

*Full Length Research Paper*

# **Assessment of socio-economic impact of COVID-19 pandemic on households: A case study of households in Anambra State, Nigeria**

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With the spread of the Coronavirus disease in 2019 (COVID-19) affecting all spheres of human endeavors, even households have not been spared. However, impact of the pandemic on households in Nigeria is unclear which necessitated this study which was aimed at assessing the impact of the COVID-19 pandemic on Nigerian households Awka South, Anambra State. An online survey with a descriptive cross-sectional design was used to elicit response from 422 Awka South, Anambra State. Statistical test used was Chi-square at 0.05 level of significance. While more than half (62.8%) of the respondents had a family income that was above N100, 000 before the pandemic, however, less than half (48.8%) of the study population still had the same family income with the onset of the pandemic. Majority (88.2%) of the respondents did not receive any cash palliative. A significant difference was found between family income before and during the pandemic ( $p=0.000$ ) and between number of feeding times before and during the COVID'19 pandemic ( $p=0.000$ ). The COVID-19 pandemic has affected families in significant terms while stimulus packages were not received by majority. Concerted efforts must be put in place by the government to ensure that stimulus packages are effectively distributed to every nook and cranny in a bid to mitigate the effect of the pandemic on households.

**Key words:** COVID-19, pandemic, impact, households, socio-economic sustainability.

## **INTRODUCTION**

The 21st century witnessed a major outbreak of a dreaded virus, Coronavirus disease 2019 (COVID-19) with its

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resultant effect on all individuals in the different parts of the world (Xiong et al., 2020). Though some professionals (like health workers) are the front liners and were psychologically affected and supported, each household too was impacted by this virus (Xiong et al., 2020). The effect of this COVID-19 has been traced to affect all areas of life including finance/economy, social, and psychological.

All aspects of human lives have been profoundly disturbed by the COVID-19 pandemic, therefore creating multiple challenges (Pietromonaco and Overall, 2020). These challenges have been found to influence the relationships at the household level (Pietromonaco and Overall, 2020). A number of physical health challenges and psychological disorders have been traced to the COVID-19 pandemic (Salari et al., 2020).

The psychological state of the general populace was adversely affected during the COVID-19 pandemic (Vindegard and Benros, 2020). Studies have shown that the COVID-19 has psychological impact on the citizens of different countries (Cullen et al., 2020; Dubey et al., 2020). The impact of covid-19 includes moderate to severe anxiety, mass hysteria, and depressive disorders, sleep disorders and post-traumatic stress disorder (Dubey et al., 2020; Giorgi et al., 2020; Preti et al., 2020) "Coronaphobia" which is described as the fear of COVID-19 is also part of the psychological effect caused by the COVID-19 pandemic (Vindegard and Benros, 2020). Therefore, assessment and monitoring of the population's mental health become pertinent (Salari et al. 2020).

The psychosocial effect of COVID-19 is seen in households globally but mostly hit the children because of the lockdown at homes (Ghosh et al., 2020). Lack of outdoor activities resulting from school closure and lockdown impact the psychosocial aspects of the children and the household at large. There are long-term psychosocial consequences of the pandemic (Marazziti et al., 2020). The financial losses and the economic burden of the pandemic are also not left out (Vindegard and Benros, 2020). According to (Ferneck, 2020), the COVID-19 pandemic has an impact on every aspect of the global economy and may even lead to global recession. Financial downturn on all households has been caused by the pandemic. (Mossa-Basha et al., 2020; Wang and Tang 2020) opined that COVID-19 pandemic has long-term socioeconomic influence on the people and the environment where they live. This impact did not spare the social and the working environment as physical distancing, isolation, lockdowns and suspensions of all activities were adopted thereby affecting the financial income of the citizens, causing fear and anxiety about the future (Giorgi et al., 2020). Quality of life and well-being have been affected by the quarantines (Barrientos et al., 2021).

Some risk factors were identified to increase the impact of COVID-19 pandemic by (Xiong et al., 2020) which include gender (female), age less than 40 years, relatives

with COVID-19, chronic or psychiatric illnesses, poor-self-related health, unemployment, and exposure to social media or news about COVID-19. Other risk factors include altered sleep pattern, social interaction habits, poor nutritional status, abuse of psychotropic drugs, COVID-19 clinical diagnosis, and losing a relative to COVID-19 (Vindegard and Benros, 2020; Leira-Sanmartin et al., 2021). Long periods of isolation, uncertainty of the future and job insecurity were found to worsen the psychological condition of people during the pandemic (Giorgi et al., 2020).

It is against the foregoing that the study aimed to assess the impact of COVID-19 on household in Nigeria.

## MATERIALS AND METHODS

### Study design and population

Responses (422) were obtained from the online-based survey using convenience sampling technique to assess the impact of COVID-19 pandemic on households in Awka, Anambra State, Nigeria. The study was conducted between July 2020 and September 2020 in Awka South, Anambra State Nigeria. Awka is a metropolitan, the capital of Anambra State; inhabited by mostly Igbo ethnic group in the eastern region in Nigeria, the people are mostly traders and business owners and a handful working with the public sector.

### Sample size calculation

The sample size for this study will be determined using Cochran formula (Cochran, 1977).

$$n = \frac{z^2 \times p \times q}{e^2}$$

where Z is 1.96 at confidence interval of 95%, S is the sample size, E is the desired level of precision 0.05, Q value is 0.5, and P is the population proportion of 0.5.

$$n = \frac{z^2 \times p \times q}{e^2}$$

$$\frac{(1.96^2) \times 0.5 \times 0.5}{(0.05)^2} = \frac{(1.96^2) \times 0.25}{0.0025} = 384.16$$

Adding 10% attrition or non-response rate to the calculated size, 384 + 38 = 422.

### Study variables

The variables for consideration to determine the impact of COVID-19 on household include livelihood, food security, access to cash and markets, income earners, and family size were considered for this study while socio-demographic characteristics considered were; age, gender, marital status, employment status, employer, and state of residence were considered.

### Data collection and management

The data generated were transformed into codes and analysed using Statistical Package for Social Sciences (SPSS) IBM version

23. Counts and percentages computed to describe the baseline data, and Chi square analysis computed to assess the relationship between socio-economic variables and the impact of COVID-19 Pandemic on Nigerian Households at 0.05 level of significance.

## RESULTS AND DISCUSSION

Table 1 indicates that 61.4% (259) of the respondents were females, 38.2% (161) were males. 58.7% (248) of the respondents were between the ages of 15 and 29, 28.6% (121) were between the ages of 30 and 44, 10.9% (46) were between the ages of 45 and 59 while 2.8% (7) were between 60 and above. 47.4% (200) of the respondents were employed, 14% (59) were self-employed, and 33.6% (142) were students while 5% (21) were unemployed. On the account of marital status 39.6% (167) of the respondents were married, 59.5% (251) were single. 26.8% (113) of the respondents had a family size of 1-2, 38.6% (163) were 4-6. 54% (228) of the respondents do not have family members living with them while 46% (194) had extended family members living with them. 17.3% (73) had 2 and 48.1% (203) had none extended family living with them. 35.8% (151) of the respondents had 2 income earners in the family and 27.2% (115) had 1. 62.8% (265) of the respondents had incomes greater than 100000 before COVID'19, while 26.8% (113) between 55000 and 100000. 48.8% (206) of the respondents now have a total incomes more than 100000, and 25.1% (106) now earns 55000-100000.

Results from Table 2 show that 23.7% (100) of the respondents fed less than 3 times daily before the pandemic, 17.3% (73) fed 2 times daily and 58.1% (245) fed 3 times daily, consequently 4.3% (18) now feed once daily, 38.9% (164) now feed 2 times daily. 41.9% (177) now feed 3 times daily. Similarly 46.9% (198) of the respondents said that COVID'19 affected their income through salary reduction.

On the account of stocking home with food stuffs, 66.6% (281) of the respondents said they stocked their home with foodstuffs before the lockdown while 33.4% (141) did not. Of the 33.4% (141) that did not stock their home with foodstuffs, 9.7% (41) said they could not because the stores were closed due to the lockdown, 5.2% (22) could not because of insufficient funds and 0.2% (1) because they had no earning at all. Similarly, 12.3% (52) of the respondents shopped for all things they needed, 0.5% (2) shopped for clothes only, and 12.3% (52) shopped for food and clothes while 74.9% (316) shopped for food only. 14.5% (61) shopped for food daily, 19% (80) monthly and 66.6% (281) weekly. 4.5% (19) shopped for other items daily, 42.9% (181) shopped monthly, 24.9% (105) weekly while 27.7% (117) never shopped for other things. More so, 5.9% (25) of the respondents said they were alone during the pandemic, 0.5% (2) was with their colleagues, 88.7% (374) were with family and 5% (21) were with friends. 8.1% (34) of the respondents believed that COVID'19 was a blessing

because their business improved, 7.6% (32) called it a blessing because they had all the family members around, 55% (232) believed it to be a curse because their business came crumbling and 29.4% (124) believed it is a curse because it separated their family.

Consequently, 29.9% (126) of the respondents studied most of the time during the lockdown, 23.5% (99) watched movies, 27.5% (116) worked, surviving during the pandemic was of a great concern; 55.7% (235) of the respondents said that they sometimes get bored during lockdown, and 5.9% (34) never did. Information on COVID-19 accounts for 65.2% (275) social media information among respondents 28.2% (119) from television and 6.7% (28) from radio. 23.2% (98) of the respondents knew persons diagnosed with COVID'19 and 76.8% (324) did not. 64.5% (272) of the respondents did not receive any relief package due to COVID lockdown. 91.5% (386) never received any cash palliatives. 1.7% (7) of the respondents received a quarter bag of rice, 1.7% (7) received a rubber of garri (cassava flakes) while 96.7% (408) never received items palliatives. In an emergency, 78.4% (331) of the respondents said they would not call. On salvaging the situation brought by COVID-19, only 3.3% (14) of the respondents received item palliatives monthly, 65.4% (276) of the respondents agreed that the curfew was good. Similarly, 61.6% (260) thinks that the government is justified by their action. There were several responses to the question "How has the curfew affected your household?" as this was an open-ended question. The following responses were gathered: 'After my answer what will be your solution. Of course badly', 'Badly', 'Been at home but a means of income should be provided', 'Find it difficult to go out to buy things or even supply our goods', 'I can't travel', 'I live with my aunt not my actual family', 'Increase in food products', 'It didn't have any effect on us cause we are always indoors', 'It has brought the family closer', 'It has made us to be out of School', 'It prevents my parents from staying outside late', 'Low income was experienced', 'Malnutrition', 'Movement restrictions leading to financial stagnation', 'incessant waste on data subscriptions', 'Never had need to move at nights', 'No way', 'Not been able to go about our daily activities', 'Not in any way', 'Not much', 'Positively', 'Reduction in income', 'The prices of items have greatly increased', 'There have been the positive and the negatives', 'We can't feed well', 'We can't move around like we do sometimes'.

The study results indicate a relationship/significant difference between the respondent's total family income as well as the number of feeding time before and during the pandemic. Also the age of the respondents have an effect on their perception of the curfew, impact and use of face mask during the COVID-19 pandemic.

However, there was no significant difference between the respondent's state/county of residence and the cash and item palliative received during the COVID-19

**Table 1.** Sampling study participants in Awka South, Anambra State, Nigeria

Socio-demographic variable	Respondents (n=422)	
	Frequency (n)	%
<b>Age (years)</b>	30.18±11.15	
<b>Gender</b>		
Female	259	61.4
Male	161	38.2
Prefer not to say	2	0.5
<b>Employment Status</b>		
Student	142	33.6
Employed	200	47.4
Unemployed	21	5.0
Self-employed	59	14.0
<b>Family Size</b>		
1-2	113	26.8
3-5	97	23.0
4-6	163	38.6
More than 6	49	11.6
<b>Marital Status</b>		
Single	251	59.5
Married	167	39.6
Divorced	1	0.2
Separated	2	0.5
Widowed	1	0.2
<b>Are there extended family members living with you? (And/or friends)</b>		
No	228	54.0
Yes	194	46.0
<b>How many?</b>		
1	86	20.4
2	66	15.6
3	29	6.9
More than 3	38	9.0
None	203	48.1
<b>How many income earners are in the family?</b>		
1	115	27.2
2	151	35.8
3	59	14.0
More than 3	62	14.7
None	35	8.3
<b>Total Family income (in NAIRA per month BEFORE COVID'19)</b>		
<30000	10	2.4
>100000	265	62.8
30000-50000	34	8.1
55000-100000	113	26.8
<b>Total Family income (in NAIRA per month NOW)?</b>		
<30000	50	11.8
>100000	206	48.8
30000-50000	60	14.2
55000-100000	108	25.6

**Table 2.** Impact of COVID'19 on study participants in Awka South, Anambra State, Nigeria; n=422.

Statements for consideration	Respondents (n=422)	
	Frequency (n)	%
<b>How many times did you feed before the pandemic?</b>		
>3	100	23.7
1	04	0.9
2	73	17.3
3	245	58.1
<b>How many times do you feed now?</b>		
>3	63	14.9
1	18	4.3
2	164	38.9
3	177	41.9
<b>Did you stock your home with foodstuffs before the lockdown?</b>		
YES	281	66.6
NO	141	33.4
<b>If no, why didn't you stock?</b>		
Closed stores due to lockdown	41	9.7
Insufficient funds	98	23.2
No earning at all	01	0.2
No response	282	66.8
<b>Do you use a facemask?</b>		
YES	269	63.7
NO	153	36.2
<b>How frequently do you use a facemask?</b>		
Daily	152	36.0
Occasionally	70	16.6
When amongst people	185	43.8
When at the market	06	1.4
When at work	09	2.1
<b>What do you shop during this pandemic?</b>		
Food only	316	74.9
Food and clothes	52	12.3
Clothes	02	0.5
All combined	52	12.3
<b>How frequently do you shop for food?</b>		
Daily	61	14.5
Monthly	80	19.0
Weekly	281	66.6
<b>How frequent do you shop for other items (other than food)?</b>		
Daily	19	4.5
Monthly	181	42.9
Weekly	105	24.9
Never	117	27.7
<b>Who have you been with during this pandemic?</b>		
Alone	25	5.9
Colleague	02	0.5
With family	374	88.7
With friends	21	5.0

Table 2. Contd.

<b>COVID'19 pandemic was rather?</b>		
A blessing because business has improved	34	8.1
A blessing because I have all my family members	32	7.6
A curse because business came crumbling down	232	55.0
A curse because it separated my family	124	29.4
<b>What do you do most of the time during the lockdown?</b>		
Call friends	01	0.2
Sleep	74	17.6
Study	126	29.9
Watch movies	99	23.5
With family	02	0.5
Work	116	27.5
<b>How often do you get bored during the lockdown?</b>		
Always	102	24.2
Never	34	8.0
Rarely	51	12.1
Sometimes	235	55.7
<b>Where do you get most of your information about COVID'19?</b>		
Radio	21	5.0
Social media	275	65.2
Television	119	28.2
<b>Do you know anyone that has been diagnosed of COVID'19?</b>		
YES	98	23.2
NO	324	76.8
<b>Who is the person to you?</b>		
Celebrities	27	6.4
Colleague	105	24.9
Family	127	30.1
Friend	114	27.0
Individual	49	11.6
<b>From whom did you receive a relief package due to the lockdown?</b>		
Church	42	10.0
Employer	29	6.9
Individual	58	13.7
NGO	21	5.1
I did not receive any relief package	272	64.5
<b>Cash palliative received</b>		
<5000	28	6.6
>10000	15	3.6
5000 – 10000	07	1.7
None	372	88.2
<b>How frequent do you receive cash palliative?</b>		
Monthly	29	6.9
Weekly	07	1.7
Never	386	91.5
<b>Items palliatives received?</b>		
Quarter bag of rice	07	1.7
Rubber of garri	07	1.7

Table 2. Contd.

Never	408	96.6
<b>How frequent do you receive item palliatives?</b>		
Monthly	14	3.4
Never	408	96.6
<b>Will you call the COVID'19 emergency lines if those close to you show symptoms of COVID'19?</b>		
YES	331	78.4
NO	91	21.6
<b>Do you think the curfew was a good way to reduce the spread of the virus?</b>		
YES	276	65.4
NO	146	34.6
<b>If yes to the above, do you think the government is justified by their actions?</b>		
YES	260	61.6
NO	162	38.4

pandemic. The gender of the respondents had no relationship with the perception of curfew and impact of the COVID-19 pandemic on different households (Table 3).

## DISCUSSION

This study was designed to assess the impact of COVID-19 pandemic on households in Anambra State, Nigeria. Results from the study reveal that before the pandemic, more than half (62.8%) of the respondents had a family income that was above N100,000. However, from the onset of the pandemic, less than half (48.8%) of the study population still had the same family income. Overall, the study showed that there was a significant difference between the respondents' total family income before and during the COVID'19 pandemic. This result was in consonance with the research by (Mossa-Basha et al., 2020) who found that the pandemic has resulted in a financial downturn on all households. This was also in line with the findings of Morgan and Trinh, 2021 in eight Asian countries where they also reported financial difficulties in households with the onset of the COVID-19 pandemic. Similarly, our study also revealed that while majority (81.8%) of the respondents were feeding at least 3 times daily before the pandemic, only a little above half (56.8%) of the respondents were able to maintain this way of lifestyle. This may be attributed to the financial downturn on households.

The financial stress imposed on households during the pandemic highlights the need for palliative measures to cushion the effect of the downturn. However, in our study, we found that majority (88.2%) of the respondents did not receive any cash palliative to cushion the effects of the lockdown. Similarly, most (64.5%) of the respondents also reported not receiving any form of relief package

during the pandemic. This is in line with the report of Eranga, 2020 who observed that residents of Lagos and Abuja, Nigeria lamented that stimulus packages by the government were not sincerely deployed and they were heavily politicized. It was however reported that members of the public in almost a third of the 36 states in Nigeria and the Federal Capital Territory resorted to looting of the warehouses as the looters carted away food items that they claimed were being hoarded so they could help share with their family and friends. Although the government responded to this by declaring that the items were kept in preparation for the possible second wave of the infection, members of the public decried this as they lamented that the items were locked up in stores while people were suffering (Orjinmo, 2020). This suggests that efforts should be geared towards appropriate administration and subsequent distribution of stimulus packages in Nigeria. A cross-country analysis of economic stimulus to the pandemic by (Siddik 2020), revealed that countries like Chile, Switzerland, Sweden, Netherlands and Croatia responded more adequately to the provision of stimulus package. Given the economic situation in Nigeria, more efforts should be geared towards better support from the government as the lack of support from neither the government nor other social institutions may have affected the quality of life and well-being of many of these households as suggested in a research by (Barrientos et al., 2021).

Also, results further revealed that socio-demographic characteristics such as age, gender and state of residence of respondents did not have a significant relationship on the impact of Covid-19 on households. These results were contrary to findings by (Xiong et al., 2020) which revealed that gender and age were risk factors to an increased impact of the COVID-19 pandemic.

**Table 3.** Factors influencing the socio-economic Impact of COVID-19 pandemic on households using a Chi-square test statistics.

Hypothesis/Variable	df	$\chi^2$	P-Value
Total family income now per month * Total family income before COVID'19	12	309.1	0.000
State/County of residence * Cash palliative received during the COVID'19 pandemic	69	68.53	0.493
State/County of residence * Item palliative received during the COVID'19 pandemic	46	34.38	0.896
Gender * Impact of COVID'19 on households	64	62.15	0.542
Age * Impact of COVID'19 on households	1372	2642	0.000
Number of feeding times before * During the COVID'19 pandemic	9	156.0	0.000
Age * use of facemask	129	168.8	0.011

Furthermore, majority of the respondents reported that they were affected by the nationwide curfew as it had negative impact on their household both financially and socially. While some mentioned issues related to increased prices in food, consistent data subscription to stay up to date on information, and difficulty in doing business, others mentioned that being unable to travel, go to school or engage in other social activities was an issue.

### Limitation of the study

As this study was conducted online, this study did not capture data from those who do not have access to internet. Similarly, this study was based on self-report; it might have been subjected to social desirability bias where respondents tend to respond in a manner that will be viewed favorable by others. Hence, these limitations should be considered when interpreting these findings.

### Conclusion

This research has shown the significant effect of the COVID-19 pandemic on the financial state of households. It was also revealed that economic stimulus package did not reach majority of the respondents. Findings suggest that more efforts are needed by the government in providing needed stimulus package for the masses during the pandemic while ensuring that the palliative measures reach the citizens as at when due.

### RECOMMENDATIONS

- (1) Economy wide assessment is needed to understand the impact of covid-19 on households.
- (2) There is need for broader assessment outside of a lockdowns in comparison to other eastern parts of the country.
- (3) Conscious effort is needed to reach the unreached during such time as covid-19 pandemic.

### CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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