EPHI, National Data Management Center for health (NDMC)
Quick update on COVID-19, 020

This update summarizes	**Ethiopia's COVID-19 situation update**
	Global and regional buden of COVID 19
	Global socio-economic losses and environmental gains from the pandemic
	Universal masking at community level can increase herd immunity to control COVID-19 pandemic
	Immunizing the public against misinformation in the context of COVID-19
	COVID-19 Testing strategies

Ethiopia's COVID-19 situation update

As of August 27, 2020 there were a total of 45,221 COVID-19 cases and 725 deaths across the country. Compared to the cases and deaths reported a week ago, the cumulative cases have increased by 20% and cumulative deaths by 14%. So far 16,311 cases have recovered from COVID-19 (Fig 1). Of the 28, 510 active cases, 327 are critical. The critical cases have shown a 22% increase in a week time. The total number of tests stands at 813,410 showing a 14% increase compared to last week.

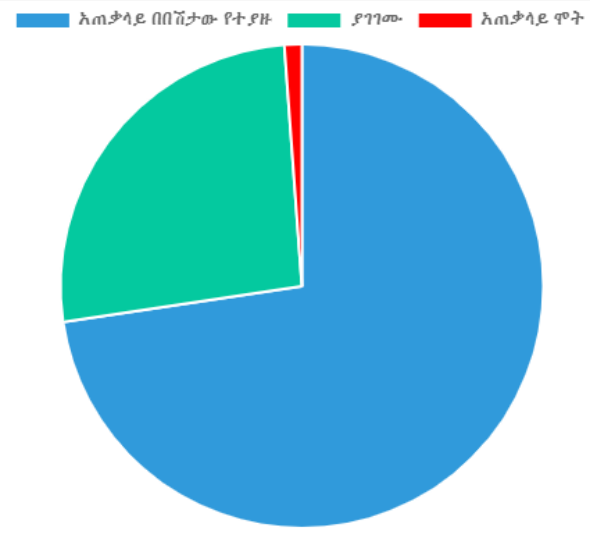

Fig. 1. Showing cumulative cases, recoveries and deaths (Source https://www.covid19.et/covid-19/)

EPHI and FMOH COVID 19 response highlights of the week

- On August 25,2020; Automation of data tracking system started in Addis Ababa City Administration Health Bureau EOC and it will be expanded to different sub-cities.
- Four days TOT Training on Home-Based Isolation and Care (HBIC) started on Aug 25, 2020 at Dire-Dawa city for 36 health care workers from Somali region, Harari region, and Dire-Dawa city administration.
- August 23, 2020; Partners are mobilized and orientation provided on restructuring of regional RCCE section in three sub teams and the major responsibilities of each sub team to partners (UNICEF, FGAE, and JHU CCP). As per the major responsibilities and activities that will be carried out by the sub team of RCCE section, Partners assigned experts to support the regional RCCE section.
- August 22, 2020; Training was conducted on enhancing combat leadership and strategy communication for media.
- Checklist to identify status, production capacity and challenges of local manufacturers of PPEs was prepared and commented on August 21, 2020.
- Second round regional WaSH-IPC TOT is ongoing in Benshangul Gumuz region on August 21, 2020.
- On August 21, 2020 orientation on COVID-19 PoE screening were given for Two Health care Workers from the ministry of mines and petroleum
- 149 local manufacturers and 106 Importers of PPE identified from Ethiopian Food and Drug Administration (EFDA) for local production mapping on August 20, 2020;
- Orientation on IPC/WaSH provided on August 20, 2020 for Bole Lemi Industrial Park staff.

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1. PUBLIC HEALTH EMERGENCY OPERATIONS CENTER (PHEOC), ETHIOPIA

Global and regional burden of COVID-19

- Globally the total number of cases is extended to 24,361,052as of August 27, 2020. A total of 16,893,848 cases recovered and 830,235 people died since the beginning of the outbreak. Globally, in a week time, from 20 August to 27 August 2020, COVID-19 cases increased by 7.9% and deaths by 5.0%. North America is the leading in terms of cases followed by Asia and South America. North America is also leading with the number of deaths followed by Europe (Fig 2).

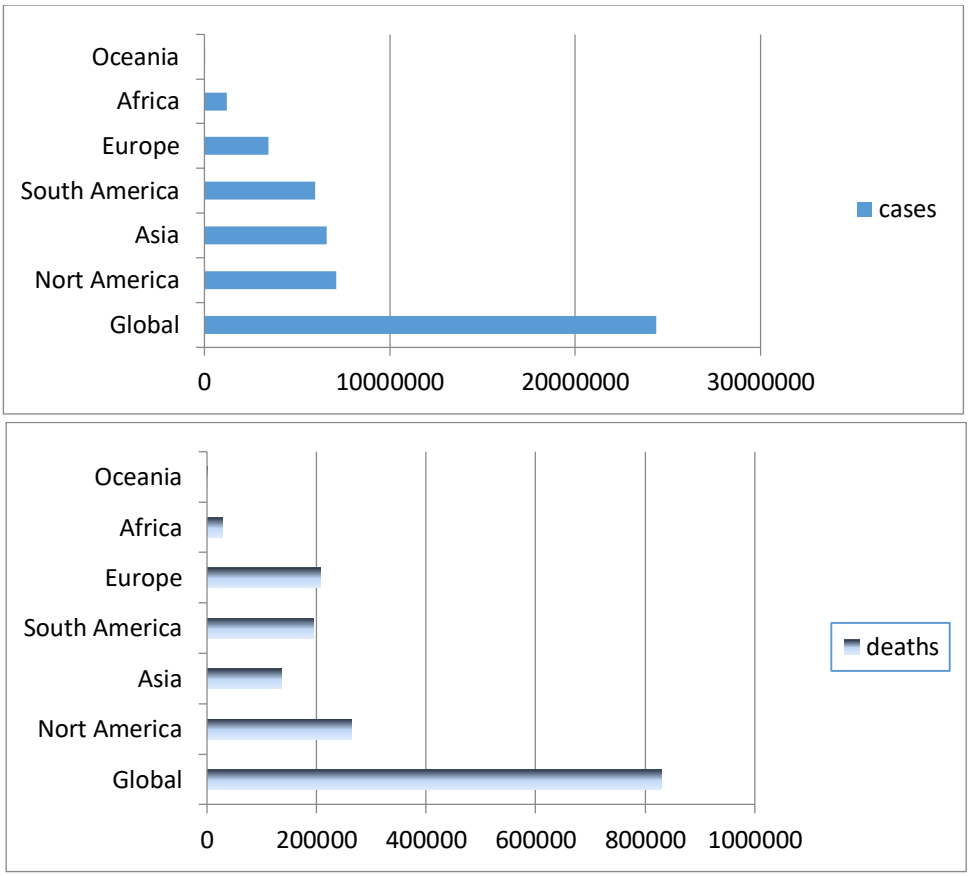


Fig 2. Global cases (top) and deaths (bottom) reported as of August 2020.

- In the USA, the increasing trend has continued. The country has recorded the highest number of cases (6,001,103 cases, 183,677 deaths) that accounts for 24.6% of the total global cases and carried 22.1% of global deaths as of August 27, 2020.

- Brazil has continued reporting the second COVID-19 case burden in the world following USA. The number of cases in Brazil has increased in a week time by 7.6% (3,460,413 to 3,722,004) and deaths by 5.9% (111,189 to 117,756).

- India has increased number of cases in a week time by 16.9% (2,836,925 to 3,314,953) and deaths by 12.3% (53,994 to 60,652).

- Russia has continued reporting the highest number of cases in Europe, with 975,576 cases. The number of deaths in Russia increased by 4.1% of its case.

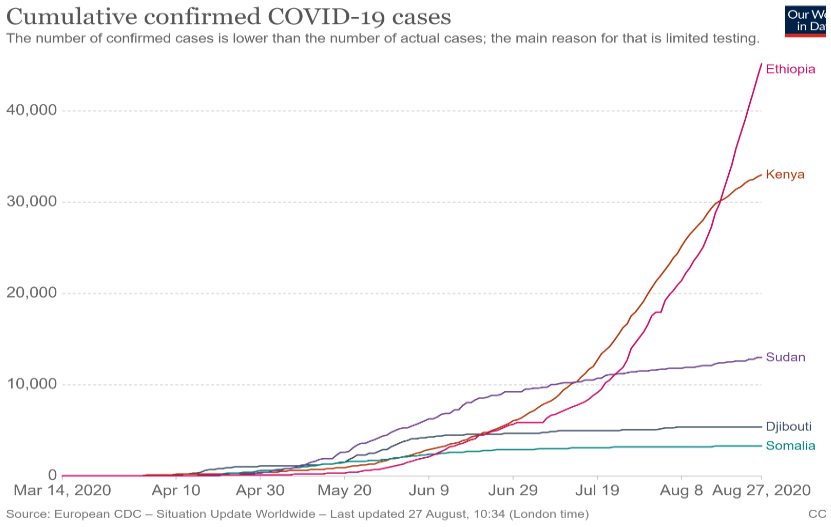
- The share of Africa to the global COVID-19 pandemic has still been low (only 5.0% of the global cases and 3.5% of deaths as of August 27). However, within the continent the number of cases has increased by 5.6% in a week time (from 1,151,695 to 1,216,567 cases).

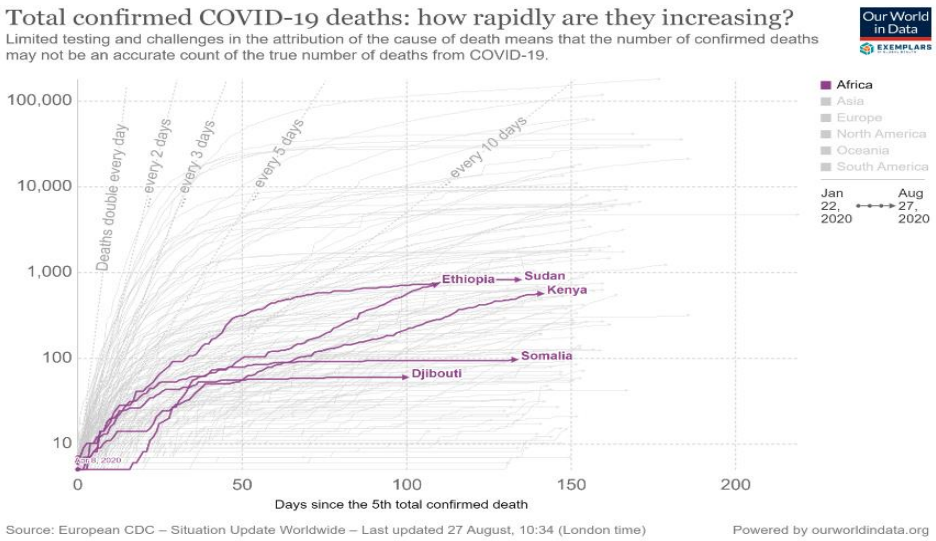
Similarly, the total number of deaths in Africa has increased from 26,685 to 28,657 showing a 7.4% increase in a week time. Total recoveries stand at 945,508.

- South Africa ranked 5th worldwide in terms of cases and leading in the continent with 615,701cases and 13,502 deaths. Egypt (97,825 cases, 5,317 deaths), Morocco (55,864 cases, 984 deaths), Nigeria (53,021 cases, 1,010 deaths), Ghana (43,769 cases, 270 deaths), Algeria (42,619 cases, 1,465 deaths) are the leading pack in reporting COVID-19 cases and deaths in Africa. Cases in Morocco ranked 3rd in Africa in this week (See table below).

Africa	August 20		August 27	
	Cases	Death	Cases	Deaths
South Africa	596,060	12,423	615,701	13,502
Egypt	96,914	5,184	97,825	5,317
Morocco	46,313	743	55,864	984
Nigeria	50,488	985	53,021	1,010
Ghana	43,094	256	43,769	270
Algeria	39,847	1,402	42,619	1,465

- In East African, COVID-19 cases and deaths have shown fast progress. In a week time, COVID-19 cases and deaths increased by 32.8% and 20.8% in Ethiopia and by 6.5% and 11.5% in Kenya. As of August, Ethiopia has become the major drivers of the COVID 19 burden in east African countries. The epidemic appears to be plateauing in Sudan showing only 3.4% cases and 1.4% deaths and in Djibouti 0.2% cases and 1.7 deaths. Similarly, 0.3 cases and 2.2 deaths reported in Somalia in a week time.





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Global socio-economic losses and environmental gains from the pandemic

- On 03 April 2020, the Director-General of the WHO stated: "*[COVID-19] is much more than a health crisis. We are all aware of the profound social and economic consequences of the pandemic* (WHO, 2020)".

- Such consequences are the result of counter-measures such as lockdowns, and world-wide reductions in production and consumption, amplified by cascading impacts through international supply chains.

- Using a global multi-regional macro-economic model, the direct and indirect spill-over effects is captured in terms of social and economic losses, as well as environmental effects of the pandemic.

- Based on information as of May 2020, global consumption losses amount to 3.8$tr, triggering significant job (147 million full-time equivalent) and income (2.1$tr) losses.

- On the basis of reported direct losses experienced by global businesses due to the COVID-19 pandemic, the total consumption loss, including all regional and sectoral spill-overs, is about 3.8$tr, or 4.2% of global GDP, and comparable to the GDP of Germany.

- Similarly, jobs of workers globally reduce by 147 million FTE (full-time equivalent), or 4.2% of the global workforce, with associated losses of wages and salaries of 2.1$tr, or 6.0% of global income.

- More significant consumption and income losses are borne out in large economies with either high numbers of coronavirus cases and/or stringent countermeasures, i.e. China, USA, Italy, Spain, Germany, UK and France. OPEC nations lose income because of reduced oil extraction and refining activity as a result of the reductions in transport, especially aviation.

- Out of the total income losses of $2.1tr, $536bn or about 21% is lost because of a reduction in international trade, demonstrating the importance of international spill-overs that cause the effects of the COVID-19 pandemic to be felt in all countries across the globe. Given the reliance of many national economies on China, we observe significant losses in supply chains that originate in Mainland China.

- Global atmospheric emissions are reduced by 2.5Gt of greenhouse gases, 0.6Mt of $PM_{2.5}$, and 5.1Mt of SO_2 and NO_x. While Asia, Europe and the USA have been the most directly impacted regions, and transport and tourism the immediately hit sectors, the indirect effects transmitted along international supply chains are being felt across the entire world economy.

- An assessment of total impacts of COVID-19 at a sector-level reveals that transport and tourism are the economically worst-hit sectors. This is unsurprising, with falling air travel demands as people made cancellations, coupled with a suite of travel restrictions imposed by countries worldwide to slow the spread of the virus, and airlines going bankrupt.

- Manufacturing and Transport & tourism dominate reductions in GHG and SO_2 emissions, because of their intensive use of fuels. A large part of reductions in $PM_{2.5}$ emissions globally is driven by reduced power, gas and water utilities output in Asia and the Americas.

- These ripple effects highlight the intrinsic link between socio-economic and environmental dimensions, and emphasise the challenge of addressing unsustainable global patterns. How humanity reacts to this crisis will define the post-pandemic world.

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Universal masking at community level can increase herd immunity to control COVID-19 pandemic

- Now a day there is no reservation on wearing different types of facial cover. It is considered an essential intervention in the prevention of cross-infection against COVID-19. In the earlier stages of the pandemic, the promotion of face cover was a day to day controversy throughout the media outlets. The health authorities discouraged the use of medical masks by the public and encourage reserving it for healthcare providers and others at increased risk of infection. On the other hand, experts argued that universal use of facial cover would play a vital role in

protecting others from the acquiring infection. However, in some cases people reject to use facemask as they are not convinced enough to protect others.

- Recent evidence indicates that the mask benefits the wearer given that properly used. A systematic review conducted before face mask was widely used indicated that the rate of asymptomatic and mild infection with COVID-19 was 15%, while a more recent review revealed that the implementation of wide spread face mask has increased the rate of asymptomatic and mild infection to 44%. Another study examined that wearing masks could reduce the viral load at community level to which the new susceptible exposed and, if it could infect, the severity of the disease will be milder or even asymptomatic. A study conducted by Gandhi; et al, pointed out that exposure to the virus without severe adverse outcomes due to wearing of masks could help to produce herd immunity that could enable the control of the pandemic. The excess mortality rates recorded at the initial stages of the pandemic was correlated with elevated viral load exposure before mask-wearing was widely adopted. Evidence in a closed environment where all people had used masks, 59% tested positive for coronavirus but 81% of the infected remained asymptomatic. Asymptomatic infection can be a challenge since it could facilitate the spread of the infection, also it could help that a large number of asymptomatic infections will lead to higher rates of exposure in the community and then develop herd immunity, without the devastating adverse consequences of the disease.

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Immunizing the public against misinformation in the context of COVID-19

- Soon after the world started getting used to the terms coronavirus and COVID-19, WHO coined another word: "infodemic" an overabundance of information and the rapid spread of misleading or fabricated news, images, and videos. Like the virus, it is highly contagious and grows exponentially. It also complicates COVID-19 pandemic response efforts.

- Proliferating misinformation:- even when the content is, in a best-case scenario, harmless - can have serious and even social and lethal health ramifications in the context of a global pandemic.

- In some countries, rumors about impending food scarcity prompted people to stockpile supplies early on in the epidemic and caused actual shortages.

- In the United States of America, a person passed away from ingesting a fish tank cleaning product containing chloroquine after reports mentioned hydroxychloroquine as a possible - yet unproven - remedy for treatment of COVID-19. In the Islamic Republic of Iran, hundreds died after drinking methanol alcohol that social media messages said had cured others of the coronavirus. This is the kind of dangerous misinformation that WHO is most worried about.

- Even as the world is laser-focused on the search for a safe, effective vaccine, misinformation continues to spread about immunization as well.

- Health experts in Germany are concerned that the country's anti-vaccination movement may deter many people from getting immunized when a safe vaccine becomes available.

- A recent study that examined the vaccination views of 100 million Facebook users globally found that while the pro-vaccination camp (6.9 million people) outnumbered those against vaccination (4.2 million), the anti-vaccine group was less isolated and had more interaction with the individuals (by far the largest group, at 74.1 million) who are undecided about vaccination. These "swing vaxxers" are important to target and get on board with lifesaving vaccination.

Combing through the web of misinformation

- Infodemics have already happened in one way or another in past epidemics, but what's happening right now is something of a global scale, where people are connected through different means and share information more quickly. This has created a new situation where we are rethinking and reshaping our approach to managing infodemics in emergencies.

- According to a recent study evaluating English-language misinformation, the largest category of posts labeled as false or misleading by fact-checkers was content that deliberately challenged or questioned policies and actions of public officials, governments, and international institutions such as the United Nations and WHO.

- One flagrant example of this is "Plandemic," a 26-minute conspiracy theory video that falsely accuses Dr Anthony Fauci, the leading infectious disease expert in the United States, of manufacturing the virus and sending it to China. The same video falsely claims that wearing masks will lead to self-infection. More than 8 million people watched the video across social media before it was taken down.

- Such content can erode public trust in the very organizations leading the fight against COVID-19. To remind the public of the primacy of science, WHO first pinpoints what kind

of misinformation is floating out there and then responds with its own evidence-based guidance. The wider United Nations community has been helping amplify this information through its own anti-misinformation initiative Verified. For example, the initiative's "Pause. Take care before you share" campaign encourages people to take time to verify sources before deciding whether to share any content online.

- WHO has also been working closely with social media and technology companies to help curb some of the misinformation spreading on their platforms. In February, officials from the health agency met at Facebook's headquarters about how to promote accurate health information about COVID-19. Now, WHO is working with more than 50 digital companies and social media platforms including TikTok, Google, Viber, WhatsApp, and YouTube to ensure that science-based health messages from the organization or other official sources appear first when people search for information related to COVID-19. Even the dating app Tinder now features WHO health reminders, because social distancing is still appropriate during a date.

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COVID-19 Testing

There are two different types of tests; diagnostic test and an antibody test

- A diagnostic test can show if you have an active coronavirus infection and should take steps to quarantine or isolate yourself from others.
- Currently there are two types of diagnostic tests – molecular (RT-PCR) tests that detect the virus's genetic material, and antigen tests that detect specific proteins on the surface of the virus
- An antibody test looks for antibodies that are made by the immune system in response to a threat, such as a specific virus.
- Antibodies can take several days or weeks to develop after an infection and may stay in blood for several weeks after recovery.
- Because of this, antibody tests should not be used to diagnose an active coronavirus infection.
- At this time researchers do not know if the presence of antibodies means that you are immune to the coronavirus in the future.

	MOLECULAR TEST	ANTIGEN TEST	ANTIBODY TEST
Also known as...	Diagnostic test, viral test, molecular test, nucleic acid amplification tests (NAAT), RT-PCR tests	Rapid diagnostic test*	Serological test, serology, blood test, serology test
How the sample is taken...	Nasal or throat swab (most tests) Saliva (a few tests)	Nasal or throat swab	Finger stick or blood draw
How long it takes to get results...	Same day (some locations) or up to a week	One hour or less	Same day (many locations) or 1-3 days
Is another test needed...	This test is typically highly accurate and usually does not need to be repeated.	Positive results are usually highly accurate but negative results may need to be confirmed with a molecular test.	Sometimes a second antibody test is needed for accurate results.
What it shows...	Diagnoses active coronavirus infection	Diagnoses active coronavirus infection	Shows if you've been infected by coronavirus in the past
What it can't do...	Show if you ever had COVID-19 or were infected with the coronavirus in the past	Definitively rule out active coronavirus infection. Antigen tests are more likely to miss an active coronavirus infection compared to molecular tests. Your health care provider may order a molecular test if your antigen test shows a negative result but you have symptoms of COVID-19.	Diagnose active coronavirus infection at the time of the test or show that you do not have COVID-19

Accuracy: Molecular diagnostic tests that detect the genetic material of the virus itself are commonly used for diagnosing COVID-19 or active coronavirus infection. But no test is 100% accurate all of the time. Things that may affect the test's accuracy include:

1. You may have the virus, but the swab might not collect it from your nose or throat.
2. The swab or mucus sample may be accidentally contaminated by the virus during collection or analysis.
3. The nasal or throat swab may not be kept at the correct temperature before it can be analyzed.
4. The chemicals used to extract the virus genetic material and make copies of the virus DNA may not work correctly.

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