



## Covid-19 Lockdown In South-East Nigeria: Evidence-Based Findings To Support Need For Food Systems Transformation

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### Introduction:

Outbreak of the novel coronavirus disease (COVID-19) late 2019 brought the whole world to a state of pandemonium (Goyal et al. 2022, Ogunji et al. 2021). To curtail the rate of infection, countries imposed lockdown. Unfortunately the lockdown heightened the problem which the infection has already caused.

Economic activities became stranded; lives, livelihoods and hunger exponentially got elevated in the society. The COVID-19 created a situation of socioeconomic unsteadiness. It brought to a standstill people's lives. It also led to the suspension of economic activities (Khowa et al. 2022, Rogan & Skinner 2019)

The pandemic increased the vulnerability of resource-poor food producers, particularly in already fragile regions especially in Africa. Low-and middle-income countries like Nigeria were highly affected.

The difficulty encountered were traced to the relatively lack of food and poor food systems. Food systems however involve production, processing, distribution, and consumption (Haddad, 2019).

Food system transformation is essential to ensure adequate incomes for producers and enable access to affordable, healthy diets while managing increasing food demand from growing and highly distressed populations.

This study reports the case of COVID-19 lockdown in South-East Nigeria to support the need for transforming food systems.

### Materials & Methods

Out of the 36 states of Nigeria the South-East Nigeria is made up of five (5) States, (Abia, Anambra, Ebonyi, Enugu, and Imo States). The survey was undertaken after 5 weeks of the COVID-19 lockdown. A total of 1209 household heads from the 40 communities purposively sampled were interviewed. The authors of this paper supervised data collection.

Designed questionnaire was used as the instrument for the study to measure level of hunger and food security in households. The study utilized an adapted version of the Radimer-Cornell tool used for assessing hunger and food security (Welch et al. 1998, Ballard et al. 2011). Four (4) Radimer/Cornell hunger items out of the 9 Radimer/Cornell food security items were administered to the research population during the lockdown. Four (4) Radimer/Cornell hunger items out of the 9 Radimer/Cornell food security items were administered to the research population during the lockdown

Primary survey data analysis consisted in frequency counts and percentages, Chi-square tests of independence were used to test for associations with demographic variables, and a Cramer's V test was further used to ascertain the extent of association between them, using SPSS version 20. Statistical significance was determined by  $p < 0.05$ .

### Result

Radimer/Cornell hunger scale was used to determine the Household hunger. Chi-square test was done to confirm the significance ( $P < 0.05$ ). Results indicated that before the Covid-19 lockdown the hunger situation in South-East Nigeria was 82.27%. This increased to 98.6%. A test of association between the hunger status of these households shows a significant association ( $\chi^2=10.688$ ,  $P$ -value for exact= 0.004). The Cramer's V test for test shows a 9.4% strength of association between the household hunger before and during the Covid-19 lockdown in Southeast Nigeria. The Cramer's V coefficient though low was statistically significant implying that the hunger level during the Covid-19 lockdown is associated with their hunger status before the lockdown. More details are presented in Table 1

**Table 1. Test of significant change in the household hunger before and during the COVID 19 lockdown across the States in Southeast Nigeria**

Household hunger per period	Households		Pearson Chi-square value	Cramer's V/ Phi Test coefficient	Fisher's exact Test P-value
	Frequency	Percentage			
<b>Abia State</b>					
Before the Covid-19 lockdown	251	99.6	0.087	0.019	1.000
During the Covid-19 Lockdown	252	100			
Household hunger changes	1	0.4			
<b>Anambra State</b>					
Before the Covid-19 lockdown	235	97.9	0.087	0.019	1.000
During the Covid-19 Lockdown	236	98.3			
Household hunger changes	1	0.4			
<b>Ebonyi State</b>					
Before the Covid-19 lockdown	217	91.2	31.396	0.363	0.000*
During the Covid-19 Lockdown	235	98.7			
Household hunger changes	18	7.5			
<b>Enugu State</b>					
Before the Covid-19 lockdown	76	31.8	0.468	0.044	0.494
During the Covid-19 Lockdown	238	99.6			
Household hunger changes	159	67.8			
<b>Imo state</b>					
Before the Covid-19 lockdown	221	92.1	17.115	0.267	0.003*
During the Covid-19 Lockdown	231	96.2			
Household hunger changes	10	4.1			
<b>Overall</b>					
Before the Covid-19 lockdown	1000	82.7	10.688	0.094	0.004*
During the Covid-19 Lockdown	1192	98.6			
Household hunger changes	192	15.9			

\*Significant  $P < 0.05$

### Discussion & Conclusion

The lockdown and social distancing executed by governments brought about, shutdown of marketplaces, ban of vendors from selling, reduction of the number of shoppers, and the growth of long queues at places food was sold. The already appalling hunger situation before the Covid-19 became worsen during the lockdown. This situation highlighted the effect of food lack and poor food systems.

Bearing in mind that food systems involve production, processing, distribution, and consumption, this study observes that transforming food systems in South East Nigeria is inevitable.

It will forestall challenges faced by the people during such situations as Covid 19-lock down. If households (especially the rural) had the technology of adequate on/off farm processing and storage of their own food during time of plenty the effect of lockdown on them would have been minimal. Concerted effort should be made to upscale sustainable food storage and processing. Concerted effort should be made to upscale sustainable food storage and processing.

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