

Drawing on experiences in other countries to improve Ghana's response to COVID-19

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ARTICLE INFO

ARTICLE HISTORY:

Received 14-Apr-2020

Revision 1-Jan-2021

Accepted 2-Jan-2021

Available online 26-Mar-2021

Keywords:

Pandemic, COVID-19, Ghana

DOI:

<http://dx.doi.org/10.31191/afrijcmr.v4i2.60>

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BACKGROUND

In December 2019, a local outbreak of pneumonia of initially unknown cause was detected in Wuhan (Hubei, China), and was quickly determined to be caused by a novel coronavirus, named severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (1). This new coronavirus was previously not identified in humans. The new coronavirus has case fatality rate of 2.5% (2, 3). However, the case fatality rate have exceeded the initial estimates of 2.5 to about 8.8% by 25th March 2020(4). It is a zoonotic coronavirus similar to SARS and Middle East Respiratory Syndrome (MERS), and named coronavirus disease of 2019 (COVID-19)(5). The outbreak of 2019 novel coronavirus diseases (COVID-19) in Wuhan, China spread quickly to every Province in mainland China and to 201 other countries by March 25 2020(2). Human coronaviruses cause mild disease similar to a common cold, while others cause more severe disease such as MERS - Middle East Respiratory Syndrome and SARS – Severe Acute Respiratory Syndrome (6).

The epidemic was declared a public health emergency of international concern by the World Health Organization (WHO) on the 30th January 2020 posing a high risk to countries with vulnerable health systems as the outbreak spread to all WHO Regions (3), and later declared a pandemic as it spread to over 100 countries (7). From the 12 March to 4 April, 2020, the COVID-19 pandemic spread rapidly across the world. The John Hopkins University reported on Friday 27th March that the pandemic has reached 201 countries. By March 13th 2020, the epicentre of the pandemic shifted from China where 81,848 people were infected with 3287 deaths to Europe with devastating effects on Italy, Spain, Germany, France, Switzerland and the United Kingdom, the USA in America(8). On the 24th of March 2021, 30,693,439 people were infected with 557,960 deaths in the United State of America, 12,130,019 people were infected with 298,676 deaths, 11,734,058 people were infected with 160,441 deaths, 4,424,595 people were infected with 94,231 deaths, 4,313,073 people were infected with 92,908 deaths in France 3,440,862 people were infected with 106,339 deaths in Italy, 3,241,345 people were infected with 74,064 deaths in Spain, 2,690,523 people were infected with 75,212 deaths in Germany and 588,118 people were infected with 9,552 deaths(8). As at the 4th April, 2020, the death toll in Italy surpassed that of China. The death toll in Iran and Spain in thousands at this point raises concern. The USA has overtaken Italy, Spain, and Iran were over 27,800,000+ people infected with 500,000+ deaths (8). As of 24th March, 2021, Ghana's COVID-19 confirmed cases stood at 89,893 with 2,911 active cases and 86,248 recoveries /discharges with 734 deaths(1). There were six (6) critical cases with three (3) on ventilator and sixteen severe cases.

The WHO's standard recommendations to prevent the spread of COVID-19 include frequent cleaning of hands using alcohol-based hand rub, washing of hands with soap under running water; social distancing at least two meters, covering the nose and mouth with a flexed elbow or disposable tissue when coughing and sneezing; and avoid close contact with anyone that has a fever and cough can reduce cross-infection and help contain spread of the disease (2, 9-11)

Public health emergency management is the process of anticipating, preventing, preparing for, detecting, responding to, controlling and recovering from consequences of public health threats in order that health and economic impacts are minimized (12). And following the COVID-19 outbreak, series of dramatic measures has been adopted by countries that reflect the scale of the threat posed by the pandemic (13). Also, context specific actions such as food supply and social insurance were taken to protect life and ameliorate the economic impact on the citizenry (12). There are basically two main approaches that have been adopted by countries so far to control and contain COVID-19. These approaches have been adopted by the countries in previous epidemic outbreaks such as Ebola and current COVID-19 and these approaches are influenced by the resources at the disposal of these countries to fight the epidemics (2). These are the Mitigation and Suppression approach.

THE MITIGATION APPROACH

Mitigation is a set of actions taken by the State to help slow down the transmission of COVID-19 in anticipation of vaccine and drug and in particular to protect the individuals at increased risk for severe illness, including older adults and persons of any age with underlying health conditions such as cardiovascular diseases, diabetes, hypertension and cancer, while protecting healthcare and critical infrastructure worker forces(14). The approach is used to minimize morbidity. The mitigation

approach was adopted by Italy, Spain and the UK to contain the spread of COVID-19(12). It employed massive health education by adopting behaviour change communication strategies to appeal to the citizenry to change their behaviours to control and contain the spread of the virus. These involves educating the general public on the precautionary measures recommended by the WHO to fight COVID-19 while at the same time testing and isolating individuals returning from affected countries(14).



If used properly, it helps the country to prepare for the arrival of non-pharmaceutical products such as test kits, ventilators, personal protective equipment (PPE), and recruiting and training health workers to meet the demand in areas of contact tracing, testing of suspected cases and the use of ventilators so that the health system is not overwhelmed. This approach is protecting the citizens in the outbreak of COVID-19 while at the same time ensuring human rights and that is why it is said that this approach is influenced by democratic tenets(1). However, if the mitigation approach is not properly implemented, it could lead to rapid community transmission of the COVID-19 with devastating impact on the country.

Italy and Spain adopted the mitigation approach with less restriction lockdown or partial lockdown, schools and no mass gathering of people, essential workers were allowed to move and no adequate contact tracing (7,

15-17). Even though the rights of people were protected, it lead to adverse health and economic impact. The mitigation approach also has higher case fatality rate, higher economic and societal cost with higher infection and death toll (1, 7, 15-17). The government later changed it approach to total lockdown to help contain COVID-19.

The UK adopted the approach with modification to contain, delay, research and mitigate. This involves delay containment, restriction on movement and measures to protect the aged and those with health problems such as diabetes, hypertension, cancer and cardiovascular diseases (18). This approach helps reduce the pressure on the health system, reduce health, economic and societal cost. It also enables the health system to buy time to wait for medical logistics such as ventilators, PPEs, vaccine and drugs to prevent health system from collapsing with campaign stay home, protect the National Health Service and save lives (7, 14, 17).

THE SUPPRESSION APPROACH

This approach is where the government either partially or totally lockdown the country to break the chain of transmission quickly to contain the virus and testing for the virus in the population. This is also to reduce cases to ensure that the health workers are not overwhelmed and also the health system from collapsing. It has a higher rate of success if implemented well. China adopted this approach with lockdown and quarantine, testing and treating patients, isolating suspected cases, restricting movement and sterilization of streets. This approach was also adopted by South Korea with modification where the country was not on lockdown but there was massive contact tracing, testing and treatment (12). This action involves mass

Screening for symptoms through public and private labs, contact tracing of travelers who came into contact with infected people. Schools were closed, no large gathering of people and there was restriction on movement, wearing of mask, thermal screening in buildings, and use of sanitizers. These actions were supported by daily health education on television and print media and risk communication by government officials. This approach yielded positive results in China and South Korea with reduction of case incidence and fatality and economic impact and eventual defeat of COVID19. However, it has some demerits such as violation of human rights, high economic, health system and societal cost on China and South Korea (19).

GHANA'S APPROACH TO CONTAIN COVID-19.

Ghana adopted the mitigation approach from Italy, Spain, and UK with modification on restriction on foreigners. All the ports of entry were closed to other nationals with mandatory 14 days quarantine for Ghanaian citizens returning to home, schools from kindergarten to university were closed, no large gathering, with massive health education on hand washing under running water, the use of mask, social distancing, use of sanitizers, with suspected cases isolated for testing and treatment. This approach limited the health, economic and societal cost. The approach also helps the government to mobilize resources to get pharmaceutical products such as PPEs, ventilators, and vaccines and drugs in case the vaccines and drugs are found (17). This also helps to strengthen the health system by employing more personnel to augment the health staff to help in the areas of contact tracing

and testing of suspected cases (7, 15, 16). Ghana adopted this approach for peculiar reasons because majority of the citizens were employed in the informal sector and therefore with lockdown, it would have dare consequences on the economic. The government later modified this approach to place restriction on movement to and from the epicenters in Ghana. However, essential workers and service providers especially grocery supermarkets and stores were allowed free movement across the country. The government announcement on restriction on movement was greeted with panic buying in the epicenters and movement of people from these areas to avoid the restriction to other parts of the country. This movement may end up spreading the transmission to other parts of the country.

CONCLUSION

It obvious that there is no single approach that can effectively deal with the COVID-19 pandemic worldwide as it is still evolving and spreading rapidly. The governments are working hard to contain COVID-19, adapting approaches with context in mind. Each country irrespective of its economic development and the health system, needs to adapt its response considering the health systems factors, the economic resources and infrastructure, the welfare system, and the societal cost and the ability to comply with recommendations issued by the public health experts and the WHO. It is a fact that outbreaks of pandemics will continue and therefore it is importance to continue to learn from the experiences of peers in other to adopt appropriate responses to fight COVID-19 and similar pandemics in the future.

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