

**This update summarizes:**

- ETHIOPIA'S COVID-19 SITUATION UPDATE.
- GLOBAL AND REGIONAL BURDEN OF COVID-19.
- AN INSIGHT ON BASICS OF NEW CORONA VIRUS STRAIN
- COVID-19 THERAPY TRIALS WITH POSITIVE AND NEGATIVE RESULT SO FAR

**ETHIOPIA'S COVID-19 SITUATION UPDATES**

- As of January 21, 2020, there were a total of 132,034 COVID-19 cases and 2,044 deaths across the country. Compared to the cases and deaths reported a week ago, both the cumulative case and deaths respectively showed increment by 1%. So far 117,353 cases have recovered from COVID-19 which increased by 2% compared to the last week. Of the 12,867 active cases currently, 232 are critical which forms 1% of them (Fig 1).

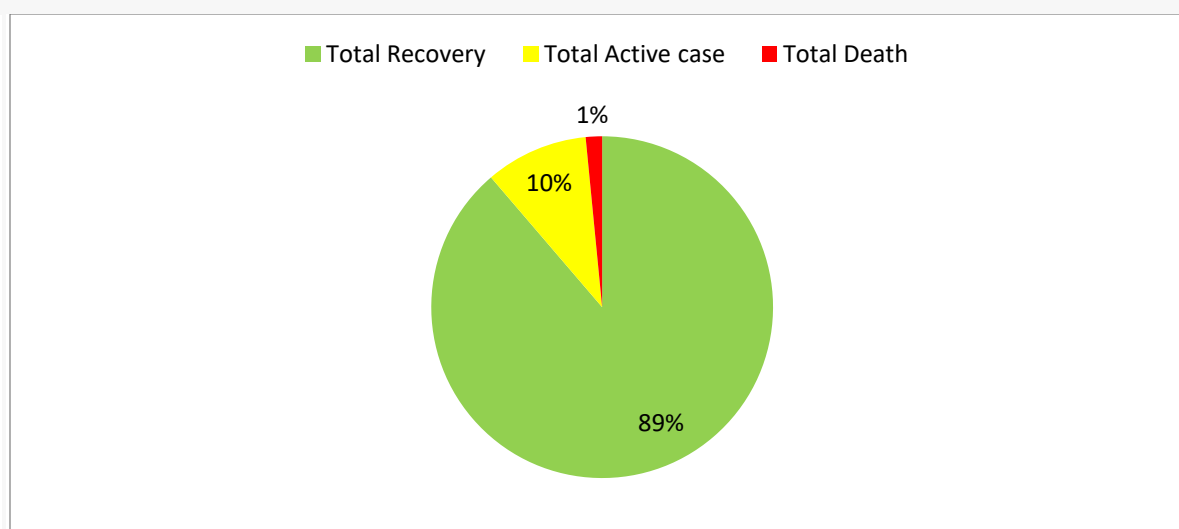


Fig. 1. Showing cumulative COVID-19 cases, recoveries and death as of January 21, 2020.

**Case Management and Infection Prevention Control (Ipc):**

- This week, Jan 15– Jan 21, 2021, there are **2604** newly recovered cases bringing the total number of COVID-19 recovered cases to **117, 353**.
- From Jan 15– Jan 21, 2021, **33** suspected cases are admitted and **19** initially suspected cases are discharged after laboratory test became negative

**Home Based Isolation and Care (HBIC):**

Since Home Based Isolation and Care (HBIC) is started in Ethiopia:

- A total **79, 516** COVID-19 confirmed cases are followed in the HBIC as of January 21, 2021
- **73,094** of them have recovered in the HBIC as of January 21, 2021 **6,713** cases are currently on HBIC

- 10 COVID-19 related deaths have occurred in the HBIC
- 613 cases have been transferred from treatment centers to HBIC
- 408 cases have been transferred from HBIC to treatment centers

#### EPHI and FMOH COVID 19 response highlights of the week /trainings and supply

- Three days Covid-19 public health measures and Gender based violence training for 22 health workers working in Amhara Region IDP site completed on Jan 15/2021 at Taye Belay Hotel, Gondar City.
- Two days Revised COVID 19 HBIC integration guide with contact tracing, laboratory and National TB program workshop for 50 Regional health bureaus focal conducted from Jan 15-16/2021 at Dire International Hotel, Adama City.
- There is on-going distribution of PPE, Viral Transport Media (VTM), swabs, pharmaceuticals and other medical supplies isolation and treatment centers.

#### References

1. Public Health Emergency Operations Centers (PHEOC), Ethiopia [https://twitter.com/lia\\_tadesse](https://twitter.com/lia_tadesse)
2. <http://www.covid19.et/covid-19/>

#### GLOBAL AND REGIONAL BURDEN OF COVID\_19

- Globally the total number of cases is extended to 97,310,103 as of January 21, 2020. A total of 69,882,070 cases recovered and 2,083,337 people died since the beginning of the outbreak. Globally, in a week time, from January 14 to January 21, 2020, COVID-19 cases increased by 4.9% and deaths by 4.9%. North America was the leading in terms of cases followed by Europe and Asia. Europe continued to be became a lead in terms of the number of deaths followed by North and South America (Fig 2).

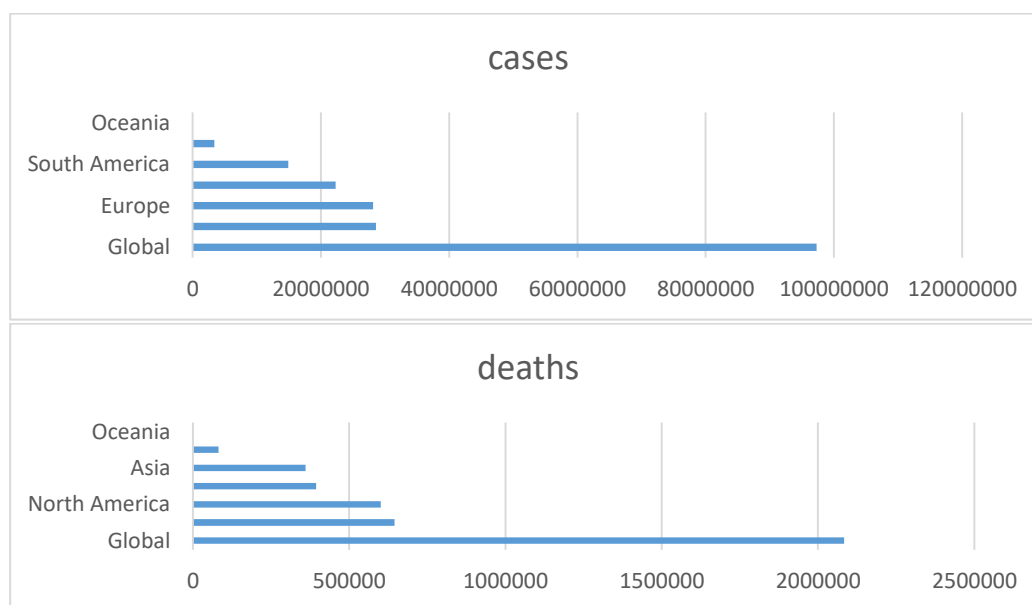


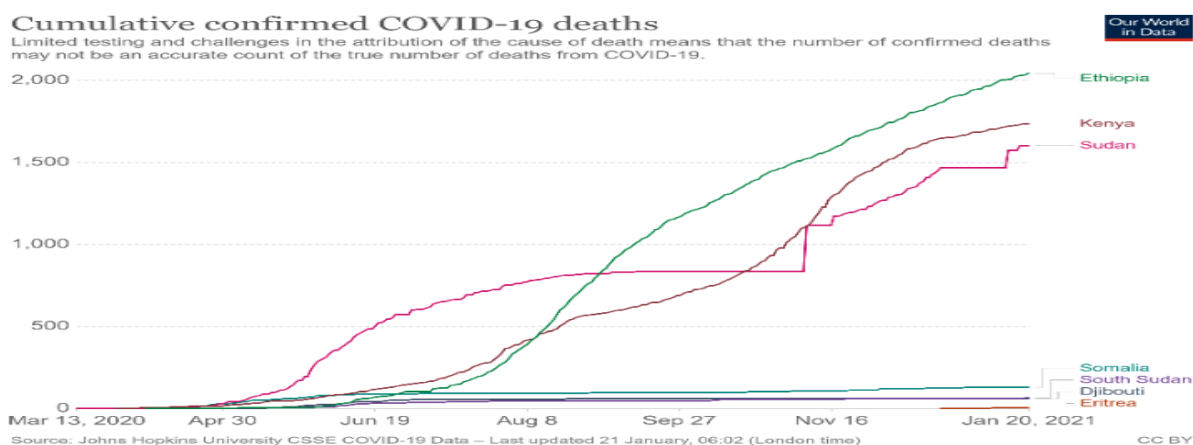
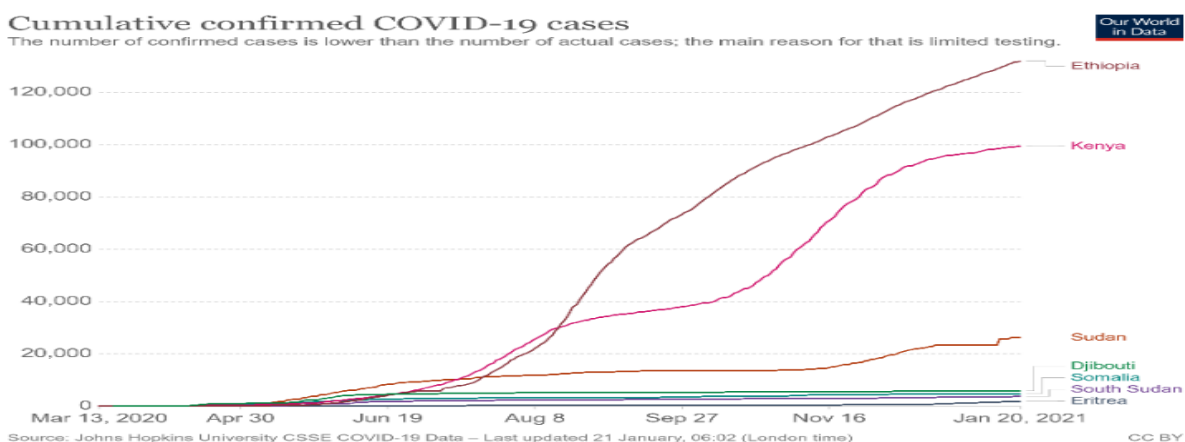
Fig 2. Global cases (top) and deaths (bottom) reported as of January 21, 2020.

- USA has recorded the highest number of cases (24,998,975 cases, 415,894 deaths) that accounts 25.6% of the total global cases and carried 20% of global deaths as of January 21, 2020.
- India is the 2<sup>nd</sup> highest in terms of cases in a week time by 0.9% (10,512,831 to 10,611,719) and deaths by 0.8% (151,765 to 152,906).
- Brazil has increased the number of cases in a week time by 4.6% (8,257,459 to 8,639,868) and deaths by 3.3% (206,009 to 212,893).
- Russia ranked 4<sup>th</sup> globally with 3,633,952 cases and 67,220 deaths.
- UK ranked 5<sup>th</sup> globally with 3,505,754 cases and 93,290 deaths.

- The line share of Africa to the global COVID-19 pandemic was 3.4% and 3.9% of the global cases and deaths as of January 21). The cases in the continent has increased by 6.2% in a week time (3,157,992 to 3,352,823 cases). Similarly, the total number of deaths in Africa has increased from 75,787 to 81,861 showing 8%. Total recoveries stand at 2,784,381.
- South Africa is the leading in the continent with 1,369,426 cases and 38,854 deaths. Morocco (462,542 cases, 8,043 deaths), Tunisia (188,373 cases, 5,921 deaths), Egypt (158,963 cases, 8,747 deaths) and Ethiopia (132,034 cases, 2,044 deaths) are the most four leading countries next to South Africa in reporting COVID-19 cases in Africa. (See table below).

Africa	January 14		January 21	
	Cases	Death	Cases	Deaths
South Africa	1,278,303	35,140	1,369,426	38,854
Morocco	455,055	7,810	462,542	8,043
Tunisia	168,568	5,415	188,373	5,921
Egypt	152,719	8,362	158,963	8,747
Ethiopia	129,455	2,006	132,034	2,044

- In East African, COVID-19 cases and deaths have shown fast progress. In a week time, COVID-19 cases and deaths were 2% and 1.9% in Ethiopia and 0.9% and 0.9% in Kenya. As of January, Ethiopia and Kenya continued to be the major drivers of the COVID 19 burden in east African countries. The epidemic continued increasing in Sudan with 2.1% cases and 1.7% deaths. Eritrea showed a 19.7% increase in number of cases with zero deaths. In South Sudan 2.8% cases and 1.6% deaths were reported. In Djibouti and Somalia 0.4% cases and zero deaths were reported which is low compared to others.



## References

1. John Hopkins, Corona Virus Resources <https://coronavirus.jhu.edu/map.html>
2. Worldometer, Corona Virus <https://www.worldometers.info/coronavirus/>
3. Africa CDC: COVID 19 Surveillance; <https://au.int/covid19>
4. Our World: <https://ourworldindata.org/covid-cases>

### AN INSIGHT ON BASICS OF NEW CORONA VIRUS STRAIN

- In Dec. 2020, a new strain of the coronavirus that causes COVID-19 was reported. The new strain's existence raises major questions such as: Is the coronavirus more contagious now? Will the vaccines still work for the new strain? Are there new or different things you should do now to keep your family safe?
- The new strains of viruses occur when there is a change (mutation) to the virus' genes. It is the nature of RNA viruses such as the coronavirus to evolve and change gradually. "Geographic separation tends to result in genetically distinct strains,".
- All viruses mutate over time, some more than others. For example, flu viruses change often, which is why doctors recommend that you get a flu shot every year. Scientists indicated that if the coronavirus spreads through the population, mutations will continue to happen.
- Scientists have already saw multiple variants of the SARS-CoV-2 coronavirus that are different from the version first seen in China. According to virologists' new strains of the SARS-CoV-2 virus are detected every week, most come and go — some persist but do not become more common; some increase in the population for a while, and then disappear. When a change in the infection pattern first pops up, it can be very hard to tell what is driving the trend: changes to the virus, or changes in human behaviour.
- The strain was detected in southeast England in September 2020. In December, it became the most common version of the coronavirus, accounting for about 60 percent of new COVID-19 cases. The new strain also appeared in Denmark, the Netherlands, and other European countries, and a similar variant emerged in South Africa.
- Although the mutated coronavirus may spread faster from person to person, it does not appear any more likely to cause severe disease or death.
- There is no evidence yet that these strains are biologically different in ways that would require any change in current recommendations meant to limit spread of COVID-19.
- The more people who are infected, the more chances there are for a mutation to occur. Limiting the spread of the virus through maintaining the safeguards (mask wearing, physical distancing and practicing hand hygiene), good ventilation indoors, and limiting gatherings of people in proximity with poor ventilation that gives the virus fewer chances to change.
- Give the virus an advantage to evolve when we congregate in more confined spaces.
- Yet there is no evidence that the immune responses driven by the current vaccines would not work against this new strain. If there would ever be a major mutation, the vaccine development process accommodates changes.
- As the virus changes its something to be watched, to ensure that testing and vaccines are still effective. The scientists will continue to examine new versions of this coronavirus' genetic sequencing as it evolves.

#### References

1. Nuno R., Ingra M, Darlan C: Genomic characterisation of an emergent SARS-CoV-2 lineage in Manaus: preliminary findings, 2021
2. Del Rio, Carlos, and Preeti N. Malani. "COVID-19—new insights on a rapidly changing epidemic." *Jama* 323, no. 14 (2020): 1339-1340.
3. Ashour, Hossam M., Walid F. Elkhatib, Md Rahman, and Hatem A. Elshabrawy. "Insights into the recent 2019 novel coronavirus (SARS-CoV-2) in light of past human coronavirus outbreaks." *Pathogens* 9, no. 3 (2020): 186.

## COVID-19 THERAPY TRIALS WITH POSITIVE AND NEGATIVE RESULT SO FAR

- ***Convalescent plasma treatment has no clinical benefits (15 January 2021)***
  - The RECOVERY trial was established as a randomised clinical trial to test a range of potential treatments for COVID-19. Since May 2020, the RECOVERY trial has included a randomised comparison of convalescent plasma vs. usual care alone. Convalescent plasma has been widely used as a treatment for COVID-19 but to date there has been no convincing evidence of the effect of convalescent plasma on clinical outcomes in patients admitted to hospital with COVID-19.
  - The RECOVERY trial independent Data Monitoring Committee (DMC) held a routine meeting on Thursday 14 January to review the available safety and efficacy data. On the advice of the DMC, recruitment to the convalescent plasma arm of the RECOVERY trial has now closed. The DMC saw no convincing evidence that further recruitment would provide conclusive proof of worthwhile mortality benefit either overall or in any pre-specified subgroup.
  - The DMC reviewed data on patients randomised to convalescent plasma vs. usual care. The preliminary analysis based on 1873 reported deaths among 10,406 randomised patients shows no significant difference in the primary endpoint of 28-day mortality (18% convalescent plasma vs. 18% usual care alone; risk ratio 1.04 [95% confidence interval 0.95-1.14];  $p=0.34$ ).
- ***Hydroxychloroquine has no clinical benefits (5 June 2020)***
  - In June, the RECOVERY trial concluded that hydroxychloroquine had no beneficial effect in patients hospitalised with COVID-19, and stopped enrolling participants to that arm of the trial immediately.
  - Hydroxychloroquine and chloroquine had received a lot of media attention in early 2020 and was used widely to treat COVID patients, despite the absence of any good evidence. The RECOVERY trial team issued its preliminary findings due to their important implications for patient care and public health.
  - Hydroxychloroquine and chloroquine have received a lot of attention and have been used very widely to treat COVID patients despite the absence of any good evidence. The RECOVERY Trial has shown that hydroxychloroquine is not an effective treatment in patients hospitalised with COVID-19. Although it is disappointing that this treatment has been shown to be ineffective, it does allow us to focus care and research on more promising drugs.
- ***Dexamethasone reduces deaths by up to one third (16 June 2020)***
  - Just a few weeks later, the trial published further preliminary results. This time showing that dexamethasone, a low-cost steroid treatment, reduces deaths of hospitalised COVID-19 patients with severe respiratory complications by up to one third.
  - Dexamethasone is the first drug to be shown to improve survival in COVID-19. It is inexpensive, on the shelf, and can be used immediately to save lives worldwide.
- ***No significant mortality impact for lopinavir (5 October 2020)***
  - Further preliminary results showed lopinavir, an antiviral drug commonly used in combination with ritonavir to treat HIV, had no significant mortality benefit in hospitalised COVID-19 patients. The treatment had previously shown promising activity against SARS and MERS coronaviruses.
  - These are clear results and once again emphasise the value of large randomised clinical trials in differentiating drugs we hope work from treatments we know do work.
- ***Potential new COVID-19 treatments on trial***
  - In October 2020, it was announced that RECOVERY would evaluate Regeneron Pharmaceuticals' investigational antiviral antibody cocktail, REGN-COV2. REGN-COV2 is the first specifically designed COVID-19 therapy to be evaluated by the trial.
  - The RECOVERY trial was specifically designed so that when promising investigational drugs such as REGN-COV2 became available they can be tested quickly.
- ***Aspirin and colchicine added to RECOVERY trial***
  - The RECOVERY team added aspirin and colchicine to the trial in November. Patients with COVID-19 are at higher risk of blood clots forming in their blood vessels. Aspirin is used to prevent blood clots in many other conditions, like heart attack and pre-eclampsia, and it is cheap and widely available, which made it a good candidate for the trial. It is anticipated that at least 2,000 patients will be randomly allocated to receive aspirin 150mg daily plus the usual standard-of-care.
  - Colchicine is a commonly used anti-inflammatory treatment. Inflammation is a key component of severe COVID-19 and can lead to lung damage, the need for mechanical ventilation and death. The drug is well understood, inexpensive and widely available, and it will take several months to find out whether it has benefits for the trial's patients. If it works it would be another COVID-19 treatment that could be used immediately worldwide, even in the poorest countries.
- ***Azithromycin has no clinical benefits (14 December 2020)***
  - Azithromycin is a widely-used antibiotic that also reduces inflammation, a key feature of severe COVID-19. In December 2020, the RECOVERY team released preliminary results showing it has no effect on clinical outcomes in COVID-19. Azithromycin has been widely used to treat COVID patients because of its theoretical potential to reduce lung inflammation.

- Results of this trial show very clearly that for patients hospitalised with COVID-19 azithromycin is not an effective treatment. Although it is disappointing that azithromycin isn't an effective treatment for hospitalised COVID-19 patients, negative results are important so that clinicians can focus patient care on drugs that have been shown to work.
- This is particularly vital for antibiotics like azithromycin, because inappropriate use of antibiotics contributes to bacteria in the body becoming resistant.

## References

1. The RECOVERY trial <https://www.ukri.org/our-work/tackling-the-impact-of-covid-19/vaccines-and-treatments/recovery-trial-identifies-covid-19-treatments/>
2. Coronavirus Disease 2019 (COVID-19) Daily Research Briefs <https://www.aafp.org/journals/afp/content/covid-briefs.html>