

## **EPHI, NATIONAL DATA MANAGEMENT CENTER FOR HEALTH (NDMC):- QUICK UPDATE ON COVID-19, 066<sup>th</sup>**

### **This update summarizes:**

- **Ethiopia's Covid-19 Situation Updates**
- **Global and Regional Burden Of Covid-19**
- **Moderna COVID-19 vaccine effectiveness against SARS-CoV-2 variants**
- **Effect of mRNA COVID-19 vaccine on Acute Myocarditis**

## **Ethiopia's Covid-19 Situation Updates**

- Since the last brief (July 8, 2021), 635 new confirmed corona virus disease 2019 (COVID-19) cases and 11 new deaths have been reported nationally. To date, a total of 277,318 COVID-19 cases and 4,349 related deaths (case fatality rate (CFR): 1.57, which is similar compared to the last week's rate) have been reported from 9 regions and 2 city administrations in the country. Compared to the cases and deaths reported a week ago, the national cumulative case and death reported this week remained nearly stable without increment.
- There are 10,925 active cases currently, of which 125 (1.14%, slightly reduced rate compared to last week's report) of them are critical. The number of active cases have shown increment by 205 while the critical cases reduced by only 01 case compared to the last week. So far 262,167 cases have recovered from COVID-19, out of which 418 recoveries were over the last one-week period which is minimal compared to the last week's report.
- The proportion of active cases among the total cases so far has started increasing this week slightly (by 0.07%) while that of recoveries decreased by the similar rate compared to the last week. However, the proportion of death remained nearly the same over the last one-week period (Fig 1).

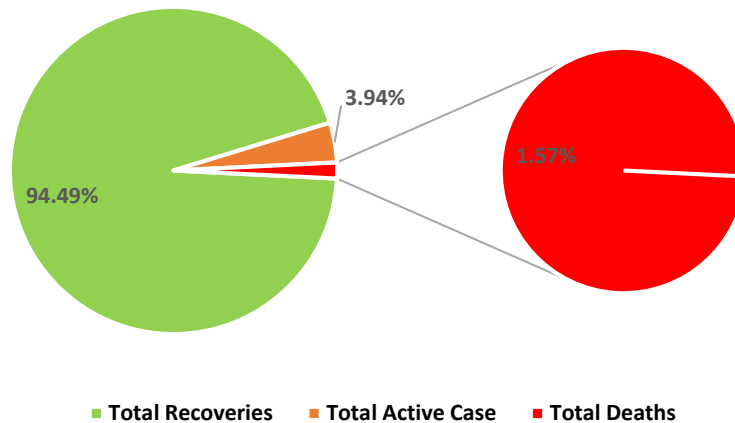


Fig 1: Proportions of active cases, recoveries and death as of July 8, 2021.

- The total number of tests done to date is 2,935,415. Among 36,152 laboratory samples tested over the last one-week duration, 635 of them tested positive for COVID-19, yielding a positivity rate of 1.8%; showing a 0.2% increase from the last week's positivity rate.

### Case Management and Infection Prevention Control (Ipc)

- There are a total of **10, 800** active cases in the country currently as of July 15, 2021
- This week, July 9- July 15, 2021, there are **418** newly recovered cases bringing the total number of COVID-19 recovered cases to **262, 167**
- There are **125** patients in severe condition as of July 15, 2021, and all the other patients are on medical care in stable condition

### Home Based Isolation and Care (HBIC)

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

- A total of **207, 184** COVID-19 confirmed cases are followed in the HBIC as of July 15, 2021
- **206, 959** of them have recovered in the HBIC as of July 15, 2021
- **1,079** cases are currently on HBIC
- **33** COVID-19 related deaths have occurred in the HBIC
- **2,185** cases have been transferred from treatment centers to HBIC
- **900** cases have been transferred from HBIC to treatment centers

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

- There is the ongoing distribution of PPE, Viral Transport Media (VTM), swabs, pharmaceuticals, and other medical supplies to isolation and treatment centers.

## References

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

## Global and Regional Burden of Covid-19

- Globally the total number of cases is extended to 189,169,608 as of July 15, 2021. A total of 172,795,021 cases recovered and 4,074,508 people died since the beginning of the outbreak. Globally, in a week time, from July 8 to July 15, 2021, COVID-19 cases increased by 1.8% and deaths by 1.4%. In the past week, Asia is the leading in terms of cases followed by Europe and North America. Europe continued to be became a lead in terms of the number of deaths followed by South and North America (Table 1).

Table 1. Global cases and deaths reported as of July, 2021.

	COVID cases	Weekly % change	deaths	Weekly % change
Global	189,169,608	1.8	4,074,508	1.4
Europe	49,284,502	1.6	1,116,006	0.6
North America	41,193,273	0.9	926,759	0.5
Asia	58,222,402	2.3	830,876	2.7
South America	34,264,885	1.8	1,044,533	1.8
Africa	6,119,864	5.0	154,981	3.9
Oceania	83,961	6.9	1,338	2.4

- USA has recorded the highest number of cases 0.6% (34,643,902 to 34,848,068 cases) and 0.3% (621,873 to 623,838 deaths) that accounts 18.4% of the total global cases and carried 15.3% of global deaths as of July 15, 2021, showed declining trend.
- India is the 2<sup>nd</sup> highest in terms of cases in a week time by 0.9% (30,709,557 to 30,986,803) and deaths by 1.7% (405,057 to 412,019).
- Brazil became the 3<sup>rd</sup> rank worldwide with increased number of cases in a week time by 1.6% (18,909,037 to 19,209,729) and the 2<sup>nd</sup> by deaths with 1.7% (528,611 to 537,498).
- Russia ranked 4<sup>th</sup> globally with 5,857,002 cases and 145,278 deaths.
- Ferance ranked 5<sup>th</sup> globally with 5,829,724 cases and 111,413 deaths.
- The line share of Africa to the global COVID-19 pandemic was 3.2% and 3.8% of the global cases and deaths as of July 15). The cases in the continent have increased by 5% in a week time (5,826,422 to 6,119,864 cases). Similarly, the total number of deaths in Africa has increased from 149,120 to 154,981 showing 3.9%. Total recoveries stand at 5,314,031.
- South Africa is the leading in the continent with 2,236,805 cases and 65,595 deaths. Morocco (547,273 cases, 9,404 deaths), Tunisia (518,609 cases, 16,845 deaths), Egypt (283,409 cases, 16,418 deaths) and Ethiopia continued to be the 5<sup>th</sup> rank with (277,318 cases, 4,349 deaths). These are the most four leading countries next to South Africa in reporting COVID-19 cases in Africa. (See table below).

Table 2: Case and death reported in selected African countries as of July 2021

Africa	July 8		July 15	
	Cases	Deaths	Cases	Deaths
South Africa	2,112,336	63,039	2,236,805	65,595
Morocco	537,253	9,341	547,273	9,404
Tunisia	464,914	15,735	518,609	16,845
Egypt	282,582	16,332	283,409	16,418
Ethiopia	276,683	4,338	277,318	4,349

- In East African, COVID-19 cases and deaths have shown fast progress. As of March, Ethiopia and Kenya continued to be the major drivers of the COVID 19 burden in east African countries.

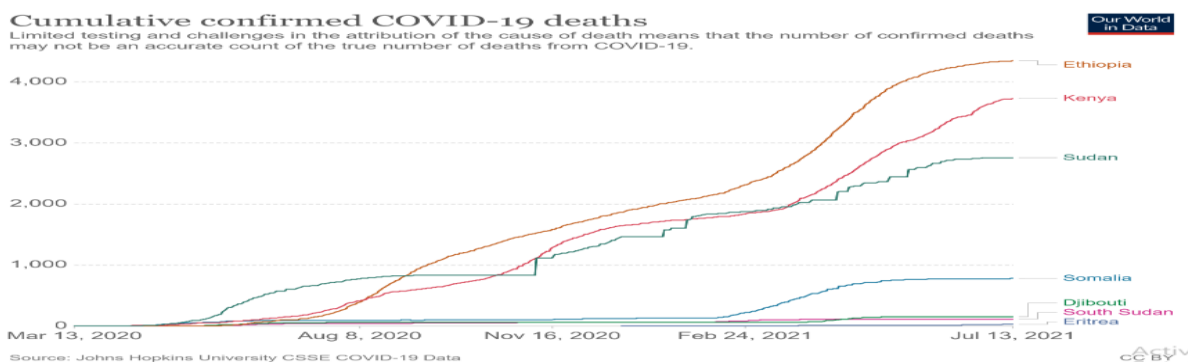
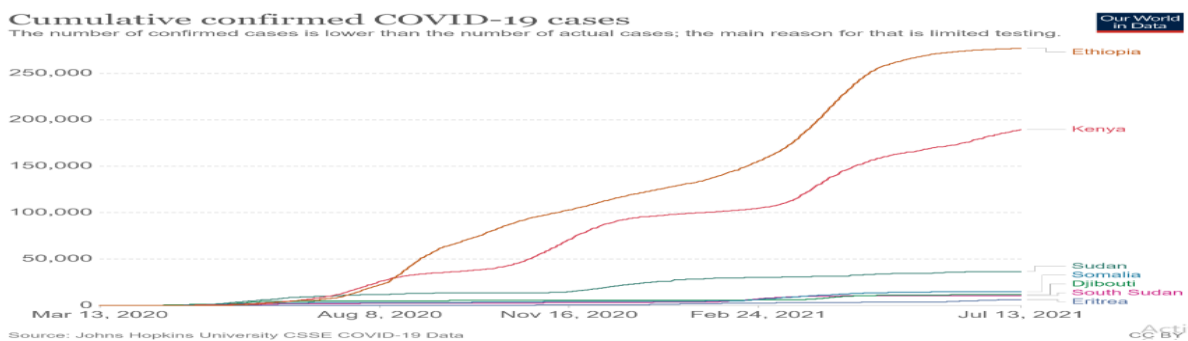


Figure2: The burden of COVID-19 in Eastern African countries.

## 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>

## Moderna COVID-19 vaccine effectiveness against SARS-CoV-2 variants

- The SARS-CoV-2 pandemic continues to be a global health concern. Continuous provision of vaccination is on strategy to tackle the spread of SARS-CoV-2 pandemic throughout the world.
- The mRNA-1273 (Moderna) vaccine was reported to have an efficacy of 94.1% at preventing symptomatic COVID-19 due to infection with 'wild-type' variants in a randomized clinical trial.
- The case-control study design study conducted in Qatar on mRNA-1273 COVID-19 vaccine effectiveness against the B.1.1.7 (Alpha) and B.1.351 (Beta) variants and severe COVID-19 disease among adults revealed that:-
  - ✓ The vaccine effectiveness was negligible for 2 weeks after the first dose, but increased rapidly in the third and fourth weeks immediately before administration of a second dose.
  - ✓ Effectiveness against B.1.1.7 (Alpha) infection was 88.1%  $\geq$ 14 days after the first dose but before the second dose, and was 100%  $\geq$ 14 days after the second dose.
  - ✓ In other way the effectiveness against B.1.351 (Beta) infection was 61.3% after the first dose and 96.4% after the second dose
  - ✓ The effectiveness in preventing any severe, critical or fatal COVID-19 disease due to any SARS-CoV-2 infection (mainly Alpha and Beta variants) was 81.6% and 95.7% after the first and second dose, respectively.
  - ✓ Generally, the finding of this finding indicates that provision of any dose of the Moderna COVID-19 (mRNA-1273) vaccine is highly effective against Alpha and Beta variant of SARS-CoV-2 infections, whether symptomatic or asymptomatic, and against any COVID-19 hospitalization and death.

### Reference

1. <https://www.reddit.com/r/COVID19/>
2. <https://www.reddit.com/r/Coronavirus/>
3. Chemaitelly et al., 2021 mRNA-1273 COVID-19 vaccine effectiveness against the B.1.1.7 and B.1.351 variants and severe COVID-19 disease in Qatar. 2021:1-8.

## **Effect of mRNA COVID-19 vaccine on Acute Myocarditis**

- A recent study from the U.S showed that complication of COVID-19 immunization with mRNA vaccines.
- From a total of 2.81 million doses of mRNA vaccine administered to military personnel during the study period, 23 men developed acute myocarditis within four days after receiving an mRNA COVID-19 vaccine.
- From the case developed 3 and 20 of them occurred after the first dose, and second dose of vaccine administration respectively. During this study there was no other cause of the acute myocarditis identified.
- The finding revealed that as they had also experienced symptoms like chest pain, elevated troponin levels and abnormal echocardiography and abnormal cardiac imaging in some cases.
- In general even if this study showed the vaccine had risk and the temporal association with myocarditis, the incidence of myocarditis with immunization approximately four to five cases per 100,000 immunizations in young men is many times lower than the incidence of symptomatic myocarditis from COVID-19 infection identified by the study which was had the incidence of 313 per 100,000.

### **Reference**

1. <https://www.aafp.org/journals/afp/content/covid-briefs.html>
2. <https://www.reddit.com/r/COVID19/>
3. <https://www.reddit.com/r/Coronavirus/>