



5<sup>th</sup> APRIL 2020

DAILY UPDATE ON GLOBAL AND NATIONAL DEVELOPMENTS ON COVID-19

THE KNOWLEDGE SYNTHESIS TEAM  
CDT-AFRICA, ADDIS ABABA UNIVERSITY

[www.cdt-africa.org](http://www.cdt-africa.org)

## Summary

- Globally, 208 countries are currently affected by COVID-19 with 1,203,459 confirmed cases, 64,772 deaths and 247,294 recoveries.
- In Africa, a total of 7,741 cases, 313 deaths, and 640 recoveries.
- Algeria has the highest number of deaths accounting for 40% of total deaths reported from the continent. Within a single day, a total of 25 people have died with coronavirus in the country.
- Governments around the world are all seeking better and faster tests to show whether people have the disease or have had it and recovered.
- In response to reports of worsening of symptoms due to use of ibuprofen, the European Medicines Agency (EMA) has advised that there is currently no scientific evidence establishing a link between ibuprofen and worsening of Covid-19.
- CDC's recommendation for people to wear cloth coverings while they are out in public spaces raises some concerns from experts: Mask wearing may give people a false sense of security which may lead some members of the public to relax about other, far more critical precautions, such as staying two meters apart from others, limiting outings, and washing their hands frequently and thoroughly.
- While the query by experts is reasonable, the more fundamental question is whether the face coverings would be effective. The evidence from influenza and other viruses suggests that face coverings may reduce transmission.
- To be reasonably effective over 50% of the population needs to wear them.

## Update on Epidemiology (Incidence, mortality, recovery & epidemiologic parameters)

### *Global*

- As of April 05, 8:00 GMT, the pandemic had affected 208 countries with 1,203,459 confirmed cases, 64,772 deaths (5.38%) and 247,294 recoveries.
- The total number of new cases reported in the last 24 hours (82,821 new cases) is slightly decreased as compared to yesterday's figure which was 101,566 new cases. However, the number of new deaths (5,800 new deaths) is relatively similar with that of yesterday's report (5,714 new deaths).
- The United States of America reported the highest number of cases (311,637) and Spain is the second most affected country with a total of 126,168 cases.

- More than 8,400 people have died from coronavirus in USA and the country also reported the highest number of deaths (1,331) that occurred in a single day.
- Italy (124,632), Germany (96,092), France (89,953) and China (82,574) are the other most affected countries in the world.
- The highest number of deaths occurred in Italy (15,155) followed by Spain (11,947), USA (8,454), France (7,560) and United Kingdom (4,313).

### *Africa*

- In Africa, a total of 7,741 cases, 313 deaths, and 640 recoveries were reported from 50 African countries as of April 04, 9:00 AM EAT. We do not have report for April 05
- at the time of preparation of the report
- Even though, South Africa is the first leading country with a total of 1,585 cases in the continent, the number of deaths is still very low (9) compared to other African countries.
- Other countries like Algeria (1251, 130 deaths), Egypt (1070, 71 deaths), Morocco (960, 66 deaths), Cameroon (555, 9 deaths) and Tunisia (553, 18 deaths) also reported high number of cases and deaths from coronavirus.
- The total number of new cases in Cameroon (203 to 46), Egypt (120 to 85) and Algeria (185 to 80) is massively reduced while it's increased in Morocco (83 to 128).
- The highest number of deaths occurred in Algeria (130) which accounted for 40% of total deaths reported in Africa. Within a single day, a total of 25 people have died with coronavirus in the country.

### **Update on Diagnosis**

- According to FIND diagnostics, as of 5th April 2020 [9:30am, East Africa time], there are 180 molecular assay tests commercialized and 36 tests under development for COVID-19. Also there are, 158 immunoassay tests commercialized and 46 tests under development (FIND, 2020).
- In Germany the percentage of fatal cases has been remarkably low compared to those in many neighbouring countries. And one of the explanations given for the low fatality

rate is that Germany has been testing far more people than most nations. That means it catches more people with few or no symptoms, increasing the number of known cases, but not the number of fatalities (Katrin B, 2020).

- Governments around the world are all seeking better and faster tests to show whether people have the disease or have had it and recovered.
- A senior health official, in the UK, has said Self-testing at home to find out whether somebody has had COVID-19 is an efficient way to find out if they are safe to return to work (Boseley S, 2020).
- Reportedly UK firms and academics have also developed self-test kits for Covid-19 that are expected to be available to buy in the coming weeks or months. One cheap test is made by Mologic, a diagnostic test firm based in Bedford. Another kit has been developed by researchers at three UK universities led by Brunel University (Boseley S, 2020).
- Prof Yvonne Doyle, the medical director of Public Health England, told the health select committee that finger-prick home tests would be available very soon and that they expect to come within a couple of weeks. She said home tests is critical to understand what is going on and allow people to return to work. She added the intention is to allow people to do as much of this as they validly can and that it is by far the most efficient way, if the technology supports it (Boseley S, 2020).
- Prof Sharon Peacock, from Public Health England, told MPs on the science and technology committee that a home test to detect antibodies indicating somebody has had Covid-19 was being evaluated on the week of 30th March in Oxford. It is claimed that would be available the coming week. Government advisers later cautioned that the test might not be ready so quickly. The health secretary has said the government has bought 3.5m antibody tests and will buy more (Boseley S, 2020).
- Singapore developed an antibody test as early as February. The US Covid-19 co-ordinator, Dr Deborah Birx, has said the US government is interested in it, and private US companies are also developing antibody tests. She stated, at a White House press briefing some are developed and that they are looking at the ones in Singapore (Boseley S, 2020).
- Mologic has produced the first prototypes of an antibody test for Covid-19, building on its experience of developing a rapid test kit for Ebola. Assessment and validation of the test began the week 31st March, at the Liverpool School of Tropical Medicine

and St George's, University of London. The company said it would take three to four months before the test is available in the UK and other countries. It will cost £1 in the UK and will be as simple to use as a home pregnancy test but will use saliva or blood rather than urine, with results ready in 10 minutes. Mologic is the company which is working in Senegal to develop rapid test kits. The company has received £1m from the UK government to develop the test, will be able to make 8m kits a year at facilities in the UK and Senegal. In Senegal it is expected to be sold for less than \$1 (Boseley S, 2020).

- There is a test kit developed by researchers at Brunel University London, Lancaster University and the University of Surrey based on science evaluated in the Philippines to check chickens for viral infections. The battery-operated handheld device processes nasal or throat swabs that are inserted into it, and delivers the results within 30 to 45 minutes via a smartphone app. The team has, reportedly, approached UK, US and European regulators for approval and is in talks with 60 manufacturers. It could be available to the public within a few weeks. It is indicated that the device will be priced at £100 and can test six people at once. The test can detect the virus in individuals who show no symptoms because it recognises the DNA structure of the virus in the samples (Boseley S, 2020).

## Update on Treatment

- There has been discussion in the media over the use of NSAIDs medications such as ibuprofen for COVID 19 patients. The hypothesis behind these discussions lies the fact that Human pathogenic coronaviruses bind to their target cells through angiotensin converting enzyme 2 (ACE2) and the production of ACE2 can be increased by some drugs including ibuprofen. Researchers have suggested that increased production of ACE 2 would facilitate infection with SARS- CoV-2. They hypothesized that ACE 2 stimulating drugs may increase the risk of developing severe and fatal Covid-19. However, the researchers commented that this hypothesis requires further study and investigation and that there is no clear evidence of an adverse impact from ibuprofen. In response to media reports that have questioned the safety of ibuprofen and other NSAIDs in people who have Covid-19, the European Medicines Agency (EMA) has issued a statement clarifying its position. The document states that there is currently no scientific evidence establishing a link

between ibuprofen and worsening of Covid-19. However, the summaries of product characteristics for several NSAIDs already include a warning that these drugs may mask the signs or symptoms of a worsening infection. As a result, it advises that when treating fever or pain in people with COVID-19, patients and healthcare professionals should take into account the harms and benefits of all available treatment options including paracetamol and NSAIDs (Team D, 2020).

## Update on personal protective equipment

### Face mask use

- CDC has now recommended people to wear cloth coverings while they are out in public spaces. CDC's guidance on the recommended cloth coverings states cloth face coverings should fit snugly but comfortably against the side of the face, be secured with ties or ear loops, include multiple layers of fabric, allow for breathing without restriction and be able to be laundered and machine dried without damage or change to shape. The guide states that cloth face coverings should be routinely washed depending on the frequency of use and that a washing machine should suffice to properly wash them. The guide also includes an instruction on how to prepare DIY face cloth coverings, both sew and no sew cloth coverings (CDC, 2020).
- However, experts have raised concerns about potential harms. Mask wearing may give people a false sense of security which may lead some members of the public to relax about other, far more critical precautions, such as staying two meters apart from others, limiting outings, and washing their hands frequently and thoroughly. While experts unanimously agree on that proper medical masks should go to healthcare workers first, there are other points up for debate.
- The transmission of SARS-CoV-2 mainly appears to move from one human to another by being launched in relatively large respiratory droplets. Whether the virus is aerosolized in everyday settings is still unknown and up for debate. A correspondence published on the New England Journal of Medicine indicates that that aerosol and fomite transmission of SARS-CoV-2 is plausible, since the virus can remain viable and infectious in aerosols for hours and on surfaces up to days (depending on the inoculum shed)(Van Doremalen N, 2020).

## Recommendations

- The CDC recommendation of wearing cloth fabrics by the public when in public space is an important milestone.

- However, the specifics are difficult to implement. If a recommendation is to be made on wearing face covers, a universal requirement needs to be in place.
- Any recommendation of wearing such clothes should provide the public detailed information on safe use and disposal or cleaning as indicated above.
- Attempts should be made to get 80% of people to use the cover.
- Such recommendation should also take into account the role in overcrowded households
- Careful communication with the public should also protect from unnecessary public alarm and from predatory practices
- Need to develop some monitoring mechanisms of cover use and its impact through random evaluations
- Robust models projecting the changes in the incidence and death nationally are required and will assist decisions regarding public control measures
- It may be worth to consider approaching UK institutions for technology transfer to develop the test kits in Ethiopia. As a capacity building institution, CDT-Africa would be interested in this
- South Africa's mortality has increased slightly, from 0.34% to 0.57%. But still remains much lower than the global average, around 5%. Would be worth learning from their practice

[Separate document regarding face coverings will be made available]

### Reference list

1. African Union; COVID -19 updates. <https://au.int/en/covid19>
2. Boseley S, Julia Kollwe. Covid-19 self-test could allow return to work, say health officials, The Guardian. 2020 26 March 2020.

3. CDC. Use of Cloth Face Coverings to Help Slow the Spread of COVID-19 2020 [Available from: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/diy-cloth-face-coverings.html>].
4. Center of Disease Control and Prevention Africa <https://africacdc.org/covid-19-update/>
5. FIND. SARS-COV-2 DIAGNOSTIC PIPELINE 2020 [Available from: <https://www.finddx.org/covid-19/pipeline/>].
6. John Hopkins, Corona Virus Resources <https://coronavirus.jhu.edu/map.html>
7. Katrin Bennhold. A German Exception? Why the Country's Coronavirus Death Rate Is Low. The New York Times. 2020 4 April 2020.
8. Team D. EMA advice on the use of NSAIDs for COVID-19. <https://dtb.bmj.com/content/early/2020/03/31/dtb.2020.000021>
9. Van Doremalen N, Bushmaker T, Morris DH, Holbrook MG, Gamble A, Williamson BN, et al. Aerosol and surface stability of SARS-CoV-2 as compared with SARS-CoV-1. New England Journal of Medicine. 2020.
10. Worldometer, Corona Virus <https://www.worldometers.info/coronavirus/>