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## NIGERIANS PERSPECTIVES ON COVID-19 PANDEMIC AND HOW IT AFFECTS THEIR LIFESTYLE AND FINANCIAL STATUS

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**ABSTRACT: Background:** Covid-19 is a viral disease that originated from Wuhan province of China. The virus has rapidly crossed borders, infecting and killing people in many countries including Nigeria. Undoubtedly, the pandemic has massive impact on the activities of Nigerians, including social lifestyle and income. The age-long communal behavior of Nigerians, like attendance to religion gatherings, ceremonies, and sports, has been hampered due to covid-19 pandemic. Also, due to this pandemic, Nigeria's economy has declined drastically. This study was conducted to understand the perspective of Nigerians about Covid-19, and how it affected their lifestyle and financial status. **Method:** An online survey was conducted using the combination of few open ended and closed ended questions to gather data from a total of 325 respondents in Nigeria. **Results:** Majority of the respondents had adequate knowledge about the Covid-19 infection, its preventive measures, and its mode of transmission. Furthermore, over half of the respondents admitted that the pandemic has adversely affected their social lifestyle and financial status. **Conclusion:** There is need for provision of financial assistance and distribution of palliatives to all Nigerians during this pandemic. The government should also ensure the safety of all citizens, as social vices increase amidst the pandemic. A policy against increment of price of commodities should be established and implemented.

**KEYWORDS:** Covid-19, pandemic, lifestyle, income, palliatives, transmission, preventive measures.

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## INTRODUCTION

The major problem ravaging the whole world now is the spread of Covid-19 infection as named by the World Health Organization on 11<sup>th</sup> February, 2020 (World Health Organization, 2020a). The virus was declared a pandemic due to its high transmission and mortality rate across the globe (Nkwoemeka *et al.*, 2020). Covid- 19 originated from Wuhan province of China in the last months of 2019 (Amakiri *et al.*, 2020; Wang *et al.*, 2020) and is a chronic respiratory virus

disease that is highly contagious. Covid-19 with its unique characteristics; extraordinary genetic diversity and easy mode of transmission was able to spread rapidly across the globe within a short period of time (Mackenzie and Smith, 2020).

During this period, the outbreak has claimed many lives and left millions of people on the sick bed. According to World Health Organization, as at 3rd June, 2020, the number of morbidity and mortality has been on increase across the globe, with USA having the highest number of infected patients followed by Brazil, and Peru (World Health Organization, 2020b). However, it seems that the mortality statistics are underestimated (Baud *et al.*, 2020). World Health Organization is leaving no stone unturned to control the pandemic and is awaiting for a vaccine to cure it (El zowalaty and Jarhult, 2020),

Nigeria, one of the countries located in the western part of Africa recorded its first case on the 27th February 2020, in Lagos state from an Italian man. Since then, the number of morbidity and mortality has kept increasing across the country, with Lagos and Kano having the highest number of infected patients (Nigeria Center for Disease Control, 2020a).

Covid-19 outbreak resulted to a shortage in the global supply chains (Ebrahim *et al.*, 2020), thereby leading to a disruption in the world economy and Nigeria economy is not left aside. Before the pandemic, the outlook for Nigeria economy was fragile, with GDP growth tapering around 2.3% in 2019, however, during this pandemic, Nigerian GDP growth rate has reduced as a result of sharp fall in oil price, low demand of oil, limited fiscal space and the lockdown of other sectors which also generate revenue for the country, (International Monetary Fund, 2020).

In order to curtail the spread of this virus, some strategic measures have been implemented within the country and this include; lockdown of different sectors leaving just the health sector and food traders active, social distance, and creating awareness on the major health ethics. This has really affected the communal lifestyle and income rate of the people. Thus, the specific objective of this study is to determine the perspective of Nigeria about Covid-19 and also identify the effect of this pandemic on their lifestyle and income.

## **MATERIALS AND METHOD**

The questionnaire was designed to deduce the response of Nigerians on their perspective about Covid-19, its impact on their lifestyle and income. The questionnaire constituted of 25 general questions which was divided into 4 different sections (demographic data, perspective about Covid-19, Lifestyle, and Financial income) and it combined few open ended question and closed ended question which availed the respondents the opportunity to make their choices from each question. The question had lots of options ranging from “strongly disagree” to “strongly agree” and other multiple choice answers.

In preparing the questionnaire, the understandings of the respondents was put into consideration in order to get an accurate and transparent response, it was ensured that the questions was in accordance with the aim and objective of the research. The data was

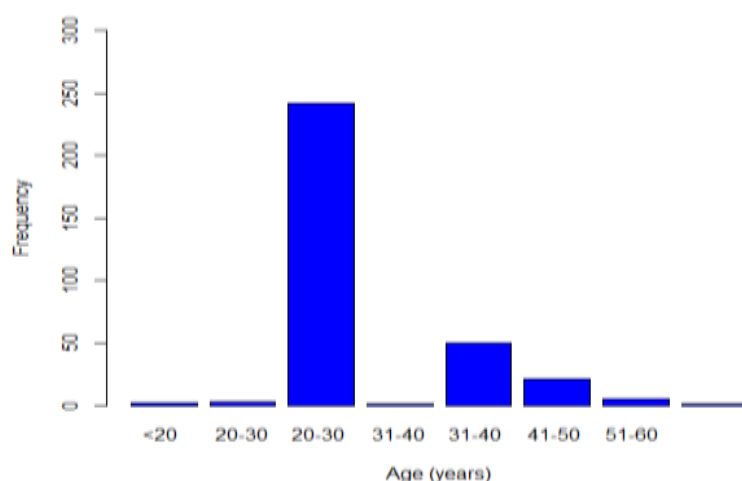
distributed and collected online to enable people fill it from their comfort environment. The data was evaluated based on the valid content. The data was analyzed using the R version 3.6.2 statistical package (Core, 2019). The demographic data such as the age, gender was analyzed using descriptive statistics and the percentage was visible. The lifestyle and income was analyzed on the basis of the response given by the respondents and it was rated in percentage. Chi square ( $X^2$ ) test was used for the hypothesis testing ( $p= 0.05$ ) to determine if there was a change in their lifestyle and income as a result of the pandemic.

**Table 1: Relative frequency of Job participant**

| <b>Job</b>        | <b>Percentage</b> |
|-------------------|-------------------|
| Government worker | 12.62%            |
| Private Employee  | 28.00%            |
| Self Employed     | 19.69%            |
| Students          | 31.08%            |
| Unemployed        | 8.62%             |

## RESULTS

The survey provided a result of 325 samples responses. Regarding the gender,  $n= 184$  males, and  $n= 141$  females. Regarding occupation, the study had more of students at 30%, private employee = 28%, self-employed = 20% and government worker = 13%. Participants were mostly between 20 and 30 years of age.



**Fig 1:** Bar Chart showing the plotting of frequency against respondents' age.

Based on lifestyle, 79% responded that the pandemic has strongly affected market prices of commodities as against 19% who partially agreed. 65% expressed partial lockdown in their

regions as against 31% who had a complete lockdown in their regions. 78% expressed not receiving any palliatives from the government during the pandemic, with 10% having received. Although most participants disagreed that the virus is hyped by the media, 22.15% responded neutral. 42.15% expressed optimism of the pandemic motivating the government to invest more in the healthcare sector. 49% agreed the lockdown was a good measure while 11.7% disagreed. Below is a Likert scale table showing the nature of perspectives of respondents based on the pandemic.

**Table 2: Likert scale table of respondent answers based on the pandemic**

| Questions   | Strongly Agree [%] | Agree [%] | Neutral [%] | Strongly Disagree [%] | Disagree [%] |
|---|--------------------|-----------|-------------|-----------------------|--------------|
| Social lifestyle change   | 15.1               | 54.2      | 11.7        | 5.2                   | 13.8         |
| Increase on social media usage  | 35.7               | 41.2      | 35.7        | 5.9                   | 5.5          |
| Building family relationship  | 21.5               | 46.2      | 20.6        | 4.0                   | 7.7          |
| Acquisition of new skills online  | 10.5               | 40.6      | 22.8        | 6.5                   | 19.7         |
| Increase in social vices (e.g robbery) as a result of preventive measures by the government | 22.7               | 36.0      | 16.3        | 4.3                   | 20.6         |
| Effect on income  | 49.9               | 31.7      | 8.6         | 4.0                   | 5.9          |
| A decrease in household spending  | 14.8               | 21.2      | 7.7         | 30.2                  | 26.2         |
| Increase in online transaction  | 20.9               | 39.1      | 14.2        | 8.3                   | 17.5         |
| Covid-19 over hyped by the international media  | 8.31               | 18.15     | 22.15       | 19.69                 | 31.69        |
| Covid-19 outbreak will make the government invest more in the health sector                 | 17.54              | 42.15     | 20.92       | 7.69                  | 11.69        |
| Lockdown the best measure   | 17.54              | 45.85     | 18.15       | 6.77                  | 11.69        |

68.62% believes the mode of transport of the virus is human to human contact, while 29.54% believes both the above and human to animal contact. 66.46% believes the Covid-19 pandemic to be a viral disease outbreak and 29.54% believes it to be a biological weapon. 78.77% responded that the outbreak of the virus strongly affected the price commodities in the market. 65.54% of the respondent said there was a partial lockdown in their area whereas 31.38% said there was a total lockdown in their area, and this was a means to curtail the spread of the virus. 78.46% responded that there was no distribution of palliatives to them by the government. Below is a table displaying the above information?

**Table 3: Display of respondent's perspectives**

| <b>EFFECT OF COVID-19</b>                                    | <b>FREQUENCY</b> | <b>PERCENTAGE (%)</b> |
|--|------------------|-----------------------|
| <b>Awareness of corona virus outbreak</b>                    |                  |                       |
| Yes  | 323              | 99.38                 |
| No   | 2                | 0.62                  |
| <b>What is corona virus mode of transmission</b>             |                  |                       |
| Animal to human  | 2                | 0.62                  |
| Both animal to human and human to human                      | 96               | 29.54                 |
| By spiritual attack  | 3                | 0.92                  |
| Human to human   | 223              | 68.62                 |
| No Idea  | 1                | 0.31                  |
| <b>View on origin of corona virus outbreak</b>               |                  |                       |
| A biological weapon  | 96               | 29.54                 |
| A spiritual course   | 2                | 0.62                  |
| A viral disease outbreak                                     | 216              | 66.46                 |
| No idea  | 11               | 3.38                  |
| <b>Measure to prevent the spread of COVID-19</b>             |                  |                       |
| All of the above   | 298              | 91.69                 |
| Avoid touching your eyes, nose and mouth with unclean hands. | 2                | 0.62                  |
| Frequent washing of hand with soap and running water.        | 3                | 0.92                  |
| None of the above  | 4                | 1.23                  |
| Observing social distancing and self-isolation               | 14               | 4.31                  |
| The use of face mask   | 2                | 0.62                  |
| Use of hand sanitizer and avoiding hand shaking.             | 2                | 0.62                  |
| <b>Price of commodities</b>                                  |                  |                       |
| Strongly Affected  | 256              | 78.77                 |

|                                    |     |       |
|------------------------------------|-----|-------|
| Partially Affected                 | 62  | 19.08 |
| Not Affected                       | 1   | 0.31  |
| I Don't Know                       | 6   | 1.85  |
| <b>Level of restriction</b>        |     |       |
| Total lockdown                     | 102 | 31.38 |
| Partial lockdown                   | 213 | 65.54 |
| No restriction                     | 6   | 1.85  |
| I don't know                       | 4   | 1.23  |
| <b>Distribution of palliatives</b> |     |       |
| No                                 | 255 | 78.46 |
| Not aware                          | 36  | 11.08 |
| Yes                                | 34  | 10.46 |

### Hypothesis Testing.

We used Chi square ( $X^2$ ) test to check if there is a statistical difference between the current and previous lifestyle of the respondents as a result of the Covid-19 pandemic. The significant level is  $p < 0.05$  and the degree of freedom = 4. The table below shows the information with respect to the above statement.

**Table 4: Display of the p value results with regards to the lifestyle using the Chi square ( $X^2$ ) test**

| Questions   | $X^2$ -value | p-value |
|---|--------------|---------|
| Social lifestyle change   | 246.31       | 0.0001  |
| Increase on social media usage  | 191.02       | 0.0001  |
| Building family relationship  | 177.82       | 0.0001  |
| Acquisition of new skills online  | 114.89       | 0.0001  |
| Increase in social vices (e.g robbery) as a result of preventive measures by the government | 85.138       | 0.0001  |

The result above indicate that there was a significant difference in their social lifestyle (p value = 0.0001), the use of social media (p value = 0.0001), building the family relationship (p value = 0.0001).

= 0.001), Acquisition of new skill (p value = 0.001), and Increase in social vice as a result of the preventive measure established by the government (p value = 0.0001) when the current and previous lifestyle were compared.

We used Chi square test ( $X^2$ ) to test if there was a significant difference in the financial income of the respondent with respect to their Occupation as a result of the Covid-19 pandemic (Table 5). The significant level is  $p < 0.05$  and the degree of freedom = 16. The table below shows the information with respect to the above statement.

**Table 5: Display of the p value results using the Chi square ( $X^2$ ) test**

| Questions                        | $X^2$ -value | P-value |
|----------------------------------|--------------|---------|
| Effect on income                 | 36.6         | 0.0024  |
| A decrease in household spending | 14.108       | 0.5906  |
| Increase in online transaction   | 28.288       | 0.0292  |

The result above showed that there was a Significant difference between the occupation and a change in the financial income (p value = 0.0024), and their online transaction (0.0292) which is as a result of the covid-19 pandemic. There was no significant difference with respect to a decrease in their spending (0.5906).

## DISCUSSION

Deadly disease outbreak is not a new occurrence in Nigeria as the country has faced many life claiming outbreak of emerging and reoccurring diseases in the past such as Ebola virus, Lassa fever, monkeypox, malaria and so on (Nigeria Center for Disease Control, 2020b) and yet survived the accompanying negative impact that the outbreak had on the economy and other areas of life of the people. Similarly, ever since the outbreak of the novel virus also known as COVID-19, it has affected almost every area of life of Nigerians due to various measures put in place by the government to curtail its spread ranging from school closure to market closure and to total or partial lockdown of some places within the country.

The result of our findings showed that among the 325 people that participated in this research, 56.6% were male and 43.4% were female of which majority were students and most of the participants were between 20 and 30 years of age. The reason for more of students and this age bracket participation could be due to the use of social media platforms in administering the questionnaire as internet has become an essential educational tool to students (Eynon, 2013). This was also in conformity to the U.S report that 18-29 years of age are the highest user of the internet (Clement, 2019).

Also, our results showed that the price of commodities in the market have been strongly affected as 79% of the respondents agreed to this fact as against the 19% that said it is only partially affected. The reason for this may be due to the movement restriction measure put in



place by the government which has put an end to the production activities in our manufacturing industries. Also, the closure of borders and airport has stopped the importation of some essential goods making them to become scarce commodities in the market and consequently increase in the price of the few available products (Pallini, 2020). Transportation cost has also increased making the traders to shift the cost on the consumers. This is in agreement with a report that Chinese factories are affected by not only lockdowns and quarantines but also slowdown in production sites in other countries due to shortage of inputs from China, for example, raw materials, manufactured inputs, and machineries and equipment (Fernandes, 2020). The result was also in agreement with that of (Edoho and Mfon, 2020) who reported that Economic turmoil associated with the coronavirus pandemic has a significant and severe impacts on financial markets, including stock, bond, and other commodities.

Our result showed that majority of the Nigerians were experiencing partial lockdown (65%) or total lockdown (31%) as at the time of data collection. This result is similar to that of (Hussain, 2020) who opined that about one third of the world's population so far are in locked-down condition. Majority of the respondents 78% expressed not receiving any palliatives from the government during this pandemic as against 10% that received. This could be due to the problem in the distribution system as well as not having adequate or up to date database of Nigeria citizens. Most of the respondents reported that the corona virus outbreak was not hyped by the international media. This showed a high level of awareness of corona virus pandemic among Nigerians. This high level of awareness could be attributed to availability of different channels by which the information is disseminated ranging from the newspapers, radio, television, NCDC website as well as social media platforms. Majority (42.15%) of the people expressed great optimism that the corona virus outbreak will motivate the government to invest more in the healthcare sector. There is a lot of pressure on the health facility during this period of outbreak making the government to turn other facilities such as stadium to isolation and quarantine centres. People believed this negative experience could motivate the government to shift their attention towards investing more on those facilities during and aftermath of corona virus pandemic.

Judging from the result of our findings, lockdown measure was found to be the best measure to prevent the spread of the corona virus pandemic as 45.85% agree to this measure. 18.15% were neutral while 11.69% strongly disagree that it is the best measure to curtail the spread. Our result is in agreement with that of (Lau *et al.*, 2020) who reported a significant decrease in growth rate and increased doubling time of cases because of the lockdown. Similarly, majority of the participants (91.69%) agreed that measures to prevent the spread of corona virus include; avoidance of touching of eyes, nose and mouth with unclean hands, frequent washing of hand with soap under running water, observing social distancing and self-isolation, use of face mask, use of hand sanitizer and avoiding hand shaking. Similar work by (Roy *et al.*, 2020) reported that 4/5<sup>th</sup> of the participants agreed to social distancing, use of hand sanitizer, frequent hand washing and isolation as measures to prevent spread of corona virus.

In this study, majority of the people (68%) believe the mode of transmission of corona virus to be human to human, 29.54% believe it to be from both animal to human and human to human. 0.92% said is a spiritual attack while 0.31% have no idea of the mode of transport. This result



is similar to previous finding that showed that 92.1% of the respondents reported droplets as mode of transmission (Wang *et al.*, 2020b). Several findings have also suggested that person-to-person transmission is a likely route for spreading corona virus. This report is also supported by cases that occurred within families and among people who had no contact with wet animal market in Wuhan (Carlos *et al.*, 2020; Wu *et al.*, 2020).

Also, our result showed that there is high level of awareness among Nigerians on COVID-19 being a viral disease (66.46%) as against 29.54% that said it was a biological weapon.

The chi square test showed that there was a Significant difference in the Nigerians social lifestyle (p value = 0.0001), the use of social media (p value = 0.0001), building the family relationship (p value = 0.001), Acquisition of new skill (p value = 0.001), and Increase in social vices as a result of the preventive measure established by the government (p value = 0.0001) when the current and previous lifestyle were compared. The reason for this could not be farther from the fact that the lockdown measure has taken people away from their usual activities ranging from watching football matches, attending social gatherings, going to church and so on. People now keep themselves busy through visiting of different online websites, seeing movies as well as learning new skills online as there are many free online courses during this period. Since people are not going to their work place during this period, they have enough time to spend with their families, putting call through to their relatives to check their welfare and safety. The result also showed that social vices such as robbery and burglary has increased as people are looking for all means to solve hunger problem. There are many people who feed from their daily earnings. Movement restriction has inhibited them from making their daily earnings. Also, many casual and employed workers have been laid off all due to the impact of the corona virus pandemic leading to increase in social vices. A similar report by (Lau *et al.*, 2006) that lockdown measure increased social and family supports affirmed our findings.

Our result also showed that there was a Significant difference between the occupation and a change in the financial income (p value = 0.0024), and their online transaction (0.0292) which is as a result of the covid-19 pandemic. This is in agreement with (Edin, 2020) who surmised that ban on social gathering will affect the income on people especially those in the business sector. There was no significant difference with respect to a decrease in their spending (0.5906). Despite reduction in some expenses such as cost of fuelling the cars yet there was no reduction in family spending. This could be as a result of rise in the price of some essential commodities in the market. Since children are fully at home, there is tendency for them to eat more often thereby increasing the cost of feeding. Similarly, electricity bill and cost of fuelling generator may increase as there is more usage of electricity during the lockdown period. The reason for increase in online transactions could be due to the closure of banks and other financial institutions. People have no choice than to carry out most of their transactions through online platforms.

## CONCLUSION

This research has demonstrated that Nigerians are aware of the outbreak of Covid-19, its mode of transmission and the preventive measures administered by WHO in order to curtail the spread of this virus. It was also discovered that the lifestyle and income of the citizens were

affected as a result of the pandemic. Administering Lockdown of many sectors which is one of the preventive measures set up by the government to contain the virus have been an effective one but Palliatives should be distributed to the citizen in order to support and encourage the people to stay at home. The government should also intervene and ensure that the citizens does not extort money from others by means of increasing the price of commodities.

## REFERENCES

- Amakiri, C. P., Chude, C. F., Oradiegwu, U. O., Ipsita Pramanik, I., Anoka, C. F., Ezeoke, A. Q. (2020). Psychological effect of pandemic covid-19 on families of health care professionals. *British Journal of Psychology Research* Vol.8, No.2, pp. 1-7, Published by ECRTD-UK
- Baud, D., Qi, X., Nielsen-Saines, K., Musso, D., Pomar, L., Favre, G. (2020). Real estimates of mortality following COVID-19 infection. *Lancet Infect. Dis.* [https://doi.org/10.1016/S1473-3099\(20\)30195-X](https://doi.org/10.1016/S1473-3099(20)30195-X).
- Carlos, W.G., Dela, C.S., Cruz, B., Cao, S., Pasnick, S., Jamil, Novel Wuhan, (2019). Coronavirus, *Am. J. Respir. Crit. Care Med.* 201 (4) (2020) 7–8, <https://doi.org/10.1164/rccm.2014P7>
- Clement, J. (2019). U. S. Internet usage penetration 2019, by age group. Accessed 25 May 2020 at: <https://www.statista.com/statistics/266587/percentage-of-internet-users-by-age-groups-in-the-us/>
- Core, T. R. (2019). A Language and Environment for Statistical Computing. R Foundation for Statistical Computing, Computing, Vienna, Australia. URL://[www.R-project.org/](http://www.R-project.org/)
- Ebrahim, S.H., Ahmed, Q.A., Gozzer, E., Schlagenhaut, P., Memish, Z.A. (2020). Covid-19 and community mitigation strategies in a pandemic. *BMJ* 368. <https://doi.org/10.1136/bmj.m1066>.
- Edin, E. A. (2020). Positive and negative impact of Covid19 on the economy. Accessed 24 May, 2020 at: <https://www.researchgate.net/publication/341026288>
- Edoho and Mfon. (2020). COVID 19: assessing the socio-economic effect of the coronavirus pandemic. Accessed 23 May, 2020 at: <https://www.academia.edu/42244881>.
- El Zowalaty, M.E., Järhult, J.D. (2020). From SARS to COVID-19: a previously unknown SARS-CoV-2 virus of pandemic potential infecting humans – call for a one health approach. *One Health* 9, 100124. <https://doi.org/10.1016/j.onehlt.2020.100124>.
- Eynon, R. (2013). “The Rise of Big Data: What Does It Mean for Education, Technology, and Media Research?” *Learning, Media and Technology* 38, no. 3 (2013).
- Fernandes, N. (2020). Economic Effects of Coronavirus Outbreak (COVID-19) on the World Economy. Accessed March 22, 2020, at SSRN: <https://ssrn.com/abstract=3557504> or <http://dx.doi.org/10.2139/ssrn.3557504>
- Hussain, S. (2020). One third of humanity under virus lockdown. AFP .Accessed May 24, 2020, from <https://www.afp.com/en/news/15/one-third-humanity-under-viruslockdown-doc-1q57be13>

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- International Monetary Fund. (2020). Nigeria's IMF financial assistance to support health care sector, protect jobs, and businesses. IMF Country Focus. Accessed April 30, 2020, from <https://www.imf.org/en/News/Articles/2020/04/29/na042920-nigerias-imf-financial-assistance-to-support-health-care-sector-protect>
- Lau, H., Khosrawipour, V., Kocbach, P., Mikolajczyk, A., Schubert, J., Bania, J., Khosrawipour, T. (2020). The positive impact of lock-down in Wuhan on containing the COVID-19 outbreak in China. *J. Travel Med.* <https://doi.org/10.1093/jtm/taaa037>.
- Lau, J. T., Yang, X., Tsui, H. Y., Pang, E., Wing, Y. K. (2006). Positive mental health related impacts of the sars epidemic on the general public in hong kong and their associations with other negative impacts. *J. Infect.* 2006, 53, 114–124.
- Mackenzie, J.S., Smith, D.W. (2020). COVID-19: a novel zoonotic disease caused by a coronavirus from China: what we know and what we don't. *Microbiol. Aust.* <https://doi.org/10.1071/MA20013>.
- Nigeria Center for Disease Control. (2020a). Covid-19 Nigeria. Accessed June 1, 2020, from <https://covid19.ncdc.gov.ng/report/>
- Nigeria Center for Disease Control. (2020b). Disease Information. Accessed April 28, 2020, from <https://ncdc.gov.ng/diseases/a-z>.
- Nkwoemeka, N. E., Okwelogu, I. S., & Amakiri, P. C. (2020). A scoping review on epidemiology, etiology, transmission, clinical presentation, treatment and management of Corona virus disease (COVID-19). *European Journal of Biology and Medical Science Research*, 8(2), 45–54.
- Pallini, T. (2020). 55 global airlines have completely stopped flying scheduled flights due to travel bans, airspace closures, and low demand for travel — see the full list. *Business Insider*. Accessed 31 March 2020 at: <https://www.businessinsider.com/coronavirus-global-airlines-stopping-flightssuspending-operations-2020-3#tame-45> Wang et al., 2020
- Roy, D., Sujita, K.K., Sarvodaya, T., Nivedita, S., Sudhir, K.V., Vikas, K. (2020). Study of knowledge, attitude, anxiety & perceived mental healthcare need in Indian population during COVID-19 pandemic. <https://doi.org/10.1016/j.ajp.2020.102083>
- Wang, C., Pan, R., Wan, X., Tan, Y., Xu, L., Ho, C. S., Ho, R. C. (2020). Immediate Psychological Responses and Associated Factors during the Initial Stage of the 2019 Coronavirus Disease (COVID-19) Epidemic among the General Population in China. *Int. J. Environ. Res. Public Health*, 17, 1729.
- Wang, H., Wang, Z., Dong, Y., Chang, R., Xu, C., Yu, X., Wang, Y. (2020). Phase-adjusted estimation of the number of coronavirus disease 2019 cases in Wuhan, China. *Cell Discov.* 6 (1), 1–8.
- World Health Organization. (2020a). Rolling Updates on Coronavirus Disease (COVID-19). Accessed March 31, 2020, from <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen>
- World Health Organization. (2020b). Coronavirus Disease (COVID-19). Situation Report – 133. Accessed June 1, 2020, from <https://www.who.int/docs/default->

source/coronaviruse/situation-reports/20200601-covid-19-sitrep-133.pdf?sfvrsn=9a56f2ac\_4

Wu, P., Hao, X., Lau, E. H. Y., Wong, J. Y., Leung, K. S. M., Wu, J. T. (2020). Real-time tentative assessment of the epidemiological characteristics of novel coronavirus infections in Wuhan, China, as at 22 January 2020, Euro Surveill. 25 (2020).