

EDITORIAL**LIGHTING THE WAY: EVIDENCE INFORMED RESPONSE TO 2019 NOVEL CORONAVIRUS DISEASE (COVID-19)**Abraham Aseffa, MD, PhD^{1*}, Abebe Bekele, PhD

The 2019 novel coronavirus disease (COVID-19) pandemic has caught health systems unprepared-again- despite repeated calls for commitment to capacity strengthening following an increasingly frequent occurrence of global emergencies in recent decades (human immunodeficiency virus, Severe Acute Respiratory Syndrome virus, H1N1 Influenza virus, Ebola virus, Middle East respiratory syndrome coronavirus). As clearly witnessed, it has overwhelmed even those countries where pillar institutions of science and technology were traditionally strong.

Unprecedented speed, massive scale, clinical severity and huge health service disruption have characterized COVID-19. Physical distancing measures taken to control its transmission have profound negative impact on individuals and communities resulting in societal and economic difficulties. The indirect effect of COVID-19 on health service disruption (as seen in the dramatic decline in the number of women delivering in health institutions, cancellation of enormous numbers of surgical elective operations, of medical appointments, interruption of vaccination, suspension of mass drug administration campaigns, just to name a few) is being felt in rising morbidity and mortality from other illnesses (1,2). The progress made in the control of infectious diseases is likely to suffer serious setbacks not only in years of progress lost but also in prolonged delays even when services would resume.

Frontline health workers have suffered from high rates of infection with much loss of life. The risk of transmission in health facilities remains a concern because personal protective equipment is often in short supply or totally unavailable. Infection prevention and control measures are difficult to implement effectively when health facilities are increasingly overburdened, further underfunded and management is overwhelmed by crisis.

In the absence of a vaccine and curative treatment, the most effective response to COVID-19 so far has been physical distancing, testing, isolation, contact tracing and case management. Testing is unfortunately still technology intensive, costly and not widely available in health facilities of resource limited countries, adversely affecting the response to the pandemic (3,4). Individual level hand hygiene, respiratory etiquette and physical distancing are critical to limit transmission. Population level physical distancing measures including movement restriction have become essential despite the severe socioeconomic consequences that disproportionately affect the underprivileged. These measures are blunt in that they do not allow for context specific responses and their implementation needs to be tailored to local conditions to avoid the considerable social and economic costs that might result in higher morbidity and mortality as a consequence of these measures themselves.

In this period of overabundance of recommendations and conflicting information on COVID-19, there is a serious need for trustworthy communication that is tailored to the right audience at the right time. It is worthwhile to realize that the messages coming out from COVID-19 “authorities” are sometimes inconsistent and often moving targets. This is a time when local research data are of huge importance and relevance to guide the fight against COVID-19. The pandemic has shown significant differences in case fatality rate among different populations and communities. There is yet much to learn about the determinants of infection, clinical course, severity of disease and mortality in the African setting. To calibrate containment measures to local capacity and context, it is important to have at hand real time knowledge of the local epidemiology, the community and the health system performance. An adequate understanding of the community would require assessment of resilience, knowledge, behavior, perceptions and attitude towards response alternatives (5,6). Mobilization is best achieved when the solutions emanate from communities themselves and are managed through their leadership.

Ethiopia is facing a rising epidemic that is expected to spread into rural communities (7). The fight against COVID-19 is likely to be a protracted one until an effective vaccine is developed. What we do today will influence not

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only the evolution of COVID-19 but also the course of the other health problems we had been struggling with as our priorities until just a few months ago.

This is the time more than ever to document observations, conduct good quality investigations (8), do critical analysis and generate evidence for informed decision making to guide an effective response against COVID-19 tailored to the Ethiopian situation. It is a time for harmonized study protocols, collaborative investigations, data sharing and scientific dialogue. The dynamics of COVID-19 epidemic in Ethiopia is likely to vary between regions and subregions as it spreads depending on several factors including effectiveness of the measures taken to limit spread. The experiences of other countries in dealing with COVID-19 would suggest a number of alternatives and are useful to learn from but may not be trusted to serve as effective prescriptions for Ethiopia. The country will need to tailor its responses to its specific context based on scientific evidence. Much of the evidence needed does not require sophisticated equipment and can be generated by existing workforce if sufficient resources are mobilized for the purpose and scientific deliberations are scaled up (9). It is time for an organized multisectoral initiative involving various experts (health professionals, sociologists, anthropologists, economists, mathematicians, information technology experts, behavioral scientists, development specialists, etc.) and stakeholders (civil society, universities and research institutions, public services and government institutions) to rally forces in support of evidence generation, dissemination and uptake of research findings for a whole-of-society and whole-of-government response to COVID-19 in Ethiopia.

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