

COVID-19 Scientific and Public Health Policy Update – (23 June 2020)

In addition to our Weekly Outbreak Brief on the spread of COVID-19 and the actions that Africa CDC is taking to help African Union Member States. Africa CDC shares a weekly brief detailing the latest developments in scientific knowledge and public health policy from around the world, as well as updates to the latest guidance from WHO and other public health agencies. Contents of this document are not intended to serve as recommendations from the Africa CDC; rather, it is a summary of the scientific information available in the public space to Member States. It is important to note that the outbreak is evolving rapidly and that the nature of this information will continue to change. We will provide regular updates to ensure Member States are informed of the most critical developments in these areas.

A. Executive summary

- The UK RECOVERY trial reports that treatment with the corticosteroid dexamethasone reduces the risk of death in patients with COVID-19 requiring respiratory support. Findings suggest that treatment with dexamethasone reduced deaths by one-third in ventilated patients and by one fifth in other patients receiving oxygen only.
- WHO announced that the hydroxychloroquine (HCQ) arm of the Solidarity Trial to find an effective COVID-19 treatment was being stopped based on evidence from the Solidarity trial, UK's Recovery trial and a Cochrane review of other evidence on hydroxychloroquine.
- A systematic review and meta-analysis of 23 published reports that approximately 12% of patients with SARS-CoV-2 infection reported gastrointestinal (GI) symptoms. Findings suggest that patients with SARS-CoV-2 infection can present with gastrointestinal symptoms with a possible faecal-oral route of transmission due to the presence of viral RNA in the stool.
- A retrospective cohort study analysed contact tracing dataset of 195 unrelated close contact groups estimates the secondary attack rate of COVID-19 in Guangzhou. Findings suggest SARS-CoV-2 may be more transmissible in households than SARS-CoV and Middle East respiratory syndrome coronavirus.
- German biotech firm CureVac received regulatory approval for human trials of a potential COVID-19 vaccine. A clinical trial of 144 healthy volunteers aged between 18 and 60 will be vaccinated, to determine the optimal dose and to evaluate the safety of the vaccine in humans.
- A cohort study examined climate data from 50 cities worldwide with and without substantial community spread of COVID-19. Findings suggest that the distribution of substantial community outbreaks of COVID-19 along restricted latitude, temperature, and humidity measurements was consistent with the behaviour of a seasonal respiratory virus.

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B. New guidelines and resources

Since 13 June 2020,

- Africa CDC has published new guidance on:
 - [Interim Guidance on the Use of Rapid Antibody Tests for COVID-19 Response](#)
- WHO has published new guidance and resources on:
 - [Criteria for releasing COVID-19 patients from isolation;](#)
 - [Addressing violence against children, women and older people during the covid-19 pandemic: Key actions;](#)
 - [Emergency Global Supply Chain System \(COVID-19\) catalogue; Q&A: Serology and COVID-19](#)
- US CDC has published new and updated guidance and resources on:
 - [Testing Strategy for Coronavirus \(COVID-19\) in High-Density Critical Infrastructure Workplaces after a COVID-19 Case Is Identified;](#)
 - [Overview of Testing for SARS-CoV-2;](#)
 - [Considerations for Community-Based Organizations;](#)
 - [Considerations for Public Beaches;](#)
 - [Considerations for Casinos and Gaming Operations;](#)
 - [Community Mitigation;](#)
 - [Food and Coronavirus Disease 2019 \(COVID-19\)](#)
- ECDC has published new resources on:
 - [Infographic: Infection prevention and control in primary care;](#)
 - [Guidance on infection prevention and control of COVID-19 in migrant and refugee reception and detention centres in the EU/EEA and the UK;](#)
 - [COVID-19 in reception and detention centres for migrants and refugees;](#)
 - [Monitoring and evaluation framework for COVID-19 response activities in the EU/EEA and the UK](#)
- FDA has issued press releases and resources on:
 - [In Vitro Diagnostics EUAs;](#)
 - [Fact Sheet for Patients And Parents/Caregivers Emergency Use Authorization \(EUA\) Of Remdesivir For Coronavirus Disease 2019 \(COVID-19\);](#)
 - [Fact Sheet For Health Care Providers Emergency Use Authorization \(EUA\) Of Remdesivir \(Gs-5734™\);](#)
 - [FDA Revokes Emergency Use Authorization for Chloroquine and Hydroxychloroquine;](#)
 - [FDA Revokes Emergency Use Authorization for Chembio Antibody Test](#)
- The full list of latest guidance and resources from WHO and other public health institutions can be found in this [link](#).

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C. Scientific updates

Basic Science

- A genome-wide association study reports on the potential genetic factors associated with the development of COVID-19. Findings indicate a 3p21.31 gene cluster as a genetic susceptibility locus in patients with COVID-19 with respiratory failure and confirmed a potential involvement of the ABO blood-group system. [The results are consistent with previous findings that associate increased risk of severe COVID-19 with blood group A and reduced risk with blood group O.](#)

Epidemiology

- A retrospective cohort study analysed contact tracing dataset of 195 unrelated close contact groups (215 primary cases, 134 secondary or tertiary cases, and 1964 uninfected close contacts) to estimate the secondary attack rate of COVID-19 in Guangzhou. [Findings suggest SARS-CoV-2 may be more transmissible in households than SARS-CoV and Middle East respiratory syndrome coronavirus.](#) Older individuals (aged ≥60 years) are the most susceptible to household transmission of SARS-CoV-2.
- A systematic review and meta-analysis of 23 published and 6 preprint studies with 4,805 patients, found that approximately 12% of patients with SARS-CoV-2 infection reported gastrointestinal (GI) symptoms. [Findings suggest that 12% of patients with COVID-19 will manifest GI symptoms, and SARS-CoV-2 shedding was observed in 40.5% of patients with confirmed SARS-CoV-2 infection.](#) This highlights that patients with SARS-CoV-2 infection can present with gastrointestinal symptoms with a possible faecal-oral route of transmission due to the presence of viral RNA in the stool.
- A cohort study examined climate data from 50 cities worldwide with and without substantial community spread of COVID-19. Eight cities with a substantial spread of COVID-19 (Wuhan, China; Tokyo, Japan; Daegu, South Korea; Qom, Iran; Milan, Italy; Paris, France; Seattle, US; and Madrid, Spain) were compared with 42 cities that have not been affected or did not have substantial community spread. [Findings suggest that the distribution of substantial community outbreaks of COVID-19 along restricted latitude, temperature, and humidity measurements was consistent with the behaviour of a seasonal respiratory virus.](#) Using weather modelling, it may be possible to estimate the regions most likely to be at a higher risk of substantial community spread of COVID-19.
- An age-structured mathematical model using epidemic data from China, Italy, Japan, Singapore, Canada and South Korea [estimates that susceptibility to infection in individuals under 20 years of age is approximately half that of adults aged over 20 years.](#) Without effective control measures, regions with relatively older populations could see disproportionately more cases of COVID-19, particularly in the latter stages of an unmitigated epidemic.
- A mathematical modelling study using prevalence data from the Global Burden of Diseases, Injuries, and Risk Factors Study (GBD) 2017 and UN population estimates for 2020 for 188 countries. Findings suggest that about one in five individuals worldwide

could be at increased risk of severe COVID-19, should they become infected, due to underlying health conditions, but this risk varies considerably by age. [The share of the population at increased risk was highest in countries with older populations, African countries with high HIV/AIDS prevalence, and small island nations with high diabetes prevalence.](#)

Care and Treatment

- A study reports on the antiviral abilities of 3 broad-spectrum antiviral compounds [gemcitabine, lycorine and oxysophoridine against SARS-CoV-2 in cell culture. Findings indicate that all three tested compounds inhibited viral replication.](#) The antiviral effect of gemcitabine was suppressed efficiently by the cytidine nucleosides. Additionally, a combination of gemcitabine with oxysophoridine had an additive antiviral effect against SARS-CoV-2. The study demonstrates that broad-spectrum antiviral compounds may have a priority for the screening of antiviral compounds against newly emerging viruses to control viral infection.
- A single-centre prospective cohort study of 39 patients with severe COVID-19 pneumonia, hypoxia, and systemic hyperinflammation treated with mavrilimumab, a monoclonal antibody targeting the granulocyte-macrophage colony-stimulating factor (GM-CSF). [Findings suggest that mavrilimumab treatment was associated with improved clinical outcomes compared with standard care in non-mechanically ventilated patients with severe COVID-19 pneumonia and systemic hyperinflammation.](#) Treatment was well tolerated and mavrilimumab-treated patients had quicker improvement times. Confirmation of efficacy requires controlled testing.
- The UK RECOVERY trial reports that treatment with the corticosteroid dexamethasone reduces the risk of death in 2,104 patients with COVID-19 requiring respiratory support. Findings suggest that [treatment with dexamethasone reduced deaths by one-third in ventilated patients and by one fifth in other patients receiving oxygen only.](#) There was no benefit among those patients who did not require respiratory support. *(Preliminary findings)*
- WHO announced that the [hydroxychloroquine \(HCQ\) arm of the Solidarity Trial to find an effective COVID-19 treatment was being stopped.](#) The trial's Executive Group and principal investigators made the decision based on evidence from the Solidarity trial, UK's Recovery trial and a Cochrane review of other evidence on hydroxychloroquine. Data from Solidarity (including the French Discovery trial data) and the recently announced results from the UK's Recovery trial both showed that hydroxychloroquine does not result in the reduction of mortality of hospitalised COVID-19 patients when compared with standard of care.

Vaccines

- German biotech firm [CureVac received regulatory approval for human trials of a potential COVID-19 vaccine. CureVac's mRNA vaccine candidate utilizes nucleotides without chemical modifications in the mRNA and is designed to provide a strong and](#)

[balanced activation of the immune system](#). A clinical trial of 144 healthy volunteers aged between 18 and 60 will be vaccinated, to determine the optimal dose and to evaluate the safety of the vaccine in humans.

- [Russian Health Ministry announced that clinical trials of a vaccine against the novel coronavirus have begun in the country, joining the global race to develop a safe COVID-19 vaccine](#). A statement by the ministry said that the two forms of vaccine (liquid and powder) developed by the Moscow-based Gamaleya research institute will be tested on two groups of volunteers involving 38 people each.

Infection Prevention and Control

- A study reports on the seroprevalence of SARS-CoV-2 antibodies in 3,056 Hospital staff in Belgium. Findings indicate that 6.4% of the staff had IgG antibodies for SARS-CoV-2. [Results suggest that the high availability of PPE, high standards of infection prevention, and polymerase chain reaction screening in symptomatic staff, coupled with contact tracing and quarantine, might explain a relatively low seroprevalence.](#)

Non-Pharmaceutical Interventions

- [A mathematical modelling study using social-contact data from more than 40 000 individuals in the UK, estimates that combined isolation and tracing strategies would reduce transmission more than mass testing or self-isolation alone](#). The analysis estimated that a high proportion of cases would need to self-isolate and a high proportion of their contacts to be successfully traced to ensure an effective reproduction number lower than 1 in the absence of other measures. If combined with moderate physical distancing measures, self-isolation and contact tracing would be more likely to achieve control of COVID-19 transmissions.
- A study reports on the transmissibility of SARS-CoV-2 and evaluated the effects of combined non-pharmaceutical interventions, including enhanced screening and quarantining of persons with suspected and confirmed cases and social distancing measures, were implemented over time in South Korea. [Results suggest that nonpharmaceutical measures reduced transmissibility by a maximum of 33% without resorting to a strict lockdown strategy.](#)

D. Summary of travel restrictions implemented by Member States

Contents of this section include only publicly announced public health policies. Sources of this section include official government communique, embassy alerts and press search. (As of 07 June 2020)

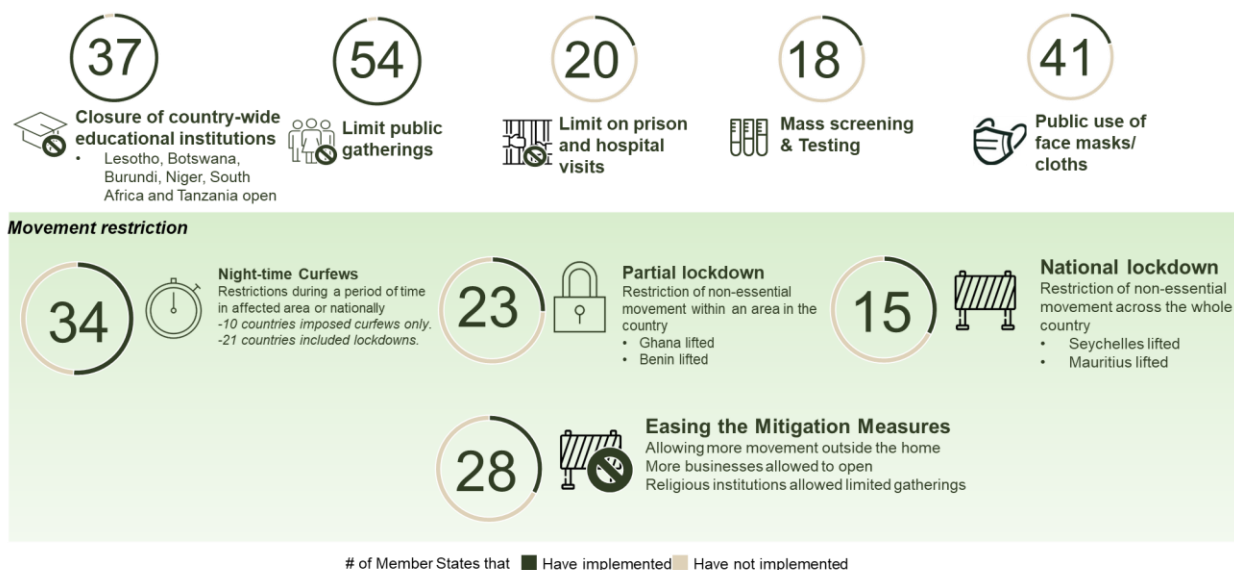


- 1 Some countries still allow cargo, freight and emergency transport into and out of the country; Some MSs will still allow citizens and residents to enter but all borders are essentially closed
- 2 Banning entry or exit of citizens or suspending visa issuance to specific countries

For further detailed information for each country, refer to the full table [here](#).

E. Summary of physical distancing measures taken by Member States

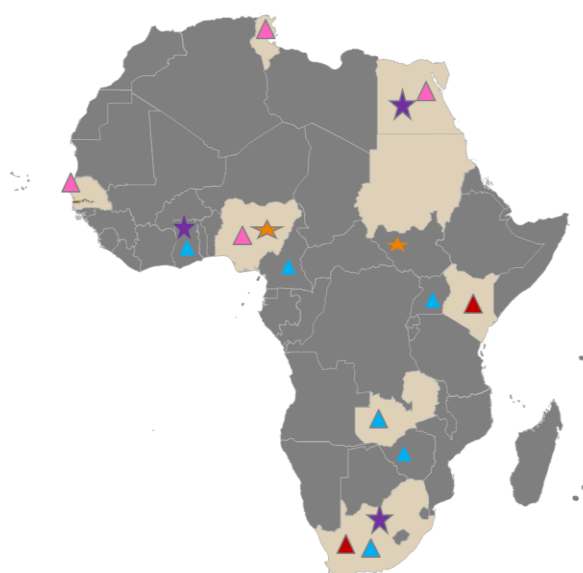
Contents of this section include only publicly announced public health policies. Sources of this section include official government communique and press search. (as of 21 June 2020)



*Source of information based on official reports, embassy alerts and press scanning

For further detailed information for each country, refer to the full table [here](#).

F. Registered Clinical Trials in Africa (43)



Hydroxychloroquine trials in Africa

- ▲ **WHO Solidarity trial (Kenya and South Africa): Treatment**
- ▲ **Crown Coronation trial- Washington University/BMG (South Africa, Zambia, Cameroon, Ghana, Uganda, Zimbabwe): Prophylaxis in HCW**
- ▲ **Other HCQ trials, treatment:** Egypt (4), Tunisia (1), Senegal (1), Nigeria (1),

Other medications –ARVs, Herbal

- ★ **Ghana, Egypt, South Africa,**
- ★ **Nigeria, S/Sudan**

Date: 9 June 2020, Sources: clinicaltrials.gov, ICTRP

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Key updates:

- On 28 May 2020, WHO published [An international randomized trial of candidate vaccines against COVID-19](#), to coordinate prompt, efficient, and reliable evaluation of the many preventive candidate SARS-CoV-2 vaccines under development, to assess their safety and efficacy and to identify those that are likely to be appropriate for deployment to influence the course of the pandemic.
- On 03 June 2020, Council for International Organizations of Medical Sciences (CIOMS) published [the Statement of its International Expert Working group](#), underlining that “Medicines assessment during public health emergencies needs good science, best practices and proper communication”.
- On 04 June 2020, the Gavi Advance Market Commitment for COVID-19 Vaccines ([Gavi Covax AMC](#)) was launched at the Global Vaccine Summit 2020 drawing early commitments from global leaders. This initiative aims incentivise vaccine manufacturers to produce sufficient quantities of eventual COVID-19 vaccines, and to ensure access for developing countries. The initial goal is to raise US\$ 2 billion; enough for Gavi-supported countries to immunise health care workers as well as high-risk individuals. On 7th June, Imperial College in London announced the [VacEquity Global Health \(VGH\)](#), a social enterprise which aims to accelerate COVID-19 vaccines development and distribution in the UK and to low- and middle-income countries overseas.
- On 09 June 2020, the mapping of [Global animal laboratories capacities to support vaccine and therapeutic evaluation](#) and the proceedings of the [COVID-19 Animal Models ad hoc working group](#) were also published.
- On 10 June 2020, the NIH announced the [Pharmacokinetics of Understudied Drugs Administered to Children Per Standard of Care](#), which aims to evaluate drugs prescribed to treat COVID-19 in infants, children and adolescents across the USA.
- On 18 June 2020, [WHO vaccine candidates landscape](#) was updated: 13 candidates vaccines are at the clinical evaluation stage (phase I and II) and 128 candidates at the preclinical stage. On 13 June, Sinovac announced positive preliminary results of phase I/II clinical trial for the Company’s CoronaVac vaccine candidate, which showed favorable immunogenicity and safety profiles and ongoing collaboration with Instituto Butantan in Brazil for an upcoming phase III clinical study.