I. HIGHLIGHTS

- Seventy-eight new confirmed COVID-19 cases were reported in the WHO Epi-Week-20.
- A total of 317 COVID-19 confirmed cases and five deaths are reported in Ethiopia so far.
- One new region (Benishangul-Gumuz) has reported COVID-19 cases in the WHO Epi-Week-20 bringing the total affected regions to seven and two city administrations.
- 14 people have newly recovered from COVID-19 in WHO Epi-Week-20 bringing the total number of recovered cases to 113.
- As of May 17, 2020, a total of 5,017 contacts have been identified.
- Twenty-six laboratories across the country are conducting COVID-19 testing.
- Second round house to house case finding initiated during the week.
- Training was provided for 53 health professionals from the Federal Police Commission on COVID-19 Surveillance, Infection Prevention and Control, Case Management, and Risk Communication.
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 central and all regional Public Health Emergency Operation Centers (PHEOC) have been activated and laboratory diagnosis capacity has been expanded to other national institutions, 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’ 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

December 31st 2019 to May 17th, 2020, COVID-19 pandemic affected 216 countries/territories causing 4,534,401 cases and 310,903 deaths (CFR=6.86%) globally. The United States of America (USA) reported the highest number of cases (1,409,650) and deaths (85,860) with CFR of 6.1%. The second highest number of deaths, 34,466 (CFT=14.35%) are reported in the United Kingdom.

In Africa, 56 countries/territories have reported COVID-19 cases. As of May 17, 2020, a total of 83,354 cases and 2,720 deaths were reported across the continent (CFR=3.26%). The highest number of cases were reported from South Africa, 14,355 (17.22%) cases followed by Egypt, 11,719 (14.06%) cases, and Algeria, 6,821 (8.18%). See the summary dashboard below.

National COVID-19 situation

In Ethiopia, the first COVID-19 case was reported on March 13, 2020. The number of cases then increased due to newly imported cases, contacts of confirmed cases and localized transmission. So far, a total of 317 confirmed COVID-19 cases and five deaths reported in the country of which 78 cases were reported in the WHO Epi-Week-20. Among the 317 cases reported, 161 (50.79%) are imported, 100 (31.55%) are close contacts of confirmed cases, and the source of infection not identified for 56 (17.67%) cases. Among the total confirmed cases 127 (40.06%) cases are detected from mandatory quarantine. There is no death report in the WHO Epi-Week-20.
### National COVID-19 updates

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passengers under mandatory quarantine</td>
<td>810</td>
</tr>
<tr>
<td>Rumors/alerts received and investigated</td>
<td>4,535</td>
</tr>
<tr>
<td>Contacts of the confirmed cases</td>
<td>5,017</td>
</tr>
<tr>
<td>Suspected cases detected</td>
<td>2,784</td>
</tr>
<tr>
<td>Total laboratory tests done</td>
<td>57,254</td>
</tr>
<tr>
<td>Total confirmed case</td>
<td>317</td>
</tr>
<tr>
<td>Total recovered</td>
<td>113</td>
</tr>
<tr>
<td>Total death</td>
<td>5</td>
</tr>
</tbody>
</table>

**Fig. 2:** Summary of the confirmed cases, death and recovered cases by location and date of confirmation, Ethiopia, May 17, 2020

**Fig. 3:** Geographical distribution of COVID-19 confirmed cases in Ethiopia, as of May 17, 2020
Fig. 4: COVID-19 confirmed cases summary dashboard as of May 17, 2020, Ethiopia

Fig. 5: COVID-19 confirmed cases by Epi-week as of May 17, 2020, Ethiopia

Fig. 6: COVID-19 confirmed cases summary dashboard as of May 17, 2020, Ethiopia
Epi Surveillance and Laboratory Related Activities

There is ongoing travelers’ health screening at point of entries (POEs), follow-up of passengers coming to Ethiopia from abroad, rumor collection and information provision via toll free call center, rumor verification and investigation, mass screening and house to house search, contact 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 investigation.
Laboratory related activities

Laboratory testing capacity is increasing nationally from time to time in number of tests daily.

The following graph shows COVID-19 daily specimen collection plan and performance (09 to 15 May, 2020).

Fig. 9: Mandatory quarantine update as of May 17, 2020, Ethiopia

Fig. 10: Trends of planned and actually collected samples as of May 17, 2020, Ethiopia
Specimen Collection by Site

- The community sample collection includes:
  - Services Providers (Hotel, Bank etc)
  - Overcrowded area (Bus station)
  - Most at risk group (elders, homeless and patient with known chronic diseases)
  - Others target population

- Health facility screening activity increased from 38% to 50% compared to last week.

Laboratory tests

- Total of 20,248 tests conducted in the WHO Epi-Week-20, which is 38% of the total test conducted
- 15,170 (74.9%) result issued within 24hr after receiving the specimen at lab in WHO Epi-Week 20
- As of May 17, about 26 laboratories across the country are conducting COVID-19 testing
- Other 7 laboratories are ready to start COVID-19 testing.

IV. Coordination and Leadership

- Since its activation, the national PHEOC is collaboratively working with stakeholders: government agencies, partner organizations, UN agencies, embassies, hospitality sector, Industrial parks and others.
- Morning briefing of IMS core staffs and representatives from partners is being conducted on daily basis
- Weekly virtual (zoom) meeting being conducted with subnational level, partners and stakeholders.
- Leadership and strategic weekly virtual (zoom) meeting ongoing.
- A total of 94 experts is deployed to regions in two rounds from Ministry of Health, EPHI and other partners.
- Supports (financial, logistic and technical) are being received from partners, private institutions, individuals and others.
Fig. 12: Medical Supplies and PPE Donated by Rotary Ethiopia, May 15, 2020.

V. Case Management and IPC

- As of May 17, 2020, a total of 195 confirmed cases are in the treatment centers.
- No critical case in ICU among the cases
- Fourteen cases recovered in the week which brings a total recovered case to 114.

VI. Risk Communication and Community Engagement (RCCE)

- Daily dissemination of appropriate and timely COVID-19 related messages to the public and governmental stakeholders is ongoing.
- There is ongoing production of COVID-19 informative audio and video messages.
- Daily press statement about COVID-19 situation is ongoing
VII. Logistic and Supplies

- About 400 face shields and 35,000 facemasks mobilized from Goal Ethiopia and Asterzenec.
- With support of National Metrology Institute (NMI), 550 infrared thermometers are calibrated and received.
- About 50,400 face masks and 28,000 test kits are received from Republic of Korea.
- Support of 6,500 surgical face masks, 600 N95 masks, 1,000 (100ml) hand sanitizers and 2,000 pair surgical gloves are received from IGAD.
- Fourth round PPE and medical supplies distribution plan for regions prepared.
- There are ongoing distribution of pharmaceuticals and medical supplies to quarantine, isolation and treatment centers.

VIII. Training and Orientation Activities

- Since the start of mobile based HEWs training, 639 HEWs are enrolled, and 348 completed the training.
- Three days training on COVID-19 is provided for 53 Health Professionals from Federal Police.
IX. Challenges and Way Forward

Challenges

- Spread of COVID-19 in non-affected regions and rural areas.
- Incomplete and delayed reports from few regions on COVID-19 cases and contacts and other regional COVID-19 related activities
- Failure to adhere to physical distancing and other preventions advises among the public.
- Competing priorities due to superimposed disease outbreaks like cholera in some areas of the countries.
- Cluster of COVID-19 cases in areas with crowd in Addis Ababa City Administration.

Way Forward

- Enhance technical support, coordination and timely and accurate information sharing at all levels.
- Strengthened collaboration and coordination with key stakeholders and partners.
- Random testing of population in confined areas for COVID-19
- 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 activities 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 preparedness and response.
Revised Surveillance Case Definition in Ethiopia

Date: 09 March 2012

Suspected Case Definition

The revised case definition for suspected COVID-19 patients includes patients with symptoms of fever, cough, and shortness of breath. The case definition also includes patients with laboratory confirmation of SARS-CoV-2 infection. The revised case definition applies to all regions of Ethiopia.
Suspected Case Definition for COVID-19

A. A patient with acute respiratory illness (Fever or history of fever AND at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath), regardless of a history of travel to or residence in a location reporting community transmission of COVID-19 disease

OR

B. A patient with acute respiratory illness (Fever or history of fever AND at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath), regardless of having contact history with a confirmed or probable COVID-19 case

OR

C. A patient with severe acute respiratory illness (fever and at least one sign/symptom of respiratory disease, e.g., cough, shortness of breath, AND requiring hospitalization) AND in the absence of an alternative diagnosis that fully explains the clinical presentation.

NB: - "Those individuals who claim to have contact with confirmed or probable COVID-19 cases will be communicated to contact tracing teams under all respective health system structures urgently."
What to do when Suspected COVID-19 Cases is Identified

Suspected COVID-19 Cases detected by using this case definition from toll free (hotline), community visit, health facility, or any other means will be subjected to investigation by the respective RRT team under all respective health system. The procedures to be followed for the management of suspected cases is indicated in the following flow chart.

<table>
<thead>
<tr>
<th>Suspected cases will be detected by using the suspected case definition at toll free / hotline, at community level and Health Facility (HFs) level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspected cases with travel history and / or having known contact with known COVID-19 case</td>
</tr>
<tr>
<td>RRT from respective health system level will investigate the suspected case by using the prepared investigation format and laboratory sample will be collected from the suspected case irrespective of his travel and contact history</td>
</tr>
<tr>
<td>Will be Admitted to Isolation Center till the result is issued</td>
</tr>
<tr>
<td>The suspected cases will be managed according to their test result. If POSITIVE, admitted to treatment center. If NEGATIVE, Home isolation will be advised when it is appropriate</td>
</tr>
<tr>
<td>Followup will be made for all suspected cases under home isolation by using phone</td>
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</tbody>
</table>

Figure: - Protocol for managing suspected cases by using the suspected case definition
X. Public Health Policy Recommendation

Advice for the Public:

- 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, shaking hands and
- 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.

Health evidence summary:

<table>
<thead>
<tr>
<th>Articles/Comment/Correspondence/Editorials</th>
<th>Summary</th>
</tr>
</thead>
</table>
| Assessing risk factors for SARS-CoV-2 infection in patients presenting with symptoms in Shanghai, China: a multicentre, observational cohort study. https://doi.org/10.1016/S2589-7500(20)30109-6 | - A multicentre, observational cohort study in fever clinics of 25 hospitals in 16 districts of Shanghai was done.  
- Among 53,617 patients visiting fever clinics, 1004 (1.9%) were considered as suspected cases, with 188 (0.4% of all patients, 18.7% of suspected cases) eventually diagnosed as confirmed cases.  
- Exposure history, fatigue, white blood cell count less than 4 × 10⁹ per L, lymphocyte count less than 0.8 × 10⁹ per L, ground glass opacity, and having both lungs affected were independent risk factors for confirmed COVID-19.  
- Relevant independent risk factors identified in this study might be helpful for early recognition of the disease. |

| Vertical Transmission of Severe Acute Respiratory Syndrome Coronavirus 2: A Systematic Review. doi: 10.1055/s-0040-1712161 | - A total of 22 studies comprising 83 neonates born to mothers diagnosed with coronavirus disease 2019 were included in this systematic review.  
- Among these neonates, three were confirmed with SARS-CoV-2 infection at 16, 36, and 72 hours after birth, respectively, by nasopharyngeal swab real-time polymerase chain reaction (RT-PCR) tests; another six had elevated virus-specific antibody levels in serum samples collected after birth, but negative RT-PCR test results.  
- However, without positive RT-PCR tests of amniotic fluid, placenta, or cord blood, there is a lack of virologic evidence for intrauterine vertical transmission.  
- According to this review there is currently no direct evidence to support intrauterine vertical transmission of SARS-CoV-2.  
- Additional RT-PCR tests on amniotic fluid, placenta, and cord blood are needed to ascertain the possibility of intrauterine vertical transmission.  
- For pregnant women infected during their first and second trimesters, further studies focusing on long-term outcomes are needed. |

| Kawasaki-like disease: emerging complication during the COVID-19 pandemic. https://doi.org/10.1016/S0140-6736(20)31129-6 | - In the UK, pediatricians have identified a small group of children presenting with shock and a multisystem inflammation to critical care units, some of whom have coronary artery aneurysms, and a further group of less severely ill children with a Kawasaki-like disease.  
- Although the article suggests a possible emerging inflammatory syndrome associated with COVID-19, it is crucial to reiterate that children remain minimally affected by SARS-CoV-2 infection overall. |
<table>
<thead>
<tr>
<th>Manifestations and prognosis of gastrointestinal and liver involvement in patients with COVID-19: a systematic review and meta-analysis. <a href="https://doi.org/10.1016/S2468-1253(20)30126-6">https://doi.org/10.1016/S2468-1253(20)30126-6</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Findings from 35 studies, including 6686 patients with COVID-19 were analyzed.</td>
</tr>
<tr>
<td>The pooled prevalence of digestive symptoms was 15% with nausea or vomiting, diarrhea, and loss of appetite being the three most common symptoms.</td>
</tr>
<tr>
<td>Subgroup analysis showed patients with severe COVID-19 had higher rates of gastrointestinal symptoms and liver injury compared with those with non-severe disease.</td>
</tr>
<tr>
<td>Pediatric patients with COVID-19 had a similar prevalence of gastrointestinal symptoms to those of adult patients.</td>
</tr>
<tr>
<td>Patients who presented with gastrointestinal system involvement had delayed diagnosis. Patients with gastrointestinal involvement had a higher prevalence of complication.</td>
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<tr>
<td>Using reporting to date, and assuming similar epidemiological trends to those seen globally, it is projected that all of the 45 African countries/territories reporting early cases were likely to report 1,000 cases by the end of April 2020, and 10,000 within another few weeks.</td>
</tr>
<tr>
<td>As seen outside Africa, because onset of severe symptoms can be delayed weeks from infection and last several weeks, interventions have limited immediate impact on new hospitalizations or healthcare facility demand, meaning that most of the countries in our projection would be well past 1,000 real cases by the time the effects of interventions started in late March would be observed.</td>
</tr>
<tr>
<td>These results call for further preparations across Africa to ready healthcare systems and citizens for the incoming wave of infections leading to COVID-19.</td>
</tr>
<tr>
<td>Augmented staffing, personal protective equipment stores and training, general isolation beds and equipped critical care units are all urgently needed. Citizen awareness will also be critical, and officials should continue to promote preventive measures such as physical distancing and regular hand washing.</td>
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<tr>
<td>This study tries to empirically outline a negative association of UVB radiation as measured by ultraviolet index (UVI) with the number of deaths attributed to COVID-19 (COVID-19 deaths).</td>
</tr>
<tr>
<td>The cumulative number of COVID-19 deaths and case-fatality rate (CFR) were used as the main dependent variables.</td>
</tr>
<tr>
<td>It was found that a permanent unit increase in UVI is associated with a 2.2 percentage points decline in daily growth rates of cumulative COVID-19 deaths as well as a 1.9 percentage points decline in the daily growth rates of CFR.</td>
</tr>
<tr>
<td>These results represent a significant percentage reduction in terms of the daily growth rates of cumulative COVID-19 deaths (-22.92%) and CFR (-73.08%).</td>
</tr>
<tr>
<td>In conclusion, a significant negative association between UVI and COVID-19 deaths was found, indicating evidence of the protective role of UVB in mitigating COVID-19 deaths.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Coagulopathy of COVID-19 and antiphospholipid antibodies <a href="https://doi.org/10.1111/jth.14893">https://doi.org/10.1111/jth.14893</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>Antiphospholipid antibody testing in a series of 56 patients with confirmed or suspected SARS-CoV-2 infection was reported in the Journal of Thrombosis and Haemostasis.</td>
</tr>
</tbody>
</table>
Twenty-five patients were found to be positive for lupus anticoagulants, while five patients had either anticardiolipin or anti–β2-glycoprotein I antibodies.

The isotypes for the anticardiolipin and anti–β2-glycoprotein I antibodies were reportedly IgG and IgM, although specific antibody titers and details of which were found in combination with a lupus anticoagulant in three overlap patients were not reported.

**Guide**

**Surveillance strategies for COVID-19 human infection.**

- This document provides an overview of surveillance strategies that Member States should consider as part of comprehensive national surveillance for COVID-19.
- It also emphasizes the need to adapt and reinforce existing national systems where appropriate and to scale-up surveillance capacities as needed.
- This guidance should be read in conjunction with WHO’s guidance on preparedness, readiness and response actions.

**Surveillance strategies for COVID-19 human infection.**

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**Cleaning and disinfection of environmental surfaces in the context of COVID-19.**

- This guidance is intended for health care professionals, public health professionals and health authorities that are developing and implementing policies and standard operating procedures (SOP) on the cleaning and disinfection of environmental surfaces in the context of COVID-19.

**Coronavirus (COVID-19), CDC**

**Country & technical guidance coronavirus disease (COVID-19).**

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**COVID-19 updates and sources of evidence:**

<table>
<thead>
<tr>
<th>Source</th>
<th>Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>WHO Coronavirus (COVID-19) dashboard</td>
<td><a href="https://covid19.who.int/">https://covid19.who.int/</a></td>
</tr>
<tr>
<td>Johns Hopkins University, Coronavirus Resource Center</td>
<td><a href="https://coronavirus.jhu.edu/map.html">https://coronavirus.jhu.edu/map.html</a></td>
</tr>
<tr>
<td>BMJ’s Coronavirus (covid-19) Hub</td>
<td><a href="https://www.bmj.com/coronavirus">https://www.bmj.com/coronavirus</a></td>
</tr>
<tr>
<td>Elsevier’s Novel Coronavirus Information Center</td>
<td><a href="https://www.elsevier.com/connect/coronavirus-information-center">https://www.elsevier.com/connect/coronavirus-information-center</a></td>
</tr>
</tbody>
</table>
### National COVID-19 documents (online): click the document name to get access to the material.

- National comprehensive COVID-19 management handbook
- Infection Prevention and Control Interim Protocol for COVID-19 In Health Care Settings in Ethiopia
- Health Care Waste Management SOP for COVID-19
- Case management protocol for Corona Virus Disease-19 (COVID-19) in Ethiopia
- Ethiopian health care facility COVID-19 Preparedness and response protocol
- Patient Flow Protocol for COVID-19 Patients
- Pre-triage format for COVID-19 infection
- Protocol for transporting COVID-19 patients
- Laboratory testing for 2019 novel coronavirus(2019-nCoV) in suspected human cases
- Home care for patients with suspected novel coronavirus (nCoV) infection presenting with mild symptoms and management of contacts Interim guidance
- Global Surveillance for human infection with novel coronavirus
- Household transmission investigation protocol for 2019-novel coronavirus infection
- Clinical management of severe acute respiratory infection when novel coronavirus (nCoV) infection is suspected
- National Capacities Review Tool for a novel coronavirus (nCoV)
- Infection prevention and control during health care when novel coronavirus (nCoV) infection is suspected
- Risk communication and community engagement readiness and initial response for novel coronaviruses
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. This Weekly Bulletin series of publications is published by the Ethiopian public health Institute (EPHI), public health emergency operation center (PHEOC). The aim of this bulletin is to inform decision makers within the institute and FMOH, UN agencies and NGOs about COVID-19 preparedness and response activities. All interested health and other professionals can get this bulletin at the Institute website; www.ephi.gov.et

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