Ghana has experienced a low peak in COVID-19 cases followed by steady management of cases. John Abonongo shares a timeline of his country's response. John is a Lecturer in Actuarial Science in the Department of Statistics at C.K. Tedam University of Technology and Applied Sciences, Navrongo.

## **Highlight of Disease Status:**

Population as at Mid 2020 <sup>1</sup>	31,072,940		
Population Density per Sq km	127.52		
First Official Case	12 <sup>th</sup> March, 2020.		
Lockdown	3/30/2020, 12:00 AM until 4/15/2020, 11:59 PM		
Number of Days	2 weeks (14 days)		
Did Lockdown reduce New Cases?	Yes		
Sufficient Capacity in Healthcare System	Fair		
Cumulative Cases as at 30 Nov 2020	51,569		
New Cases in Nov 2020	3,514		
New Cases Per 000 Population	0.11		
Case Fatality Ratio	0.6%		

### **Ghana Initial Response**

# Authorities ban entry to travelers from countries with more than 200 COVID-19 confirmed cases as of March 17 /update 1:

In a statement on Sunday, March 15, Ghana's government announced a temporary ban on travelers from countries that have recorded 200 or more cases of COVID-19 as of Tuesday, March 17. According to the statement, the ban was not applicable to Ghanaian citizens or foreigners with valid Ghanaian resident permits. Additionally, there was a mandatory 14-day self-quarantine for people entering Ghanaian territory from Tuesday, March 17.

As of Monday, March 16, Ghanaian Ministry of Health confirmed six cases of the virus nationwide.

## Authorities close borders as of March 22 /update 2:

On Saturday, March 21, President Addo Dankwa Akufo-Addo announced the closure of the country's borders as of Sunday, March 22, for a period of two weeks to limit the spread of the COVID-19 outbreak in the country with the same exceptions and quarantines already in force.

<sup>&</sup>lt;sup>1</sup> <a href="https://www.singstat.gov.sg/find-data/search-by-theme/population/population-and-population-structure/latest-data">https://www.singstat.gov.sg/find-data/search-by-theme/population/population-and-population-structure/latest-data</a>

As of March 23, there are 21 confirmed COVID-19 cases and one confirmed death nationwide.

## Authorities impose lockdown on two regions due to COVID-19 from March 30 /update 3:

On Saturday, March 28, the president announced a lockdown on the Greater Accra Metropolitan Area and the Greater Kumasi Metropolitan Area from 01:00 (local time) on Monday, March 30, According to authorities, all individuals were advised to stay at home as much as possible for the next two weeks and will only be permitted to leave their homes for essential items such as food, medicine, and water, or to visit the bank and public toilets. Additionally, inter-city travel for private and commercial purposes, except for essential goods and services, was suspended. All intra-city travel vehicles were asked to reduce their number of passengers to observe social distancing.

As of March 28, authorities have confirmed 141 COVID-19 cases nationwide, including five fatalities. So far, the Greater Accra, Ashanti, and Upper West Regions had reported cases of the virus.

## Authorities extend border closure from April 5 /update 4:

On Saturday, April 4, authorities announced that the country's border closure that was due to end on Sunday, April 5, has been extended for a 14-day period with the same exceptions and quarantines.

Authorities previously announced a lockdown in the Greater Accra Metropolitan Area and the Greater Kumasi Metropolitan Area and advised individuals to stay at home. Travel restrictions remain.

As of April 6, there are 214 confirmed cases COVID-19 cases and five reported deaths nationwide.

## Authorities begin easing COVID-19 lockdown measures in major cities from April 20 but require masks /update 5:

The president began to ease movement restrictions in major cities in the country as of Monday, April 20, including in Accra and Kumasi (Ashanti region), following a 21-day lockdown. Residents in cities under lockdown measures were allowed to return to work; however, large public gatherings remained prohibited and schools closed until further notice. The Greater Accra Regional Coordinating Council issued a directive on Wednesday, April 22, making the wearing of face masks compulsory in public with immediate effect in the Greater Accra region. Similar measures were imposed in Cape Coast Metropolis from Monday, April 27. National health authorities and the president advised the rest of the nation to wear face masks as well. Ghana's border and travel restrictions remain.

As of Saturday, April 25, 1,279 cases of COVID-19 have been confirmed in Ghana, as well as ten associated deaths. Further international spread of the virus is expected.

### Authorities extend ban on public gatherings amid COVID-19 April 26 /update 6:

On Sunday, April 26, the president announced that the ban on public gatherings will be extended by two weeks until Monday, May 11, and will include religious activities and funerals. He further announced that trotros (mini-busses), taxis, and busses are advised to operate with a minimal number of passengers and all businesses and supermarkets will be enforcing social distancing measures.. Previously announced border and travel restrictions continue.

As of Monday, April 27, authorities have confirmed 1,550 COVID-19 cases nationwide, with 11 associated deaths. Further international spread of the virus is expected.

## Domestic flights to resume but border closure extended from May 1 /update 7:

The Aviation Minister announced that domestic flights in Ghana will resume from Friday, May 1, following three weeks of lockdown measures. Authorities added that precautionary measures, such as safe distancing between passengers, will be in place to ensure the safety of passengers and operators. Health screenings are mandatory for crew members before flight, and more personal protective equipment (PPE) is being acquisitioned for port health officials and ground handling personnel. The president announced the extension of the closure of the country's international borders through Sunday, May 31. The measure also affects international commercial flights, which will not operate over this period. The government stated that the extension was necessary in order to prevent the import of further cases of COVID-19. Quarantine restrictions were loosened so that citizens returning from abroad and foreign nationals with Ghanaian residence permits will be subject to a 14-day mandatory quarantine period only if they show symptoms of the virus.

As of May 1, authorities have confirmed 2,074 COVID-19 cases nationwide, with 17 associated deaths. Ghanaian health authorities announced on Sunday, May 24, that 6,683 cases of the coronavirus disease (COVID-19) have been confirmed in the country with 31 associated deaths.

### Authorities announce easing of COVID-19 restrictions May 31 /update 8:

On Sunday, May 31, the president announced the easing of several measures that were previously introduced. From Friday, June 5, schools will reopen for final year students, and conferences, weddings, burials, non-contact sport, and political activities, all with less than 100 participants, will be permitted to resume. In addition, the Electoral Commission (EC) and National Identity Authority (NIA) will soon resume collecting information for the creation of a national identity card and register. Festivals, sporting events, nightclubs, cinemas, and political rallies will remain banned, and the closure of Ghana's borders has been extended indefinitely. Travel restrictions and isolated mask mandates remain.

As of June 1, there have been 8,070 confirmed cases of COVID-19 in Ghana, with 36 associated fatalities.

### Authorities announce further easing of COVID-19 restrictions from August 1 /update 9:

On Sunday, July 26, the president announced the further easing of several measures. From Saturday, August 1, restrictions on the number of worshippers in churches and mosques will be lifted, and worship time will be extended to two hours. There will also be an easing of limitations on the number of passengers on public transport and domestic flights, and tourist centers and open-air drinking spots will be allowed to reopen. It remains mandatory to wear face masks in public spaces. Ghana's air, land, and sea borders remain closed indefinitely.

As of Monday, July 27, there have been 38,969 confirmed cases of COVID-19 in Ghana, with 168 associated fatalities.

### Authorities announce reopening of air borders September 1 / update 10:

The president announced on Sunday, August 30, that air borders will reopen to international travel as of Tuesday, September 1. Accra Kotoka International Airport (ACC) will also reopen to passenger air traffic on Tuesday, following the implementation of rapid COVID-19 testing for arrivals there. Those arriving in Ghana will be required to produce a negative COVID-19 test result acquired no more than 72 hours prior to scheduled arrival. Arrivals will also have to undergo a mandatory COVID-19 test, which involves a fee to be paid by the passenger. Land and sea borders remain closed until further notice.

As of Monday, August 31, there have been 44,205 confirmed cases of COVID-19 in Ghana, with 276 associated fatalities.

Ghana Health Service Situation Update, COVID-19 Outbreak in Ghana as at November 30, 2020 (Tables and figures numbered according to Ghana Health Service web site linked below)

Table 1: Confirmed cases of COVID-19 and Treatment Outcomes, Ghana as at November 30, 2020

Category	Number of cases	Recovered/ Discharged	Severe	Critical	Dead	Active
Routine Surveillance	21,059	50,806				
Enhanced Contact Tracing	30,726		15	4	325	847
International travelers (KIA)	311	159				
Total	52,096	50,924	15	4	325	847

<sup>\*</sup>Critical-4, 3 on ventilator, Severe-15

Table 2: Positivity rate by surveillance type for samples tested in Ghana, March-November 2020

Surveillance Type	Total no. Tested	sted Total no. positive Positivity rate	
Routine Surveillance	203,528	21,059	10.3
<b>Enhanced Contact Tracing</b>	323,132	30,726	9.5
International travelers (KIA)	74,347	311	0.4
Total	601,007	52,096	8.7

Figure 1: COVID-19 positivity rate in Ghana by date sample taken, July 29 to November 30, 2020

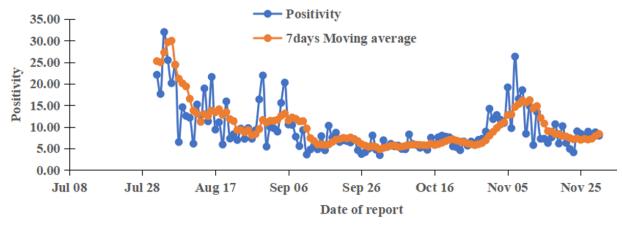


Figure 4: Distribution of COVID-19 cases and 7 days moving average in Ghana by date sample taken, March-November 2020

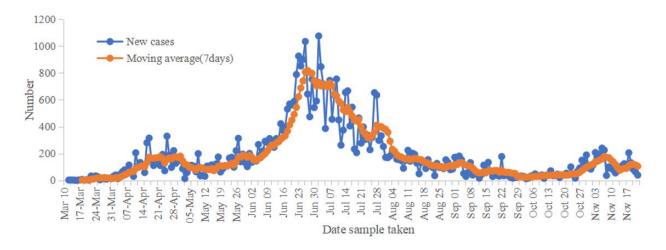


Figure 6: Reproduction number (R<sub>0</sub>) for COVID-19 cases in Ghana by date, April-November 2020

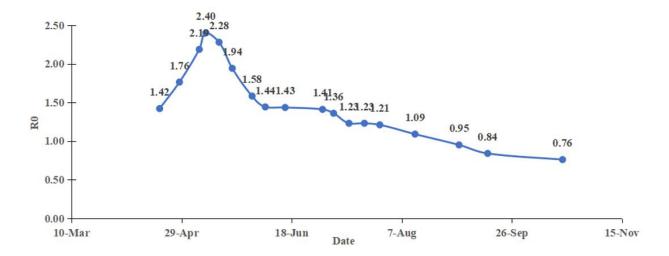


Figure 7: Regional distribution of COVID-19 active cases in Ghana as at November 30, 2020

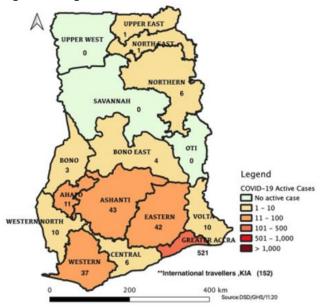


Figure 8: Regional distribution of cumulative COVID-19 cases in Ghana, March-November 2020

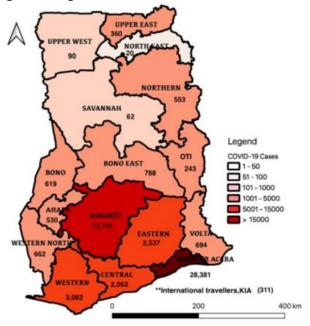


Figure 12: COVID-19 active cases and recoveries, Ghana, March-November 2020

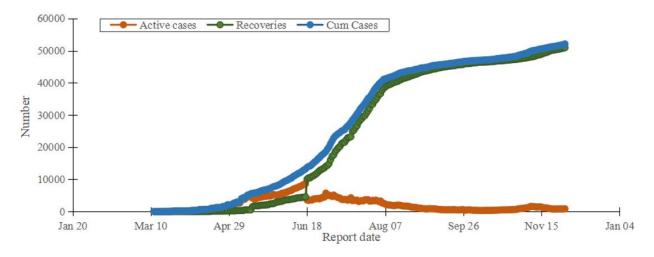


Table 3: Summary of recoveries by region, March-November 2020

Region	Cases	Recovered/ Discharged	scharged % Recovered/ Discharged	
Ahafo	530	513	96.8	11
Ashanti	11,131	10,984	98.7	43
Bono	619	615	99.4	3
Bono East	788	773	98.1	4
Central	2053	2,031	98.9	6
Eastern	2,537	2,476	97.6	42
Greater Accra	28,381	27,734	97.7	521
North East	20	18	90.0	1
Northern	553	535	96.7	6
Oti	243	239	98.4	0
Savannah	62	61	98.4	0
Upper East	360	353	98.1	1
Upper West	90	87	96.7	0
Volta	694	673	97.0	10
Western	3062	3,021	98.7	37
Western North	662	652	98.5	10
International travelers(KIA)	311	159	51.1	152
TOTAL	52,096	50,924	97.8	847

https://ghanahealthservice.org/covid19/latest.php

https://www.ghanahealthservice.org/covid19/press-releases.php

https://www.garda.com/crisis24/news-alerts/323076/ghana-authorities-ban-entry-to-travelers-from-countries-with-more-than-200-covid-19-confirmed-cases-as-of-march-17-update-1

https://www.garda.com/crisis24/news-alerts/325606/ghana-authorities-close-borders-as-of-march-22-update-2

https://www.garda.com/crisis24/news-alerts/327316/ghana-authorities-impose-lockdown-on-two-regions-due-to-covid-19-from-march-30-update-3

https://www.garda.com/crisis24/news-alerts/329531/ghana-authorities-extend-border-closure-untilapril-19-update-4

https://www.garda.com/crisis24/news-alerts/334396/ghana-authorities-begin-easing-covid-19-lockdown-measures-in-major-cities-from-april-20-update-5

https://www.garda.com/crisis24/news-alerts/336286/ghana-wearing-of-face-masks-mandatory-in-public-in-greater-accra-region-as-of-april-22-update-6

https://www.garda.com/crisis24/news-alerts/336566/ghana-authorities-extend-ban-on-public-gatherings-amid-covid-19-april-26-update-7

https://www.garda.com/crisis24/news-alerts/337346/ghana-domestic-flights-to-resume-from-may-1-update-8

https://www.garda.com/crisis24/news-alerts/338216/ghana-border-closure-extended-through-may-31-update-9

 $\underline{https://www.garda.com/crisis24/news-alerts/345031/ghana-over-6600-cases-of-covid-19-confirmed-as-of-may-24-update-10}$ 

https://www.garda.com/crisis24/news-alerts/347306/ghana-authorities-announce-easing-of-covid-19-restrictions-may-31-update-11

https://www.garda.com/crisis24/news-alerts/374201/ghana-authorities-announce-furthe-easing-of-covid-19-restrictions-from-august-1-update-12

https://www.garda.com/crisis24/news-alerts/374201/ghana-authorities-announce-reopening-of-air-borders-september-1-update-13