COVID-19 vaccine were the main drivers for willingness. Public awareness directed to increase knowledge about COVID-19 vaccine and attitude change strategies should be scaled up to increase the COVID-19 vaccine uptake. Moreover, those individuals with chronic diseases need special attention.

**Title:** Adaptations and staff experiences in delivering parenting programmes and other family support services in three community-based organisations in Cape Town, South Africa during the COVID pandemic



**Journal:** [Global Public Health](#)

**Publish Date:** November 2022

**URL:** <https://doi.org/10.1080/17441692.2022.2129725>

**Abstract:**

We explore how organisations working on parenting programmes and other types of family support and violence prevention in low-resource settings experienced the pandemic. In August 2020–May 2021, we interviewed (1) staff from three community-based organisations delivering evidence-informed parenting interventions and other psychosocial services for families in Cape Town, South Africa, (2) staff from a parenting programme training organisation and (3) staff from two international organisations supporting psychosocial services in South Africa. Interviews (22) were thematically analysed, with findings in three areas. First, respondents noted changes in the context, including the job losses, food insecurity, and stress experienced by local communities, and reductions in organisational funding. Second, we found that in response to these context changes, the organisations shifted their focus to food provision and COVID prevention. Parenting and psychosocial programmes were adapted – e.g. by changing the physical delivery settings, reducing group sizes, and taking up digital and phone implementation. Participants reported improved perceptions of remote delivery as a feasible approach for working with families – but internet and phone access remained challenging. Third, the pandemic brought new responsibilities for staff, and both the challenges of working from home and the health risks of in-person work.

**Title:** COVID-19 vaccine acceptance and its socio-demographic and emotional determinants: a multi-country cross-sectional study

**Journal:** Vaccine

**Publish Date:** November 10, 2022

**URL:** <https://doi.org/10.1016/j.vaccine.2022.10.051>

**Abstract:**

**Background**

Multiple COVID-19 vaccines have now been licensed for human use, with other candidate vaccines in different stages of development. Effective and safe vaccines against COVID-19 have been essential in achieving global reductions in severe disease caused by severe acute respiratory coronavirus 2 (SARS-CoV-2), but multiple factors, including vaccine supply and vaccine confidence, continue to impact global uptake of COVID-19 vaccines. In this study, we explore determinants of COVID-19 vaccination intent across 17 countries worldwide.

**Methods**

In this large-scale multi-country study, we explored intent to accept a COVID-19 vaccine and the socio-demographic and emotional determinants of uptake for 17 countries and over 19,000 individuals surveyed in June and July 2020 via nationally representative samples. We used Bayesian ordinal logistic regressions to probe the relationship between intent to accept a COVID-19 vaccine and individuals' socio-demographic status, their confidence in COVID-19 vaccines, and their recent emotional status. Gibbs sampling was used for Bayesian model inference, with 95% Bayesian highest posterior density intervals used to capture uncertainty.



**Findings** Intent to accept a COVID-19 vaccine was found to be highest in India, where 77.8% (95% HPD, 75.5 to 80.0%) of respondents strongly agreeing that they would take a new COVID-19 vaccine if it were available. The Democratic Republic of Congo (15.5%, 12.2 to 18.6%) and France (26.4%, 23.7 to 29.2%) had the lowest share of respondents who strongly agreed that they would accept a COVID-19. Confidence in the safety, importance, and effectiveness of COVID-19 vaccines are the most widely informative determinants of vaccination intent. Socio-demographic and emotional determinants played a lesser role, with being male and having higher education associated with increased uptake intent in five countries and being fearful of catching COVID-19 also a strong determinant of uptake intent.

**Interpretation** Barriers to COVID-19 vaccine acceptance are found to be country and context dependent. These findings highlight the importance of regular monitoring of COVID-19 vaccine confidence to identify groups less likely to vaccinate.

## D. COVID-19 PUBLIC PERCEPTIONS AND EFFECTS

**Title:** Exploring primary healthcare practitioners' experiences regarding the coronavirus disease 2019 (COVID-19) pandemic in KwaZulu-Natal, South Africa

**Journal:** Primary Health Care Research and Development

**Publish Date:** November 4, 2022

**URL:** <https://doi.org/10.1017/s1463423622000536>

**Abstract:**

**Background:** The coronavirus disease 2019 (COVID-19) has spread rapidly around the world since the initial outbreak in Wuhan, China. With the emergence of the Omicron variant, South Africa is presently the epicentre of the COVID-19 pandemic in sub-Saharan Africa. Healthcare workers have been at the forefront of the pandemic in terms of screening, early detection and clinical management of suspected and confirmed COVID-19 cases. Since the beginning of the outbreak, little has been reported on how healthcare workers have experienced the COVID-19 pandemic in South Africa, particularly within a low-income, rural primary care context.

**Methods:** The purpose of the present qualitative study design was to explore primary healthcare practitioners' experiences regarding the COVID-19 pandemic at two selected primary healthcare facilities within a low-income rural context in KwaZulu-Natal, South Africa. Data were collected from a purposive sample of 15 participants, which consisted of nurses, physiotherapists, pharmacists, community caregivers, social workers and clinical associates. The participants were both men and women who were all above the age of 20. Data were collected through individual, in-depth face-to-face interviews using a semi-structured interview guide. Audio recordings were transcribed verbatim. Data were analysed manually by thematic analysis following Tech's steps of data analysis.

**Results:** Participants reported personal, occupational and community-related experiences related to the COVID-19 pandemic in South Africa. Personal experiences of COVID-19 yielded superordinate themes of psychological distress, self-stigma, disruption of the social norm, Epiphany and conflict of interest. Occupational experiences yielded superordinate themes of staff infections, COVID-19-related courtesy stigma, resource constraints and poor dissemination of information. Community-related experiences were related to

struggles with societal issues, clinician-patient relations and COVID-19 mismanagement of patients.

**Conclusion:** The findings of this study suggest that primary healthcare practitioners' experiences around COVID-19 are attributed to the catastrophic effects of the COVID-19 pandemic with the multitude of psychosocial consequences forming the essence of these experiences. Ensuring availability of reliable sources of information regarding the pandemic as well as psychosocial support could be valuable in helping healthcare workers cope with living and working during the pandemic.

**Title:** Nursing students' perception on their readiness to combat gender-based violence during the COVID-19 pandemic

**Journal:** Health SA Gesondheid

**Publish Date:** November 7, 2022

**URL:** <https://doi.org/10.4102/hsag.v27i0.1968>

#### **Abstract**

**Background:** Gender-based violence (GBV) is a critical public health concern, demanding for global coordinated efforts. While nursing students form part of a healthcare team with significant roles in identifying and responding to abused victims, studies assessing their readiness to combat GBV are limited in Namibia.

**Aim:** To assess undergraduate nursing students' perceptions and to determine the relationship of the study variables to readiness to combat GBV during the coronavirus disease 2019 (COVID-19) pandemic in Namibia.

**Setting:** This study was conducted at a university satellite campus in Namibia.

**Methods:** A cross-sectional survey was used to collect data from 105 third and fourth-year undergraduate nursing students using ADKAR model. Data were analysed using Statistical Package for the Social Sciences, version 27.0, for descriptive statistics and logistic regression in determining relationships between study variables.

**Results:** The study results show a mean readiness of  $1.65 \pm 0.19$ . Most respondents perceived themselves ready (73.3%), whereas 26.7% were not. Readiness was common with reinforcement (89.5%) and awareness (84.8%), knowledge (81.9%) and desire (76.2%) subscales. Predictors of readiness in this study were gender and age ( $R^2 = 0.40$ ;  $R^2 = 0.37$ ;  $p \leq 0.05$ ).

**Conclusion:** The results of this study highlight that age and gender were significant predictors for readiness among the undergraduate students in Namibia. The results highlight the importance of GBV education in a nursing curriculum. A qualitative design is recommended for future studies.

**Contribution:** The results of this study will support global efforts in strengthening the health system response on GBV incidences.

**Title:** Knowledge, attitudes and perceived behavioral modification of chiropractic students returning to clinical training in South Africa amid the COVID-19 pandemic

**Journal:** Journal of Chiropractic Education

**Publish Date:** November 10, 2022

**URL:** <https://doi.org/10.7899/jce-21-43>

#### **Abstract:**

**Objective:** The purpose of this study was to determine the knowledge and attitudes toward COVID-19 and perceived behavioral modification of South African chiropractic students returning to clinical training during the COVID-19 pandemic.

**Methods:** An online survey was administered to students registered for clinical training in South African chiropractic programs. The survey consisted of questions related to knowledge and attitudes toward COVID-19 and perceptions on behavioral modification in the form of personal protective equipment (PPE) use to prevent transmission.

**Results:** Out of 129 participants, there was a 69% response rate ( $n = 89$ ), with a mean age of 25 ( $\pm 2.39$ ) years and 75% were females. They had an acceptable level of knowledge (67.9%). There was a favorable perception score about COVID-19 (98.8%) but a poor perception of the role of PPE. They expressed concern about returning to clinical training (62.9%) but were prepared to return to serve their patients during the pandemic (72%).

**Conclusion:** Chiropractic students within South Africa demonstrated good attitudes, knowledge, and perception toward the measures required to return safely to the clinical environment during the COVID-19 pandemic. There was a level of stress associated with potential infection by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), mostly for onward transmission to family members.

## E. COVID-19 EFFECTS ON OTHER DISEASES AND SECTORS

**Title:** Haematological predictors of poor outcome among COVID-19 patients admitted to an intensive care unit of a tertiary hospital in South Africa

**Journal:** PLoS One

**Publish Date:** November 4, 2022

**URL:** <https://doi.org/10.1371/journal.pone.0275832>

**Abstract:**

**Background:** Studies from Asia, Europe and the USA indicate that widely available haematological parameters could be used to determine the clinical severity of Coronavirus disease 2019 (COVID-19) and predict management outcome. There is limited data from Africa on their usefulness in patients admitted to Intensive Care Units (ICUs). We performed an evaluation of baseline haematological parameters as prognostic biomarkers in ICU COVID-19 patients.

**Methods:** Demographic, clinical and laboratory data were collected prospectively on patients with confirmed COVID-19, admitted to the adult ICU in a tertiary hospital in Cape Town, South Africa, between March 2020 and February 2021. Robust Poisson regression methods and receiver operating characteristic (ROC) curves were used to explore the association of haematological parameters with COVID-19 severity and mortality.

**Results:** A total of 490 patients (median age 54.1 years) were included, of whom 237 (48%) were female. The median duration of ICU stay was 6 days and 309/490 (63%) patients died. Raised neutrophil count and neutrophil/lymphocyte ratio (NLR) were associated with worse outcome. Independent risk factors associated with mortality were age (ARR 1.01, 95%CI 1.0-1.02;  $p = 0.002$ ); female sex (ARR 1.23, 95%CI 1.05-1.42;  $p = 0.008$ ) and D-dimer levels (ARR 1.01, 95%CI 1.002-1.03;  $p = 0.016$ ).

**Conclusions:** Our study showed that raised neutrophil count, NLR and D-dimer at the time of ICU admission were associated with higher mortality. Contrary to what has previously

been reported, our study revealed females admitted to the ICU had a higher risk of mortality.

**Title:** Risk factors for severe COVID-19 among HIV-infected and-uninfected individuals in South Africa, April 2020- March 2022 – data from sentinel surveillance

**Journal:** Open Forum Infectious Diseases

**Publish Date:** November 2022

**URL:** <https://doi.org/10.1093/ofid/ofac578>

**Abstract:**

Background

Data on risk factors for COVID-19-associated hospitalisation and mortality in high HIV prevalence settings are limited.

Methods

Using existing syndromic surveillance programs for influenza-like-illness and severe respiratory illness at sentinel sites in South Africa, we identified factors associated with COVID-19 hospitalisation and mortality.

Results

From April 2020 through March 2022, SARS-CoV-2 was detected in 24.0% (660/2746) of outpatient and 32.5% (2282/7025) of inpatient cases. Factors associated with COVID-19-associated hospitalisation included: older age (25-44 [adjusted odds ratio (aOR) 1.8, 95% confidence interval (CI) 1.1-2.9], 45-64 [aOR 6.8, 95%CI 4.2-11.0] and  $\geq 65$  years [aOR 26.6, 95%CI 14.4-49.1] vs 15-24 years); black race (aOR 3.3, 95%CI 2.2-5.0); obesity (aOR 2.3, 95%CI 1.4-3.9); asthma (aOR 3.5, 95%CI 1.4-8.9); diabetes mellitus (aOR 5.3, 95%CI 3.1-9.3); HIV with  $CD4 \geq 200/mm^3$  (aOR 1.5, 95%CI 1.1-2.2) and  $CD4 < 200/mm^3$  (aOR 10.5, 95%CI 5.1-21.6) or tuberculosis (aOR 12.8, 95%CI 2.8-58.5). Infection with Beta (aOR 0.5, 95%CI 0.3-0.7) vs Delta variant and being fully vaccinated (aOR 0.1, 95%CI 0.1-0.3) were less associated with COVID-19 hospitalisation.

In-hospital mortality was increased in older age (45-64 years [aOR 2.2, 95%CI 1.6-3.2] and  $\geq 65$  years [aOR 4.0, 95%CI 2.8-5.8] vs 25-44 years) and male sex (aOR 1.3, 95%CI 1.0-1.6) and was lower in Omicron -infected (aOR 0.3, 95%CI 0.2-0.6) vs Delta-infected individuals.

Conclusion

Active syndromic surveillance encompassing clinical, laboratory and genomic data identified setting-specific risk factors associated with COVID-19 severity that will inform prioritization of COVID-19 vaccine distribution. Elderly, people with tuberculosis or people living with HIV, especially severely immunosuppressed should be prioritised for vaccination.

**Title:** COVID-19 and the informal economy in a small-town in South Africa: governance implications in the post-COVID era

**Journal:** Cogent Social Sciences

**Publish Date:** December 2022

**URL:** <https://doi.org/10.1080/23311886.2022.2078528>

**Abstract:**

The coronavirus (COVID-19) has been disruptive to the global socio-economic production of livelihoods because of the lockdown of national economies. In developing nations, the

prolonged impact of the pandemic might stagnate millions of people into poverty because the informal sector contributes a significant share of total employment. This paper explored the socio-economic impact of COVID-19 on the South African informal economy, through a survey conducted with 75 informal workers in KwaDukuza Municipality, KwaZulu-Natal, South Africa. The results show that the COVID-19 lockdown amplified the precariousness of informal workers as most participants reported a decline in socio-economic status marked by increased unemployment, poverty and vulnerability. These challenges are also exacerbated by the lack of proactively targeted and timely interventions to cushion those in the informal economy against COVID-induced socio-economic shocks. Without necessary measures to support those in the most precarious jobs amid the pandemic's prolonged and evolving socio-economic impact, the country is unlikely to address the high levels of poverty and unemployment. The paper also discusses the post-COVID governance implications for the informal economy in South Africa.

**Title:** COVID-19 and price stability in Eastern Africa: How effective were the governments' policy response measures?

**Journal:** Cogent Economics & Finance

**Publish Date:** December 2022

**URL:** <https://doi.org/10.1080/23322039.2022.2093429>

**Abstract:**

This study used monthly panel data for the period March 2020-April 2021 in analyzing the differences in the impact of the COVID-19 pandemic on price stability in the East Africa Community (EAC) region. We also sought to establish the effectiveness of the governments' policy response measures in maintaining price stability. Estimates from the Pooled Mean Group (PMG) model revealed evidence of a long-run relationship between COVID-19 and the Consumer Price Index (CPI) in the EAC region. Secondly, COVID-19 significantly increased the CPI across the panel in the long run. In the short run, the impact was significant and positive for Kenya but negative for Rwanda and South Sudan. The question of whether government policy response measures were indeed effective in maintaining price stability posits a dilemma that is rather reminiscent of a paradoxical policy solution. On one hand, governments are concerned with the welfare of their citizens which was worsened by the inception of the pandemic, and thus roll out relief measures to help inject liquidity into businesses and households. Conversely, governments are also wary that their actions might actually increase the money supply and thus trigger inflation. Governments, therefore, need to step up their vaccination drive as this is critical in spearheading the economies' re-opening and, thus, recovery in the long run. This is contrary to the long-term application of the relief measures. Further, governments within the region need to develop well-managed food reserves that can provide a cushion in the event of price fluctuations emanating from the effects of such economic shocks.

**Title:** Reaction of African stocks markets to disequilibrium episodes of the COVID-19 infection: Evidence from the top hit African countries

**Journal:** RUDN Journal of Economics

**Publish Date:** December 2022

**URL:** <https://doi.org/10.22363/2313-2329-2022-30-3-329-342>

**Abstract:**



The continued COVID-19 pandemic has had a significant impact on the global economy, with countries battling to contain the infection's spread as it continues to affect nearly every country in the globe. We test for possible explosive behavior (excessive disequilibrium) in COVID-19 infection in the top African impacted economies, given the sensitivity and fragility of stock markets to shocks. The study identifies two (2) separate explosive occurrences in Algeria and Egypt using the Generalized Sup Augmented DickeyFuller (GSADF) test. Furthermore, the study examines the influence of the COVID-19 infection's explosive behavior on the stock markets of the countries, taking into consideration the disequilibrium occurrences. The COVID-19 infection's explosive behavior had a negative but insignificant effect on stock returns, leading to an increase in riskiness. This outcome could be explained by the fact that the explosive incidents were transitory and could only have had a momentary impact on stock market returns absorbable overtime. More so, it suggests that investors may have adjusted to the shock of the COVID-19 infection prior to the two explosive occurrences, and that the development of the COVID-19 vaccine reassures for a near halt to the pandemic.

**Title:** Gendered and differential effects of the COVID-19 pandemic on paid and unpaid work in Nigeria

**Journal:** Cogent Social Sciences

**Publish Date:** December 2022

**URL:** <https://doi.org/10.1080/23311886.2022.2117927>

**Abstract:**

The COVID-19 pandemic and subsequent policy responses continue to have widespread social and economic effects across the globe. These effects are not experienced equally. Taking Lagos as a case study, we explored gendered and differential effects of COVID-19 and subsequent policy responses on paid and unpaid work. Using an intersectionality framework and qualitative methodology, we analyze how social divisions interacted, contributing to individual experiences of the pandemic. Drawing on gender-disaggregated interviews with sixty market traders, adolescents, persons with disabilities, and health workers, we bring to the forefront nuanced experiences of marginalization and social inequalities which are often invisible or ignored. We find gender to be a crucial social division in the experience of paid and unpaid work in Nigeria, with other divisions such as occupation, age, ability, class, and parenthood further determining the extent of this experience. Consequently, we offer insights for social and policy actions that can ameliorate identified inequalities. We encourage other researchers to adopt an intersectional approach in research that contributes to building back better in the aftermath of the pandemic.

**Title:** The balanced obligation in an era of global pandemic: Ghana's foreign policy in a Limbo

**Journal:** Cogent Social Sciences

**Publish Date:** December 2022

**URL:** <https://doi.org/10.1080/23311886.2022.2049036>

**Abstract:**

This paper examines Ghana's foreign policy under the COVID-19 pandemic and its implications for relations with its neighbors. It examines the country's national interest as



is reflected in the policies advanced in the midst of the pandemic, particularly issues bothering on the closure of borders and what it says of the long-held position of “good-neighborliness.” The work attempts at understanding how in the midst of pandemics countries can strike a balance between national interest while equally honoring their international obligations. It dwells mainly on analyzing official documents and policy directives as juxtaposed against the various obligations of the state as a responsible member of the international community. We argue that being a responsible member of the international community requires adherence to the well-established practices and norms of international relations even in the midst of a pandemic; states ought to learn how and when to strike the right balance.

**Title:** Rift Valley Fever Outbreak during COVID-19 Surge, Uganda, 2021

**Journal:** Emerging Infectious Diseases

**Publish Date:** November 2022

**URL:** <https://doi.org/10.3201/eid2811.220364>

**Abstract:**

Rift Valley fever, endemic or emerging throughout most of Africa, causes considerable risk to human and animal health. We report 7 confirmed Rift Valley fever cases, 1 fatal, in Kiruhura District, Uganda, during 2021. Our findings highlight the importance of continued viral hemorrhagic fever surveillance, despite challenges associated with the COVID-19 pandemic.

**Title:** To what extent did African countries prepare mechanisms to ensure transparency and accountability of the COVID-19 extra-budgetary funds?

**Journal:** Journal of Global Health

**Publish Date:** November 2022

**URL:** <https://doi.org/10.7189/jogh.12.03071>

**Abstract:**

**Title:** Respiratory illness virus infections with special emphasis on COVID-19

**Journal:** European Journal of Medical Research

**Publish Date:** November 2022

**URL:** <https://doi.org/10.1186%2Fs40001-022-00874-x>

**Abstract:**

Viruses that emerge pose challenges for treatment options as their uniqueness would not know completely. Hence, many viruses are causing high morbidity and mortality for a long time. Despite large diversity, viruses share common characteristics for infection. At least 12 different respiratory-borne viruses are reported belonging to various virus taxonomic families. Many of these viruses multiply and cause damage to the upper and lower respiratory tracts. The description of these viruses in comparison with each other concerning their epidemiology, molecular characteristics, disease manifestations, diagnosis and treatment is lacking. Such information helps diagnose, differentiate, and formulate the control measures faster. The leading cause of acute illness worldwide is acute respiratory infections (ARIs) and are responsible for nearly 4 million deaths every year, mostly in young children and infants. Lower respiratory tract infections are the fourth most common cause of death globally, after non-infectious chronic conditions. This review

aims to present the characteristics of different viruses causing respiratory infections, highlighting the uniqueness of SARS-CoV-2. We expect this review to help understand the similarities and differences among the closely related viruses causing respiratory infections and formulate specific preventive or control measures.

**Title:** Impact of COVID-19 on the wellbeing of children with epilepsy including Nodding Syndrome in Uganda: A qualitative study

**Journal:** Epilepsy & Behavior

**Publish Date:** November 10, 2022

**URL:** <https://doi.org/10.1016/j.yebeh.2022.108992>

**Abstract:**

To investigate the impact of the COVID-19 pandemic and related restrictions on the access and use of health services by children with epilepsy including nodding syndrome in Uganda.

**Methods**

Four focus group discussions (FGD) with parents/caregivers of children with epilepsy and five in-depth interviews with key informants were conducted between April and May 2021 at Butabika National Mental Referral Hospital and Kitgum General Hospital.

**Results**

COVID-19-related restrictions, including the halting of non-essential services and activities, and suspension of public transport, created several challenges not only for children with epilepsy and their parents/caregivers but also for their healthcare providers. Study participants described extreme transport restrictions that reduced their access to health care services, increased food insecurity and shortage or inability to afford essential medicines as consequences of COVID-19-related restrictions. However, parents/caregivers and healthcare workers adopted several coping strategies for these challenges. Parents/caregivers mentioned taking on casual work to earn an income to buy food, medicines and other necessities. Healthcare workers intensified outreach services to affected communities. A positive impact of lockdown measures described by some FGD participants was that most family members stayed at home and were able to care for children with epilepsy in turn.

**Conclusions**

Our study highlights the significant negative impact of the COVID-19 pandemic and related restrictions on access to health services and the general wellbeing of children with epilepsy. Decentralised epilepsy treatment services and nutritional support could reduce the suffering of children with epilepsy and their families during the ongoing COVID-19 pandemic and similar future emergencies.

**Title:** Re-emerging zoonotic disease Leptospirosis in Tanzania amid the ongoing COVID-19 pandemic: Needs attention – Correspondence

**Journal:** International Journal of Surgery

**Publish Date:** December 2022

**URL:** <https://doi.org/10.1016/j.ijssu.2022.106984>

**Abstract:**

No abstract

