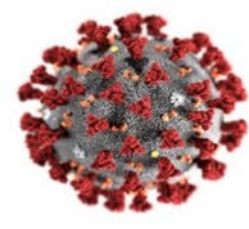




Issue Brief:

Prevention and control of COVID-19 Pandemic



Prepared by: Knowledge Translation Directorate, EPHI (14th April 2020)

Background:

Currently there is neither vaccine nor effective treatment for COVID-19. The best way to prevent illness is to avoid being exposed to this virus. COVID-19 transmits between people through respiratory droplets and contact routes. Droplet transmission occurs when respiratory droplets (as produced when an infected person coughs, sneezes or talks) are ingested or inhaled by individuals in a proximity (within 2 meters). Aerosol transmission might occur when respiratory droplets mix into the air, forming aerosols, and cause infection while inhaling a high dose of aerosols into the lungs in a relatively closed environment like the hospital settings. Contact transmission occurs when a subject touches a surface or objects (fomites) contaminated with virus and subsequently touches their mouth, nose, or eyes. Studies have also suggested that COVID-19 may be spread by people who doesn't show any symptoms.

Key messages:

- ⇒ In case it is no longer feasible to identify all infectious individuals and their contacts in the attempt to slow the spread of disease, a next step is to apply a community-wide containment measure.
- ⇒ The application of all social distancing interventions were effective in flattening the epidemic curve and reducing the maximum daily case numbers.
- ⇒ A mathematical model study indicates, through tracing and isolating 80% of contacts, possible to control 90% of the outbreak. Some other studies also concluded as 'highly effective contact tracing and case isolation is enough to control the COVID-19 outbreak within 3 months.
- ⇒ The probability of control decreases with long delays from symptom onset to isolation, fewer cases ascertained by contact tracing, and increasing transmission before symptoms
- ⇒ Specific up-to-date and accurate health information (e.g., treatment, local outbreak situation) and precautionary measures (e.g., hand hygiene, wearing a mask) were associated with a lower psychological impact of the outbreak and lower levels of stress, anxiety, and depression.
- ⇒ A small proportion of recovered patients may test positive after discharge.
- ⇒ Individuals with compromised immune status might be subjected to a longer incubation period.
- ⇒ Effectiveness of thermal (temperature) screening of COVID-19 is under question for different reasons.
- ⇒ A study indicated the real-time PCR test showed false negative results revealing the drawback of the test.

Priority Actions

- 1 **Community mobilization on self protection:** The mobilization should focus on proper hand washing and mask wearing practice, how to avoid close contact, importance of staying at home, social distancing, and how to disinfect home environment.
- 2 **Social Distancing:** includes school closure, workplace non-attendance, avoiding 'Idir', 'Iqub', 'mahber', mourning, and burial gatherings, wedding and birthday party, minimizing burden on public transportation.
- 3 **Tracing and isolation:** separating sick people from healthy people through proper screening and testing. **Post-discharge surveillance and isolation** may be required because some portion of recovered patients test positive.
- 4 **Quarantine:** keeping someone who *might* have been exposed to COVID-19 away from others. Effective surveillance is needed here. Since immune compromised people has a potential for long incubation period better to consider extended quarantine for those people. Segregating contacts on their level of exposure help in reducing number of cases from the quarantine center.
- 5 **Use of Integrated criterion to Diagnose COVID-19:** Since there is a possibility of false negative PCR test, the use of integrated criterion (clinical manifestations, laboratory examination results, and chest CT) to diagnose COVID-19 infection needs to be considered. Further research and technology transfer to improve method of screening and testing is also important.
- 6 **Psycho Social Support:** Through providing psycho-social support for people in isolation, quarantine and the community at large lowering the levels of stress, anxiety and depression can assist in containing the pandemic.
- 7 **Protect health workers and stand in solidarity with them:** The potential of airborne transmission of COVID-19 in health facility settings and high expected number of cases calls for proper utilization and preservation of personal Protective Equipment/ PPE for front line health workers. Producing or importing of PPE needs to be government priority.
- 8 **Community wide containment:** If the outbreak is not contained in a timely manner, the Ethiopian health system will be overwhelmed and the need for community containment will be inevitable.
- 9 **Punitive measures for non-compliance:** To ensure compliance with the above measures, there is a critical need for strong enforcement mechanisms with punitive measures for non-compliance.

References used in this issue brief are found in the rapid evidence synthesis on: "Rapid Evidence Synthesis on COVID-19 Pandemic to inform the Ethiopian Ministry of Health"

Contact:
KT Directorate, EPHI
Email: ktdephi@gmail.com
Tel: +251 911988638