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**Nutrition and Food Ration for Under-Five Children among Low-income Households in Akwa Ibom State, Nigeria during the Covid-19 Lockdown**

*by*

Victor Ben,  
Department of Sociology  
and Anthropology  
University of Uyo, Uyo,  
Nigeria  
[victorben@uniuyo.edu.ng](mailto:victorben@uniuyo.edu.ng)

James Akpan Ekah  
Department of History  
and International Studies  
University of Uyo, Uyo,  
Nigeria  
[jamesaekah@uniuyo.edu.ng](mailto:jamesaekah@uniuyo.edu.ng)

and Hanson Eshiet  
Department of Sociology  
and Anthropology  
University of Uyo, Uyo,  
Nigeria  
[hansoneshiet@yahoo.com](mailto:hansoneshiet@yahoo.com)

**Abstract**

*The outbreak of the COVID-19 Pandemic posed survival and well-being challenges in Nigeria, for children under five years of age. This study investigated the COVID 19 Pandemic-related complications on nutrition and ration for children in low income families. Data was collected in a survey from 200 respondents randomly selected in ten rural communities using multi-sampling methods, consisting of stratified, cluster, systematic and purposive. Focus Group Discussion (FGD) was adopted for data collection. The data was presented in tables and discussed using the percentage while the qualitative data obtained from the respondents were presented based on the themes related to the objectives of the study. Findings showed that low-income households in the study area faced hard times during the COVID-19 pandemic period and children under five years of age suffered severely as a result inadequate food ration, poor nutrition and limited access to primary healthcare services. Account of this, it was recommended that food supplements be given out at Primary Healthcare Centres in the rural areas by the government with the support of Non-governmental Organizations for the benefit of such children. Also, mothers and care-givers currently with children under five years of age should be enrolled compulsorily in the social investment programme of the government in order to equip them economically.*

**Key words:** COVID 19, Children, Low income, Feeding Pattern, Health

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**1. Introduction**

Although the hazards caused by the pandemic were unilaterally centred on the health, economic and social challenges experienced by the adults, only scanty literature capture information on the experiences of children during the pandemic. Few studies that

investigated the conditions of children under five years of age during the pandemic (Centre for Community Child Health, 2022; Melbourne Children's COVID Governance Committee, 2022; Omuemu, 2022; Lacko and Henchy, 2021; United Nations (2020) have highlighted the indirect impacts of the disease; linking it with severe trauma such as difficulty in sleeping, nightmares, reduced concentration, withdrawal from friends, and controlling behaviours around food (Danchin and Vaccine Uptake Group (2021); worsening behaviour and mood; increased clinginess, anxiety and levels of stress; increased hyperactivity and inattention; increased abuse and neglect; decreased physical activity and increased screen time; and possible disruptions to the length and quality of sleep (Centre for Community Child Health, 2022); partial or complete suspended of most basic services to children including schooling, nutrition programmes, maternal and newborn care, mass immunization services, sexual and reproductive health services, alternative care facilities for routine health management and community-based child protection programmes (United Nations, 2020). Many other studies like Ngarava (2022), Nwosu, Kollamparambil and Oyenubi (2022), Fang, Thomsen and Nayga (2021) and Onyango, Crush and Owuor (2021) among others have discussed extensively the impacts of the COVID-19 disease on food security. While the United Nations (2020) policy brief indicated that children did not directly face the pandemic, the Centre for Community Child Health (2022) has reported that direct health impacts on young children (0 – 5 years) have been relatively minimal, with low infections in children, particularly in Australia.

As in other countries of the world, 'children are a strategic population of concern, as nearly half of all Nigerians are children under the age of 18 (Nigeria Multidimensional Poverty Index, 2022)'. Their health and survival are critical and depend on a number of variables including care, protection, nutrition and regular monitoring, etc. The first five years of life are the most vital period as this age is known for accelerated growth and development. As Mandal *et al*, (2008) put it, any unfavourable influence during this period may result in severe limitations in their progress. Nutrition has a powerful influence on growth, development, and the productive life of every individual (Federal Ministry of Budget and National Planning, 2016; Federal Ministry of Health, 2014). Unfortunately, whereas childhood hunger is preventable, during COVID-19 lockdown period, it became difficult particularly in low income families, thus, contributing to ration reduction, dietary period, food insecurity and nutrient deficiency.

An earlier survey by the WHO (2012) had indicated that about seven million children under the age of five die every year across the world. Major contributors to the deaths include under nutrition which accounts for about 35% of all deaths among children; stunting, severe wasting, and IUGR that separately account for about two million deaths of under-fives annually; iron deficiency causes about 43% of all deaths among under-five in Africa (WHO, 2012). Africa is presumably experiencing a larger share of the global under nutrition, where at least 19% of the population of the continent (about 250 million people) were undernourished in 2019. Globally, an estimate of 690 million people (8.9% of global population) were undernourished in 2019 and the figure is expected to exceed 840 million by 2030 (World Bank Report, 2021). The worst in this aspect was experienced during the pandemic period when the COVID 19 disease perplexed food insecurity, nutritional conditions and number of rations in most families particularly those belonging to the low-income status. Malnutrition and nutrition related diseases are problems of great public health concern in Nigeria (Federal Ministry of Budget and National Planning, 2016; Federal Ministry of Health, 2014). Ordinarily, Nigeria has a

high burden of malnutrition despite being signatory to several global actions to mitigate the burden of malnutrition (John, Al-Mansur, Leshi, Envuladu and Steve-Edemba, 2022). In 2017, Nigeria ranked 145th out of 157 countries, based on progress toward meeting the Sustainable Development Goals (SDGs). Subsequently, in 2019, she was ranked 159 out of 162 countries, with a score that is 13.80 per cent less than the regional average. Although the country recorded a moderate improvement towards achieving SDG 2 of ending hunger, achieving food security and improved nutrition and promote sustainable agriculture, this progress has been insufficient to meet the goal (Adeyemi, Bold, Nisbett and Covic, 2022; John, Al-Mansur, Leshi, Envuladu and Steve-Edemba, 2022; Federal Ministry of Budget and National Planning, 2016). The emergence of COVID-19 Yet, the period of COVID-19 became catastrophic although without associated mortality of new born.

The global COVID-19 pandemic and lockdown measures had deteriorated key determinants of health as well as caused major upheavals in many countries (Zamrani, Gehri, Pellaton, Masserey and Cyril, 2021). Zemrani, Gehri, Pellaton, Masserey and Cyril (2021) further noted that children under-five years of age, although less directly affected by the virus, were paying heavy price through the indirect effects of the crisis in such areas as poor diet, mental health impact, and poor health care, among others. According to Russu (2021) during COVID-19 pandemic, businesses and other means of livelihood became deteriorated and there was high demand for food which drained the resources meant for other sectors. The pandemic changed the life pattern of people especially the feeding condition of women and children in low income families. The COVID-19 pandemic came and went but the associated consequences still persist in some societies and may continue to create more problems to certain population groups such as the under-five children. Unfortunately, the attempt to dig out information on the severity of the disease through research and to plan for a similar situation in the future rates low in the state.

In the case of Nigeria, Obinna (2020) asserted that the impact of the pandemic on malnutrition has been severe among children. In like manner, Zemrani, Gehri, Pellaton, Masserey and Cyril (2021) who conducted a study on dietary habits of low-income households and Russu (2021) who investigated food ration and habits during COVID-19 pandemic period, all found a disproportionate effect on children belonging to the rich and wealthy households and those in the low-income households. Evidence indicated in the findings of Scott and Ensaff (2022) show that during the dreaded disease, food choice and food habit changed in the United Kingdom. This implies a universality of impacts of the disease unlike that of HIV/AIDS, Ebola, and SARS that concentrate in Africa. Scott and Ensaff (2022) also reported that there was food monopoly and habit of children eating together in a family of two to three children during the period. To Zemrani, Gehri, Pellaton, Masserey and Cyril (2021), COVID-19 pandemic shifted dietary habit in many families especially in low-income household and these have exposed many children to food insecurity. Other studies have also suggested that eating pattern and types of food changed during the COVID-19 lockdown and that children drank more water, eating surgeries food and snacks where such were available.

Studies show an adverse effect of lack of nutrients or poor nutrition on the new born. The effect of malnutrition in children include stunting, underweight and wasting as well as deficiencies in macro- and micro-nutrients such as vitamin A, iodine, iron, zinc and folic acid. Studies have also shown that the under-five children need adequate

nutrients for growth and development more than the adult. Good nutrition is imperative for optimal mental and physical development, learning, and school performance. Under nutrition affects cognitive development by causing direct structural damage to the brain and by impairing infant motor development and exploratory behaviour. A deficiency of basic nutrient in infancy can lead to delayed psychological and social development and difficulty in paying attention (Bilich and Perry, 2023). Similarly, iron deficiency causes anaemia and delays mental development in infants and is correlated with poorer performance on cognitive tests in older children. Children have considerably reduced learning abilities, school performance and retention rates are low, and hearing and speech are impaired with such children not being trainable. Vitamin A deficiency (VAD), on the other hand, lowers immunity, thus increasing the incidence and severity of illnesses which increase absenteeism and reduce concentration in school. In severe cases, night blindness and partial or total loss of sight may result from this deficiency. According to Forest (2022) poor nutrition coupled with living in a chaotic household environment may negatively affect children functioning, the cognitive skills that govern memory, attention and emotional control. In the case of Nigeria, Obinna (2020) asserts that the impact of the pandemic on malnutrition has been severe among children. It was an eyesore that during the lockdown many under-five children in Nigeria suffered hunger under the glary watch of the parents, consequent on the disruption of economic activities that triggered food insecurity.

One of the factors that intermediate the COVID-19 Pandemic and poor nutrition experiences in households and families as indicated in several literature is income. French *et al.* (2019) have reported that lower income households have had terrible experiences during the COVID-19 Pandemic as they were consistently feeding members with poor quality diet. It has been argued that household ability to purchase food is significantly important because it influences dietary intake quality. Thus, in a comprehensive analysis of food purchase pattern among households of low- and middle-income household, French *et al* (2019) discovered that the families in both statues were lower in dietary quality than recommended. This was confirmed in a study by Chen *et al* (2022) which reveal that lower income parents experienced hardship due to COVID-19 pandemic lockdown than families with higher income and thereby creating adjustment in food purchase. People exposed to COVID-19 experienced shock food demand which depleted the purchasing power (Workie, Joby, Joan and Ramadas, 2020). It is on this note that Ntambara and Chu (2021) propose the support of early detection and emergency food distribution to vulnerable household, particularly those with children under five years.

Keown *et al* (2022) in their study have observed that low-income households are at risk of poor dietary quality and food insecurity for the members including the children. Other studies such as Chen *et al* (2021) and French *et al.* (2019) have examined the association between income and dietary quality and food security, and highlighted income as the most significant challenge for food security in household with low income. The studies found that the cost of healthy food is an economic driver of insecurity and poor dietary quality food. This is because regardless of individual's knowledge of diet quality, a limited budget may rest on individual opting for food of best economical values instead of food with the most nutritional value, (Keown *et al.*, 2022).

On the impacts of food ration for children under-five years of age, no study has reported any finding regarded the experience either among the low-income or high-income households during the period of COVID-19 Pandemic lockdown. However,

studies have shown that the reduction in food ration can cause stunting and wasting among children. An example is Fenn *et al* (2021) who discovered that a cut in the general food distribution (GFD) ration has affected young children's nutritional status. This study on nutrition and food ration for under-five children among low-income households during Covid-19 lockdown in Akwa Ibom State, Nigeria is an effort aimed to bridge the research gap. The study, therefore, sought to identify the types of food given to under-five children in low income households during COVID-19 lockdown in Akwa Ibom State, find out the nutrient contents of food for under-five children in low income households during COVID-19 lockdown in Akwa Ibom State, ascertain the food ration for under-five children in low income households during COVID-19 lockdown in Akwa Ibom State and assess the effects of nutrients contents and food ration on under-five children in low income households during COVID-19 lockdown in Akwa Ibom State.

## **2. Materials and Methods**

This study was basically a household-based survey, hence, the descriptive survey research design was used. The study was carried out in five Local Government Areas of Akwa Ibom State. To ensure the representativeness and accuracy of the data from the study population, a multi-sampling method, consisting of stratified, cluster, systematic and purposive sampling techniques was adopted. Ten rural communities were selected, two communities from each of the five Local Government Areas that constituted the study area. These communities served as flashpoints where nursing mothers and caregivers in low-income households were seriously affected by the COVID-19 lockdown. The communities include Ikot Udo Obio Oku and Ntan Mbat in Ibiono Ibom Local Government Area; Ikot Ebita and Ikot Edebe in Nsit Atai; Ikot Iyan and Ekan in Ibesikpo Asutan; Ikot Eseden and Ikot Esu in Ika and; Inyang 1 and Inyang 11 in Obot Akara Local Government Area. Purposively, 200 participants comprising mainly mothers or caregivers of children under-five years of age during the COVID-19 lockdown were selected from systematically identified Low-income households in the selected communities.

The data for this study were qualitative apart from the socio-demographic characteristics of the participants. They were collected in a focus group discussion (FGD) with the respondents. Each of the focus groups consisting of 10 respondents. Local dialect and Pidgin English were used and tape recording device and note taking were useful components of this study. The data collected were tabulated and presented using qualitative approach in line with the objectives of the research. Ethically, the participants gave oral consent prior to commencement of the focus group discussions. They were assured of their confidentiality and they were free to decline where they were not comfortable. The participants were delighted to participate in the study and they gave optimum assistance and cooperation.

## **3. Results**

**Table 1: Socio-demographic characteristics of the respondents (n = 200)**

<b>Characteristics</b>	<b>Frequencies</b>	<b>Percentage (%)</b>
<b>Age (years)</b>		
18 – 23	27	13.5
24 – 29	53	27.5

30 – 35	60	30
36 – 41	40	20
42 – 47	18	9
<b>Marital Status</b>		
Married	60	30
Single Mother	38	19
Widow	30	15
Divorce	72	36
<b>Level of Education</b>		
Primary School	118	59
Secondary School	62	31
Tertiary	20	10
<b>Level of monthly Income</b>		
N15,000 – 20 000	102	51
25,000 – 30,000	68	34
35,000 – 40,000	15	7.5
45,000 – 50,000	5	2.5
No Income	10	5
<b>Occupation</b>		
Farming	92	46
Petty Trading	68	34
Civil Service	5	2.5
Artisan	35	17.5
<b>Number of Children in the Household</b>		
1	98	49
2	74	37
3	21	10.5
4+	7	3.5
<b>Number of Ration to Children in the Household</b>		
1	58	29
2	105	52.5
3	37	18.5
<b>Knowledge and practice of nutritious feeding for Children in the Household</b>		
Yes	61	30.5
No Idea	139	69.5

*Source: Author's Compilation*

The respondents selected for the study were in the cohorts of 15-49 years although among them, no one reported ages 15-17 years and 48-49 years. However, the majority of the respondents, 60 (30%) reported their ages in the cohort of 30-35 years; 53

(27.5%) in the cohort of 24-29 years of age while 40 (20%) others were in the age bracket of 36-41 years. Also, data shown in the table indicate that 27 (13.5%) respondents were in the age group of 18-23 years whereas 18 (9%) other respondents reported their ages in the cohort of 42-47 years. Data related to the marital status of the respondents indicate that 60 (30%) respondents reported single status while 72 (36%) others reported married status. Comparatively, 38 (19%) respondents said they were divorced and 30 (15%) others said they were widowed.

Evidence based on data on the educational attainment of the respondents showed that 118 (59%) respondents only completed primary school, 62 (31%) respondents finished secondary school while 20 (10%) had graduated from a tertiary institution. The majority of the respondents, 92 (46%), as indicated in the table reported farming as their occupation; 68 (34%) other respondents said they were petty traders whereas another five (2.5%) respondents and 35 (17.5%) respondents were civil servants and artisan, respectively. As indicated, 102 (51%) respondents (mostly farmers and artisan) earned grossly between N10,000 – N20,000 every month during the COVID-19 lockdown period. Another 68 (34%) respondents reported a gross monthly income of N21,000 – N30,000 while 15 (7.5%) respondents and five (2.5%) other respondents reported their gross income in the range of N31,000 – N40,000 and N41,000 – N50,000 every month respectively, during the COVID-19 period. Only 10 (5%) respondents as shown in the Table did not disclose the amount of income earned during the period.

Data presented in Table 1 shows that 98 (49%) respondents reported a child only (under five years of age) in the household throughout the COVID-19 Pandemic period. Another 74 (37%) respondents reported two children under five years of age in the household throughout the COVID-19 Pandemic period while 21 (10.5%) respondents reported that were three children under five years of age in the household during the COVID-19 Pandemic period. Yet, seven (3.5%) respondents said there were four or more children under five years of age in their households during the COVID-19 Pandemic period. On account of the hardship caused by the pandemic, 58 (29%) respondents said they could afford only one ration for their children although the practice was not rigid throughout the period; the day God gave more, they also fed the children more food. Majority of the respondents, 105 (52.5%) said they could feed their children at least two times a day no matter the hard times of the COVID-19 period while 37 (18.5%) said that they could not compromise three ration for their children despite the economic hardship caused by the COVID-19 Pandemic. Further probe by the researchers revealed that only 61 (30.5%) respondents have knowledge of nutritious foods and could also give such to their children under five years of age COVID-19 Pandemic period compared to 139 (69.5%) respondents who have no idea and did not practice nutritious feeding of their children under five years of age during the pandemic period.

#### **4. Qualitative Data Analysis**

The qualitative data was analysed using themes as captured in the research objectives.

#### **COVID-19 Lockdown and Type of Food for Under-Five Children in Low Income Households**

The participants in a consensus agreed that garri, fufu, cocoyam, porridge banana and plantain, pap, wheat and sometimes rice were the major types of food given to under-

five children during the COVID-19 lockdown. Pap is a kind of local food made from corn or wheat flour. These foods are rich in carbohydrate, apart from banana that has vitamin. A further probe showed that dairy foods and other protein rich foods were not affordable for parents to give to under-five children due to economic hardship occasioned by COVID-19 lockdown.

To find out the types of food given to under-five children during COVID-19 lockdown, the excerpts of the interviews provided a robust answer thus;

*It was not easy for us as nursing mothers during the COVID-19 lockdown. Under-five children were supposed to be fed with the six (6) classes of food. However, COVID-19 lockdown forced the nursing mothers to feed under-five children with garri and fufu all the time. Also, we managed to serve them with pap, porridge banana and plantain. You know we are not rich, so we managed what was available to sustain our children at that time (FGD/ Nursing mother 29 years).*

Another participant added:

*There was scarcity of money and other commodities during the COVID-19 lockdown. Many nursing mothers were frustrated during that period. The little money we had was not enough to take good care of our little children. Rarely, under-five children during COVID-19 would eat dairy foods, eggs, meat, fish, Indomie noodles among others. We constantly gave our children garri, fufu, cocoyam, banana and plantain because we have them in our farms (FGD/Nursing mother/32 years).*

### **COVID-19 Lockdown and Nutrient Content of Foods for Under-Five Children in Low Income Households**

The participants were able to identify the nutrient contents of the food given to children. They identified protein, carbohydrate, vitamins and minerals. The participants expressed inability of their household to provide balanced diet. One type of food was repeated for about a week, example pap made from corn and banana or wheat, fufu, garri, indomie noodles. Dairy foods, meat, eggs and fish were rarely given to children during that period. Also, children were given fruits got from their compounds.

To identify nutrient content of the food to under-five children; when asked do you know that the food we give to under-five children contain carbohydrate, protein, vitamin and minerals and fat and oil? The participants gave a chorus response, “Yes we know”. More so, when asked, could you identify those foods you gave to your children and their nutrient content? The participants responded thus:

*We know that pap and wheat contain carbohydrate mainly, while meat, fish, milk and eggs contain proteins. Minerals are obtained from vegetables and fruits. We really know that what we are to give to our little children must contain all the nutrients needed for their growth (FGD/ male/ 34 years)*

Another participant said:

*Well, we were able to provide our children with balance diet during the COVID-19 lockdown. In that era, things were very tough and*



*the cost of living was extremely high for low income families. Let me tell you, oftentimes we repeated one type of food especially pap that is very common in our locality for weeks. Dairy foods and eggs were very rare. We were only able to give the children fruits pluck from our compounds for example, ripe banana, orange and apples. These little children were also fed with garri and fufu (FGD/female/37 years).*

### **COVID-19 Lockdown and Food Ration for Under-Five Children in Low Income Households**

The participants admitted that poor food ration could cause significant negative effect on under-five children. They identified some of the common diseases or sickness by under-five children experienced during the period to include anaemia, diarrhoea, cough etc. Also observed was that under-five children were generally stunted with weight lost.

When asked, how many times were you able to feed under-five children in a day during the lockdown? A participant said:

*We gave our children food many times as they demanded. Children don't really have special numbers of times they are to be given food in a day. Provided there is food, we may give them 3 to 4 or even 5 times in a day. But let me tell you, during COVID-19 lockdown it was difficult for nursing mothers to feed their children a three-square meal. Many of them became seriously sick... (FGD/Nursing mother/25 years)*

Another participant contributed thus:

*We know very well that if children are not fed properly they can develop health disorder among under-five children. To be frank to you sir, a lot of children were very sick. We experienced anaemia, diarrhoea; stunting and weight lose among little children who were under five years of age. Poor diets affected the under-five children more than adults. Children were not strong physically and mentally (FGD/Caregiver/42 years)*

### **5. The Objectives of National Policy on Food and Nutrition in Nigeria**

Like other countries Nigeria has undertaken to ensure proper and adequate feeding of her population under five years of age with the right type of nutrition considering the importance of such practice to the growth and development of children and the essentials of the children as economic assets; resource for development and markets for goods and services for the country. This undertaking has been tied to the following policy objectives:

- 1) To improve food security at the household and aggregate levels to guarantee that families have access to adequate (both quantity and quality) and safe food to meet nutritional requirements for a healthy and active life;
- 2) To enhance care-giving capacity within households with respect to child feeding and child care practices, as well as addressing the care and well-being of mothers;
- 3) To improve the provision of human services, such as health care, environmental sanitation, education and community development;
- 4) To improve capacity within the country to address food and nutrition problems;

- 5) To raise understanding of the problems of malnutrition in Nigeria at all levels of society, especially with respect to its causes and possible solutions.

It is important to state that although the national policy on food and nutrition in Nigeria is pre-COVID-19 Pandemic period policy that has been adopted and practiced for a long the emergence of the pandemic, it could not help insulate the children under five years of age in low-income households in the rural areas of Akwa Ibom State.

## **6. Discussion of Findings**

The study reveals that the major types of food given to under five children from low-income households during COVID-19 lockdown in Akwa Ibom State were garri, fufu, cocoyam, porridge banana and plantain, rice and pap. These foods were constantly given to under-five children during that period because they were the available foods for the nursing mothers and caregivers within the study areas. Furthermore, milk, eggs, fish, meat and other protein rich foods were rarely given to under-five children during COVID-19 lockdown. This is in tandem with the findings of Obinna (2020) that Covid-19 pandemic has led to increasing nutritious challenges across the world.

In the course of this study, it was discovered that the participants were able to identify nutrient content of food given to children during COVID-19 pandemic. They identified sources of carbohydrate, protein, vitamins, minerals, fat and oil, and that they knew the importance for under-five children. Even with the knowledge of nutrient content of food group, they expressed inability to provide the under-five children with balanced diet due to economic hardship occasioned by the COVID-19 lockdown. This made them to be repeating one type of food for weeks. The result was very consistence with what Scott and Ensaff (2022) discovered to have happened during the pandemic lockdown as food monopoly.

In order to evaluate food ration for under-five children during COVID-19 lockdown, the result showed that children were not given food as many times as they demanded. This implies that children were not fed enough and most of these foods lacked balanced diet. This practice of feeding children very often as they need agrees to Stasenکو (2022) of the need of the children to eat very often because their stomach is small. A strong agreement exists between the findings of this study and Nwosu and Oyenubi (2021) submission that the coronavirus disease 2019 (COVID-19) has devastated many health systems and the global economy with dire consequences for individual and household welfare.

Based on the foregoing, lack of appropriate nutrient and poor ration of food caused under-five children to develop some forms of sicknesses. The under-five children had the problem of stunting and weight loss as a result of poor diet and ration reduction. Studies elsewhere have shown that a cut in food ration can cause stunting and wasting among children and that low-income families do experience or are susceptible to health problems (Fenn *et al.*, 2021; Patience, 2013). The study found that malnutrition and nutrition-related issues were already challenging and of public health concern in Nigeria as indicated in the national policy on food and nutrition in Nigeria (Federal Republic of Nigeria, 2016) and became worsen during the COVID-19 period.

## **1. Conclusion and Recommendations**

This study investigated the nutrition and food ration for under-five children during COVID-19 lockdown with reference to low income households in Akwa Ibom State, Nigeria. Importance of investing in nutrition cannot be overemphasized. Investing

in nutrition reduces morbidity, mortality, irreversible growth restriction, poor cognitive function among under-five and low economic productivity and wages among stunted children later in life. This study discovered that types of food, nutrient content of food and number of times children were given food affected the health of under-five children in low income families in Nigeria due to the COVID-19 lockdown. It is evident that these children of low-income households in one way or the other have experienced reduction in food ration which adversely reduced nutrition status.

It is widely accepted that malnutrition has many causes – from lack of food and improper feeding and caring practices to economic and political structures – and Nigeria suffers from all of these. Many nutritional problems in Nigeria are compounded by poor infant and child feeding practices. Many children during that period became stunted and malnourished. In fact, stunting which represents a chronic form of malnutrition remained unchanged in the study area. The national stunting rate remains higher than the West African average of 30.9 per cent and much higher than the global target average of 22 per cent (John *et al.*, 2022). This study has contributed to the body of knowledge because it has been able to showcase the experiences of nursing mothers and caregivers of under-five children during the COVID-19 lockdown so that policy measures in any outbreak could include under-five children to avoid similar experience of malnourishment occasioned by lack of food and resources to cater for vulnerable children in low-income households.

Based on the study objectives and findings, the following recommendations are made:

- i) Food supplements should be given out at the Primary Healthcare Centres in the rural areas by the government with the support of Non-governmental Organizations for the benefit of those children who loss basic nutrients during the COVID-19 Pandemic period.
- ii) Mothers and care-givers currently with children under five years of age should be enrolled compulsorily in the social investment programme of the government in order to equip them economically.
- iii) The home grown/school feeding programme should be made proactive and also extended to cover every child under five years of age whether or not in the public school.
- iv) The Mobile health (mHealth) philosophy and strategy should be adopted by the health institutions and administrators in the country to handle eventualities in any population group in any circumstance.

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