

**Letter to the Editor****EFFECTIVENESS OF LOCKDOWN (FROM 30th MARCH TO 30th MAY, 2020) IN CURBING THE SPREAD OF CORONAVIRUS: LAGOS, ABUJA AND OGUN AS A CASE STUDY****Daha Garba Muhammad<sup>1\*</sup>**<sup>1</sup>Department of physiotherapy, Abubakar Tafawa Balewa University Teaching Hospital, Bauchi, Nigeria.

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World Health Organisation (WHO) declared COVID-19 as a pandemic on 11th March 2020 due to its large-scale spread across the world.<sup>1</sup> The first case in Nigeria was reported on 27 February 2020. The majority of the early cases identified had a traveling history to endemic areas and constituted the primary cases that infected others.<sup>2</sup> Lagos, Abuja and Ogun were the first places where the virus started spreading and that is where the Nigerian government started to implement the lockdown.<sup>3</sup> Lagos is a densely populated city in Nigeria, as such very vulnerable to infectious diseases.

Nigerian government had imposed lockdown from 30th March to 30th May, 2020 in the cities of Lagos; south-western part of the country, Abuja; North-Central part of the

country and Ogun; south-western part of the country, where confirmed cases of the virus were first recorded in order to curtail further spread of coronavirus in the country.<sup>3</sup> Complete lockdown is a lockdown in which all movement and activities are suspended except for essential services as such people are expected to remain indoors throughout a day, whereas in a partial lockdown, movement of non-essential services is allowed on some specific days for a specific number of hours of the day.<sup>3</sup> Complete lockdown was enforced from 30th March to 3rd May, 2020 in three different phases over five weeks (two, two and one week consecutively).<sup>3</sup> This was followed by a partial lockdown from 4th May to 22nd July, 2020 in three different phases. Thereafter, the government may decide on re-opening schools.<sup>3</sup>

**Table 1: COVID-19 in different phases of lockdown in Lagos, Abuja and Ogun states in Nigeria.**

	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Number of cases</b>	92	239	827	1465	19238
<b>Number of deaths</b>	2	7	23	35	256
<b>Number of recoveries</b>	8	74	169	299	4172
<b>Fatality rate (%)</b>	2%	3%	3%	2%	1%
<b>Recovery rate (%)</b>	9%	31%	20%	20%	22%
<b>Increase rate%</b>	-	160	256	77	1213
<b>Doubling time (days)</b>	5	10	8	17	2

Source: [2, 4, 5, 6, 7, 8]

**Table 2: Key for Table 1**

Denotation	Phase of lockdown	Date of commencement to termination
0	Pre-lockdown	27th February – 29th March 2020
1	complete lockdown Phase 1	30th March – 12th April 2020
2	complete lockdown phase 2	13th – 26th April, 2020
3	complete lockdown phase 3	27th April – 3rd May, 2020
4	partial lockdown phase 1	4th – 30th May, 2020

Despite the lockdown enforced by the Federal Government, a high increase in the number of newly confirmed cases was seen as shown in table 1, both during complete and partial lockdown. This does not in any way show the ineffectiveness of the lockdown because contact tracing was intensified and testing capacity increased too. However, a significant reduction in the number of newly confirmed cases was seen in the third phase of the lockdown which might be due to the short duration of the phase (one week). Interestingly, the case fatality rate reduced to 1% in the cities under review, though it increased initially during the first and second phases of the lockdown. This is a lower rate when compared to other countries such as Italy (14.5%), Spain (9.3%), UK (14.2%) and USA (5.5%),<sup>9</sup> and also India that remained 3%.<sup>10</sup> The recovery rate is also encouraging, as it improved too as seen from table 1 above from 9% to 31% and later 22%.

Doubling time is the time it will take number of cases within a specified period of time to double. The higher the number, the more the better the infection prevention. It can be seen from the table above, the doubling time increases from 5 days pre-lockdown to 10, 8 and 17 during the lockdown indicating decreases in infection spread during the period. During the 4<sup>th</sup> first of lockdown, the doubling time was 2, this may be due to the fact that it spans only for a week and it is the phase where partial lockdown was initiated.

Therefore, the lockdown cannot be said to be ineffective, taking into account the increase in testing capacity initially at 1,000 pre-lockdown and rising to 1,500 and to 2,500 during the lockdown. Contact tracing also increased during the period.<sup>3</sup> Additionally, before the first lockdown was imposed, it was predicted that there would be 2,000 confirmed cases in the following one month which necessitated initiation of the first phase of the lockdown.

Fortunately enough, only 1,413 cases were seen nationwide during the said time,<sup>3</sup> despite the increase in testing capacity and contact tracing.

In addition, the number of coronavirus confirmed cases might have been more than the number recorded now, if the lock down had not been enforced, since the asymptomatic cases before the lock down might have intermingled and transmitted the infection to others at religious gatherings, market places and other congregations.

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