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, Cochrane, Nature (including sister journals), Science (including sister journals), PLOS, Google scholar, Cambridge University Press, Oxford University Press, MDPI, AJOL, BHEKISISA.

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 stratégie de recherche majeure "COVID-19 ET Afrique" combinée 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, Cochrane, Nature (including sister journals), Science (including sister journals), PLOS, Google scholar, Cambridge University Press, Oxford University Press, MDPI, AJOL, BHEKISISA.

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 selecionar 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, Cochrane, Nature (including sister journals), Science (including sister journals), PLOS, Google scholar, Cambridge University Press, Oxford University Press, MDPI, AJOL, BHEKISISA.

A lista está sujeita a alterações e note-se que a escolha das publicações a serem incluídas nesta actualização é subjectiva.
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A. COVID-19 EPIDEMIOLOGY/ SURVEILLANCE (trends/ distribution)

**Title:** Estimating the SARS-CoV2 infections detection rate and cumulative incidence in the World Health Organization African Region ten months into the pandemic

**Journal:** Epidemiology & Infection

**Publish Date:** November 2021

**URL:** DOI: 10.1017/S0950268821002417

**Abstract:**
As of 03 January 2021, the WHO African region is the least affected by the COVID-19 pandemic, accounting for only 2.4% of cases and deaths reported globally. However, concerns abound about whether the number of cases and deaths reported from the region reflect the true burden of the disease and how the monitoring of the pandemic trajectory can inform response measures. We retrospectively estimated four key epidemiological parameters (the total number of cases, the number of missed cases, the detection rate and the cumulative incidence) using the COVID-19 prevalence calculator tool developed by Resolve to Save Lives. We used cumulative cases and deaths reported during the period 25 February to 31 December 2020 for each WHO Member State in the region as well as population data to estimate the four parameters of interest. The estimated number of confirmed cases in 42 countries out of 47 of the WHO African region included in this study was 13947631 [95% CI: 13334,620; 14635502] against 1889512 cases reported, representing 13.5% of overall detection rate (range: 4.2% in Chad, 43.9% in Guinea). The cumulative incidence of SARS-CoV-2 was estimated at 1.38% [95% CI: 1.31%; 1.44%], with South Africa the highest (14.5% [95% CI: 13.9%; 15.2%]) and Mauritius (0.1% [95% CI: 0.099%; 0.11%]) the lowest. The low detection rate found in most countries of the WHO African region suggests the need to strengthen SARS-CoV-2 testing capacities and adjusting testing strategies.

**Title:** The COVID-19 pandemic in the WHO African region: the first year (February 2020 to February 2021)

**Journal:** Epidemiology & Infection

**Publish Date:** November 2021

**URL:** DOI: 10.1017/S0950268821002429

**Abstract:**
The World Health Organization African region recorded its first laboratory confirmed COVID19 cases on 25 February 2021. Two months later, all the 47 countries of the region were affected. The first anniversary of the pandemic occurred in a changed context with the emergence of new variants of concern (VOC) and growing COVID-19 fatigue. This study describes the epidemiological trajectory of COVID-19 in the region, summarizes public health and social measures (PHSM) implemented and discusses their impact on the pandemic trajectory. As of 24 February 2021, the African region accounted for 2.5% cases
and 2.9% of deaths reported globally. Of the 13 countries that submitted detailed line listing of cases, the proportion of cases with at least one co-morbid condition was estimated at 3.3% of all cases. Hypertension, diabetes and Human Immunodeficiency Virus (HIV) infection were the most common comorbid conditions, accounting for 11.1%, 7.1% and 5.0% of cases with comorbidities, respectively. Overall, the CFR in patients with comorbid conditions was higher than in patients without comorbid conditions: 5.5% versus 1.0% (p <0.0001).

Title: Addressing missing values in routine health information system data: an evaluation of imputation methods using data from the Democratic Republic of the Congo during the COVID-19 pandemic
Journal: Population Health Metrics
Publish Date: November 2021

Abstract:
Background
Poor data quality is limiting the use of data sourced from routine health information systems (RHIS), especially in low- and middle-income countries. An important component of this data quality issue comes from missing values, where health facilities, for a variety of reasons, fail to report to the central system.

Methods
Using data from the health management information system in the Democratic Republic of the Congo and the advent of COVID-19 pandemic as an illustrative case study, we implemented seven commonly used imputation methods and evaluated their performance in terms of minimizing bias in imputed values and parameter estimates generated through subsequent analytical techniques, namely segmented regression, which is widely used in interrupted time series studies, and pre–post-comparisons through paired Wilcoxon rank-sum tests. We also examined the performance of these imputation methods under different missing mechanisms and tested their stability to changes in the data.

Results
For regression analyses, there were no substantial differences found in the coefficient estimates generated from all methods except mean imputation and exclusion and interpolation when the data contained less than 20% missing values. However, as the missing proportion grew, $k$-NN started to produce biased estimates. Machine learning algorithms, i.e. missForest and $k$-NN, were also found to lack robustness to small changes in the data or consecutive missingness. On the other hand, multiple imputation methods generated the overall most unbiased estimates and were the most robust to all changes in data. They also produced smaller standard errors than single imputations. For pre–post-comparisons, all methods produced $p$ values less than 0.01, regardless of the amount of missingness introduced, suggesting low sensitivity of Wilcoxon rank-sum tests to the imputation method used.

Conclusions
We recommend the use of multiple imputation in addressing missing values in RHIS datasets and appropriate handling of data structure to minimize imputation standard errors.
In cases where necessary computing resources are unavailable for multiple imputation, one may consider seasonal decomposition as the next best method. Mean imputation and exclusion and interpolation, however, always produced biased and misleading results in the subsequent analyses, and thus, their use in the handling of missing values should be discouraged.

**Title:** A pandemic treaty, revised international regulations, or both?  
**Journal:** Globalization and Health  
**Publish Date:** 6 November 2021  
**Abstract:**  
**Background**  
A special session of the World Health Assembly (WHA) will be convened in late 2021 to consider developing a WHO convention, agreement or other international instrument on pandemic preparedness and response – a so-called ‘Pandemic Treaty’. Consideration is given to this treaty as well as to reform of the International Health Regulations (IHR) as our principal governing instrument to prevent and mitigate future pandemics.  
**Main body**  
Reasons exist to continue to work with the IHR as our principal governing instrument to prevent and mitigate future pandemics. All WHO member states are party to it. It gives the WHO the authority to oversee the collection of surveillance data and to issue recommendations on trade and travel advisories to control the spread of infectious diseases, among other things. However, the limitations of the IHR in addressing the deep prevention of future pandemics also must be recognized. These include a lack of a regulatory framework to prevent zoonotic spillovers. More advanced multi-sectoral measures are also needed. At the same time, a pandemic treaty would have potential benefits and drawbacks as well. It would be a means of addressing the gross inequity in global vaccine distribution and other gaps in the IHR, but it would also need more involvement at the negotiation table of countries in the Global South, significant funding, and likely many years to adopt.  
**Conclusions**  
Reform of the IHR should be undertaken while engaging with WHO member states (and notably those from the Global South) in discussions on the possible benefits, drawbacks and scope of a new pandemic treaty. Both options are not mutually exclusive.

**Title:** Going where the data are: Connecting to Trello for daily statistics in the COVID-19 era and beyond  
**Journal:** South African Medical Journal  
**Publish Date:** NOvember2021  
**Abstract:**  
**Title:** Understanding the differential impacts of COVID-19 among hospitalised patients in South Africa for equitable response  
**Journal:** South African Medical Journal
Background. There are limited in-depth analyses of COVID-19 differential impacts, especially in resource-limited settings such as South Africa (SA).

Objectives. To explore context-specific sociodemographic heterogeneities in order to understand the differential impacts of COVID-19.

Methods. Descriptive epidemiological COVID-19 hospitalisation and mortality data were drawn from daily hospital surveillance data, National Institute for Communicable Diseases (NICD) update reports (6 March 2020 - 24 January 2021) and the Eastern Cape Daily Epidemiological Report (as of 24 March 2021). We examined hospitalisations and mortality by sociodemographics (age using 10-year age bands, sex and race) using absolute numbers, proportions and ratios. The data are presented using tables received from the NICD, and charts were created to show trends and patterns. Mortality rates (per 100 000 population) were calculated using population estimates as a denominator for standardisation. Associations were determined through relative risks (RRs), 95% confidence intervals (CIs) and p-values <0.001.

Results. Black African females had a significantly higher rate of hospitalisation (8.7% (95% CI 8.5 - 8.9)) compared with coloureds, Indians and whites (6.7% (95% CI 6.0 - 7.4), 6.3% (95% CI 5.5 - 7.2) and 4% (95% CI 3.5 - 4.5), respectively). Similarly, black African females had the highest hospitalisation rates at a younger age category of 30 - 39 years (16.1%) compared with other race groups. Whites were hospitalised at older ages than other races, with a median age of 63 years. Black Africans were hospitalised at younger ages than other race groups, with a median age of 52 years. Whites were significantly more likely to die at older ages compared with black Africans (RR 1.07; 95% CI 1.06 - 1.08) or coloureds (RR 1.44; 95% CI 1.33 - 1.54); a similar pattern was found between Indians and whites (RR 1.59; 95% CI 1.47 - 1.73). Women died at older ages than men, although they were admitted to hospital at younger ages. Among black Africans and coloureds, females (50.9 deaths per 100 000 and 37 per 100 000, respectively) had a higher COVID-19 death rate than males (41.2 per 100 000 and 41.5 per 100 000, respectively). However, among Indians and whites, males had higher rates of deaths than females. The ratio of deaths to hospitalisations by race and gender increased with increasing age. In each age group, this ratio was highest among black Africans and lowest among whites.

Conclusions. The study revealed the heterogeneous nature of COVID-19 impacts in SA. Existing socioeconomic inequalities appear to shape COVID-19 impacts, with a disproportionate effect on black Africans and marginalised and low socioeconomic groups. These differential impacts call for considered attention to mitigating the health disparities among black Africans.
Abstract:
Background: Seroprevalence studies are important for quantifying the burden of SARS-CoV-2 infections in resource-constrained countries.
Methods: We conducted a cross-sectional household survey spanning the second pandemic wave (November 2020 – April 2021) in three communities. Blood was collected for SARS-CoV-2 antibody (two ELISA assays targeting spike and nucleocapsid) and HIV testing. An individual was considered seropositive if testing positive on ≥1 assay. Factors associated with infection, and the age-standardised infection to case detection rate (ICR), infection hospitalisation rate (IHR) and infection fatality rate (IFR) were calculated.
Findings: Overall 7959 participants were enrolled, with a median age of 34 years and HIV prevalence of 22.7%. SARS-CoV-2 seroprevalence was 45.2% (95% confidence interval 43.7% - 46.7%), and increased from 26.9% among individuals enrolled in December 2020 to 47.1% among individuals in April 2021. On multivariable analysis, seropositivity was associated with age, sex, race, being overweight/obese, having respiratory symptoms, and low socioeconomic status. Persons living with HIV (PLWH) with high viral load were less likely to be seropositive compared to HIV-uninfected individuals. The site-specific ICR, IHR and IFR ranged across sites from 4.4% to 8.2%, 1.2% to 2.5% and 0.3% to 0.6%, respectively.
Interpretation: South Africa has experienced a large burden of SARS-CoV-2 infections, with <10% of infections diagnosed. Lower seroprevalence among non-virally suppressed PLWH, likely as a result of inadequate antibody production, highlights the need to prioritise this group for intervention.

Title: Evaluating prediction of COVID-19 at provincial level of South Africa: a statistical perspective
Journal: Environmental Science and Pollution Research
Publish Date: 9 November 2021
Abstract:
What is the impact of COVID-19 on South Africa? This paper envisages to assist researchers in battling of the COVID-19 pandemic focusing on South Africa. This paper focuses on the spread of the disease by applying heatmap retrieval of hotspot areas, and spatial analysis is carried out using the Moran index. For capturing spatial autocorrelation between the provinces of South Africa, the adjacent as well as the geographical distance measures are used as weight matrix for both absolute and relative counts. Furthermore, generalized logistic growth curve modelling is used for prediction of the COVID-19 spread. We expect this data-driven modelling to provide some insights into hotspot identification and timeous action controlling the spread of the virus.

Title: Characteristics and outcome profile of hospitalized African patients with COVID-19: The Ethiopian context
Journal: PLoS One
Publish Date: 9 November 2021
URL: https://doi.org/10.1371/journal.pone.0259454
Abstract:
The COVID-19 pandemic seems to have a different picture in Africa; the first case was identified in the continent after it had already caused a significant loss to the rest of the world and the reported number of cases and mortality rate has been low. Understanding the characteristics and outcome of the pandemic in the African setup is therefore crucial.

Aim
To assess the characteristics and outcome of Patients with COVID-19 and to identify determinants of the disease outcome among patients admitted to Millennium COVID-19 Care Center in Ethiopia.

Methods
A prospective cohort study was conducted among 1345 consecutively admitted RT-PCR confirmed Patients with COVID-19 from July to September, 2020. Frequency tables, KM plots, median survival times and Log-rank test were used to describe the data and compare survival distribution between groups. Cox proportional hazard survival model was used to identify determinants of time to clinical recovery and the independent variables, where adjusted hazard ratio, P-value and 95% CI for adjusted hazard ratio were used for testing significance and interpretation of results. Binary logistic regression model was used to assess the presence of a statistically significant association between disease outcome and the independent variables, where adjusted odds ratio, P-value and 95% CI for adjusted odds ratio were used for testing significance and interpretation of results.

Title: Emergence of B.1.1.318 SARS-CoV-2 viral lineage and high incidence of alpha B.1.1.7 variant of concern in Republic of Gabon
Journal: International Journal of Infectious Diseases
Publish Date: November 2021
URL: https://doi.org/10.1016/j.ijid.2021.10.057

Abstract:
Objective
Variants of concern (VOCs) associated with relatively high transmissibility appear to be spreading rapidly in Gabon. Therefore, it is imperative to understand the distribution of several variants of concern in the population, which could have implications for transmissibility and vaccine efficacy.

Methods
Between February and May 2021, SARS-CoV-2 genomes were sequenced using the Oxford nanopore MinION method and the respective genome diversity was elucidated. Phylogenetic analysis was performed and genomes were classified using pangolin lineages.

Results
The results highlight the increase (46%) of the alpha variant of concern (B.1.1.7) in the Gabonese population over the study period. In addition, an increase (31%) in the B.1.1.318 lineage, which is associated with high transmission and impaired vaccine efficacy (D614G+E484K+Y144del), was detected.

Conclusion
With the second wave ongoing, our findings highlight the need for surveillance of the SARS-CoV-2 genome in the Republic of Gabon and should provide useful guidance to policy makers in selecting an appropriate vaccine for the population.
B. COVID-19 RESPONSE ACTIVITIES
(hygiene practices, social distancing, case management)

Journal: SSRN
Publish Date: November 2021
URL: https://dx.doi.org/10.2139/ssrn.3955418

Abstract
Objective: Scant evidence exists of how governments in sub-Saharan African (SSA) countries consider the economic vulnerability of their populaces when instituting initial social control policies. This study examined possible clusters of financial resilience among SSA countries and how these clusters predicted the length of social control policies.
Methods: We harmonized country-level financial resilience data from the World Bank’s 2019 Global Findex database, data on COVID-19 cases from the Africa Centres for Disease Control and Prevention, and social control data from governments’ press releases. Multivariate cluster analysis and geographically weighted regression (GWR) were used to assess the level of savings, domestic remittance, self-employment, wages, emergency funds, and agricultural income – all predictors of financial resilience.
Results: We found two clusters of financial resilience: 41% of countries were financially resilient, while 59% were not. We also found that financial resilience profiles were predictive of longer durations of initial social control policies, but in varying directions and in degrees depending on the country.
Conclusion: The study sheds light on the heterogeneity of financial resilience among SSA countries and extends our knowledge of financial resilience, vis-a-vis pandemic responses. Social protection programs must be developed and implemented to help populaces cope during and after the pandemic.

Title: Compulsory Licensing vs. the IP Waiver: What Is the Best Way to End the COVID-19 Pandemic?
Journal: SSRN
Publish Date: 1 November
URL: https://dx.doi.org/10.2139/ssrn.3944192

Abstract:
This policy brief examines the currently discussed proposals at the WTO that aim to resolve the problem of the production shortages of COVID-19 vaccines. This includes the two key submissions, i.e. the proposal by South Africa and India on the IP waiver, partially supported by the US, and the EU proposal to clarify the use of compulsory licensing. While each of these mechanisms may help to improve the production of COVID-19 vaccines to various degrees, there is intense debate about which of these proposals is the most effective. This policy brief outlines the strengths and weaknesses of each of them with a view to informing the policy decisions by WTO members on the best way to promptly accelerate the vaccine
production that is urgently needed today. It concludes that the proposed IP waiver is a more
effective solution for addressing the current emergency.

Title: Utilization of complementary and alternative medicine for the prevention of COVID-19
infection in Ghana: A national cross-sectional online survey

Journal: Preventive Medicine Reports
Publish Date: December 2021
URL: https://doi.org/10.1016/j.pmedr.2021.101633

Abstract
Complementary and alternative medicine (CAM) use is widespread and has played critical
roles in preventing infections, including previous coronaviruses. This study sought to
document current practices in the use of CAM for the prevention of COVID-19 disease in
Ghana. An anonymous electronic survey was conducted from February 1, 2021 to April 30,
2021. Data on demographic characteristics, basic clinical information, illness perceptions
about COVID-19, and CAM use during the pandemic period were generated. While about
82.5% (986/1195) of the participants used CAM during the COVID-19 period, 69.1%
(681/986) of CAM users intended it for COVID-19 infection prevention. Vitamin supplements
(88.1%, 869/986), spiritual healing/prayer (23.3%, 230/986), mineral supplements (22.3%,
220/986), botanical/herbal medicines (22.2%, 219/986), and diet therapy (19.4%, 191/986)
were the main types of CAM used. From the adjusted binary logistic regression model,
current age (aOR: 1.03, 95%CI: 1.01–1.05), sex (aOR: 1.41, 95%CI: 1.02–1.95),
participants’ perceptions of consequences (aOR: 1.10, 95%CI: 1.04–1.17), identity (aOR:
1.15, 95%CI: 1.06–1.25) and concerns about COVID-19 (aOR: 0.91, 95%CI: 0.85–0.97)
were statistically significant predictors of CAM use. These results suggest the need for
appropriate public health policy on COVID-19 and CAM use in addition to directing further
research initiatives toward an optimized COVID-19 prevention scheme using clinically
validated CAM treatments. Research to validate the clinical efficacy of these products,
especially the herbs, for COVID-19 prevention while isolating lead compounds that could be
optimized and used for the treatment and prevention of COVID-19 is also recommended.

Title: Does the data tell the true story? A modelling assessment of early COVID-19
pandemic suppression and mitigation strategies in Ghana.

Journal: Plos One
Publish Date: 29 October 2021
URL: https://doi.org/10.1371/journal.pone.0258164

Abstract
This paper uses publicly available data and various statistical models to estimate the basic
reproduction number (R0) and other disease parameters for Ghana's early COVID-19
pandemic outbreak. We also test the effectiveness of government imposition of public health
measures to reduce the risk of transmission and impact of the pandemic, especially in the
early phase. R0 is estimated from the statistical model as 3.21 using a 0.147 estimated
growth rate [95% C.I.: 0.137-0.157] and a 15-day time to recovery after COVID-19 infection.
This estimate of the initial R0 is consistent with others reported in the literature from other
parts of Africa, China and Europe. Our results also indicate that COVID-19 transmission
reduced consistently in Ghana after the imposition of public health interventions-such as
border restrictions, intra-city movement, quarantine and isolation during the first phase of the pandemic from March to May 2020. However, the time-dependent reproduction number (Rt) beyond mid-May 2020 does not represent the true situation, given that there was not a consistent testing regime in place. This is also confirmed by our Jack-knife bootstrap estimates which show that the positivity rate over-estimates the true incidence rate from mid-May 2020. Given concerns about virus mutations, delays in vaccination and a possible new wave of the pandemic, there is a need for systematic testing of a representative sample of the population to monitor the reproduction number. There is also an urgent need to increase the availability of testing for the general population to enable early detection, isolation and treatment of infected individuals to reduce progression to severe disease and mortality.

Title: COVID-19 and handwashing: Implications for water use in Sub-Saharan Africa
Journal: Water Resources and Economics
Publish Date: November 2021
URL: https://doi.org/10.1016/j.wre.2021.100189
Abstract
Because the main modes of transmission of the COVID-19 virus are respiration and contact, WHO recommends frequent washing of hands with soap under running water for at least 20 s. This article investigates how the level of concern about COVID-19 affects the likelihood of washing hands frequently in sub-Saharan Africa. We discuss the implication of the findings for water-scarce environment. The study makes use of a unique survey dataset from 12 sub-Saharan African countries collected in April 2020 (first round) and May 2020 (second round) and employs an extended ordered probit model with endogenous covariate. The results show that the level of concern about the spread of the virus increases the likelihood of washing hands with soap under running water for a minimum of 20 s at least five times a day. The increase in the probability of handwashing due to concern about COVID-19, ranges from 3% for Benin to 6.3% for South Africa. The results also show heterogeneous effects across gender- and age-groups, locality and various water sources. However, in Africa, the sustainability of the handwashing protocol could be threatened by the severe water scarcity that exists in the region. To sustain frequent handwashing, sub-Saharan Africa needs an effective strategy for water management and supply.

Title: COVID-19 and Beyond: Use of Digital Technology for Pandemic Response in Africa
Journal: Scientic African
Publish Date: November 2021
URL: https://doi.org/10.1016/j.sciaf.2021.e01041
Abstract
The use of technology has been ubiquitous in efforts to combat the ongoing COVID-19 pandemic. In this perspective, we review technologies and new approaches developed at the start of the pandemic; efforts earmarked by a flexible approach to problem solving, local tech entrepreneurship, and swift adoption of technology. We performed a systematic review of the use of technology during the initial wave of the COVID-19 pandemic in most African countries. We identified relevant articles by searching for mentions of technology, COVID-19, and specific country names. Articles were included if they specifically mentioned the use
of technology or novel innovations in the response to the COVID-19 pandemic in an African country. The article search was conducted in August and included articles published between January and August 2020. We retrieved articles from journals, trusted news, government, and organization websites on Google, Google Scholar and PubMed. A total of 80 articles were retained and categorized under Disease Prevention (19 articles), Disease Surveillance (30), and Clinical Supplies and Management (31). African nations used technology and innovative techniques to manage patients, monitor cases and disseminate information to counter the spread of COVID-19. The nature and outcomes of these efforts sometimes differed in Africa compared to other regions of the world due to its unique challenges and opportunities.

Title: Policy Stringency, Handwashing and COVID-19 cases: Evidence from Global dataset
Journal: Health Policy and Technology
Publish Date: November 2021
URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8574075/pdf/main.pdf

Abstract

Objective
Since the COVID-19 pandemic, many governments globally have introduced policy measures to contain the spread of the virus. Popular COVID-19 containment measures include lockdowns of various forms (aggregated into government response stringency index [GRSI]) and handwashing (HWF). The effectiveness of these policy measures remains unclear in the academic literature. This study, therefore, examines the effect of government policy stringency and handwashing on total daily reported COVID-19 cases.

Method
We use a comprehensive dataset of 176 countries to investigate the effect of government policy stringency and handwashing on daily reported COVID-19 cases. In this study, we apply the Lewbel (2012) two-stage least squares technique to control endogeneity.

Results
Our results indicated that GRSI significantly contributes to the increase in the total and new confirmed cases of COVI-19. Sensitivity analyses revealed that the 1st, 4th, and 5th quantile of GRIS significantly reduces total confirmed cases of COVID-19. Also, the result indicated that while the 1st quantile of GRIS contributes significantly to reducing the new confirmed cases of COVID-19, the 3rd, 4th, and 5th quantiles of GRSI contribute significantly to increasing the new confirmed cases of COVID-19. The results indicated that HWF reduces total and new confirmed cases of COVID-19; however, such effect is not robust to income and regional effects. Nonlinear analysis revealed that while GRSI has an inverted U-shaped relationship with total and new confirmed cases of COVID-19, HWF has a U-shaped relationship.

Conclusion
We suggest that policymakers should focus on raising awareness and full engagement of all members of society in implementing public health policies rather than using stringent lockdown measures.
Title: “Covid Cure (1)”: Anas’s Investigative Journalism and the Ethics of Uncovering Fakes in African Spaces
Journal: Journal of African Cultural Studies
Publish Date: 20 September 2021
URL: https://doi.org/10.1080/13696815.2021.1940887
Abstract:
Investigative journalists sometimes resort to the use of fake identities in order to reveal fakes and malpractice, a phenomenon that can be described as revelatory fakery. Acclaimed investigative journalist, Anas Aremeyaw, in collaboration with BBC Africa Eye, employs revelatory fakery to expose and prosecute wrongdoers in Ghana. From an ethical viewpoint, Anas’s revelatory fakery, a second order fakery, becomes a seedbed for an exponential level of fakery. This article poses the question whether Anas’s work is journalism or instead yet another expression of fakery that allows a prosecutor to act as a journalist. This question is contextualised within the ethics of the broader narratives created by the BBC Africa Eye investigations, which feed and promote a spectacular but “fake” narrative about Africa as a place of negatives, difference, and darkness.

Title: Covid-19, Knowledge Production and the (Un)Making of Truths and Fakes
Journal: Journal of African Cultural Studies
Publish Date: 20 September 2021
URL: https://doi.org/10.1080/13696815.2021.1897536
Abstract:
The Covid-19 pandemic is one of the most disruptive phenomena of our time. It has threatened and destabilised the normative, it has stoked fear and anxiety, and laid bare the fragility of our systems of governance, medical science and the immanent tensions within our knowledge systems. The pandemic has provoked a fundamental collision of these systems, leaving in its wake confusion as we struggle over meaning; the production of meaning, its husbandry and political instrumentalisation as a tool for domination and resistance. This article explores the emerging reconfiguration of the certainty about what is authentic or the truth, and of the un/certainty of the fake and fakery as alternative or complementary sites of truth(s). It argues that we are now faced with a complex and layered contestation over who gets to define the truth and the fake, and under what terms. This conversation is deeply insurrectional for it invites the whole world, centres and margins alike, to confront how political, cultural, economic and social values and structures of knowledge production are implicated in the making and unmaking of the authentic, of truth as well as of the fake.

Title: Responding to Covid-19: Experiences of Ashesi University’s Student Affairs Team
Journal: Journal of Student Affairs in Africa
Publish Date: 10 November 2021
URL: https://www.ajol.info/index.php/jssa/article/view/217183/204830
Abstract:
The Covid-19 pandemic has revealed the abilities or lack thereof of many higher education institutions to adequately support the academic and co-curricular needs of students in times of crisis. In this reflective practitioner account, Schlossberg’s Transition Theory is used to analyse the transitional experiences of students amid the Covid-19 pandemic and how the Office of Student and Community Affairs (OSCA) team at Ashesi University successfully
supported students as they navigated the academic semester. One-to-one interviews with department heads of the five OSCA units were conducted alongside focus group discussions with a cross-section of 17 students. The findings suggest that (i) advising, (ii) engagement, and (iii) timely online support interventions contributed immensely to students’ success in transitioning from in-person to remote learning.

C. COVID-19 VACCINATION

Title: COVID-19 vaccine uptake among health care workers in Ghana: a case for targeted vaccine deployment campaigns in the global south
Journal: Human Resources for Health
Publish Date: 6 November 2021
Abstract:

Background
Health care workers (HCWs) are among the high-risk groups in contracting and dying from COVID-19. World Health Organization estimates that over 10,000 HCWs in Africa have been infected with COVID-19 making it a significant occupational health hazard to HCWs. In Ghana, over 100 HCWs have already been infected and dozens others died from the virus. Acceptability and uptake of the COVID-19 vaccine is therefore critical to promote health and safety of HCWs as the country battles out of a third wave of the pandemic.

Objective
The study sought to ascertain the correlates of HCWs likelihood of participating in a COVID-19 vaccine trial and accepting the vaccine when given the opportunity.

Methods
The study was a web-based cross-sectional survey among HCWs (n = 1605) in all sixteen (16) administrative regions in Ghana. Data were analyzed with STATA statistical analysis software (version 14). Chi-square (X²) and Fisher’s exact tests were used to test for differences in categorical variables; bivariate probit regression analysis with Average Marginal Effect (AME) was employed to ascertain the determinants of HCWs’ likelihood of participating in a COVID-19 vaccine trial and taking the vaccine.

Results
It was found that 48% of HCWs will participate in a COVID-19 vaccine trial when given the opportunity; 70% will accept the COVID-19 vaccine; younger HCWs (AME = 0.28, SE = 0.16, p < 0.1), non-Christians (AME = 21, SE = 0.09, p < 0.05) and those who worked in faith-based health facilities (AME = 18, SE = 0.07, p < 0.05) were more likely to participate in a COVID-19 vaccine trial. Female HCWs (AME = −11, SE = 0.04, p < 0.05) and those with lower educational qualification were less likely to accept a COVID-19 vaccine (AME = −0.16, SE = 0.08, p < 0.1). Reasons cited for unwillingness to participate in a COVID-19 vaccine trial or uptake the vaccine were mainly fear, safety concerns, mistrust, uncertainty, spiritual and religious beliefs.

Conclusions
Acceptance of the COVID-19 vaccine appear to be high among HCWs; conversely, willingness to volunteer for the vaccine trial was low. Continuous targeted and integrated
public health education for HCWs will enhance vaccine acceptability to promote safety and population health in the global south as Ghana intensifies efforts to produce COVID-19 vaccines locally.

**Title:** A Perspective on Nanotechnology and COVID-19 Vaccine Research and Production in South Africa  
**Journal:** Viruses  
**Publish Date:** October 2021  
**URL:** [https://doi.org/10.3390/v13102095](https://doi.org/10.3390/v13102095)  
**Abstract:** Advances in nanotechnology have enabled the development of a new generation of vaccines, which are playing a critical role in the global control of the COVID-19 pandemic and the return to normalcy. Vaccine development has been conducted, by and large, by countries in the global north. South Africa, as a major emerging economy, has made extensive investments in nanotechnology and bioinformatics and has the expertise and resources in vaccine development and manufacturing. This has been built at a national level through decades of investment. In this perspective article, we provide a synopsis of the investments made in nanotechnology and highlight how these could support innovation, research, and development for vaccines for this disease. We also discuss the application of bioinformatics tools to support rapid and cost-effective vaccine development and make recommendations for future research and development in this area to support future health challenges.

**Title:** COVID-19: ‘A pandemic of the unvaccinated’? – compassion fatigue among healthcare professionals in South Africa  
**Journal:** South African Medical Journal  
**Publish Date:** November 2021  
**Abstract:**

D. COVID-19 PUBLIC PERCEPTIONS AND EFFECTS

**Title:** COVID-19 complications in a small-town hospital in South Africa  
**Journal:** South African Medical Journal  
**Publish Date:** November 2021  
**Abstract:** South Africa has experienced three deadly waves of the COVID-19 pandemic with devastating consequences, but little is known about the experiences in small-town hospitals in the country. Between May 2020 and June 2021, author GC treated ~100 confirmed COVID-19 cases. This retrospective case series report describes 10 of these cases, 7 with unusual complications and 3 with sudden death.
Title: Internet addiction and sleep quality among medical students during the COVID-19 pandemic: A multinational cross-sectional survey
Journal: PLoS One
Publish Date: November 2021
URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8570473/pdf/pone.0259594.pdf

Abstract
Background
The emergence of the COVID-19 pandemic has affected the lives of many people, including medical students. The present study explored internet addiction and changes in sleep patterns among medical students during the pandemic and assessed the relationship between them.

Methods
A cross-sectional study was carried out in seven countries, the Dominican Republic, Egypt, Guyana, India, Mexico, Pakistan, and Sudan, using a convenience sampling technique, an online survey comprising demographic details, information regarding COVID-19, the Pittsburgh Sleep Quality Index (PSQI), and the Internet Addiction Test (IAT).

Results
In total, 2749 participants completed the questionnaire. Of the total, 67.6% scored above 30 in the IAT, suggesting the presence of an Internet addiction, and 73.5% scored equal and above 5 in the PSQI, suggesting poor sleep quality. Internet addiction was found to be significant predictors of poor sleep quality, causing 13.2% of the variance in poor sleep quality. Participants who reported COVID-19 related symptoms had disturbed sleep and higher internet addiction levels when compared with those who did not. Participants who reported a diagnosis of COVID-19 reported poor sleep quality. Those living with a COVID-19 diagnosed patient reported higher internet addiction and worse sleep quality compared with those who did not have any COVID-19 patients in their surroundings.

Conclusion
The results of this study suggest that internet addiction and poor sleep quality are two issues that require addressing amongst medical students. Medical training institutions should do their best to minimize their negative impact, particularly during the current COVID-19 pandemic.

Title: Urban green spaces in the wake of Covid-19 pandemic: reflections from Nairobi, Kenya
Journal: GeoJournal
Publish Date: 8 November 2021
URL: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8576316/pdf/10708_2021_Article_10540.pdf

Abstract:
This paper seeks to examine how the perception and use of Nairobi’s urban green spaces (UGS) have been impacted by the Covid-19 pandemic. The question of how the current pandemic and the resulting government policies will affect urban green spaces has remained elusive. Similarly, the relationship between public health crises and urban green spaces has not been well integrated in the current literature. This paper identifies a nexus
between government response to the Covid-19 pandemic and (Un) sustainability of UGS. The authors further reflect on the potential role UGS could play to mitigate the negative effects of the pandemic. Findings of the study show that UGS in Nairobi have not been fully exploited to provide citizens with sufficient access to green spaces yet as the pandemic has shown these spaces could significantly improve physical and mental health for the citizens as well as act as logistical areas for humanitarian activities during a pandemic. The paper therefore concludes with policy recommendations that can give rise to short and long term reforms in the provision and management of UGS.

Title: Inclusion in Times of Covid-19: The Case of International Students in South Africa
Journal: Journal of Student Affairs in Africa
Publish Date: 10 November 2021
URL: https://www.ajol.info/index.php/jssa/article/view/217190/204836
Abstract:
The Covid-19 pandemic has caused major disruptions to the teaching, learning and research functions of universities around the globe. It has also impacted their internationalisation efforts in significant ways. From the perspective of South Africa’s public higher education sector, this article reflects on how international students at the country’s universities have been affected by national and institutional responses to Covid-19. It highlights the specific challenges and constraints international students faced in light of Covid-19 related restrictions such as travel bans, university closures and the national lockdown. In doing so, several aspects of the international student experience are explored, specifically regarding travelling home, communication, accommodation and immigration. The article also addresses the issue of remote learning and academic continuity, arguing that international students, especially those who were outside the borders of South Africa, are at risk of being left behind. It advocates for the inclusion of international students in national and institutional considerations and plans for the successful completion of the 2020 academic year. The article recognises that, in the absence of coordinated national responses, institutional approaches to the treatment of international students have differed from one university to another. Such differences can be linked to the differentiated nature of the South African higher education sector, where the capacity of institutions to deal with Covid-19 related challenges and to respond comprehensively to the needs of different groups of international students varies in accordance with the availability of relevant structures, systems, digital platforms and other resources. As a reflective practitioner account, the article draws on the experience of the authors in higher education internationalisation as well as on the collective experience of a community of practice of the International Education Association of South Africa, which represents the majority of public universities in the country.

Title: The Effect of the Covid-19 Pandemic on Students and the Living and Learning Spaces at a South African University
Journal: Journal of Student Affairs in Africa
Publish Date: 10 November 2021
URL: https://www.ajol.info/index.php/jssa/article/view/217180/204827
Abstract:
In March 2020, the South African President Mr Cyril Ramaphosa announced a national lockdown due to the rising cases of the Covid-19 pandemic. As a result, some of the higher education institutions closed under lockdown level 5 and strategies had to be developed to adapt to the “new norm”. Consequently, students and the living and learning spaces in South Africa were affected, necessitating therefore that transformation in all spheres takes place. This study, through a qualitative research design, investigated the effect of Covid-19 on students and the living and learning spaces at a selected university in South Africa. Fifteen students and ten Residence Advisors (RAs) were telephonically interviewed. The results revealed that the living and learning spaces had been significantly transformed by the Covid-19 pandemic. The operations of these spaces had been compelled to change in order to comply with the Covid-19 regulations, such that student learning was shifted from face-to-face to online learning. This meant more time spent indoors, stricter measures now in place and the RA roles having been broadened to ensure that they also monitor compliance. The study also noted that even after the pandemic, things will still take time to get back to normal. This article concludes that Covid-19 has had a huge effect on the living and learning spaces as well as students at the selected university and that both students and staff should play their roles effectively to ensure that everyone remains safe.

Title: Challenges and Interventions of eLearning for Under resourced Students amid Covid-19 Lockdown: A Case of a Zambian Public University
Journal: Journal of Student Affairs in Africa
Publish Date: 10 November 2021
URL: https://www.ajol.info/index.php/jssa/article/view/217176/204823
Abstract:
This article reports the challenges of eLearning faced by under-resourced students in a Zambian public university during the 2020 Covid-19 lockdown. The article further examines the interventions made by the university to mitigate the challenges of eLearning faced by under-resourced students. The article is based on empirical data derived from an online closed- and open-ended questionnaire completed by 73 under-resourced students, and an interview with two university staff. The quantitative and qualitative data collected were analysed using descriptive statistics and thematic analysis respectively. The article provides evidence that under-resourced students encountered various challenges related to eLearning categorised under the following interlinked themes: technical, environmental, psychological, sociocultural, financial, and material. Lack of ICT facilities/devices (laptops, smartphones, tablets and desktops), internet, electricity, and support systems were the most critical barriers to eLearning. Findings further showed that the sampled university made efforts to mitigate the challenges faced by students during eLearning amid the 2020 Covid-19 lockdown. However, there were no focused interventions to specifically address the actual challenges under-resourced students encountered. Regrettably, this suggests that the needs of under-resourced students were overlooked. Thus, the authors suggest strategies universities should put in place to uphold the participation of all students during eLearning regardless of the circumstances.
E. COVID-19 EFFECTS ON OTHER DISEASES AND SECTORS

Title: Going Viral? The Impacts of the COVID-19 Pandemic on Sino-African Relations
Journal: African Studies Quarterly
Publish Date: 30 October 2021
URL: http://www.africa.ufl.edu/asq/v20/v20i3a1.pdf
Abstract:
How are we to understand the impacts of COVID-19 on geopolitics and specifically the relations between China and Africa? Is the pandemic a conjunctural event, which will not have lasting impacts, or does it represent a "critical juncture" where the nature of Sino-African relations is recast in significant ways? This paper explores this issue with a focus on African agency in the reproduction and reshaping of Sino-African relations. It argues that while the Belt and Road Initiative is declining in importance in terms of Sino-African engagements, COVID-19 has offered an opportunity for China to increase its soft and "productive-relational" powers on the continent, while reconfiguring some African elites' "strategy of extraversion." As such, the impacts of the pandemic seem to be reinforcing extant trajectories and path dependencies rather than fundamentally reshaping them.

Title: In Nigeria, Stillbirths And Newborn Deaths Increased During The COVID-19 Pandemic
Journal: Global Health Policy
Publish Date: October 2021
URL: https://doi.org/10.1377/hlthaff.2021.00659
Abstract:
The COVID-19 pandemic has put severe pressure on health care systems worldwide. Although attention has been focused on COVID-19 hospitalizations and deaths, some experts have warned about potentially devastating secondary health effects. These effects may be most severe in low- and middle-income countries with already weak health care systems. This study examines the effect of the COVID-19 pandemic on early infant deaths, a question that is currently unsettled. We present new evidence from Nigeria showing that early infant deaths have significantly increased during the pandemic. Using data on the birth outcomes of a large and diverse cohort of pregnant women enrolled in a prospective study and a quasi-experimental difference-in-differences design, we found a 1.1-percentage-point (22 percent) increase and a 0.72-percentage-point (23 percent) increase, respectively, in stillbirths and newborn deaths. Our findings show that the health effects of the pandemic extend beyond counted COVID-19 deaths. If these findings generalize to other low- and middle-income countries, they may indicate that the hard-won gains in child survival made during the past two decades are at risk of being reversed amid the ongoing pandemic. Policies addressing disruptions to health services delivery and providing support to vulnerable groups—specifically to households with pregnant women—will be critical as the pandemic continues.

Title: Impact of the COVID-19 pandemic on intimate partner violence in Sudan, Malawi and Kenya
Abstract:
The COVID-19 infection control and prevention measures have contributed to the increase in incidence of intimate partner violence (IPV) and negatively impacted access to health and legal systems. The purpose of this commentary is to highlight the legal context in relation to IPV, and impact of COVID-19 on IPV survivors and IPV prevention and response services in Kenya, Malawi, and Sudan. Whereas Kenya and Malawi have ratified the Convention on Elimination of all forms of Discrimination against Women (CEDAW) and have laws against IPV, Sudan has yet to ratify the convention and lacks laws against IPV. Survivors of IPV in Kenya, Malawi and Sudan have limited access to quality health care, legal and psychosocial support services due to COVID-19 infection control and prevention measures. The existence of laws in Kenya and Malawi, which have culminated into establishment of IPV services, allows a sizable portion of the population to access IPV services in the pandemic period albeit sub-optimal. The lack of laws in Sudan means that IPV services are hardly available and as such, a minimal proportion of the population can access services. Civil society’s push in Kenya has led to prioritisation of IPV services. Thus, a vibrant civil society, committed governments and favourable IPV laws, can lead to better IPV services during the COVID-19 pandemic period.

Title: A Spatial Analysis of COVID-19 in African Countries: Evaluating the Effects of Socio-Economic Vulnerabilities and Neighbouring

Abstract:
The ongoing highly contagious coronavirus disease 2019 (COVID-19) pandemic, which started in Wuhan, China, in December 2019, has now become a global public health problem. Using publicly available data from the COVID-19 data repository of OurWorld in Data, we aimed to investigate the influences of spatial socio-economic vulnerabilities and neighbourliness on the COVID-19 burden in African countries. We analyzed the first wave (January–September 2020) and second wave (October 2020 to May 2021) of the COVID-19 pandemic using spatial statistics regression models. As of 31 May 2021, there was a total of 4,748,948 confirmed COVID-19 cases, with an average, median, and range per country of 101,041, 26,963, and 2191 to 1,665,617, respectively. We found that COVID-19 prevalence in an Africa country was highly dependent on those of neighbouring Africa countries as well as its economic wealth, transparency, and proportion of the population aged 65 or older (p-value < 0.05). Our finding regarding the high COVID-19 burden in countries with better transparency and higher economic wealth is surprising and counterintuitive. We believe this is a reflection on the differences in COVID-19 testing capacity, which is mostly higher in more developed countries, or data modification by less transparent governments. Country-wide integrated COVID suppression strategies such as limiting human mobility from more
Title: The South African Development Community (SADC) and COVID-19: Revisiting Security Community in SADC  
Journal: EUREKA: Social and Humanities  
Publish Date: 7 November 2021  
URL: https://ssrn.com/abstract=3937398

The coronavirus disease 2019 (COVID-19) pandemic remains a global security challenge for humanity. The COVID-19 pandemic, a non traditional security threat has exposed how regions respond to non traditional and emerging security threats. Similarly, the South African Development Community (SADC) region remains confronted with security ramifications due to the COVID-19 pandemic. The peace and security of the region has been disturbed due to an upsurge of conflicts in countries, such as South Africa (South Africa’s unrests, protests and the Phoenix Massacre), Lesotho (Eswatini protests) and Mozambique’s (Carbo Delgado insurgency), all amidst the coronavirus global pandemic. Further to this, SADCs human security challenges that have transpired and, in some cases, have been further exacerbated by the COVID-19 pandemic, include economic decline, job losses, food insecurity and the loss of life to mention a few. Prior to the COVID-19 pandemic, SADC Member States have had to exercise greater regional pandemic management with diseases, such as Malaria, Human Acquired Immune (HIV/AIDs) and Tuberculosis (TB). SADCs efforts in combatting these human security threats have been progressive and notable. The study will analyse and build on the challenges, identified in Landsberg’s (2012) study The Southern African Development Community decision-making architecture, where he suggests that at the heart of SADCs progress is the need for greater implementation of their set goals and aspirations. The study will analyse recent efforts, undertaken by the SADC region, in order to determine the successes and challenges, faced by the sub-regional bloc. It is analysing peace and security of SADC under the COVID-19 pandemic through an upsurge of conflicts in the region and the early securitisation and cooperation of the COVID-19 pandemic. The article suggests, SADC strengthened regional cooperation efforts, such as early warning systems and regional execution methods, have fostered advanced regional security outcomes in the region.

Title: Tax Policy for the Future of Developing Countries: The Synergies between COVID-19 and Automation  
Journal: SSRN  
Publish Date: 4 November 2021  
URL: https://dx.doi.org/10.2139/ssrn.3955692

Abstract:  
The COVID-19 global pandemic has devastated economies around the world – an impact which is minuscule compared to the toll it has taken on human lives. Daring to see that something good may come from this tragedy, this paper argues that there are clear synergies to be drawn between the health measures required as a consequence of the
global pandemic and the opportunities offered by automation and digital technologies. It is further argued that the tax policies adopted to check the impact of COVID-19 may be adapted to better harness the potential prospect of improved productivity that automation offers.

**Title:** COVID-19 school closure and adolescent mental health in sub-Saharan Africa  
**Journal:** International Journal of Social Psychiatry  
**Publish Date:** November 2021  
**URL:** [https://doi.org/10.1177/0020764020973684](https://doi.org/10.1177/0020764020973684)

**Title:** COVID-19’s threat to the progress in the fight against female genital mutilation in Africa  
**Journal:** Public Health in Practice  
**Publish Date:** November 2021  
**URL:** [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8519777/pdf/main.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8519777/pdf/main.pdf)

**Title:** Malaria and COVID-19: A double battle for Burundi  
**Journal:** African Journal of Emergency Medicine  
**Publish Date:** November 2021  
**URL:** [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8570414/pdf/main.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8570414/pdf/main.pdf)

**Abstract:**  
Malaria has become a serious public health concern in Burundi. An outbreak that has the potential to evolve into an epidemic has eradicated nearly as many individuals as the Ebola crisis within the adjacent Democratic Republic of the Congo. The government's delay to announce a national crisis, increased breeding sites as a result of flooding, and the presence of multi-drug resistant malaria have exacerbated the burden. With a concurrent COVID-19 pandemic, economic complications, and overlap of symptoms between both diseases, these challenges are complex, but not unfamiliar. Organizations such as Médecins Sans Frontières have carried out spraying campaigns, and the government is actively mitigating efforts to handle the pandemic. That being said, there is still a need to enhance preventive measures such as increasing technological capacity and epidemiological surveillance to better withstand challenges.