EPHI, National Data Management Center for health (NDMC):- Quick update on COVID-19, 042

This update summarizes:

- **ETHIOPIA'S COVID-19 SITUATION UPDATE.**
- **GLOBAL AND REGIONAL BURDEN OF COVID-19.**
- **IMPACT OF CLOSING SCHOOLS ON MENTAL HEALTH DURING THE COVID-19 PANDEMIC.**
- **THE PROGRESS ON CORONA VIRUS TREATMENT AND VACCINES .**

ETHIOPIA'S COVID-19 SITUATION UPDATES

- As of January 28, 2021, there were a total of 135,045 COVID-19 cases and 2,083 deaths across the country. Compared to the cases and deaths reported a week ago, the cumulative case and deaths respectively showed increment by 2% and 1%. So far 121,594 cases have recovered from COVID-19 which increased by 2% compared to the last week. Of the 11,583 active cases currently, 217 are critical which forms 1% of them (Fig 1).

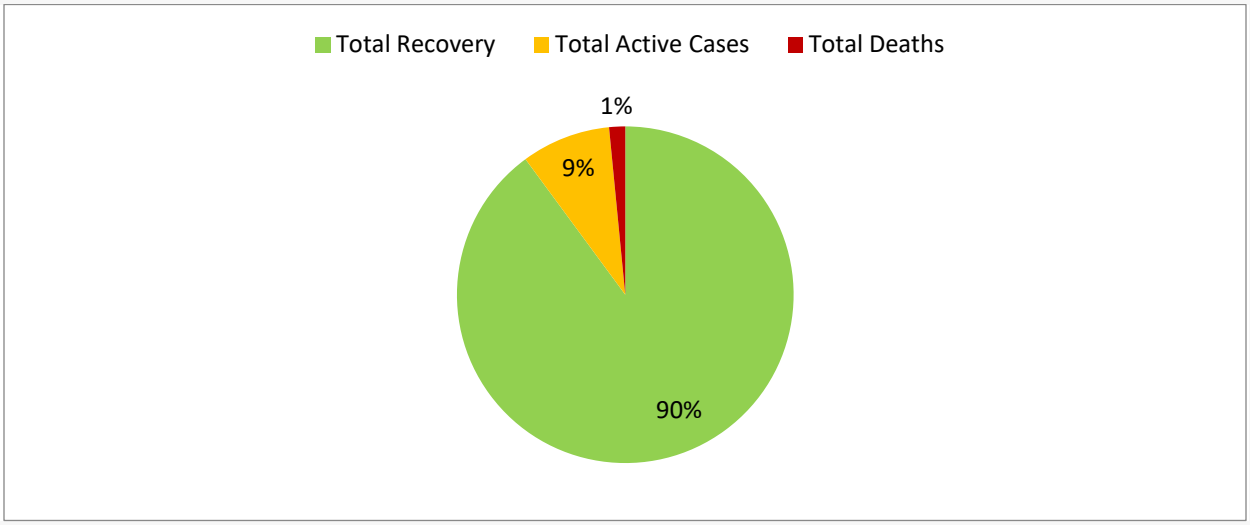

Fig. 1. Showing cumulative COVID-19 cases, recoveries and death as of January 28, 2021.

Case Management and Infection Prevention Control (Ipc):

- This week, Jan 22– Jan 28, 2021, there are **3,951** newly recovered cases bringing the total number of COVID-19 recovered cases to **121, 594 and 50** suspected cases are admitted
- Also, **16** 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 **83, 387** COVID-19 confirmed cases are followed in the HBIC as of January 28, 2021
- **78,059** of them have recovered in the HBIC as of January 28, 2021 **5,708** cases are currently on HBIC
- **11** COVID-19 related deaths have occurred in the HBIC

- **746** cases have been transferred from treatment centers to HBIC
- **355** 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 20 health workers working in Dire Dawa, Harari and Somalia IDP site is completed on Jan 25/2021 at Triangle Hotel, Diredawa city.
- Three days Basic COVID-19 Infection Prevention and control training for 28 Federal Police Health Professionals working in federal and regional health facility started on Jan 26/2021 at Jimma city.
- Two days COVID-19 Basic RCCE orientation training for 150 Disability Association Members from different regions completed on Jan 27/2021 at Bahir Dar City.
- There is on-going distribution of PPE, Viral Transport Media (VTM), swabs, pharmaceuticals and other medical supplies isolation and treatment centers.

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GLOBAL AND REGIONAL BURDEN OF COVID-19

- Globally the total number of cases is extended to 101,438,000 as of January 28, 2020. A total of 73,327,360 cases recovered and 2,184,216 people died since the beginning of the outbreak. Globally, in a week time, from January 21 to January 28, 2020, COVID-19 cases increased by 4.2% and deaths by 4.8%. 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).

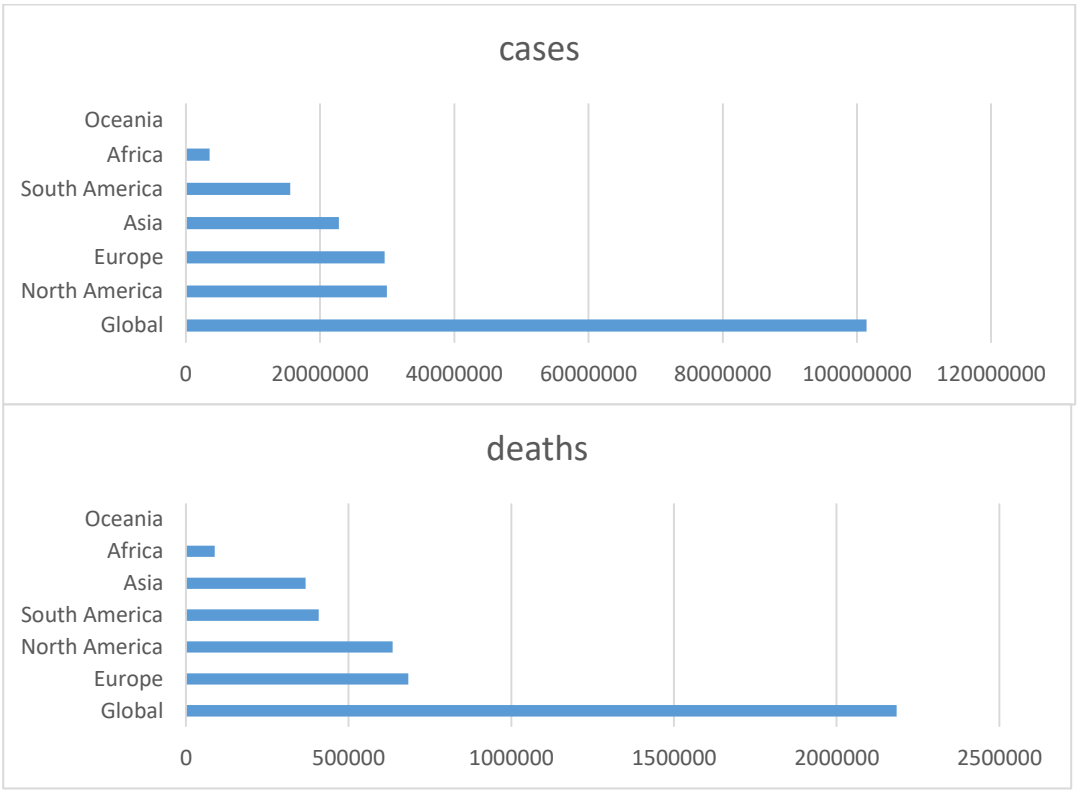


Fig 2. Global cases (top) and deaths (bottom) reported as of January, 2021.

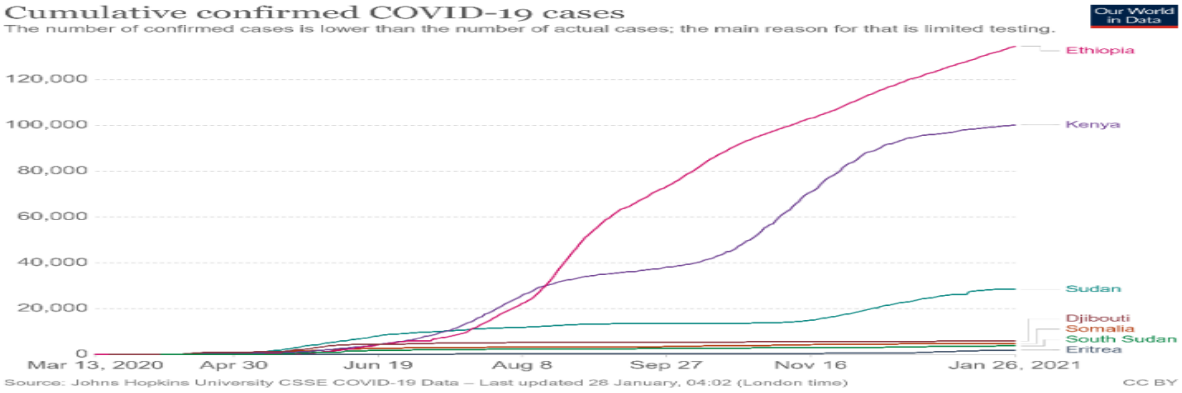
- USA has recorded the highest number of cases (26,166,201 cases, 439,517 deaths) that accounts 25.8% of the total global cases and carried 20.1% of global deaths as of January 28, 2020.
- India is the 2nd highest in terms of cases in a week time by 0.9% (10,611,719 to 10,702,031) and deaths by 0.6% (152,906 to 153,885).
- Brazil has increased the number of cases in a week time by 4.2% (8,639,868 to 9,000,485) and deaths by 3.4% (212,893 to 220,237).
- Russia ranked 4th globally with 3,774,672 cases and 71,076 deaths.
- UK ranked 5th globally with 3,715,054 cases and 101,887 deaths.

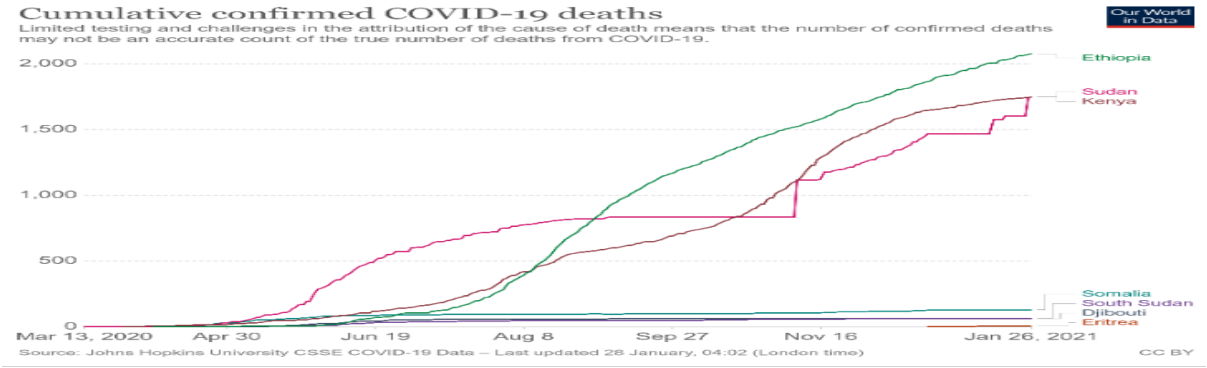
➢ The line share of Africa to the global COVID-19 pandemic was 3.5% and 4.0% of the global cases and deaths as of January 28). The cases in the continent has increased by 4.7% in a week time (3,352,823 to 3,511,476 cases). Similarly, the total number of deaths in Africa has increased from 81,861 to 88,095 showing 7.6%. Total recoveries stand at 2,983,192.

- South Africa is the leading in the continent with 1,430,648 cases and 42,550 deaths. Morocco (468,383 cases, 8,207 deaths), Tunisia (202,323 cases, 6,446 deaths), Egypt (163,761 cases, 9,115 deaths) and Ethiopia (135,045 cases, 2,083 deaths) are the most four leading countries next to South Africa in reporting COVID-19 cases in Africa. (See table below).

Africa	January 21		January 28	
	Cases	Death	Cases	Deaths
South Africa	1,369,426	38,854	1,430,648	42,550
Morocco	462,542	8,043	468,383	8,207
Tunisia	188,373	5,921	202,323	6,446
Egypt	158,963	8,747	163,761	9,115
Ethiopia	132,034	2,044	135,045	2,083

- In East African, COVID-19 cases and deaths have shown fast progress. In a week time, COVID-19 cases and deaths were 2.3% 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 in Sudan was 26,671 cases and 1,760 deaths. In Eritrea the number of cases were 2,085 with 7 deaths. In South Sudan cases were 3,788 with 64 deaths. In Somalia cases were 4,754 with and 130 deaths. In Djibouti cases were 5,926 with and 62 deaths.





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IMPACT OF CLOSING SCHOOLS ON MENTAL HEALTH DURING THE COVID-19 PANDEMIC

- The coronavirus disease 2019 (COVID-19) pandemic and the social distancing measures that many countries have implemented have caused disruptions to daily routines.
- In a survey by the mental health charity which included 2111 participants up to age 25 years with a mental illness history in the UK:
  - 83% said the pandemic had made their conditions worse.
  - 26% said they were unable to access mental health support; peer support groups and face-to-face services have been cancelled, and support by phone or online can be challenging for some young
- In a similar study survey on young people with a history of mental health problems shortly after schools had reopened:
  - 69% of respondents described their mental health as poor now that they are back at school; this has risen from 58% who described their mental health as poor before returning to school.
  - 40% of respondents said that there was no school counsellor available to support students in their school
  - Only 27% had had a one-to-one conversation with a teacher or another member of staff in which they were asked about their wellbeing, by the time they completed the survey.
  - Almost a quarter of respondents (23%) said that there was less mental health support in their school than before the pandemic, while only 9% agreed that there was more mental health support.
- In addition to this the school closure had not only impacted the mental health condition of young people, in response to these measures, parents of students were also obliged to care for their children during the daytime when they were usually at school. Based on short panel data from mid-March to mid-April 2020, the influence of school closures on the mental health of parents with school-aged children were explored.
  - Using the fixed effects model, we found that school closures lead to student's mothers suffering from worse mental health than other females, while the fathers' mental health did not differ from other males.
  - This tendency was only observed for less educated mothers who had children attending primary school, but not those attending junior high school.
- **Conclusion**
  - School closures have significantly worsened the mental health condition of young population and increased the inequality of mental health between genders and the educational background of parents.

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MICRONUTRIENT DEFICIENCIES AND THE CORONAVIRUS DISEASE (COVID-19)

- Worldwide the pandemic of COVID-19 spreads rapidly and has had an enormous public health impact with substantial morbidity and mortality especially in high-risk groups, such as older people and patients with comorbidities like diabetes, dementia or cancer. In the absence of a vaccine against COVID-19 there is an urgent need to find supportive therapies that can stabilize the immune system and can help to deal with the infection, especially for vulnerable groups such as the elderly.
- A major potential contributing factor for elderly is due to their high incidence of malnutrition: up to 80% among the hospitalized elderly. Malnutrition results when adequate macronutrients and micronutrients are lacking in the diet. Often missing in public health discussions around preventing and treating COVID-19 patients are nutritional strategies to support optimal function of their immune system. This is surprising, given the importance that nutrients play a significant role for immune function. Several micronutrients, such as vitamin D, retinol, vitamin C, selenium and zinc are of special importance supporting both the adaptive and innate immune systems.
- As suboptimal status or deficiencies in these immune-relevant micronutrients impair immune function and reduces the resistance to infections, micronutrient deficiencies should therefore be corrected as soon as possible, especially in the elderly and other vulnerable groups.
- According to epidemiological, experimental and observational studies, some case reports and a few intervention studies the supplementation of vitamin D and/or zinc are promising. The multiple anti-inflammatory and immunomodulatory effects of Vitamin D could explain its protective role against immune hyper reaction and cytokine storm in patients with severe COVID-19. A randomized, placebo-controlled intervention study even shows that high dose vitamin D supplementation promotes viral clearance in asymptomatic and mildly symptomatic SARS-CoV-2 positive individuals.
- Besides, the data of a recent prospective study with COVID-19 patients reveal that a significant number of them were zinc deficient. The zinc deficient patients had more complications and the deficiency was associated with a prolonged hospital stay and increased mortality. Thus, immune-relevant micronutrients may help to increase the physiological resilience against COVID-19.
- The supplementation with micronutrients, including vitamin D and zinc is a safe, effective, and low-cost strategy to help support optimal immune function in times of respiratory tract infections with SARS-CoV-2. The application of immune-relevant micronutrients above the recommended dietary allowance (RDA), but within recommended upper safety limits, for specific micronutrients such as vitamins D and zinc is urgently warranted, especially in vulnerable groups such as the elderly. Public health officials are encouraged to promote nutritional strategies in their recommendations to improve public health, especially in vulnerable groups such as the elderly.

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THE PROGRESS ON CORONA VIRUS TREATMENT AND VACCINES

- The Covid-19 pandemic is one of the greatest challenges modern medicine has ever faced. Doctors and scientists are scrambling to find treatments and drugs that can save the lives of infected people and perhaps even prevent them from getting sick in the first place.
- There is no cure yet for Covid-19. Only one treatment, a drug called remdesivir, has been approved by the F.D.A. for the disease, and research suggests it may provide only a modest benefit to patients.
- It works by interfering with the creation of new viruses, inserting itself into new viral genes. Remdesivir was originally tested as an antiviral against Ebola and Hepatitis C.
- But once the Covid-19 pandemic emerged, researchers found that it could stop the coronavirus from multiplying in cells. A large clinical trial was then launched, which found that the drug reduced the recovery time of people hospitalized with Covid-19 from 15 days to 11 days.
- Yet many experts remained skeptical of remdesivir's benefits. They pointed out, for example, that there's no statistically significant evidence that remdesivir actually prevents deaths from Covid-19.
- Vaccines typically require years of research and testing before reaching the clinic, but in 2020, scientists embarked on a race to produce safe and effective coronavirus vaccines in record time. Researchers are currently testing 66 vaccines in clinical trials on humans, and 20 have reached the final stages of testing.
- At least 90 preclinical vaccines are under active investigation in animals. While some are accumulating evidence that they are effective, most are still at early stages of research.
- On Nov. 9, New York-based Pfizer and the German company BioNTech made history by presenting preliminary data indicating that their coronavirus vaccine was about 90 percent effective. It was the first time anyone had found such evidence.
- Just over a month later, on Dec. 11, the Food and Drug Administration (FDA) granted it the first emergency use authorization ever given by the FDA to a coronavirus vaccine.
- In January, BioNTech researchers began designing the vaccine, which now has the generic name tozinameran and the brand name Comirnaty.
- They based it on a genetic molecule called messenger RNA (mRNA). The vaccine contains genetic instructions for building a coronavirus protein, known as spike.
- When injected into cells, Comirnaty causes them to make spike proteins, which then get released into the body and provoke a response from the immune system.
- BioNTech partnered with Pfizer in March to scale up the research, launching a clinical trial in May.
- They found that Comirnaty caused volunteers to produce antibodies against SARS-CoV-2, as well as immune cells called T cells that respond to the virus.
- On July 27, the companies announced the launch of a Phase two and three trial with 30,000 volunteers in the United States and other countries including Argentina, Brazil, and Germany.
- On Sept. 12, Pfizer and BioNTech announced that they would seek to expand their U.S. trial to 44,000 participants.

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