



## NATIONAL PUBLIC HEALTH EMERGENCY OPERATION CENTER (PHEOC), ETHIOPIA

### COVID-19 PANDEMIC PREPAREDNESS AND RESPONSE IN ETHIOPIA

## WEEKLY BULLETIN

WHO Epi-Week-34 (August 17-August 23, 2020)

**BULLETIN No: 17**

**Issue Date: August 24, 2020**

## I. HIGHLIGHTS

- The number of COVID-19 confirmed cases in Ethiopia surpassed 40,000.
- The number of COVID-19 laboratory tests conducted and cases detected increased due to Community Based activities and Testing (COMBAT) campaign.
- Total of 147,594 laboratory samples were tested in the WHO-Epi-Week-34 which is a 32% increase compared to the WHO-Epi-Week-33.
- The laboratory test positivity rate for the WHO-Epi-Week-34 is 7.31% which is higher than the preceding week with positivity rate of 6.33%.
- The number of COVID-19 confirmed cases and deaths in Ethiopia have increased by 53% and 28%, respectively, in the WHO-Epi-Week-34 compared to the reports in the Epi-Week-33.
- A total of 10,795 new confirmed COVID-19 cases and 150 COVID-19 related deaths was reported during the WHO Epi-Week-34.
- As of August 23, 2020, a total of 40,671 COVID-19 confirmed cases and 678 deaths have been reported in Ethiopia.
- There were total of 2,958 newly recovered COVID-19 cases during the WHO Epi-Week-34 bringing the total number of recovered cases to 14,995.
- A total of 3,891 COVID-19 confirmed cases have been Home Based Isolation and Care.
- A total of 26,281 contacts were identified during the WHO Epi-week-34.
- Ethiopia joined the WHO WearAMask Challenge.

## II. BACKGROUND

The Ministry of Health (MOH) and Ethiopian Public Health Institute (EPHI) in collaboration with partners have intensified response efforts to prevent the spread and severity of Corona Virus Disease 2019 (COVID-19) in Ethiopia. The national and the regional Public Health Emergency Operation Centers (PHEOC) have been activated and laboratory diagnosis capacity has been expanded to other national institutions, universities, subnational and private laboratories.

The national and regional PHEOC are playing a pivotal role in coordinating resources from different responding agencies and coordinating COVID-19 related information through a regular EOC meetings and partners' coordination forums. The MOH and EPHI are providing information to the general public and stakeholders on a regular and uninterrupted manner using different means of communication modalities.

The WHO and other partners are currently supporting in scaling-up preparedness and response efforts and implementation of related recommendations suggested by the IHR Emergency Committee.

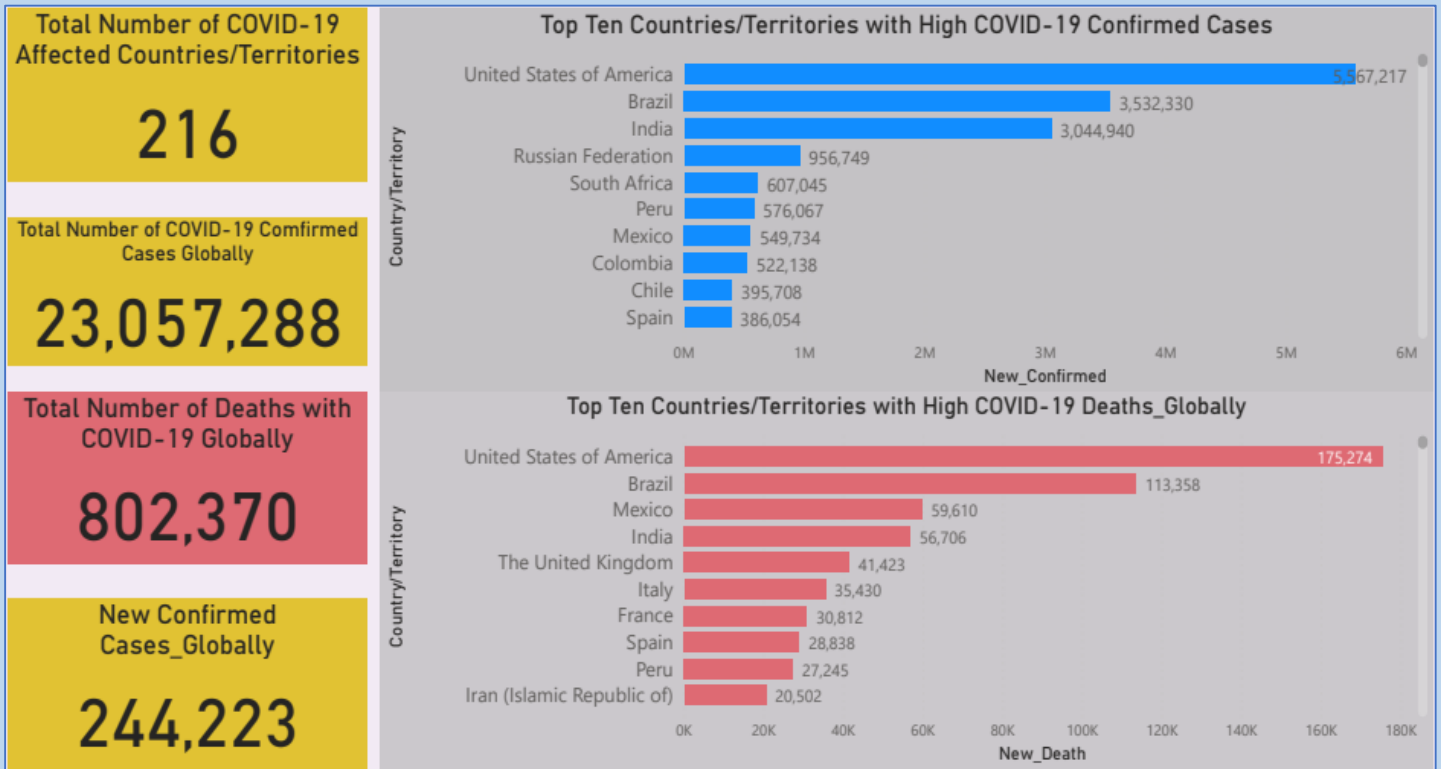
## III. EPIDEMIOLOGICAL SITUATION

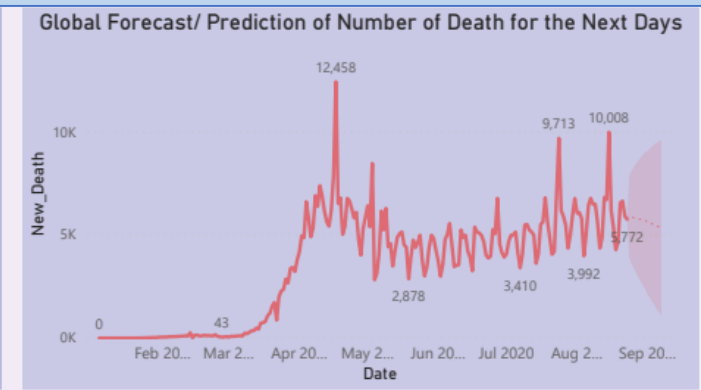
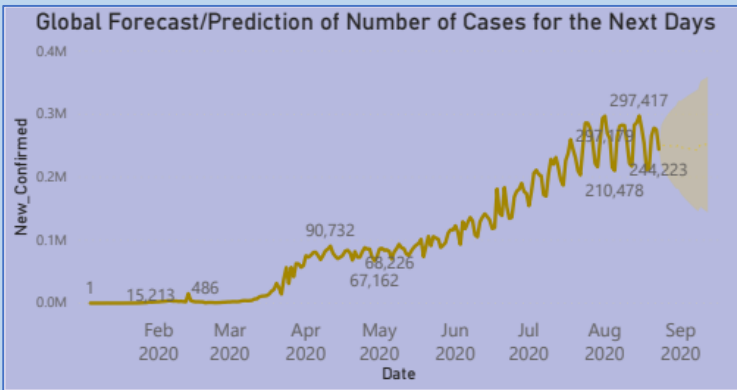
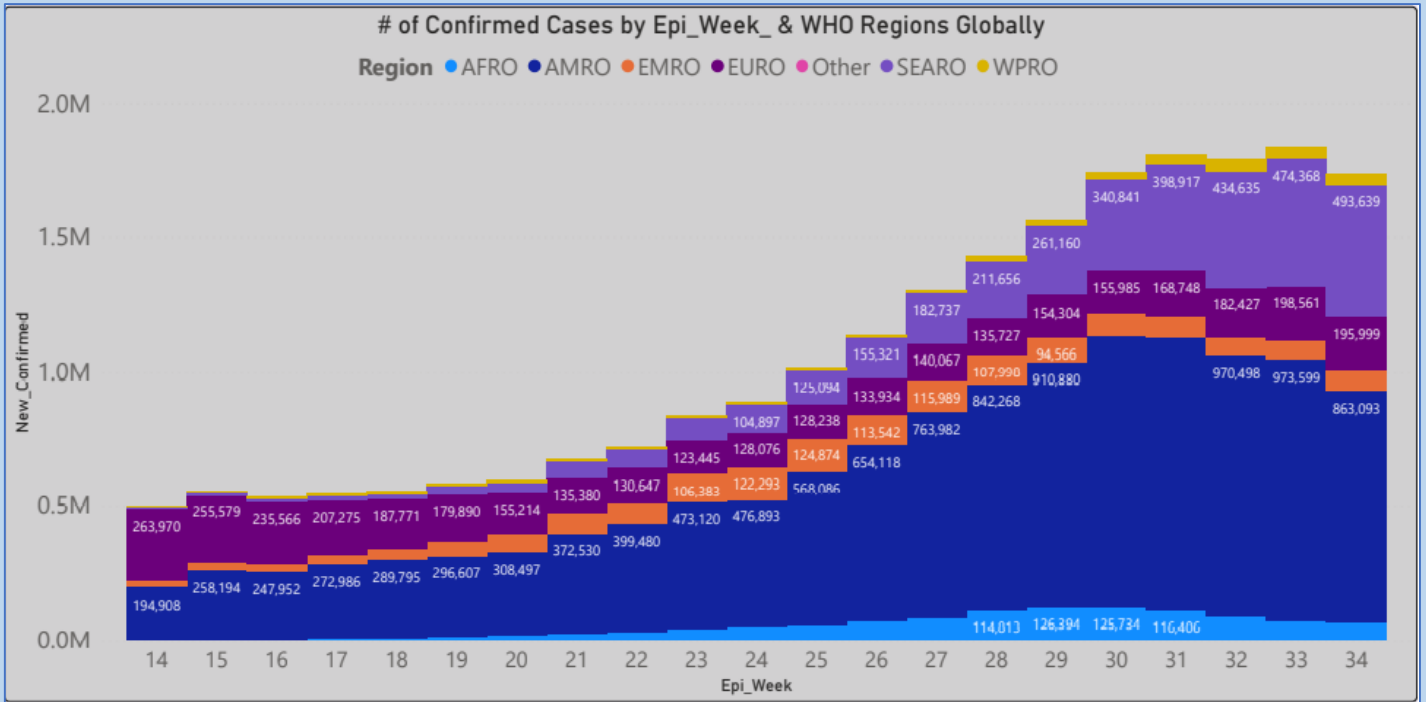
### Global Situation

- Between December 31, 2019 and August 23, 2020, COVID-19 pandemic affected 216 countries/territories causing 23,057,288 cases and 802,370 deaths (CFR=3.48%) globally.
- Of the total cases and deaths reported since the beginning of the outbreak, 1,796,528 cases and 41,352 deaths were reported during the WHO Epi-Week-34.
- The United States of America (USA) reported the highest number of cases (5,567,217) and deaths (175,274) with CFR of 3.15% followed by Brazil (3,532,330 cases and 113,358 deaths with a CFR of 3.21%). The highest proportion of death occurred in Yemen with CFR of 28.62%.
- In Africa, 56 countries/territories have reported COVID-19 cases.
- As of August 23, 2020, a total of 1,182,936 cases and 27,646 deaths were reported across the continent (CFR=2.34%).
- During the WHO-Epi-Week-34, a total of 72,252 cases and 2,295 deaths were reported across the continent.
- More than half of the total COVID-19 confirmed cases, 607,045 (51%) and more than one third of the deaths, 12,987 (47%) in Africa were reported from South Africa (CFR=2.14%).
- Ethiopia reported the highest number of COVID-19 confirmed cases in East Africa. See the summary dashboard below.



**Fig. 1: Global distribution of COVID-19 cases as of August 23, 2020. (Data source: WHO)**





**Fig. 2: COVID-19 Global Situation Update as of August 23, 2020 (Source: WHO)**

# of African Countries/Territories with COVID-19 Confirmed Cases

**56**

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Total Number of Cases Confirmed in Africa

**1,182,936**

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New Confirmed Cases in Africa with COVID-19

**10,777**

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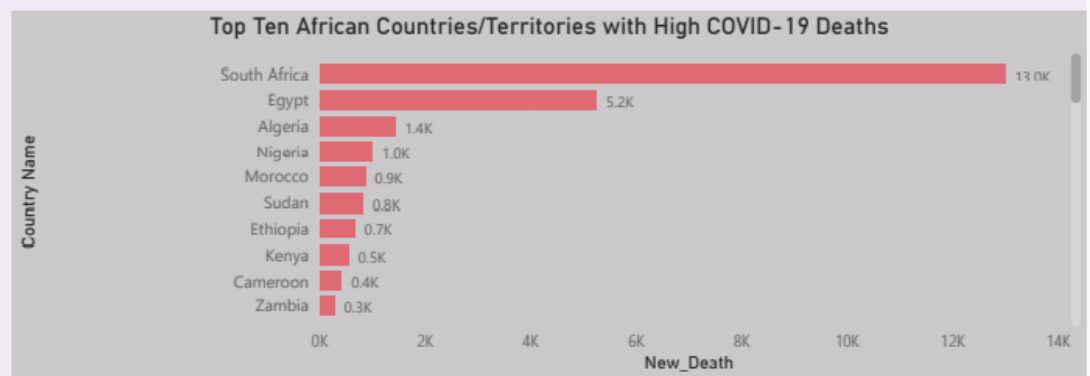
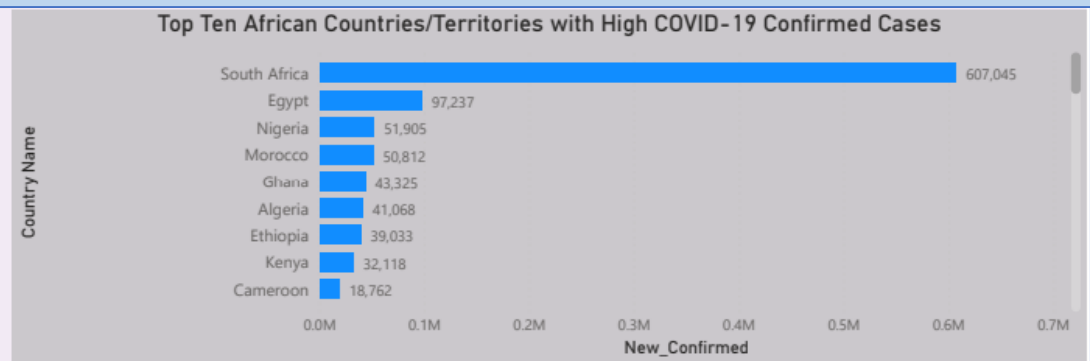
Total Number of Deaths in Africa with COVID-19

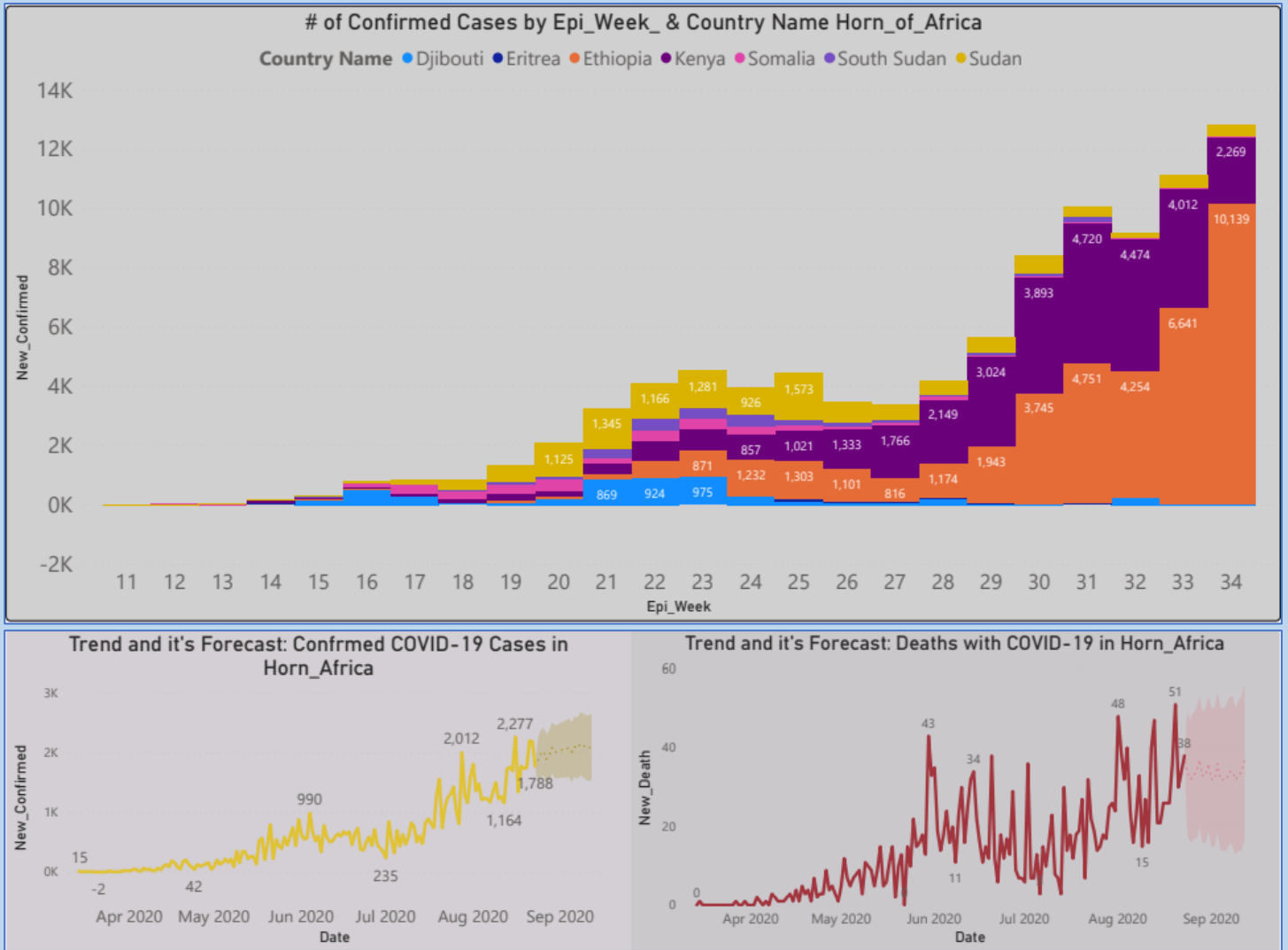
**27,646**

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New Deaths in Africa with COVID-19

**280**





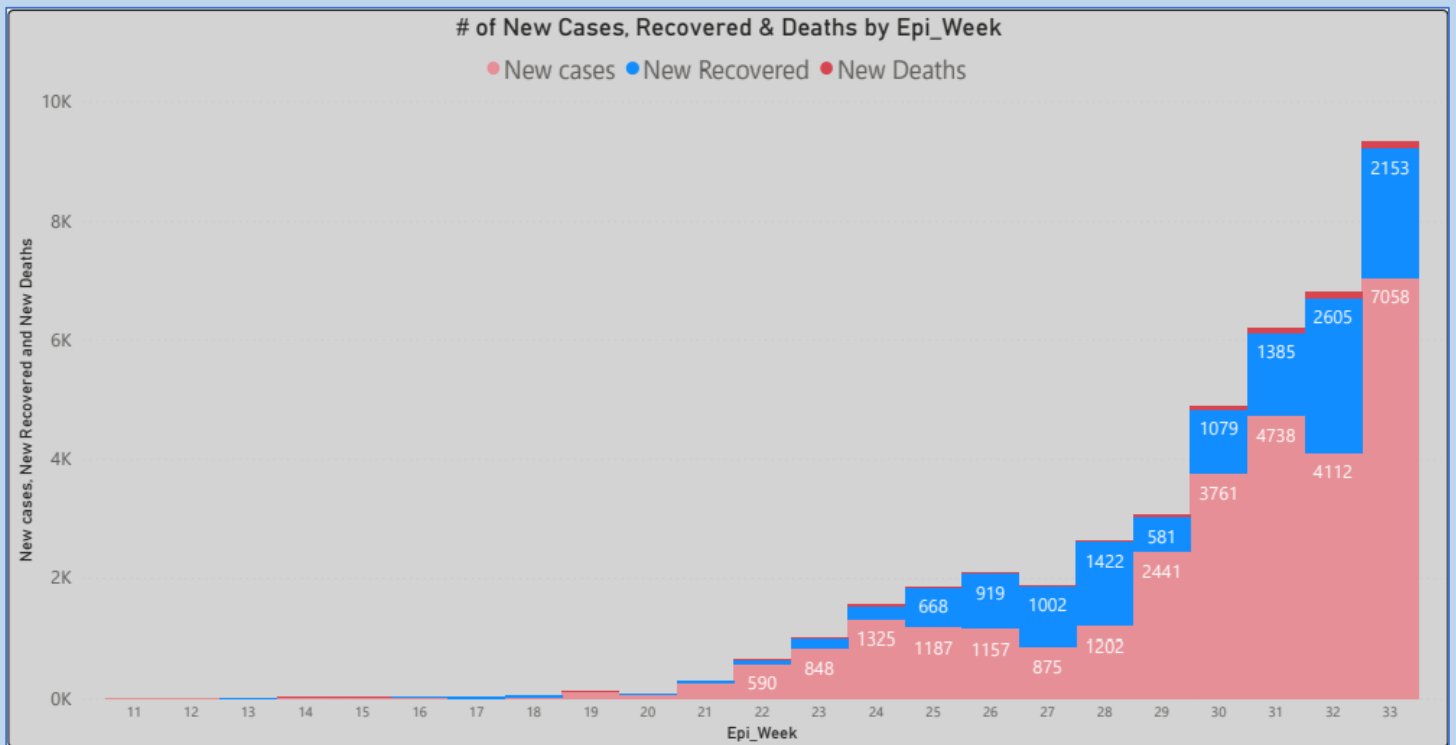
**Fig. 3: COVID-19 Situation Update in Africa as of August 23, 2020 (Source: WHO)**

### National COVID-19 situation

- The number of COVID-19 confirmed cases in Ethiopia surpassed 40,000.
- Ten-thousand-seven-hundred-ninety-five (10,795) newly confirmed COVID-19 cases (53% increase compared to that of Epi-Week-33) and 150 COVID-19 related deaths (28% increase compared to that of Epi-Week-33) were reported during the WHO Epi-Week-34.
- As of August 23, a total of 40,671 confirmed COVID-19 cases and 678 deaths were recorded in the country (For detail, see the summary table and dashboard below).

**Table 1: Summary of National COVID-19 situation in the WHO-Epi-Week-34**

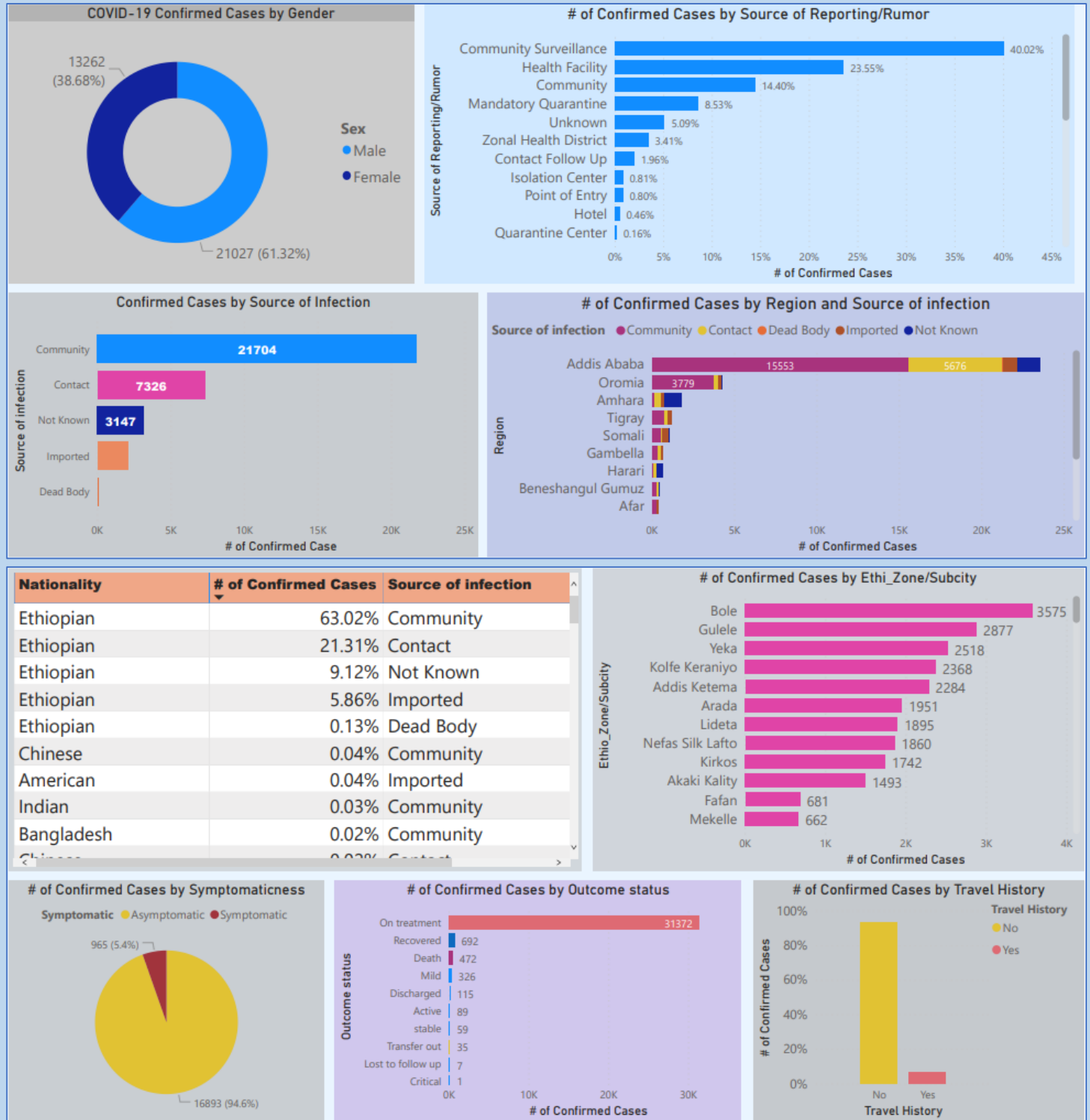
Regions	New_Tested	New_Case	New_Admission	New_Death	New_Recovered	Positivity_Rate	Admission_Rate
Addis Ababa	40818	5488	1055	114	979	13.4	40.9
Oromia	32824	1671	509	6	370	5.1	28.1
Amhara	31885	619	470	5	146	2.0	42.1
SNNPR	10391	277	117	9	62	3.0	41.1
Tigray	8438	1276	732	1	570	13.6	42.7
Harari	5086	318	114	1	15	6.3	16.4
Sidama	4008	473	62	0	96	11.1	11.4
Benishangul G	3639	65	95	0	61	1.7	39.4
Afar	3443	314	78	2	25	9.7	32.4
Somali	2907	143	13	0	23	5.0	39.3
Diredawa	2619	114	56	0	21	4.6	80.3
Gambella	1536	37	3	0	89	1.7	46.3
<b>Total</b>	<b>147594</b>	<b>10795</b>	<b>3304</b>	<b>138</b>	<b>2457</b>	<b>6.4</b>	<b>38.4</b>



**Fig. 4: COVID-19 confirmed cases, recovery and death by WHO Epi-Week as of August 23, 2020, Ethiopia**

# Epi-Surveillance and Laboratory Related Activities

There is ongoing travelers' health screening at point of entries (POEs), follow-up of international travelers, quarantine of passengers coming to Ethiopia, rumor collection and information provision via toll free call center, alert verification and investigation and active case detection by house to house search, contact listing, tracing and follow-up of persons who had contact with confirmed cases and laboratory investigation of suspected cases, quarantined individuals, contacts of confirmed cases, SARI/pneumonia cases and community members.



**Fig. 5: Summary of COVID-19 confirmed cases in Ethiopia as of August 23, 2020.**

## Contact tracing and follow-up:

- As of August 23, 2020:
  - A total of 163,607 contacts of confirmed cases have been identified. Of these 26,281 contacts are identified in the WHO-Epi-Week-34.
  - 113,863 (69.60%) have completed 14 days follow-up, while 39,312 contacts are still on follow-up.
  - Only 301 (0.18%) contacts developed COVID-19 suggestive symptoms. Of these, 265 (88.04%) were tested positive.
  - Overall, 10398 (6.36%) of the contacts (symptomatic plus asymptomatic) were tested positive, which are among the currently existing confirmed positive cases.

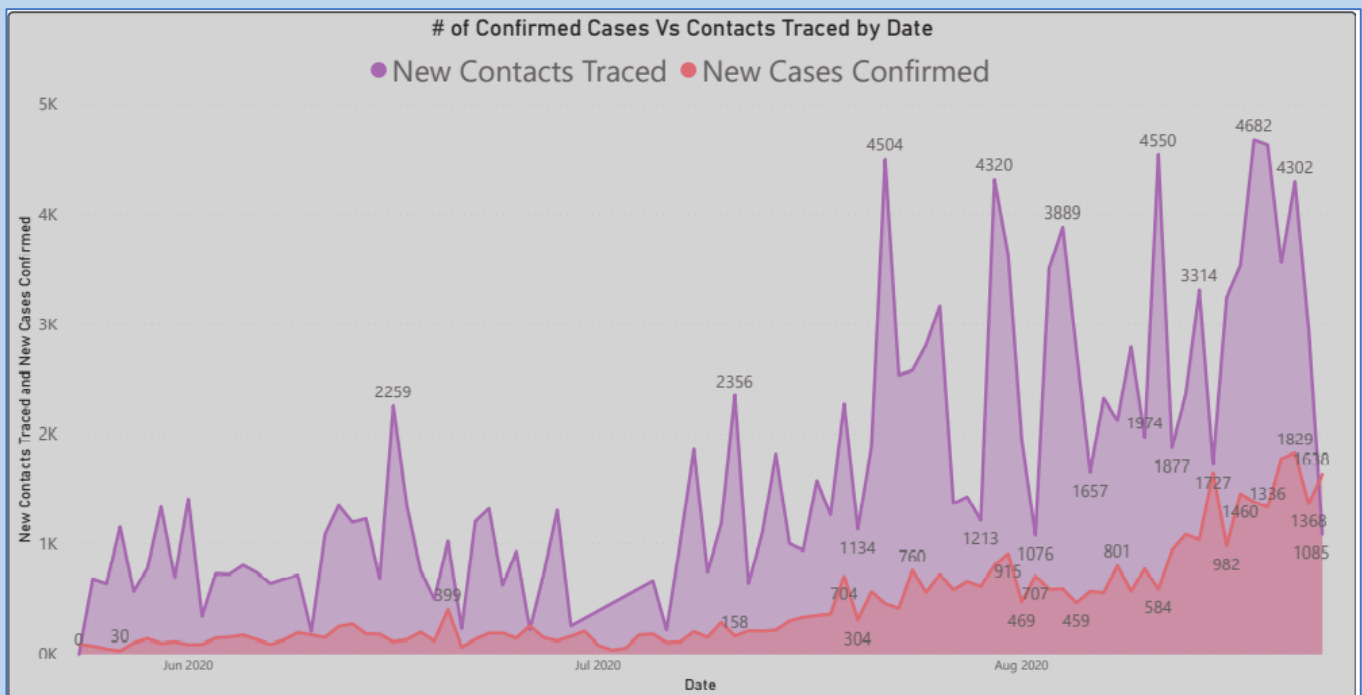


Fig. 6: Summary of COVID-19 cases contact tracing update in Ethiopia as of August 23, 2020

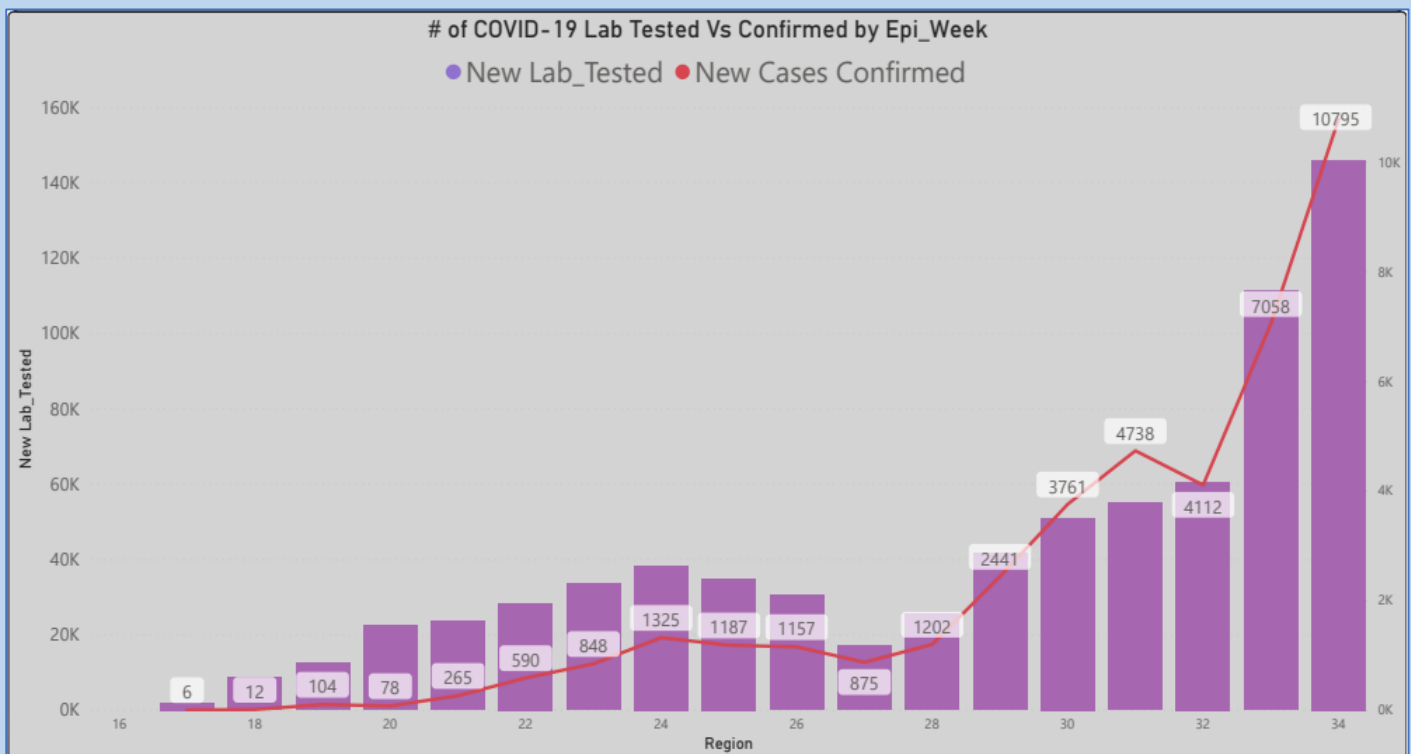
## Rumors collection and verification from all sources

- As of August 23, 2020:
  - 145,432 rumors/alerts have been received and investigated. Of these, 32184 rumors were reported in the WHO-Epi-Week-34.
  - 105,332 (72.43%) of the rumors/alerts have fulfilled the suspected case definition.



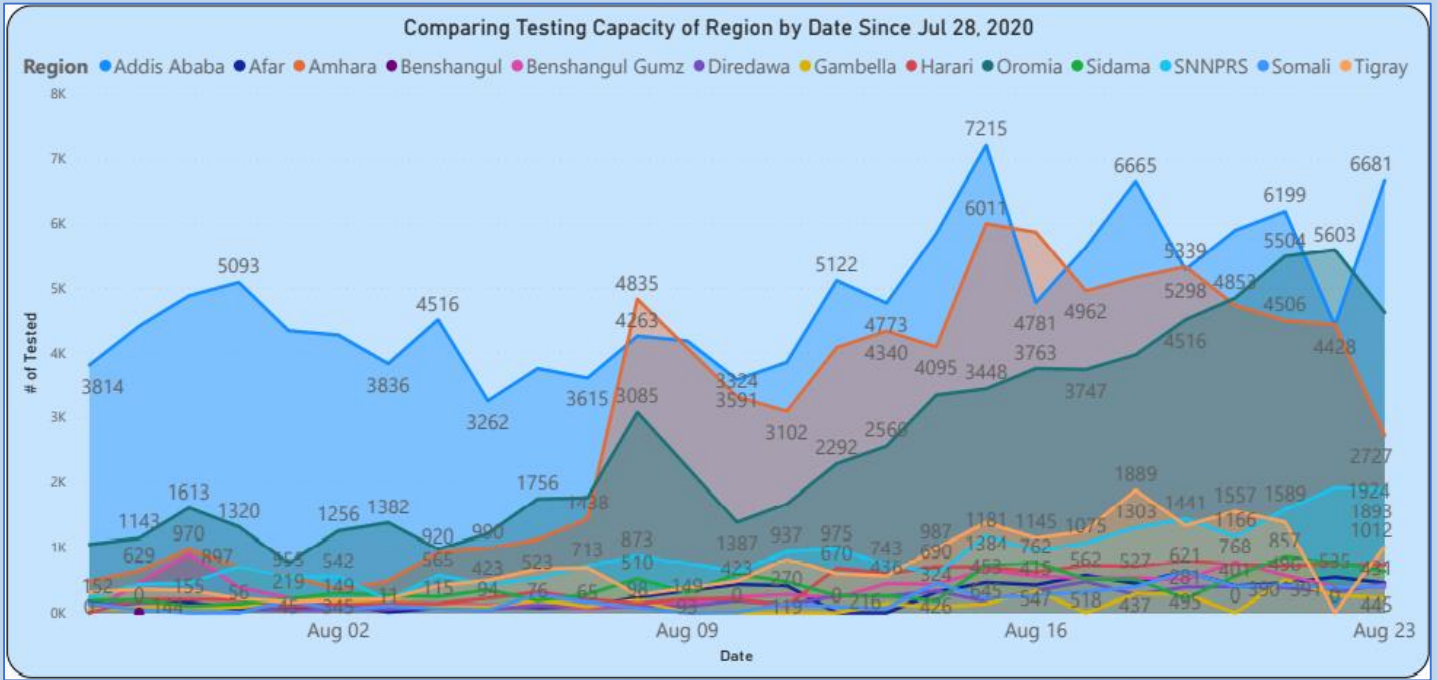
## Laboratory related activities

- The number of COVID-19 laboratory tests have increased in number from time to time.
- The Community Based activities and Testing (COMBAT) campaign, launched on August 01, 2020, has also enhanced the number of COVID-19 laboratory tests and cases detected.
- As of August 23, 2020, a total of 757,057 people have tested for COVID-19 by laboratories in the country.
- 147,594 laboratory tests were processed during the WHO Epi-Week-34, 32% increase compared to that of Epi-Week-33.
- The laboratory test positivity rate for the WHO-Epi-Week-34 is 7.31% which is higher than the preceding week with positivity rate of 6.33%.
- The overall positivity rate for the laboratory test since the occurrence of the disease in the country is 5.34%.
- From the trend of the laboratory test positivity rate we can understand that the spread of the disease is highly increasing through time.



**Fig. 7: Trend of COVID-19 laboratory testing by WHO Epi-Week as of August 23, 2020, Ethiopia.**

<b>Total Tested</b> <b>757057</b>	<b>New Tested</b> <b>20153</b>	<b>Total Quarantine Tested +ve since July 28, 2020</b> <b>1094</b>	<b>New Quarantine Tested</b> <b>64</b>
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**Fig. 8: Summary of trend of new cases and testing capacity in regions as of August 23, 2020**

## IV. Coordination and Leadership

- Since its activation, the national PHEOC is collaboratively working with stakeholders: government agencies, partner organizations, UN agencies, embassies, hospitals, Industrial parks and others.
- Morning briefing of IMS is being conducted daily by core IMS staffs and key partners' representatives
- Weekly virtual (zoom) meeting is being conducted with technical working group members, which comprises members from subnational level focal, key partners and stakeholders.
- Weekly leadership and strategic virtual (zoom) meeting, chaired by the H.E MOH Minster, is being conducted.
- Supports (financial, logistic and technical) are being received from partners, private institutions, individuals and donors.
- Ethiopia joined WHO WearAMask Challenge.

- On March 14, 2020, President Sahle-Work Zewde has called up on the public to promote proper use of face mask while announcing official launch of MaskEthiopia Campaign in response to WHO WearAMask Challenge.
- Ethiopia has followed suit by launching MaskEthiopia Campaign in line with joining WearAMask Challenge launched by World Health Organization (WHO) in fighting the spread of COVID 19, the president stated.
- Accordingly Mask Ethiopia challenge competition has been launched. The themes of the competition were on photo (in group or individual), video (not more than 30 seconds) and COVID-19 audio message advocating face mask use; the deadline being on August 24, 2020.

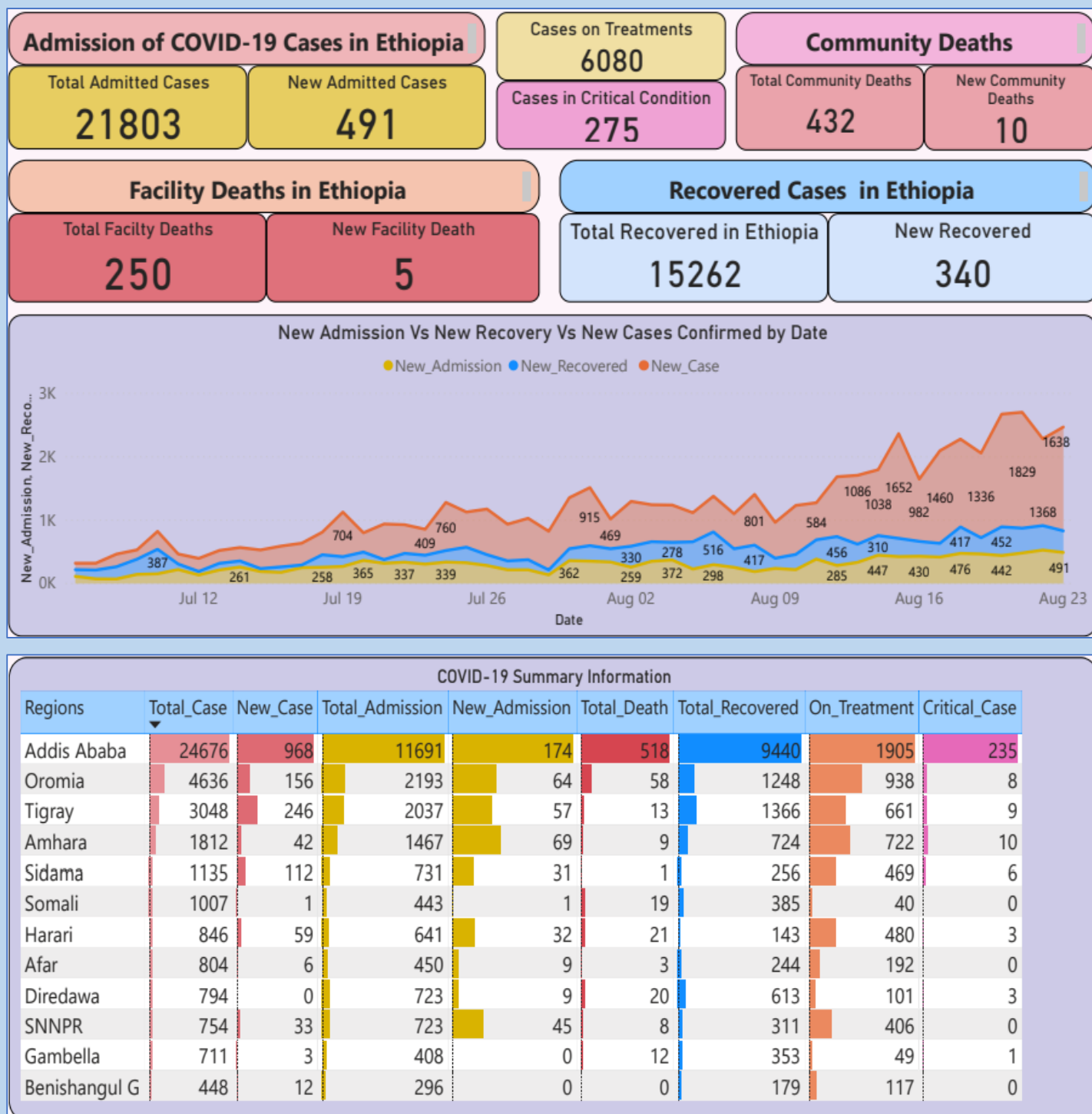


## V. Regional Support

- Team deployed to all regions from EPHI and MOH to support COMBAT and other routine COVID-19 activities.
- Testing site supervisor deployed to all COVID-19 testing sites with daily follow up and challenges addressed every day with Regional Health Bureau.
- Trainings were given to all team members who deployed to all regions on DHIS-2.

## VI. Case Management and IPC

- Currently there are a total of 24,996 active COVID-19 cases in the country.
- There are 291 patients in severe condition and the rest are in stable condition.
- A total of 3,891 COVID-19 confirmed cases have been Home Based Isolation and Care.



**Fig. 9: Summary of case management update as of August 23, 2020.**

**Home Based Isolation and Care:**

- Since Home Based Isolation and Care (HBIC) is started in Ethiopia:
  - The two city administrations (Addis Ababa and Dire Dawa) and five regional states (Oromia, Benishangul Gumuz, Afar, Somali and Harari) have started HBIC.
  - A total 5,069 COVID-19 confirmed cases are on HBIC follow-up.

- 1,207 of them have recovered in the HBIC.
- 3,891 cases are currently on HBIC.
- 2 COVID-19 related deaths have occurred in the HBIC.
- 61 cases have been transferred from treatment centers to HBIC.
- 39 cases have been transferred from HBIC to treatment centers.

## VII. Risk Communication and Community Engagement (RCCE)

- Daily press statement is being provided on COVID-19 situation on daily basis through Mass Media.
- Different poster, brochures, audio and video messages focusing on COVID-19 risk perception and practice developed.
- Awareness creation was conducted on mask utilization, hand washing and physical distancing in Aleta Wondo Town led by mayor and others officials (Sidama region).



- “ምክንያት አልሆንም” Video message and COVID-19 related key message on the religious event “BUHE” developed and shared on Social Medias.



## VIII. Logistic and Supplies

- There are ongoing distribution of pharmaceuticals and medical supplies to quarantine, isolation and treatment centers.
- Number of governmental and Non-Governmental organizations, individuals and partners have donated different medical supplies and infrastructures for COVID-19 response.
- There is ongoing quantifications of Medicines, PPEs, Supplies and Medical Equipments for Validation workshop.
- Besides this in the WHO-Epi-Week-34:
  - Reporting and resupply protocol for management of COVID-19 commodities finalized.
  - Checklist to identify status, production capacity and challenges of local manufacturers of PPEs was prepared.
  - 149 local manufacturers and 106 Importers of PPE identified by Ethiopian Food and Drug Administration (EFDA) for local production mapping.
  - DAGU software implemented in nine Health facilities in Addis Ababa.

## IX. Training and Orientation Activities

- There is ongoing training and orientation for the public and health professionals on COVID-19.
- In the WHO Epi-Week-34:
  - Training conduct on enhancing combat leadership and strategy communication for media.
  - Second round regional WASH-IPC TOT is provided in Benshangul Gumuz region.
  - Health care Workers from the ministry of mines and petroleum were given orientation on COVID-19 PoE screening.
  - Orientation on IPC/WaSH provided for Bole Lemi Industrial Park staff.
  - Four days TOT on Home-Based Isolation and Care provided for 25 health care workers from Oromia Regional Health Bureau and Oromia Zones Health Departments.



**Fig. 13: TOT for Health care workers from Oromia region on Home-Based Isolation and Care, August 20, 2020**

## **X. Challenges and Way Forward**

### **Challenges**

- Weak adherence to physical distancing and other preventions advises among the public.
- Happening of super spreading events could in contribute to the increment of number and distribution of COVID-19 cases.
- Low stock status of personal protective equipment
- There is critical shortage of beds for COVID-19 patients and ICU facilities particularly.

### **Way Forward**

- Advocate and strengthen Home Based Isolation and Care (HBIC).
- Enhance response efforts by implementing Community-based Activities and Testing (COMBAT) strategy
- Conduct intensive testing of high-risk areas for COVID-19.
- Enhance technical support, coordination and timely and accurate information sharing at all levels.
- Strengthened collaboration and coordination with key stakeholders and partners.
- Intensify risk communication and community engagement activities.
- Enhance active surveillance for COVID-19 such as house-to-house case search and detection in the community.
- Intensification of a capacity building trainings and orientation including through virtual/online platforms.
- Identify and establish additional case treatment centers and quarantine sites, especially in regions.

- Strengthen and sustain essential health services other than COVID-19.

## **XI. Public Health Policy Recommendation**

### **Advice for the Public:**

- For any individual confirmed to have COVID-19 and who is candidate for Home Based Isolation and Care:
  - Properly isolate from other family members.
  - Take full responsibility in prevention of transmission
  - Strictly adhere to the National Directive of Home-Based Isolation& Care.
  - Provide reliable information during regular follow up either by phone or home visit.
  - Report to nearest health facilities/follow up team in case of any emergency, appearance of new symptoms or worsening of existing symptoms.
- It is important to be informed of the situation and take appropriate measures to protect yourself and your family.
  - Stay at home
  - Wash hands frequently
  - Don't touch your mouth, nose or eye by unwashed hands
  - Keep physical distancing; avoid mass gathering and shaking hands.
- Adhering to all these precaution measures is also highly recommended during planting trees in this summer season.
- For most people, COVID-19 infection will cause mild illness however, it can make some people very ill and, in some people, it can be fatal.
- Older people, and those with pre-existing medical conditions (such as cardiovascular disease, chronic respiratory disease or diabetes) are at risk for severe disease.
- If anybody had contact with a COVID-19 confirmed patient, he/she should call 8335 or 952 or report to regional toll-free lines or to the nearby health facilities.



## National/Regional official websites, social media pages and toll-free hotline for COVID-19 information

MOH/EPHI/Region	Facebook page	Toll-free hotline
Ethiopian Public Health Institute Main Website	<a href="https://www.ephi.gov.et/">https://www.ephi.gov.et/</a>	8335/952
Ethiopian Public Health Institute COVID-19 Website	<a href="https://covid19.ephi.gov.et/">https://covid19.ephi.gov.et/</a>	
Ethiopian Public Health Institute Facebook Page	<a href="https://www.facebook.com/ephipage/">https://www.facebook.com/ephipage/</a>	
Ethiopian Public Health Institute Twitter Page	<a href="https://twitter.com/EPHIethiopia">https://twitter.com/EPHIethiopia</a>	
Ethiopian Public Health Institute Telegram Channel	<a href="https://t.me/EthPHI">https://t.me/EthPHI</a>	
Ethiopian Public Health Institute YouTube Channel	<a href="https://www.youtube.com/channel/UCvvTzeY-IJiQfEFBULH9Mkw">https://www.youtube.com/channel/UCvvTzeY-IJiQfEFBULH9Mkw</a>	
Ministry of Health, Ethiopia Website	<a href="http://www.moh.gov.et">www.moh.gov.et</a>	952
Ministry of Health, Ethiopia Facebook Page	<a href="https://www.facebook.com/EthiopiaFMoH/">https://www.facebook.com/EthiopiaFMoH/</a>	
Afar Regional Health Bureau	<a href="https://www.facebook.com/afarrhb.org/">https://www.facebook.com/afarrhb.org/</a>	6220
Amhara Regional Health Bureau	<a href="https://www.facebook.com/Amhara-Healthbureau-682065755146948/">https://www.facebook.com/Amhara-Healthbureau-682065755146948/</a>	6981
Benishangul Gumuz Regional Health Bureau	<a href="https://www.facebook.com/Benishangul-Gumuz-Health-Bureau-1676282159265517/">https://www.facebook.com/Benishangul-Gumuz-Health-Bureau-1676282159265517/</a>	6016
Gambela Regional Health Bureau	<a href="https://fb.me/gambellaregionhealthbureau">https://fb.me/gambellaregionhealthbureau</a>	6184
Harari Regional Health Bureau	<a href="https://www.facebook.com/Harari-Regional-Health-Bureau-1464182130355007/">https://www.facebook.com/Harari-Regional-Health-Bureau-1464182130355007/</a>	6864
Oromia Regional Health Bureau	<a href="https://www.facebook.com/OromiaHealth/">https://www.facebook.com/OromiaHealth/</a>	6955
Somali Regional Health Bureau	<a href="https://www.facebook.com/srhbdotcom/">https://www.facebook.com/srhbdotcom/...</a>	6599
SNNP Regional Health Bureau	<a href="https://www.facebook.com/snnprhealthbureau/?ref=br_rs">https://www.facebook.com/snnprhealthbureau/?ref=br_rs</a>	6929
Tigray Regional Health Bureau	<a href="https://www.facebook.com/tigrayrhb/">https://www.facebook.com/tigrayrhb/</a>	6244
Dire Dawa city Administration Health Bureau	<a href="https://www.facebook.com/Dire-Dawa-Administration-Health-Bureau-1371606266279524/">https://www.facebook.com/Dire-Dawa-Administration-Health-Bureau-1371606266279524/</a>	6407
Addis Ababa City Administration Health Bureau	<a href="https://www.facebook.com/aahb.gov.et/">https://www.facebook.com/aahb.gov.et/</a>	6406

## Health Evidence summary

Articles/Comment/ Correspondence/ Editorials	Summary
<p>Explaining the Homogeneous Diffusion of Covid-19 Policies among Heterogenous Countries  <a href="https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3672976">https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3672976</a></p>	<ul style="list-style-type: none"> <li>• The need for non-pharmaceutical interventions aimed at curtailing the spread of infectious diseases depends crucially on country-specific demographic and public health situations.</li> <li>• However, the early stages of the Covid-19 pandemic saw an almost homogeneously rapid adoption of such interventions across otherwise heterogeneous countries. We analyze the adoption of disease-transmission interventions in the OECD countries, and find that they are only weakly predicted by standard epidemiological indicators (confirmed infections, deaths, intensive care capacity) but strongly predicted by standard indicators in the literature on diffusion of interventions (number countries adopting the same policy; in particular, the number of proximate countries). We also examine whether the level of democracy in a given country influences the speed at which it adopts such interventions. We provide insights for research on international policy diffusion and the emerging strand of</li> </ul>

	<p>research pondering the political consequences of the Covid-19 pandemic.</p>
<p>Utility of Available Methods for Diagnosing SARS-CoV-2 in Clinical Samples  <a href="https://sites.kowsarpub.com/apid/articles/103677.html">https://sites.kowsarpub.com/apid/articles/103677.html</a></p>	<ul style="list-style-type: none"> <li>• The results showed that most of the proposed tests focused on molecular methods, while immunological and point-of-care tests were investigated in 13 studies.</li> <li>• There were also a few commercial automated methods for the qualitative detection of SARS-CoV-2 in clinical samples, most of which are not examined in the current review, as no data about their sensitivity and specificity were presented. Although the assessment of publication biases showed that 64% sensitivity and nearly 100% specificity for RT-PCR are close to reality, most of the related reports for serological methods are not valid and further studies are needed to confirm their utility in clinical settings. Moreover, the RT-PCR test alone cannot act as a gold standard because of bias in measurements. Therefore, antibody tests and other proposed methods could be used as supplementary diagnostic tests to improve RT-PCR accuracy. Although clinical findings are invaluable, in many cases, they can provide more valuable supportive data than serological tests.</li> </ul>
<p>Recommended Guidelines for Forensic Pathology Examination of Deaths Related to Novel Coronavirus Infection (Trial Draft)  <a href="http://www.fyxzz.cn/CN/10.12116/j.issn.1004-5619.2020.01.003">http://www.fyxzz.cn/CN/10.12116/j.issn.1004-5619.2020.01.003</a></p>	<ul style="list-style-type: none"> <li>• Autopsy is of great significance for elucidating the pathological changes, pathogenic mechanism and causes of death of the new type of coronavirus pneumonia, and can provide a theoretical basis for more scientific and accurate prevention and control of the new type of coronavirus pneumonia. We follow the "Law of the People's Republic of China on the Prevention and Control of Infectious Diseases" and other relevant laws and regulations, the clinical and epidemiological characteristics of the new coronavirus pneumonia, and guidelines for epidemic prevention and control, combined with the actual work of forensic pathology, from case investigation, anatomy room requirements, In terms of personal protection, autopsy and anatomical examinations and auxiliary examinations, the "Guidelines for Forensic Pathology Examination Recommendations for Deaths Related to Novel Coronavirus Infection (Trial Draft)" have been formed for the reference of forensic medicine and pathology examination institutions and examiners.</li> </ul>
<p>COVID-19 Clinical Characteristics, and Sex-Specific Risk of Mortality: Systematic Review and Meta-Analysis  <a href="https://dx.doi.org/10.3389%2Fmed.2020.00459">https://dx.doi.org/10.3389%2Fmed.2020.00459</a></p>	<ul style="list-style-type: none"> <li>• COVID-19 has caused a significant number of hospitalization and mortality worldwide. Mortality associated with COVID-19 was higher in our study compared to the previous reports from China. The mortality was significantly higher among the hospitalized male group. Further studies are required to evaluate the effect of different variables resulting in sex disparity in COVID-19 mortality.</li> </ul>
<p>Epidemiology of COVID-19: A Systematic Review and Meta-analysis of Clinical Characteristics, Risk factors and Outcomes  <a href="https://pubmed.ncbi.nlm.nih.gov/32790106/">https://pubmed.ncbi.nlm.nih.gov/32790106/</a></p>	<ul style="list-style-type: none"> <li>• COVID-19 is associated with a severe disease course in about 23% and mortality in about 6% of infected persons. Individuals with comorbidities and clinical features associated with severity should be monitored closely, and preventive efforts should especially target those with diabetes, malignancy and immunosuppression.</li> </ul>
<p>Maternal and neonatal characteristics and outcomes among COVID-19 infected women: An updated systematic review and meta-analysis  <a href="https://doi.org/10.1016/j.ejogrb.2020.07.034">https://doi.org/10.1016/j.ejogrb.2020.07.034</a></p>	<ul style="list-style-type: none"> <li>• <b>Results:</b> A total of 790 COVID-19 positive females and 548 neonates from 61 studies were analyzed. The rates of C-section, premature birth, low birth weight, and adverse pregnancy events were estimated as 72 %, 23 %, 7 %, and 27 % respectively. In the heterogeneity analysis, the rate of C-section was substantially higher in Chinese studies (91 %) compared to the US (40 %) or European (38 %) studies. The rates of preterm birth and adverse pregnancy events were also lowest in the US studies (12 %, 15 %) compared to Chinese (17 %, 21 %), and European studies (19 %, 19 %). In case reports, the rates of C-section, preterm birth, and low birth weight</li> </ul>

	<p>were estimated as 69 %, 56 %, and 35 %, respectively. Adverse pregnancy outcomes were associated with infection acquired at early gestational ages, more symptomatic presentation, myalgia symptom at presentation, and use of oxygen support therapy.</p> <ul style="list-style-type: none"> <li>• <b>Conclusions:</b> Adverse pregnancy outcomes were prevalent in COVID-19 infected females and varied by location, type, and size of the studies. Regular screening and early detection of COVID-19 in pregnant women may provide more favorable outcomes.</li> </ul>
<p>Incubation period of COVID-19: a rapid systematic review and meta-analysis of observational research  <a href="https://doi.org/10.1136/bmjopen-2020-039652">https://doi.org/10.1136/bmjopen-2020-039652</a></p>	<ul style="list-style-type: none"> <li>• <b>Results:</b> The incubation period distribution may be modelled with a lognormal distribution with pooled mu and sigma parameters (95% CIs) of 1.63 (95% CI 1.51 to 1.75) and 0.50 (95% CI 0.46 to 0.55), respectively. The corresponding mean (95% CIs) was 5.8 (95% CI 5.0 to 6.7) days. It should be noted that uncertainty increases towards the tail of the distribution: the pooled parameter estimates (95% CIs) resulted in a median incubation period of 5.1 (95% CI 4.5 to 5.8) days, whereas the 95th percentile was 11.7 (95% CI 9.7 to 14.2) days.</li> <li>• <b>Conclusions:</b> The choice of which parameter values are adopted will depend on how the information is used, the associated risks and the perceived consequences of decisions to be taken. These recommendations will need to be revisited once further relevant information becomes available. Accordingly, we present an R Shiny app that facilitates updating these estimates as new data become available.</li> </ul>
<p>Automated and partly automated contact tracing: a systematic review to inform the control of COVID-19  <a href="https://doi.org/10.1016/S2589-7500(20)30184-9">https://doi.org/10.1016/S2589-7500(20)30184-9</a></p>	<ul style="list-style-type: none"> <li>• No empirical evidence of the effectiveness of automated contact tracing (regarding contacts identified or transmission reduction) was identified. Four of seven included modelling studies that suggested that controlling COVID-19 requires a high population uptake of automated contact-tracing apps (estimates from 56% to 95%), typically alongside other control measures.</li> <li>• Studies of partly automated contact tracing generally reported more complete contact identification and follow-up compared with manual systems.</li> <li>• Automated contact tracing could potentially reduce transmission with sufficient population uptake. However, concerns regarding privacy and equity should be considered.</li> <li>• Well-designed prospective studies are needed given gaps in evidence of effectiveness, and to investigate the integration and relative effects of manual and automated systems. Large-scale manual contact tracing is therefore still key in most contexts.</li> </ul>
<p>Medical masks vs N95 respirators for preventing COVID-19 in healthcare workers: A systematic review and meta-analysis of randomized trials  <a href="https://www.healthsystemevidence.org/articles/210577-medical-masks-vs-n95-respirators-for-preventing-covid-19-in-healthcare-workers-a-systematic-review-and-meta-analysis-of-randomized-trials?lang=en&amp;t=Medicalmas&amp;source=search">https://www.healthsystemevidence.org/articles/210577-medical-masks-vs-n95-respirators-for-preventing-covid-19-in-healthcare-workers-a-systematic-review-and-meta-analysis-of-randomized-trials?lang=en&amp;t=Medicalmas&amp;source=search</a></p>	<ul style="list-style-type: none"> <li>• Four RCTs were meta-analysed adjusting for clustering. Compared to N95 respirators; the use of medical masks did not increase laboratory confirmed viral (including coronaviruses) respiratory infection (OR 1.06; 95% CI 0.90-1.25; I(2) =0%; low certainty in the evidence) or clinical respiratory illness (OR 1.49; 95%CI 0.98-2.28; I(2) =78%; very low certainty in the evidence). Only one trial evaluated coronaviruses separately and found no difference between the two groups (p=0.49). LIMITATIONS: Indirectness and imprecision of available evidence.</li> <li>• <b>CONCLUSIONS:</b> Low certainty evidence suggests that medical masks and N95 respirators offer similar protection against viral respiratory infection including coronavirus in health care workers during non-aerosol generating care. Preservation of N95 respirators for high-risk, aerosol generating procedures in this pandemic should be considered when in short supply.</li> </ul>

## COVID-19 updates and sources of evidence:

Source	Link
WHO Coronavirus (COVID-19) dashboard	<a href="https://covid19.who.int/">https://covid19.who.int/</a>
Africa CDC Dashboard, COVID-19 Surveillance Dashboard	<a href="https://au.int/en/covid19">https://au.int/en/covid19</a>
WHO COVID-19 daily situation reports	<a href="https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports">https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports</a>
WHO Academy mobile learning app for health workers, COVID-19 information	Android- <a href="https://play.google.com/store/apps/details?id=org.who.WHO.A">https://play.google.com/store/apps/details?id=org.who.WHO.A</a> Apple- <a href="https://apps.apple.com/us/app/who-academy/id1506019873">https://apps.apple.com/us/app/who-academy/id1506019873</a>

**8335 / 952**



**Call-Centers**  
**FOR MORE INFO and**  
**ALERT NOTIFICATION on**  
**COVID-19**



The above presented Quick Reader (QR) code takes you to a portal that you can access updates and all COVID-19 related information available (<https://www.eph.gov.et/index.php/public-health-emergency/novel-corona-virus-update>)

**DISCLAIMER**

This weekly bulletin is produced based on figures pulled from official releases of the World Health Organization and activities and reports of all the sections under the Incident management System.

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**PREPARED BY**

Fantu Lombamo (MD, MPH) – Planning Section, Situation Unit Lead  
Negusse Yohannes (PhD in Statistics) – Planning Section, Situation Unit Member

**CONTRIBUTORS**

Zelalem Kebede (MPH) – Planning Section, Situation Unit Member  
Haftom Taame (MPH-Field Epi) - Africa CDC  
Lehageru Gizachew (MD, MPH) – Planning Section, Situation Unit Member

**EDITED AND REVIEWED BY**

Shambel Habebe (MPH-Field Epi) - Planning Section Chief  
Zewdu Assefa (MPH- Field Epi) - Deputy Incident Manager  
Aschalew Abayneh (RN, BSc, MPH) - DDG-EPHI, Incident Manager

National COVID-19 Response PHEOC

**FOR MORE INFORMATION and NOTIFICATION**

Web: [www.eph.gov.et](http://www.eph.gov.et)

Follow us on Twitter: @EPHIethiopia

Call: 8335/952 (TOLL FREE LINE) or 011 276 5340

Email: [ephieoc@gmail.com](mailto:ephieoc@gmail.com) or [phemdatacenter@gmail.com](mailto:phemdatacenter@gmail.com)