

Effects of covid-19 outbreak lockdown on food supply in Ilorin South Local Government Area, Kwara State, Nigeria

Ibrahim Ologele ✉ ologele.i@unilorin.edu.ng; Department of Health Promotion and Environmental Health Education, Faculty of Education, University of Ilorin, Ilorin, Nigeria

Bushrah Daud ; Department of Health Promotion and Environmental Health Education, Faculty of Education, University of Ilorin, Ilorin, Nigeria

Taofeekat Omotoyosi Hussain; Department of Health Promotion and Environmental Health Education, Faculty of Education, University of Ilorin, Ilorin, Nigeria

Mariam Omowumi Isiaq; Department of Health Promotion and Environmental Health Education, Faculty of Education, University of Ilorin, Ilorin, Nigeria

Abstract: The study investigated the effects of covid-19 outbreak lockdown on food supply in Ilorin South Local Government Area, kwara State. The purpose of this study was to investigate if: (i) covid-19 lockdown will change the purchase pattern of food supply in Ilorin South Local Government Area, kwara State, (ii) covid-19 lockdown will reduce the amount of nutritious food consume by people in Ilorin South Local Government Area, kwara State. A descriptive research of the survey type was adopted for the study. The population of the study comprised of residents in Ilorin South Local Government Area. Multi-stage sampling technique was used to select two hundred and twenty-one (221) respondents used for the study.. The research instrument used for this study was a questionnaire. The instrument was validated by three experts in the related field. The reliability of the instrument established through test-retest and result of 0.87r was obtained using Pearson Product Moment Correlation. The findings of the study revealed that, Covid-19 lockdown change the purchase patterns of food supply in Ilorin South Local Government Area, Kwara, and Covid-19 lockdown reduce the amount of nutritious food consume by people in Ilorin South Local Government Area, Kwara State. Based on the findings of the study, it was concluded that, Covid-19 lockdown change the purchase patterns of food, and reduce the amount of nutritious food consume by people in the study area. Therefore, it was recommended that health educators' practitioners should create more awareness on healthy eating and disseminate information about effective protection measures while shopping.

Keywords: Covid-19, Effects, Food, Lockdown, Outbreak,

✉ ologele.i@unilorin.edu.ng

Citation: Ologele, I., Daud, B., Hussain, T., & Isiaq, M. (2023). Effects Of Covid-19 Outbreak Lockdown on Food Supply in Ilorin South Local Government Area, Kwara State, Nigeria. *Social Sciences, Humanities and Education Journal (SHE Journal)*, 4(1), 32-41. 10.25273/she.v4i1.15603



Published by Universitas PGRI Madiun. This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License.

INTRODUCTION

The Covid-19 pandemic that has spread rapidly and extensively around the world since late 2019 has had profound implications for food security and nutrition. The unfolding crisis has affected food systems and threatened people's access to food via multiple dynamics. We have witnessed not only a major disruption to food supply chains in the wake of lockdowns triggered by the global health crisis, but also a major global economic slowdown. These crises have resulted in lower incomes and higher prices of some foods, putting food out of reach for many, and undermining the right to food and stalling efforts to meet Sustainable Development Goal Two (SDG 2) : "Zero hunger." The situation is fluid and dynamic, characterized by a high degree of uncertainty. According to the World Health Organization, the worst effects are yet to come (Ghebreyesus, 2020; Khorsandi, 2020). Most health analysts predict that this virus will continue to circulate for a least one or two more years (Scudellari, 2020).

The food security and nutrition risks of these dynamics are serious. Already, before the outbreak of the pandemic, according to the latest State of Food Security and Nutrition report (Food and Agriculture Organization (FAO), International Fund for Agricultural Development (IFAD), United Nations International Children's Emergency Fund (UNICEF), World Food Programme (WFP) & World Health Organization (WHO), 2020), some two billion people faced food insecurity at the moderate or severe level. Since 2014, these numbers have been climbing, rising by 60 million over five years. The Covid-19 pandemic is undermining efforts to achieve SDG 2. The complex dynamics triggered by the lockdowns intended to contain the disease are creating conditions for a major disruption to food systems, giving rise to a dramatic increase in hunger. The most recent estimates indicate that between 83 and 132 million additional people (Food and Agriculture Organization (FAO) et al., 2020) including 38-80 million people in low-income countries that rely on food

imports (Torero, 2020) will experience food insecurity as a direct result of the pandemic. At least 25 countries, including Lebanon, Yemen and South Sudan, are at risk of significant food security deterioration because of the secondary socio-economic impacts of the pandemic (Food and Agriculture Organization (FAO) & World Food Programme (WFP), 2020). In Latin America, the number of people requiring food assistance has almost tripled in 2020 (United Nations (UN), 2020). Food productivity could also be affected in the future, especially if the virus is not contained and the lockdown measures continue.

An Italian who works in Nigeria flew into Lagos from Milan on 25 February 2020 and had contact with a Nigerian from Ogun State, and on 27 February 2020, he was diagnosed with Covid-19. This was announced as the index case being the first recorded case of Covid-19 in the country (Bernard, 2020). The news came not as a surprise because earlier before that date a legislative member at the National Assembly in Abuja raised alarm over the absence of security personnel at the various international airports in Nigeria whose responsibility ordinarily should be to conduct a routine check of every passenger on arrival. Following this development, there was the enforcement of a 2-week lockdown on 30 March, 2020 for three very busy commercial regions of the country, namely Ogun State, Lagos State, and the Federal Capital Abuja, following the advice offered to the Nigerian presidency by the National Centre for Disease Control (Bernard, 2020). The lockdown of these three states was followed by other states in Nigeria in order to forestall the chances of contracting and spreading the deadly virus. There was the prohibition of interstate travel and general restrictions on the movement of goods and services with the exception of essential services (Been & Aziz, 2020).

The Covid-19 outbreak with all its challenges is indeed a clarion call and

pointer to the reality of food insecurity in Kwara state creating an imperative for immediate response. In spite of the federal government's directives that vehicles and lorries carrying food, water, and other essential services should be allowed free movement, the corrupt nature of the security agents such as the police, army, civil defense corps, federal road safety corps, and neighborhood watch securities at the various security posts on the federal highways made this impossible. After extorting so much from Lorries carrying food, the prices of commodities skyrocketed and the population suffered for their

overdependence on food coming from the northern region of Nigeria. The purported claims of the food supply in the form of palliatives to the region from the federal and state governments were only heard on radio and television, respectively, while the voting population languished in total lack.

The importance of food cannot be overemphasized. It is an essential ingredient needed by all living beings for survival, and its availability determines the standard of living of the people at all times (Iwuagwu, 1999). The environment and geography of people determine what food they eat and its availability at all times.

LITERATURE REVIEW

Covid-19 is a respiratory illness and there is no evidence that food itself is a vector of its transmission (International Commission on Microbiological Specifications for Foods (ICMSF), 2020). However, the virus, and measures to contain its spread, has had profound implications for food security, nutrition and food systems. At the same time, malnutrition (including obesity) increases vulnerability to Covid-19. Initial and ongoing uncertainty surrounding the nature of the spread of Covid-19 led to the implementation of strict lockdown and physical distancing policies in a number of countries. These measures caused a serious slowdown in economic activity and disrupted supply chains, unleashing new dynamics with cascading effects on food systems and people's food security and nutrition. Below we outline these dynamics:

- disruptions to food supply chains;
- loss of income and livelihoods;
- a widening of inequality;
- disruptions to social protection programmes;
- altered food environments;
- and uneven food prices in localized contexts (Klassen & Murphy, 2020; Clapp & Moseley, 2020; Laborde et al., 2020). Moreover, given the high degree of uncertainty around the

virus and its evolution, there may be future threats to food security and nutrition, including the potential for lower food productivity and production, depending on the severity and duration of the pandemic and measures to contain it.

The eight key impacts of Covid-19 on local food systems in Nigeria, with a specific focus on Small to Medium Enterprises (SMEs), include:

- Decreased food production and sales post-farm. The disrupted cross-state and cross-border movement of agriculture labourers (from Niger, Chad, and Cameroon to Nigeria) due to movement restrictions (interstate travel was not allowed until June) resulted in a reduction of food production for agri-food Small to Medium Enterprises (SMEs). The effects are still felt, particularly in the midstream (wholesale, logistics, and processing), and downstream (foodservice enterprises) segments.
- Some retailers are still running out of stock of imported products due to ongoing disruptions to supply chains. Local supply chains have also been disrupted resulting in product delays and artificial

- scarcity. Immediate effects are product scarcity, price hikes, and inflation.
- Lack of cash flow at the beginning of Covid-19 outbreak is still being felt now. According to a survey conducted by PwC (April 2020), the main worry amongst business owners and company administrators in Nigeria was the availability of immediate cash.
 - Broken functional linkages, especially in terms of decreased production, reduced sales, and closures were especially felt at the onset of Covid-19. Agri-food SMEs depend heavily on the continuous flow of goods and services. These links broke quickly in the face of social distancing measures, transport restrictions, and consumer spending decreases. Traders, aggregators, and transporters - agri-food SMEs sitting at transitional points in the value chain - were hit first.
 - Poor storage facilities, leading to food waste. The pandemic exposed the lapses that exist in terms of storage. Some farmers complained that crops were rotting in the fields or depots waiting for shipments that never come. Also, there was difficulty getting aggregators to buy at the farm gate. Lack of available storage led to spoilage of perishable goods, such as tomatoes, peppers, and onions, leading to lost income for farmers. While this was also the case before the onset of Covid-19, the pandemic has hampered the ability of supply chain actors to react, and lack of storage facilities exasperated the existing issues.
 - Imperfect access to information has hampered SMEs' ability to cope amidst Covid-19. The flow of information favours SMEs that are integrated into more formal networks and systems; it is much more difficult for smaller, more rural agri-food SMEs. Access to market information is a gap for many agri-food SMEs. With the arrival of Covid-19, and the corresponding volatility in demand and supply of products, this information gap was even more apparent.
 - New understanding of 'essential' workers. Ensuring the health and continuity of the food supply chain during the outbreak has created a new class of 'essential' workers. From store associates to truck drivers, the food workforce is now on the frontlines. As a result, supply chain security, vendor relationships, and workforce management have become even more critical, not only to retailers but to governments and society as a whole.
 - Innovations across food systems. Supply chain participants have introduced a series of innovations in response to Covid-19. So far, there is little systematic data available on these creative entrepreneurial and institutional responses. Anecdotal information suggests that these innovations are important and could have a major impact on the future of food supply chains in low- and middle-income countries. They fall into the categories of social innovations, business strategy, financial resilience, growth of e-commerce, and general technological innovations. For example, Farm rowdy Foods entered the digital space with the launch of its one-stop digital marketplace, which allows consumers to conveniently purchase fresh food products from home (Global Alliance for Improved Nutrition ,2020).

STATEMENT OF THE PROBLEM

The Covid-19 pandemic has led to a dramatic loss of human life worldwide and presents an unprecedented challenge to public health, food systems and the world of work. The economic and social disruption caused by the pandemic is devastating: tens of millions of people are at risk of falling into extreme poverty, while the number of undernourished people, currently estimated at nearly 690 million, could increase by up to 132 million by the end of the year, 2020. Millions of enterprises face an existential threat. Nearly half of the people of Ilorin South Local Government Area, Kwara State are at risk of losing their livelihoods. Informal economy workers are particularly vulnerable because the majorities lack social protection and access to quality health care and have lost access to productive assets. Without the means to earn an income during lockdowns, many are unable to feed themselves and their families. For most, no income means no food, or, at best, less food and less nutritious food. Nigeria is facing a food security crisis that is compounded by the Covid-19 global pandemic and its effects on the food value chain in the country. The pandemic has significantly disrupted already fragile value chains across the country, including people's ability to

RESEARCH HYPOTHESES

The following hypotheses were formulated for the study:

1. Covid-19 lockdown will not significantly change the purchase patterns of food supply in Ilorin South LGA, Kwara State.

produce, process, and distribute food. The disruption to agricultural productivity and markets has a negative impact on livelihoods, especially among the most vulnerable households (United States Agency International Development (USAID)/NIGERIA, 2021). The corona virus pandemic has been affecting the entire food system and has laid bare its fragility. Border closures, trade restrictions and confinement measures have been preventing farmers from accessing markets, including for buying inputs and selling their product, and agricultural workers from harvesting crops, thus disrupting domestic and international food supply chains and reducing access to healthy, safe and diverse diets. The pandemic has decimated jobs and placed millions of livelihoods at risk. As breadwinners lose jobs, fall ill and die, the food security and nutrition of millions of women, men and children are under threat with those in low-income countries, particularly the most marginalized populations, which include small-scale farmers and indigenous peoples, being hardest hit. Hence, the need for the study 'Effects of Covid- 19 outbreak lockdown on food supply in Ilorin South LGA, Kwara State'.

2. Covid-19 lockdown will not significantly reduce the amount of nutritious food consume by people in Ilorin South LGA, Kwara State

METHOD

Descriptive research design of survey type was employed for the study. The population for this study comprises of residents in Ilorin South Local Government Area, Kwara State. A multi-stage sampling technique was used for the study. Stage one, simple random sampling technique was used to select six (6) wards out of eleven (11) wards in the study area.. The selected wards were: Akanbi-I, Akanbi-II, Balogun-Fulani-I,

Balogun-Fulani-II, Okaka-I and Oke-Ogun wards. Stage two, Proportionate sampling techniques of 0.2% of residents from each of the selected ward were chosen. Twenty-five (25) were chosen from Akanbi-1 ward, 58 from Akanbi-2 ward, 63 from Balogun-Fulani-1 ward, 21 from Balogun-Fulani-2 ward, 31 from Okaka-2 ward and 23 from Oke-Ogun ward. Stage three, convenience sampling technique was used to select the

number of respondents partake in the study based on the number derived from stage two and two hundred and twenty-one respondents chosen for the study. The instrument used for this study was a researchers' designed structured questionnaire. The questionnaire was validated by three (3) experts in the related field. To determine the reliability of the instrument, the researchers adopted the test re-test method whereby the

questionnaire was administered on a group of respondents two times at the interval of two (2) weeks in an area that were not part of the study. The result obtained from the two tests was correlated using the Pearson Product Moment Correlation (PPMC). A coefficient of 0.87r was obtained which shows that the instrument was reliable for the study. Inferential statistics of chi-square was used to analyze the stated hypotheses at 0.05 level of significance.

RESULTS OF FINDINGS

Hypothesis One: Covid-19 lockdown will not significantly change the purchase

patterns of food supply in Ilorin South Local Government Area, Kwara State.

Table 1: Chi-square analysis showing purchase patterns of food and Covid-19

S/N	STATEMENT	SA	A	D	SD	df	Cal. Value	Table Value	Remark
1	Covid-19 lockdown make people order their food online from home	133 (60.2%)	75 (33.9%)	7 (3.2%)	6 (2.7%)				
2	People engage in unusually large amount of buying as a result of covid-19	141 (63.8%)	49 (22.2%)	25 (11.3%)	6 (2.7%)				
3	Covid-19 lockdown make people buy less of perishable food items	100 (45.2%)	97 (43.9%)	23 (10.4%)	1 (0.5%)	9	131.14	16.92	Ho1 rejected
4	Covid-19 lockdown make people buy more of packaged foods	101 (45.7%)	43 (19.5%)	38 (17.2%)	39 (17.6%)				
	TOTAL	475	264	93	52				

P<0.05

Table 1 above showed that the majority of the respondents agreed that Covid-19

lockdown will change the purchase patterns of food supply in Ilorin South Local

Government Area, Kwara State. Because the critical value of 131.14 is greater than the table value of 16.92 at 0.05 alpha level at the degree of freedom of 9. Thereby, the **Hypthesis Two:** Covid-19 lockdown will not significantly reduce the amount of

null hypothesis one was rejected. Hence, Covid-19 lockdown significantly change the purchase patterns of food supply in Ilorin South Local Government Area, Kwara State. nutritious food consume by people in Ilorin South Local Government Area, Kwara State.

Table 2: Chi-square analysis showing nutrition and Covid-19

S/N	STATEMENT	SA	A	D	SD	Df	Cal. Value	Table Value	Remark
1	People lack access to adequate food since their options are limited in the market	120 (54.3%)	80 (36.2%)	17 (7.7%)	4 (1.8%)				
2	People could not hoard most nutrient-rich foods since they are highly perishable	119 (53.8%)	90 (40.7%)	8 (3.6%)	4 (1.8%)				
3	People purchase the cheapest calories and give up nutrient-rich foods in order to preserve their caloric intake	96 (43.4%)	80 (36.2%)	30 (13.6%)	15 (6.8%)	9	45.20	16.92	Ho2 rejected
4	After several months of the pandemic, people develop cooking fatigue and turn to quick and less nutritious meal	112 (50.7%)	100 (45.2%)	7 (3.2%)	2 (0.9%)				
	TOTAL	447	350	62	25				

P<0.05

Table 2 above showed that the majority of the respondents agreed that Covid-19 lockdown reduce the amount of nutritious food consume by people in Ilorin South Local Government Area, Kwara State.

Because the critical value of 42.20 is greater than the table value of 16.92 at 0.05 alpha level at the degree of freedom of 9. Thereby, the null hypothesis two was rejected. Hence, Covid-19 lockdown significantly

reduce the amount nutritious food consume by people in Ilorin South Local Government

Area, Kwara State.

DISCUSSION

This study was carried out to examine the effects of Covid-19 outbreak lockdown on food supply in Ilorin South Local Government Area, Kwara State. Two hypotheses were formulated and tested at 0.05 alpha level of significance.

Hypothesis one stated that covid-19 outbreak lockdown will not significantly change the purchase patterns of food supply in Ilorin South Local Government Area, Kwara State. The hypothesis one was rejected because the calculated value (131.14) is greater than the table value (16.92). It means that covid-19 outbreak lockdown significantly change the purchase patterns of food supply in Ilorin South Local Government Area, Kwara State. This is in line with the findings of Shahidi (2020) who opined that consumers have focused on the products with long shelf life such as dried or canned foods, pasta, milk, or milk substitutes, and frozen foods due to convenience and daily cooking at home. People stocked these foods at home because of the turn to home baking and believing rumours or getting false information. Consumers preferred takeaway and home delivery options as a result of social distance and closure of restaurants

CONCLUSIONS AND RECOMMENDATIONS

Covid-19 lockdown has negative effects on food supply in Ilorin South Local Government Area of Kwara State. The problem resulted to change in the purchase patterns of food supply as well as reduce the quantity of nutritious food consume by people in the study area which is dangerous to their health status. Therefore, the researchers recommends that the federal government of Nigeria should regulate the

Acknowledgement

Special thanks are given to all residents of Ilorin South Local Government Area of

Hypothesis two; stated that covid-19 lockdown will not significantly reduce the amount of nutritious food consume by people in Ilorin South Local Government Area, Kwara State. The hypothesis two rejected because the calculated chi-square value of (45.20) is greater than the table value of (16.92). This hypothesis was rejected; this means that covid-19 lockdown significantly reduce the amount of nutritious food consume by people in Ilorin South Local Government Area, Kwara State. This is in line with the findings of Muscogiuri, Barrea and Savastano (2020) who opined that covid-19 outbreak interrupted the daily routine and resulted in boredom which can be defined as high energy intake by the consumption of high amount of fat, carbohydrate, and proteins. In addition, quarantine caused stress in people and pushed them toward sugary foods for feeling positive, because carbohydrate-rich foods can be used as self-medicating components due to their ability to encourage serotonin production. However, these unhealthy eating habits may contribute to the development of obesity linked to the chronic inflammation and serious complications of covid-19.

price of food stuffs to enable people procure adequate food require by their family members. The local government authority should provide food stuff as relieve materials for residents of Ilorin South LGA to enable the residents consume adequate nutritious food that will help in improving their health status.

Kwara State for their contributions towards the success of this research study.

REFERENCES

Been, J. V., & Aziz, S. (2020). COVID-19 must catalyse key global natural

experiments. *Journal of global health, 10*(1).

<https://doi.org/10.7189/jogh.10.010104>

Bernard, K. (2020). COVID-19 in Nigeria: A Disease of Hunger. *The Lancet. Respiratory medicine*, 8(6), 556-557. Retrieved 23rd August 2021 from <https://www.thelancet.com/respiratory>.

Clapp, J., & Moseley, W. G. (2020). This food crisis is different: COVID-19 and the fragility of the neoliberal food security order. *The Journal of Peasant Studies*, 47(7), 1393-1417. Council for Agricultural Research and Economics. (2020). How did Italian eating habits change during lockdown? Retrieved 28th March 2021 from <https://www.foodnavigator.com/Article/2020/06/05/Coronavirus-lockdown-found-toworsen-childhood-obesity>.

Food and Agriculture Organization, International Fund for Agricultural Development, United Nations Children's Fund, World Food Programme & World Health Organization. (2020). The State of Food Security and Nutrition in the World 2020. Transforming food systems for affordable healthy diets. Rome, FAO. Retrieved 27th January 2021 from <https://doi.org/10.4060/ca9692en>.

Food and Agriculture Organization & World Food Programme. (2020). FAO-WFP early warning analysis of acute food insecurity hotspots. July 2020. Rome, FAO & WFP. Retrieved 24th August 2021 from <http://www.fao.org/documents/card/en/c/cb0258en>.

Ghebreyesus, T.A. (2020). WHO on Coronavirus Pandemic: "The Worst Is Yet to Come"

Retrieved 19th January 2021 from https://www.youtube.com/watch?v=-l-x6ZYQ_vg

Global Alliance for Improved Nutrition. (2020). *Impact of COVID-19 on Food*

Systems in Nigeria. Situation Report - Edition 1. November 2020.

International Commission on Microbiological Specifications for Foods. (2020). "ICMSF1 opinion on SARS-CoV-2 and its relationship to food safety." September 3. International Union of Microbiological Societies. Retrieved 2nd January 2021 from <http://www.icmsf.org/wpcontent/uploads/2020/09/ICMSF2020-Letterhead-COVID-19-opinion-final-03-Sept-2020.pdf>.

Iwuagwu, O. C. (1999). *A Socio-Economic History of Food Crop Production in Igboland 1900-1980: A Study of Yam, Cocoyam and Cassava* (Doctoral dissertation). University of Lagos.

Khorsandi, P. (2020). WFP chief warns of 'hunger pandemic' as Global Food Crises Report launched. *World Food Programme Insight*, 22. <https://insight.wfp.org/wfp-chief-warns-of-hunger-pandemic-as-global-food-crises-reportlaunched-3ee3edb38e47>.

Klassen, S., & Murphy, S. (2020). Equity as both a means and an end: lessons for resilient food systems from COVID-19. *World Development*, 136, 105104.

Laborde, D., Martin, W., Swinnen, J., & Vos, R. (2020). COVID-19 risks to global foodsecurity. *Science*, 369(6503), 500-502. Retrieved 10th February 2021 from <https://science.sciencemag.org/content/369/6503/500>

Muscogiuri, G., Barrea, L., Savastano, S. & Colao, A. (2020). Nutritional recommendations for Covid-19 quarantine. *European Journal of Clinical Nutrition*, 74(6), 850-851.

Sahidi, F. (2020). Does Covid-19 affect food safety and security? . *Journal of Food Bioactives*, 9(2), 1-3

Scudellari, M. (2020). How the pandemic might play out in 2021 and beyond. *Nature*, 22-25. Retrieved 25th April 2021 from <https://www.nature.com/articles/d41586-020-02278-5>

United Nations. (2020). The Impact of COVID-19 on Latin America and the Caribbean. Policy Brief. Retrieved 20th January 2021 from <https://unsdg.un.org/resources/policy-brief-impact-covid-19-latin-america-and-caribbean>.

United States Agency for International Development/Nigeria. (2021). COVID-19 food security challenge. April 2021. Retrieved 24th June 2021 from <https://www.usaid.gov/innovation/nigeria>.