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

# COVID-19 PANDEMIC PREPAREDNESS AND RESPONSE IN ETHIOPIA

# **WEEKLY BULLETIN**

**Dates Covered by this Bulletin: 18-24 May** 

BULLETIN №: 4 Issue Date: May 25, 2020

## I. HIGHLIGHTS

- The total number of COVID-19 cases in Africa surpassed 100,000.
- Two hundred and sixty-five new confirmed COVID-19 cases (about 45.5% of the total cases reported so far) were reported during the WHO Epi-Week-21.
- A total of 582 COVID-19 confirmed cases and five deaths have been reported in Ethiopia so far.
- Harari region was newly reported COVID-19 confirmed cases in the WHO Epi-Week-21 bringing the total affected regions to eight and two city administrations.
- Thirty-nine people, which contribute 25.65% of the total recovery, have newly recovered from COVID-19 during the WHO Epi-Week-21 bringing the total number of recovered cases to 152.
- A total of 6,810 contacts have been identified as of May 24, 2020.
- Twenty-nine laboratories across the country are conducting COVID-19 testing.
- H.E Dr Lia Tadesse, MOH Minister addressed the 73<sup>rd</sup> World Health Assembly (WHA) Virtually.
- Eighty (80) health professionals from FMOH and EPHI deployed for the third round to support the regions on COVID-19 response and other public health emergencies.





## 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 the 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' 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**

Since end of December 2019 to May 24, 2020, COVID-19 pandemic affected 216 countries/territories causing 5,211,945 cases and 341,353 deaths (CFR=6.55%) globally. The United States of America (USA) reported the highest number of cases (1,568,448) and deaths (94,011) with CFR of 5.99%. The second highest number of deaths, 36,675 (CFR=14.26%) are reported in the United Kingdom.

In Africa, 56 countries/territories have reported COVID-19 cases. The total cases in Africa surpassed 100,000. As of May 24, 2020, a total of 110,415 cases and 3,278 deaths were reported across the continent (CFR=2.91%). The highest number of cases were reported from South Africa, 21,343 (19.33%) cases followed by Egypt, 16,513 (14.95%) cases, and Algeria, 8,113 (7.35%). See the summary dashboard below.

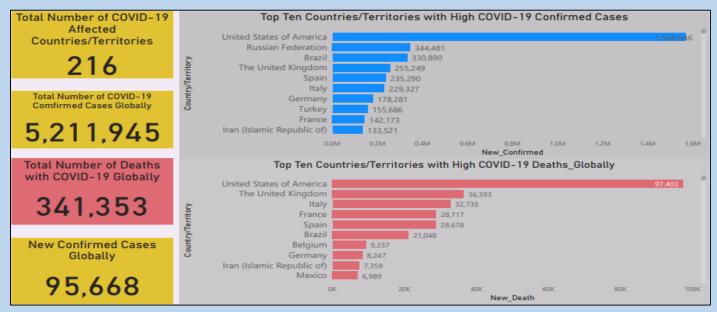


Fig. 1: Global Situation Update as of May 24, 2020 (Source: WHO)

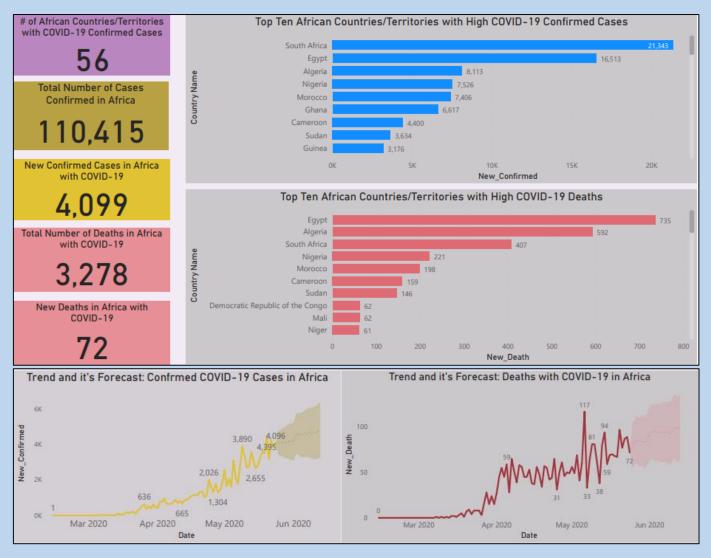
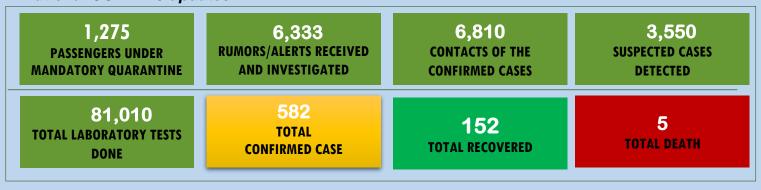


Fig. 2: Africa Situation Update as of May 24, 2020 (Source: WHO)

## **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 582 confirmed COVID-19 cases (about 45.5% of the total cases reported so far) and five deaths reported in the country of which 265 cases were reported in the WHO Epi-Week-21. Among the 582 cases reported, 224 (38.49%) are imported, 183 (31.44%) are close contacts of confirmed cases, and the source of infection not identified for 175 (30.07%) cases. There is no death report in the WHO Epi-Week-21.

## National COVID-19 updates



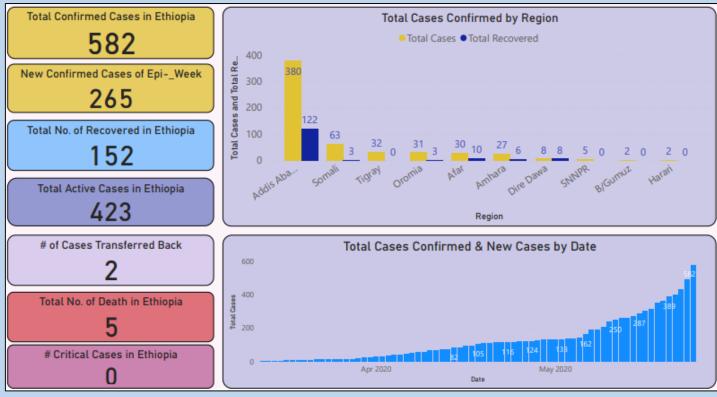


Fig. 3: Summary of the confirmed cases, death and recovered cases by location and date of confirmation, Ethiopia, May 24, 2020 (Source: EPHI and MOH, Ethiopia)

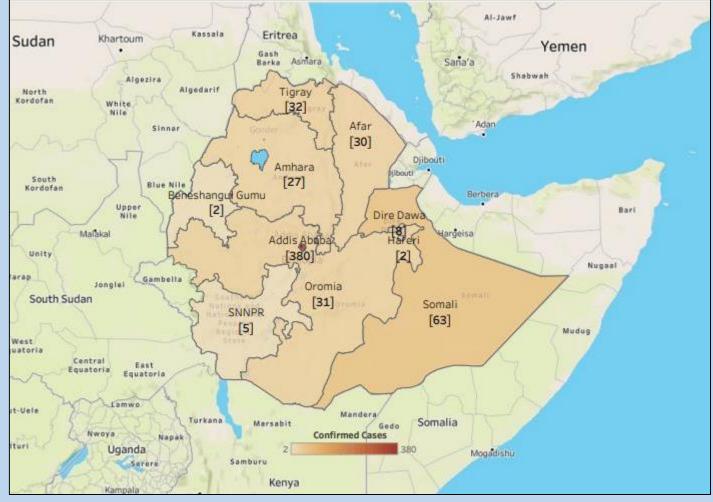


Fig. 4: Geographical distribution of COVID-19 confirmed cases in Ethiopia, as of May 24, 2020

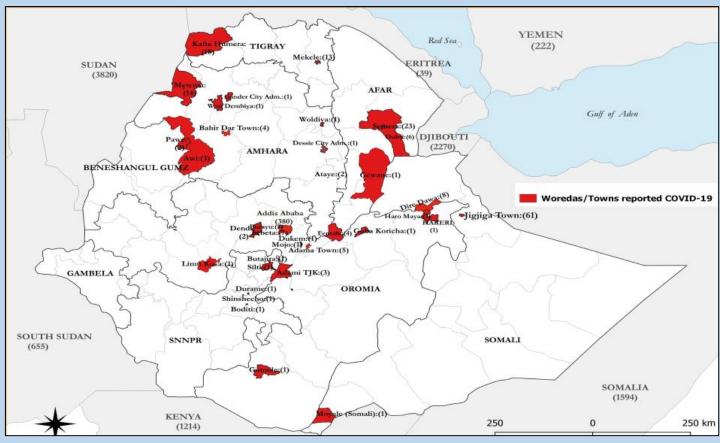


Fig. 5: Distribution of COVID-19 cases in Ethiopia and horn of Africa, as of May 24, 2020

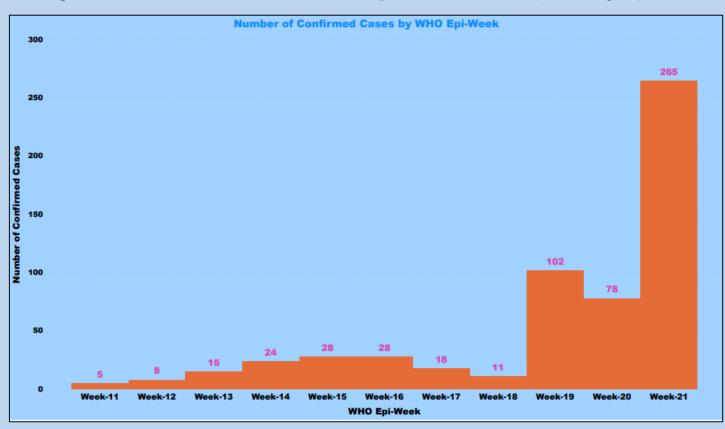


Fig. 6: COVID-19 confirmed cases by WHO Epi-Week as of May 24, 2020, Ethiopia

# **Epi Surveillance and Laboratory Related Activities**

There is ongoing travelers' health screening at point of entries (POEs), follow-up of international travelers, mandatory quarantine of passengers coming to Ethiopia, rumor collection, verification and investigation and information provision via toll free call center, 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, random SARI/pneumonia cases and community members.

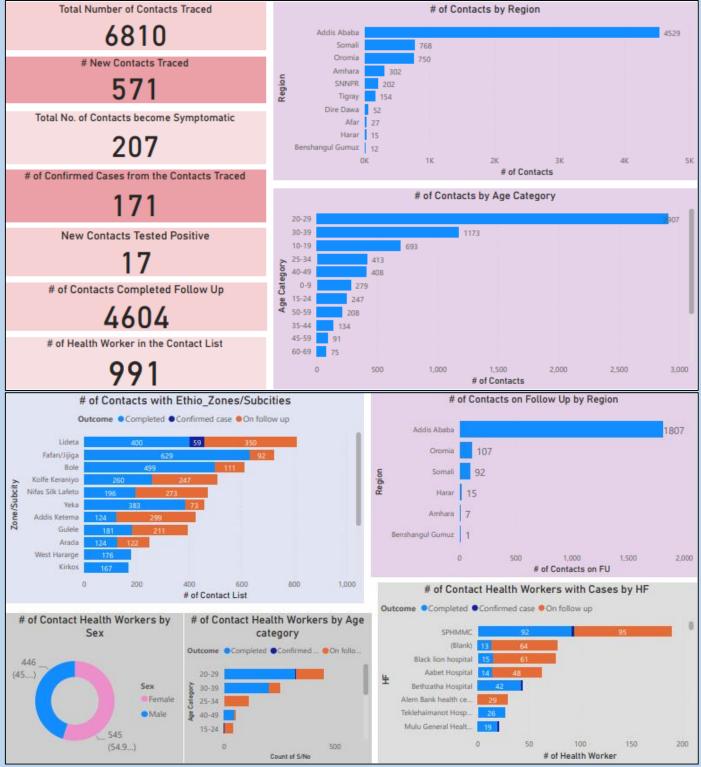


Fig. 7: Contact tracing summary dashboard as of May 24, 2020

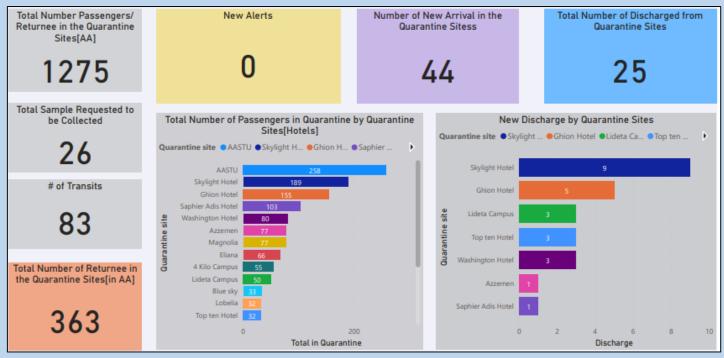


Fig. 8: Mandatory quarantine update as of May 24, 2020, Ethiopia

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 (16 to 24 May, 2020).

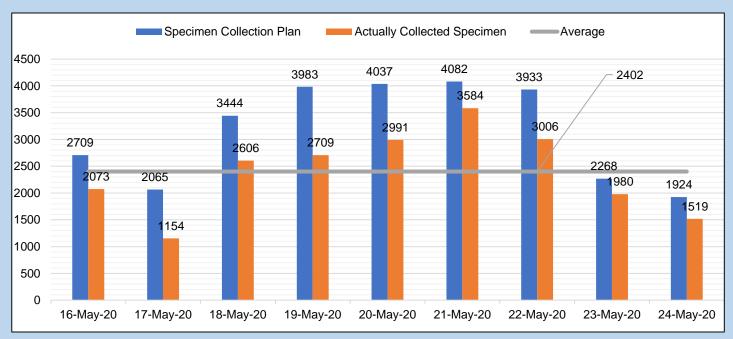


Fig. 9: Trends of planned and actually collected samples as of May 24, 2020, Ethiopia

## **Specimen Collection by Site**

- The community sample collection includes:
  - Services Providers (Hotel, Bank,)
  - Overcrowding area (Bus station)
  - Most at risk group (Elders, Homeless and Chronic disease patients)
  - Others target population
- Health facility screening activity increased from 47% to 62% compared to last week.

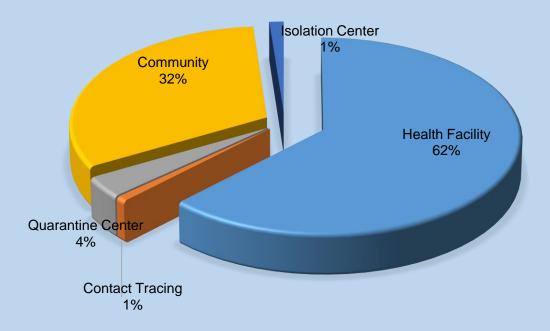


Fig. 10: Summary of sample collection by site of collection, as of May 24, 2020

## Laboratory tests

- Total of 30,671 tests conducted during WHO Epi-Week 21, which contributed for 37.9% of the total test conducted.
- 23,800 (78.1%) result issued within 24hr after receiving the specimen at lab in the WHO Epi-Week 21.
- As of May 24, about 29 laboratories across the country are conducting COVID-19 testing
- Other 4 laboratories are ready to start COVID-19 testing.

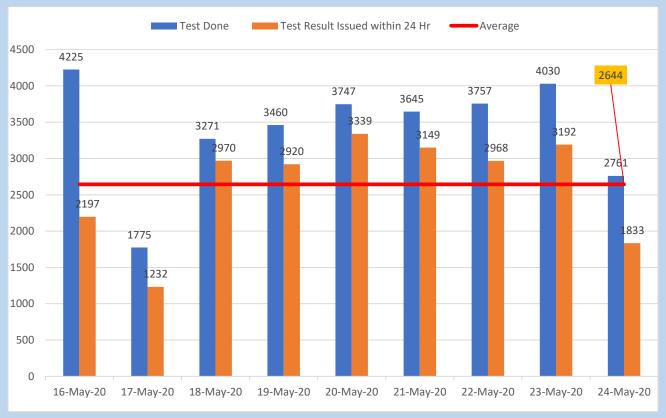


Fig. 10: COVID-19 Test Conducted Vs. Test Result Issued with 24 TAT, May 24, 2020

# 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.
- H.E Prime Minister Dr Abiy Ahmed visited Eka Kotebe COVID-19 treatment center and wished Eid Mubarak
  to the staffs. He also provided gifts and encouraged the frontline health professionals and workers in the
  hospital fighting against COVID-19.



H.E Dr Lia Tadesse, MOH Minister, addressed the 73rd World Health Assembly virtually, reiterating the
importance of global coordination and solidarity to stop the pandemic and sharing Ethiopia's role in Africa
to enhance this effort. H.E. also appreciated the role of WHO in coordinating the global response.



H.E Dr Lia Tadesse, Minister, MOH visited Yekatit 12 Hospital Medical College and observed the activities
done in the hospital (COVID-19 treatment center) in response to COVID-19 in addition to strengthening the
hospital's regular & emergency services and introducing electronic medical record system to enhance the
service.



Morning briefing of IMS core staffs and key partners representatives is being conducted on daily basis.



 Weekly virtual (zoom) meeting being conducted with technical working group members, which comprises members from subnational level focal, key partners and stakeholders.



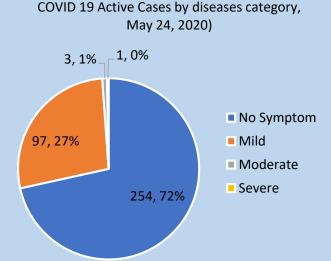
- Weekly leadership and strategic virtual (zoom) meeting, chaired by the H.E MOH Minster being conducted.
- Supports (financial, logistic and technical) are being received from partners, private institutions, individuals and donors.

# V. Regional Support

- So far, total of 174 experts are deployed to different regions in different rounds.
- About 80 health workers from MOH and EPHI deployed to the regions for the third round to provide support on COVID-19 preparedness and response and other public health emergencies.
- The PHEOC Laboratory data management system assessment data collection was done on five COVID-19 testing laboratory sites by Africa CDC volunteers deployed to regions (Afar, Tigray, SNNPR, Haramaya and Jigjiga).
- All relevant working documents (guidelines, protocols and formats) are disseminated to all regions.
- 40 vehicles are deployed to all regions for support.

# VI. Case Management and IPC

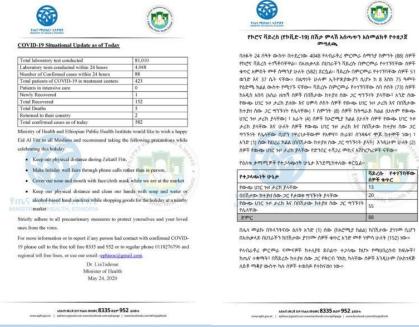
- As of May 24, 2020, a total of 423 confirmed cases are in the treatment centers.
- No critical case in ICU among the cases
- Thirty-nine cases recovered in WHO Week-21 which brings a total recovered case to 152.



# VII. Risk Communication and Community Engagement (RCCE)

- RCCE coordination meeting with the advisory group was conducted regarding risk perception assessment on COVID-19 for social media users
- You Tube link created for EPHI: <a href="https://www.youtube.com/channel/UCvvTzeY-IJiQfEFBULH9Mkw">https://www.youtube.com/channel/UCvvTzeY-IJiQfEFBULH9Mkw</a>
- Content revision for the Ethio-telecom voice message during a call based on the current COVID-19 situation and updates.
- Daily dissemination of appropriate and timely COVID-19 related messages to the public and governmental stakeholders is ongoing.
- Joint press conference was conducted by MOH, EPHI and Addis Ababa City Administration Health Bureau
- Daily press statement is being provide on COVID-19 situation on daily basis





There is ongoing production of COVID-19 informative audio and video messages.







# 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.
- About 50,400 face masks and 28,000 test kits are received from Republic of Korea.
- 6,500 surgical face masks, 600 N95 masks, 1,000 (100ml) hand sanitizers and 2,000 pair surgical gloves are received from IGAD.
- Tencent charity foundation donated testing kits and gloves
- Africa CDC donated 19 Mechanical Ventilators, laboratory test kits and PPEs
- Medical supplies and PPE donated by Rotary Ethiopia.
- Personal Protective Equipment worth 4.6 million birr donated by Dangdai and Human well Healthcare Group.

 Donation of testing kits and gloves worth of 1.6 Million USD received from the Tencent charity foundation.



- Oilibya Ethiopia donated hand sanitizers and petrol worth of 1 million birr
- Personal Protective Equipment worth 4.6 million birr donated by Dangdai and Humanwell Healthcare Group









 Donation of water tankers, sanitizers and biohazard bags worth 3 million birr from WaterAid Ethiopia and AMREF Health Africa.

# **IX. Training and Orientation Activities**

- Since the start of mobile based HEWs training, 714 HEWs are enrolled, and 414 completed the training.
- There is ongoing virtual and in person training and orientation the public and health professionals on COVID-19.



# X. Challenges and Way Forward

# **Challenges**

- Cluster of COVID-19 cases in areas with crowd in Addis Ababa City Administration (in Merkato and Lideta areas)
- Low face mask stock and personal protective equipment for the health workers
- 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.

# **Way Forward**

- 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:**

- Ministry of Health and Ethiopian Public Health Institute wish a happy Eid Al Fatir to all Muslims and recommend taking the following precautions while celebrating the holiday.
  - Keep your physical distance during Zekatil Fitr;
  - o Make holiday welfares through phone calls rather than in person;
  - Cover your nose and mouth with face/cloth mask while you are at the market or other public crowded areas.
  - Keep your physical distance and clean your hands with soap and water or alcohol-based hand sanitizer while shopping.
- It is important to be informed of the situation and take appropriate measures to protect yourself and your family.
  - o Stay at home
  - Wash hands frequently
  - o 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:**

Articles/Comment/ Correspondence/ Editorials	Summary
Request Cigarette smoke exposure and inflammatory signaling increase the expression of the SARS-CoV-2 receptor ACE2 in the respiratory tract.  https://doi.org/10.1016/j.devcel.2 020.05.012	<ul> <li>Here, authors show that cigarette smoke causes a dose-dependent upregulation of Angiotensin Converting Enzyme 2 (ACE2), the SARS-CoV-2 receptor, in rodent and human lungs.</li> <li>Chronic smoke exposure triggers the expansion of secretory cell in the respiratory tract and a concomitant increase in ACE2 expression.</li> <li>In contrast, quitting smoking decreases the abundance of these secretory cells and reduces ACE2 levels.</li> <li>ACE2 expression is responsive to inflammatory signaling and can be up-regulated by viral infections or interferon treatment.</li> <li>The above stated results may partially explain why smokers are particularly susceptible to severe SARS-CoV-2 infections.</li> <li>Furthermore, this work identifies ACE2 as an interferon-stimulated gene in lung cells, suggesting that SARS-CoV-2 infections could create positive-feedback loops that increase ACE2 levels and facilitate viral dissemination.</li> </ul>
Convalescent plasma or hyperimmune immunoglobulin for people with COVID-19: a rapid review.	<ul> <li>This rapid review is done to assess whether convalescent plasma or hyper-immune immunoglobulin transfusion is effective and safe in the treatment of people with COVID-19.</li> </ul>

#### https://doi.org/10.1002/1465185 • All studies reported improvement in clinical symptoms in at least some 8.CD013600 participants but it is not clear whether convalescent plasma improves clinical symptoms. • Six studies reported time to discharge from hospital for at least some participants, which ranged from four to 35 days after convalescent plasma therapy. Authors identified very low-certainty evidence on the effectiveness and safety of convalescent plasma therapy for people with COVID-19; all studies were at high risk of bias and reporting quality was low. Early experience with remdesivir • At present, there is no definitive antiviral treatment for coronavirus in SARS-CoV-2 pneumonia. doi: disease 2019 (COVID-19). 10.1007/s15010-020-01448-x • This paper describes early experience with remdesivir in four critically ill COVID-19 patients. Patients received a 200 mg loading dose, followed by 100 mg daily intravenously for up to 10 days. • All patients had been previously treated with other antivirals before remdesivir initiation. • One patient experienced a torsade de pointes requiring cardiac resuscitation and one died due to multiple organ failure. • Three patients showed biochemical signs of liver injury and lymphocyte count increased in all patients soon after remdesivir initiation. • Nasal swab SARS-CoV-2 RNA became negative in three of four patients after 3 days of therapy. Early Short Course • A single pre-test, single post-test quasi-experiment in a multi-center Corticosteroids in Hospitalized health system was done on adult patients with confirmed moderate to Patients With COVID-19. severe COVID-19. https://doi.org/10.1093/cid/ciaa6 was protocol implemented using early, 01 methylprednisolone 0.5 to 1 mg/kg/day divided in 2 intravenous doses for 3 days with outcome of a primary composite endpoint of escalation of care from ward to ICU. • The composite endpoint occurred at a significantly lower rate in the early corticosteroid group (34.9% vs. 54.3%, p=0.005). • Significant reduction in median hospital length of stay was also observed in the early corticosteroid group (8 vs. 5 days, p < 0.001). • This study concludes, early short course of methylprednisolone in patients with moderate to severe COVID-19 reduced escalation of care and improved clinical outcomes. Influence of Wind and Relative • A validated computational fluid-particle dynamics (CFPD) model was Humidity on the Social employed simulate the transient Distancing Effectiveness to condensation/evaporation, and deposition of SARS-CoV-2 laden Prevent COVID-19 Airborne droplets emitted by coughs, with different environmental wind velocities Transmission: A Numerical and relative humidity (RHs) to provide evidence and insight into the Study. "social distancing" guidelines. https://doi.org/10.1016/j.jaerosci. • Numerical results indicate that the ambient wind will enhance the 2020.105585 complexity of the secondary flows with recirculation between the two virtual humans. • Microdroplets follow the airflow streamlines well and deposit on both human bodies and head regions, even with the 3.05-m (10-feet) separation distance. • The rest of the microdroplets can transport in the air farther than 3.05 m (10 feet) due to wind convection, causing a potential health risk to nearby people. • Thus, due to the complex real-world environmental ventilation conditions, a social distance longer than 6 feet needs to be considered. Detection of SARS-COV-2 in Authors examined milk from two nursing mothers (Mother 1 and Mother human breast milk. 2) infected with SARS-COV-2. https://doi.org/10.1016/S0140-6736(20)31181-8

Hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19: a multinational registry analysis. https://doi.org/10.1016/S0140-6736(20)31180-6	<ul> <li>Viral load was examined using RT-qPCR for SARS-COV-2 and ORF1b-nsp14genes in both whole and skimmed milk.</li> <li>Following admission and delivery, four samples from mother 1 tested negative</li> <li>SARS-COV-2 RNA was detected in milk from Mother 2 at days 10, 12 and 13.</li> <li>Detection of viral RNA in milk from Mother 2 coincided with mild COVID-19 symptoms and a SARS-COV-2 positive diagnostic test of newborn (Newborn 2).</li> <li>However, whether newborn 2 was infected by breastfeeding or other modes of transmission remains unclear.</li> <li>A multinational registry analysis of the use of hydroxychloroquine or chloroquine with or without a macrolide for treatment of COVID-19 was done on 96,032 patients who met inclusion criteria.</li> <li>Patients who received one of the treatments of interest within 48 h of diagnosis were included in one of four treatment groups (chloroquine alone, chloroquine with a macrolide, hydroxychloroquine alone, or hydroxychloroquine with a macrolide), and patients who received none of these treatments formed the control group.</li> <li>After controlling for multiple confounding factors, when compared with mortality in the control group, all treatment groups were independently associated with an increased risk of in-hospital mortality.</li> <li>Compared with the control group, all treatment groups were independently associated with an increased risk of de-novo ventricular arrhythmia during hospitalization.</li> <li>Authors concluded that they were unable to confirm a benefit of hydroxychloroquine or chloroquine, when used alone or with a macrolide, on in-hospital outcomes for COVID-19.</li> <li>Link /Focus</li> </ul>
Management of covid-19: a practical guideline for maternal and newborn health care providers in Sub-Saharan Africa. https://doi.org/10.1080/14767058.2020.1763948	This guideline prepares clinicians working in the maternal and newborn sections in the sub-region to manage COVID-19 during pregnancy and childbirth.
Controlling the spread of COVID-19 at ground crossings. https://www.who.int/publications-detail/controlling-the-spread-of-covid-19-at-ground-crossings	<ul> <li>This guidance advises countries how to reduce the spread of COVID-19 resulting from travel, transportation, and trade on and around ground crossings by:         <ol> <li>Identifying priority ground crossings and communities;</li> <li>Scaling up preparedness and control measures at these locations.</li> </ol> </li> </ul>
COVID-19 Strategic Preparedness and Response Plan. OPERATIONAL PLANNING GUIDELINES TO SUPPORT COUNTRY PREPAREDNESS AND RESPONSE. (updated) https://www.who.int/publications-detail/draft-operational-planning-guidance-for-un-country-teams	<ul> <li>This document was developed by WHO to provide a practical guide that may be used by national authorities to develop and update their COVID-19 national plans across the major pillars of COVID-19 preparedness and response. It is also intended for use by the UNCTs (e.g., WHO, OCHA, UNDP, UNICEF, etc.) and key partners to develop or update their COVID-19 multiagency plans with and in support of national authorities.</li> </ul>
Overview of Public Health and Social Measures in the context of COVID-19. https://www.who.int/publications-detail/overview-of-public-health-and-social-measures-in-the-context-of-covid-19	<ul> <li>The purpose of this document is to provide an overview of public health and social measures, and to propose strategies to limit any possible harm resulting from these interventions. The document is intended to inform national and local health authorities and other decision-makers at all levels.</li> </ul>

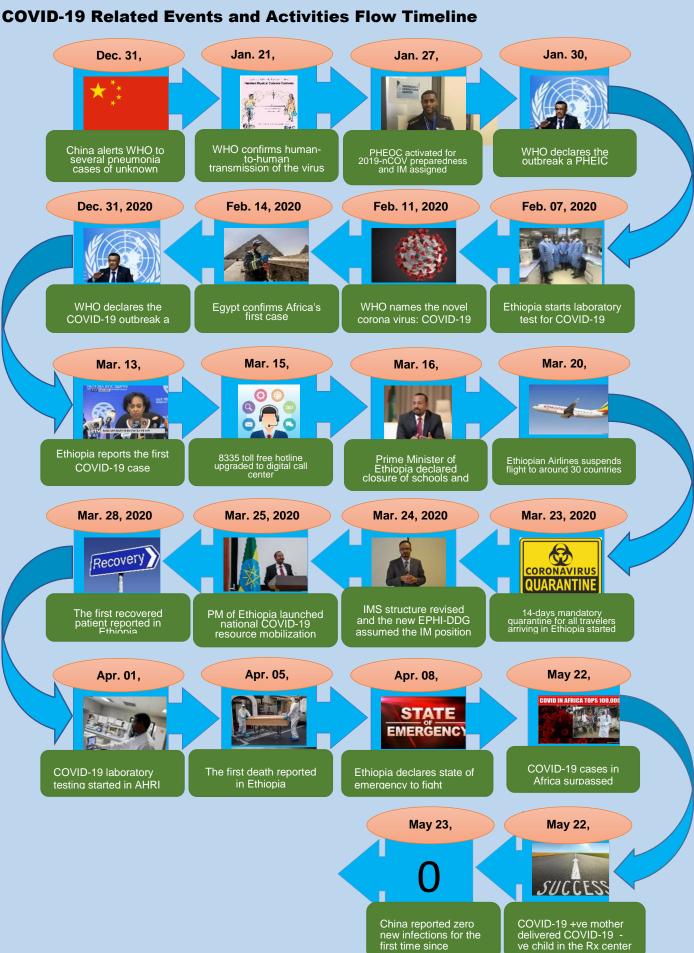
Case Report Form for suspected cases of Multisystem inflammatory syndrome (MIS) in children and adolescents temporally related to COVID-19.	https://www.who.int/publications-detail/case-report-form-for-suspected-cases-of-multisystem-inflammatory-syndrome-(mis)-in-children-and-adolescents-temporally-related-to-covid-19
Country & technical guidance coronavirus disease (COVID-19).	https://www.who.int/publications-detail/draft-operational-planning-guidance-for-un-country-teams
COVID-19 - CLINICAL GUIDELINES. Medscape	https://www.medscape.com/index/list_13405_0

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

Source	Link
EPHI COVID-19 Information Platform	https://covid19.ephi.gov.et/
ETHIOPIA COVID-19 MONITORING	https://www.covid19.et/covid-19/
PLATFORM	
WHO Coronavirus (COVID-19) dashboard	https://covid19.who.int/
Africa CDC Dashboard, COVID-19 Surveillance	https://au.int/en/covid19
Dashboard	
WHO COVID-19 daily situation reports	https://www.who.int/emergencies/diseases/novel-coronavirus-
	2019/situation-reports
WHO Academy mobile learning app for health	Android:https://play.google.com/store/apps/details?id=org.who.W
workers, COVID-19 information	HOA

## 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







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.ephi.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. 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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