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Perspectives

Coronavirus Disease 2019 (COVID-19) in Kenya: Preparedness, response and transmissibility



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Abstract The world and Kenya face a potential pandemic as the respiratory virus Coronavirus Disease 2019 (COVID-19) affects world populations. Nations have been forced to intervene and issue directions under executive orders to ensure the pandemic is contained. Kenya has reported 110 confirmed COVID-19 cases (as at 2nd April, 2020), three persons have succumbed and 2 people have fully recovered. Most of the affected people had entered/returned to Kenya from different parts of the world. Most of the people who have contracted COVID 19 are between the 16–74 years of age. As a result, since February 2020, Kenya put in place several precautionary measures to mitigate the pandemic in its early stages. However, the economic status of the population of country won't be simple to control COVID 19, if government won't integrate the realistic feasible timely plans. This article highlights the preparedness, response, transmissibility of Covid-19 and proposes intuitions to manage COVID-19 in Kenya. Currently it is clear that since first confirmation to current, the transmission of the COVID-19 is exponentially increasing in Kenya.

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Introduction

A novel coronavirus (SARS-CoV-2) that emerged out of the city of Wuhan, China in December 2019 has already demonstrated its potential to generate explosive outbreaks

in confined settings and cross borders following human mobility patterns, the number of cases rapidly increased in Africa resulting in 6555 cases including 244 deaths and 456 recoveries as of 1st April, 2020. The first case was reported in Egypt on February 15th 2020. Most of the African countries have confirmed cases of Covid-19 except São Tomé and Príncipe and Kingdom of Lesotho as at 2nd April 2020.

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Confirmed cases to COVID-19 are subject to rough estimation. The WHO estimates the pandemic as at 2nd April 2020 to be 896 450 confirmed cases globally and 45 526 deaths. World Health Organisation assessment indicates high risk (WHO Report –73, 2020).

Preparedness and response (MOH, Kenya, 2020)

On 2nd February 2020, the Ministry of Health advised Kenyans to remain vigilant and to maintain hygiene, avoid contact with persons with respiratory symptoms and to go to the nearest health facility for assessment and prompt management with symptoms of respiratory infection or recent travel to China especially Wuhan. Further on 13th February 2020, Kenyans were advised against non-essential travel to affected countries.

On 19th February 2020 Kenyan Government through the ministry of Health had put several measures in place to safeguard public health safety including but not limited to a multi-agency approach to deal with the threat of COVID-19.

On 28th Feb 2020, the National Emergency Response Committee was established through an executive order No. 2 of 2020. At its meeting on 20th March 2020, they resolved and directed Kenyans of taking of the following additional pre-cautionary measures:

- i. All entertainment, bars and other social spaces, were to close their doors to the public by 7.30pm every day until further notice, effective Monday, 23rd March 2020. Social distancing of 1.5 m to be observed during allowed periods.
- ii. All supermarkets were required to limit the number of shoppers inside the premises at any given time, in a manner that conforms to the social distance requirements of at least 1.5 m apart.

- iii. The management of local markets were directed to ensure that the premises are disinfected regularly to maintain high standards of hygiene.
- iv. The County Governments were required to prioritize garbage collection and cleanliness of all markets as well as ensure provision of soap and clean water in all market centers.
- v. Corporations and businesses were encouraged to allow where possible employees to work from home.
- vi. To ensure business continuity for the manufacturers and industries, factories were required to operate using minimum workforce on a 24-h shift rotation system.
- vii. To reduce the risk of transmission in the public transport system, persons were encouraged as much as possible, to stay at home unless on essential business. Public service vehicle operators were asked to observe high levels of hygiene during this period. It was directed that, vehicles to maintain 60% maximum of seating capacity.
- viii. All hospital management in public and private hospitals were to restrict patient visitation to family and relatives of patients who have been expressly contacted by the hospital.
- ix. All travelers coming into the country, was restricted to Kenyans and foreigners with valid residence permits must self-quarantine for a period of 14 days.

On 25th March 2020, the president announced a welcome stimulus package to address the impact of coronavirus on the economy. Which included: a 100 per cent tax relief for individuals with a gross income of up to Sh24,000, the income tax be reduced from 30 per cent to 25 per cent, reduce the Value Added Tax from 16 per cent to 14 per cent, Orphans, the elderly and other vulnerable members of the society will enjoy a Sh10 billion cash among others.

From 27th March 2019, Kenya government through a public order notice called for a 7pm to 5am curfew on all

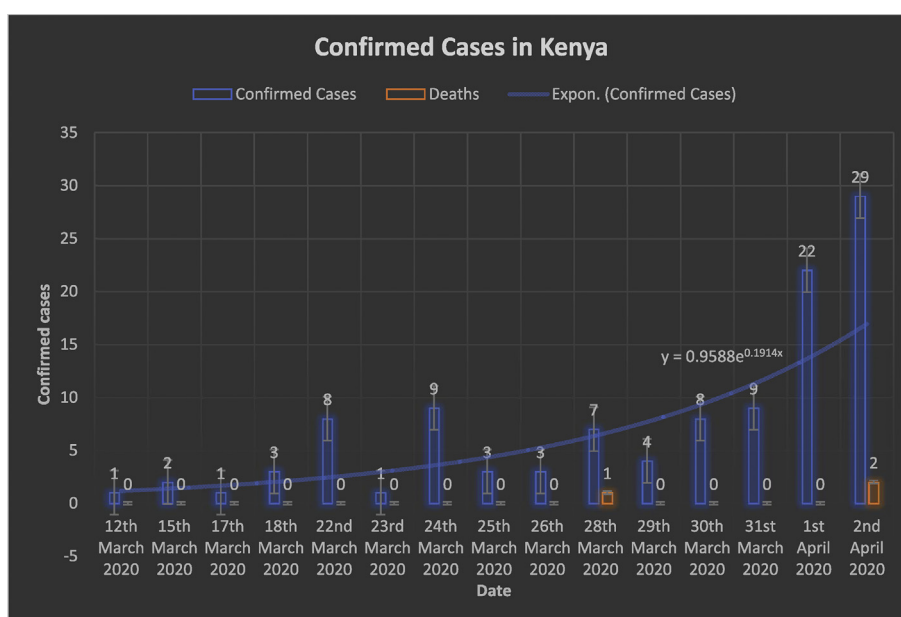


Fig. 1. Confirmed cases in Kenya.

persons not providing essential services. The curfew would be indefinite (MOH, KENYA, 2020).

Discussion

On 12th March 2020, the Ministry of Health confirmed the first case of Coronavirus disease (COVID-19) case in Nairobi. The suspected case was tested and confirmed at the National Influenza Centre Laboratory at the National Public Health Laboratories. The patient had returned to Nairobi from USA on March 5th 2020 via London, UK. The ministry of health had warned that the cases are going to rise exponentially in the coming days, asking Kenyans to remain calm and follow the set guidelines. This is proven in the plotted graph as shown in Fig. 1. The confirmed cases will continue to increase exponentially if no drastic measures are put in place.

The curve shows that the confirmed cases will increase according to equation (1).

$$y = 0.9588e^{0.1914x} \quad (1)$$

where

y is the confirmed cases.

x is the day under question.

After implementing social distancing and the curfew, the government should provide proper protective equipment (like hand wash, sanitizers, masks, etc.) Regular hand-washing with running water and soap is an essential precaution for the COVID-19; hence, the county and national governments through relevant departments should enhance availability of 24hr clean water and soap in the low-income homes especially in the informal settlements i.e. Kibera which is the largest in Africa. It would be disaster

containing COVID-19 is such informal settlements where population density is very high. The Kenyan government should also plan on how to distribute sufficient, and quality food to its citizens in the event it required to go through total lockdown due to increasing cases. Due to reduced activities by the judiciary, there will be increased case of lawlessness. The security parameters should be vigilant and enhance intelligence especially in densely populated areas.

Lastly its recommended for Kenya to adopt the WHO strategies including but not limited to Interruption of human-to-human transmission including reducing secondary infections among close contacts and health care workers, inhibiting transmission amplification events, and preventing further international spread, abate social and economic impact through multisectoral partnerships among others.

Ethical approval

Not required.

Declaration of Conflict of Interest

The author declares no conflicts of interest.

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