

The Social Impact of Covid-19 among Rural Communities in Enugu State, Nigeria

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Abstract

Since the eruption of the lethal and infectious coronavirus pandemic in December, 2019, Nigerians and people across the world have continued to wrestle with the negative outcomes related with the virus. In Nigeria, the government's unsatisfactory reaction to the needs of the people and many more issues gave reason for the present investigation and the study sought to assess the social effects of the Covid-19 pandemic in Nigeria. The study stuck to a Qualitative research Model and adopted an explorative research design, interviews were also conducted on traders, food vendors, transporters, small and medium scale businesses, and some other individuals who were distressed by the lockdown policy. Findings from the study revealed that citizens from the rural areas were socially affected with low life expectancy and increase in crime rate. It was recommended that government should provide security and health infrastructures to increase the quality of life, be responsible to citizens and finally, government should be transparent, responsive and shun corruption. All these will go a long way in cushioning the social effects of the pandemic.

Keywords: Rural, life expectancy, Crime rate, Covid19, Pandemic, Social life

Introduction

A rural area is also known as a countryside, it is a geographic area that is located outside towns and cities. The word “rural” also connotes a place with agricultural orientation (Egbe, 2019) According to the BBC (2020), the nature of the term 'rural' varies from place to place. It often refers to areas in the country which are less densely populated (The National Geographic, 2019). There are different types of rural areas, depending on how accessible they are from urban areas. These range from the rural urban fringe, to the extreme (remote) rural areas (Oxford Reference, 2020; Dijkstra, 2008). A number of countries including Bangladesh, Democratic Republic of the Congo, Egypt, Ethiopia, Indonesia, Nigeria, Pakistan, Sudan, Uganda, and Vietnam, account for three-quarters of the difference between the rural population shares and the urban areas (Dijkstra, Hamilton, Lall, and Wahba 2020).

There also seems to exist some kind of functional difference between urban and rural areas. According to Ozor, Ozioko and Acheampong (2015) the rural area is effective in the supply of food and raw materials, affected by migration, provides labour supply and socio-cultural obligations to urban societies. Rural areas in Nigeria "usually" act as the traditional epicentre in character, although smaller than urban areas in size. On the other hand, Urban areas are "normally" equipped with more infrastructural facilities (industries, large markets, advanced health centres, airports, among many others) that in many cases serves the interest of rural societies. However, this relationship is believed to be growing into a more interdependent one (Chigbu and Antonio, 2019).

The study by Ugwu (2022) argues that there has been an increased number of rural development programmes in Nigeria. On this note, a report from Vanguard (2020) confirms that a rural housing development project have been initiated in Amakpaka Ugwuogo-Nike Autonomous community in Enugu East Local Government Area. The same reports releases that a faction of the society unveils that the government forcefully took indigenes properties. This suggests that such development programmes are aimed at the wrong direction and may not drive in the expected development goal considering the actual needs of a rural community. Some researchers such as Essai (2018) and Lukmon (2012) have argued that despite huge financial expenses and arduous struggles for social and economic development in rural areas in Enugu State during last four decades, the Rural Development strategy pursued or adopted have seemly been inappropriate, irrelevant to the environment and needs of the people, misdirected and misplaced.

According to Egbe (2014) the acclaimed efforts by the Political institutions of the state (such as the State Rural Development Authority and the local government Authority) directed at process of Rural development was assumed to be have been maliciously geared towards rural exploitation and impoverishment despite their enormous contribution to national wealth, and the fact that over 70% of Nigerians live in the country-side. There is need to facilitate development in rural areas but the focus of development aimed should be properly selected because development is a wide subject matter. To this end, Rodney (1972) defines development as a many-sided process. But one key area of development that is of utmost importance to rural settlers among others, is specifically pointed to areas of social development.

Social development is about improving the well-being of every individual in society so they can reach their full potential. The success of society is linked to the well-being of each and every citizen. Social development means investing in people. According to Barker, Ricardo and Nascimento (2007) ‘Social development’ refers to many of the non-economic processes and outcomes of development, including but not limited to: reduced vulnerability; inclusion; wellbeing; accountability; people-centred approaches; and freedom from violence. According to Browne & Millington (2015) social development is fundamentally concerned with human rights, formal and informal power relations, inequality and possibilities for building greater equality among individuals and groups within societies. Tackling social development issues can progress and uphold human development and reduce individual and community vulnerability. It goes a long way in reducing the mortality rate of the society thus increasing their life expectancy.

Life expectancy at birth reflects the overall mortality level of a population. It summarizes the mortality pattern that prevails across all age groups - children and adolescents, adults and the elderly (WHO, 2020). The term “life expectancy” refers to the number of years a person can expect to live. By definition, life expectancy is based on an estimate of the average age that members of a particular population group will achieve when they die (Bezy, 2019). According to the World Health Organization (2020), the average number of years that a newborn could expect to live, if he or she were to pass through life exposed to the sex and age-specific death rates prevailing at the time of his or her birth, for a specific year, in a given country, territory, or geographic area. From a statistical perspective Naimark (2017). Life expectancy can be understood to be equal to the area under a survival curve regardless of its shape.

Life expectancy reflects local conditions or problems such as mortality rates commonly attributed to malnutrition, viral infections, conflict, genetics, poverty and exploitation as observed in rural areas. However, some studies that provides economic explanations for social problems such as poor life expectancy includes the works of Sede and Ohemeng (2015), who argues that there has always been a relationship between poverty and low life expectancy. Previous studies by Lu and Yuan (2005) found out that there exists a relationship between access to safe and quality water and the longevity of the people. On this note, Etikan, Babatope, Yuvali and Ilgi (2019) argues that issues of unsafe and poor drinking water as prevalent in the country are largely responsible for the poor life expectancy among Nigerians.

Nigerian health authorities say the country's life expectancy is among the worst in the world, with influenza and pneumonia leading causes of death. In southern Nigeria's Cross River state, severe air pollution is increasing the cases of respiratory diseases (Voice of Africa, 2020). The literature by Nwabughioqu (2021) argues that countries such as Togo, Ghana and South Africa are ahead of Nigeria in life expectancy. On discussing the cause of poor life expectancy in Nigeria, the Association of General and Private Medical Practitioners of Nigeria (AGMPN) asserts that harsh living conditions in Nigeria have now put life expectancy at 54 years. The Nigerian Life expectancy performance is extremely poor in comparison with countries such as Hong Kong where women are expected to live longer at 87.658 years against 81.876 for their men but an average of 84.762 years. Japan with 84.55 years; Switzerland, 83.698 years; Singapore, 83.526 years; Spain, 83.486 years; Italy, 83.424 years and Australia with 83.348 years (The Guardian, 2019). In response, members of the Nigerian society are strong and do

struggle to survive at all cost, but a number from the population do subscribe to criminal activities to achieve this at both urban and rural settlements (Aljazeera, 2021).

Crimes in rural areas in Nigeria range from militancy, theft, burglary, kidnapping, banditry, ethnic or religion related, rapes to farmers and herders' conflicts, etc. (Achumba, et al, 2013; Kuna and Ibrahim, 2015). The social context that drives these crimes, has to be understood, given the alarming levels that criminality in rural areas have assumed in Nigeria (Balogun, 2021). Balogun further asserts that social neglect in the northern region also fuels banditry. Ojo (2020) observed that the failures of the government to address the socio-economic concerns in the northern part of the country, provides a thriving ground for rural banditry in Nigeria. Rural bandits engage in kidnapping for ransom, killing of rural families, burning of houses and in some cases whole communities, raping of women and girls, theft of crops and cattle rustling, etc. (Ojo, 2020; Kuna and Ibrahim, 2015). As noted by Adebayo (2013), crime limits the propensity of local investors to invest in Nigeria. In the Niger Delta region, a number of oil exploration companies have relocated from Nigeria due to hostility from the community youths in rural areas (Amabipi, 2016). In Enugu state about an amount of over 2200 crimes were reported, and crimes in the rural areas are gradually on the rise (National Bureau of statistics, 2020).

The entrance of COVID-19 to the Nigerian society was an importation from Italy, an Italian citizen who works in Nigeria and returned from Milan, the case was spotted by the Virology Laboratory of the Lagos University Teaching Hospital, which was part of the Laboratory Network of the Nigeria Centre for Disease Control (Adepoju, 2020). The case was

confirmed by the Federal Ministry of Health on the 27th of February 2020 (Reliefweb, 2020). This singular event marked a great change on the lives of Nigerians such as may include both urban and rural areas, even the emergence of COVID-19 was considered a source of great chaos in many other countries (Mishra, 2020; Rucker, 2021). While the urban areas are largely protected by government health and social security infrastructure, the same cannot be said about rural areas (Gebre, 2019). The lockdown, social distancing as well as the viral spread to rural areas has widespread effect on the economy (Inegbedion, 2021), but the present investigation intends to find out if it may as well trigger social problems such that may include low life expectancy and an increased crime rate in the rural society.

Methodology

The study followed a qualitative research model, thus it applies a non-numeric and a non-statistical approach towards data collection and analyses. Data were sourced from secondary sources of data collection. The Explorative research design was used for the study because the study intends assessing the social impact of the COVID-19 in rural areas of Nigeria. The Content was broken down to the appropriate subheadings.

Discussion

The study was well deliberated under the following headlines,

- i. The influence of CO VID-19 on the life expectancy of the rural people
- ii. The influence of COVID-19 on the crime rate in the rural society

The influence of COVID-19 on the life expectancy of rural people

The life expectancy of many Nigerians has largely been considered close to the bottom as the third lowest in the world (Sahara reporters, 2019; Sanni, 2019), in response the government has since stepped up her policy to focus on the health sector reforms and intervention programmes including the primary health care (PHC) intended to impact positively on life expectancy, the commercialization policy which was aimed at injecting some measure of efficiency into the public hospitals, the National Health Insurance Scheme (NHIS) initiated to mitigate the cost of access and the efficient health service delivery monitoring policy (Ministry of Health, 2004; Sede & Ohemeng, 2015), More than 28 million excess years of life were lost in 2020 in 31 countries, with a higher rate in men than women. Excess years of life lost associated with the covid-19 pandemic in 2020 were more than five times higher than those associated with the seasonal influenza epidemic in 2015 (Islam, Shkolnikov, Kawachi and Lewington, 2021).

Although, using excess deaths has been considered the ideal method for measuring the impact of the pandemic, the works of Beaney, Clarke and Jain (2020) explains that this metric does not take into account age at death. The WHO (2013) expresses that the Analysis of life expectancy and years of life lost (YLL) provide a more nuanced estimation of premature mortality at population level. Life expectancy, a widely used metric of mortality, is an indication of how long on average people can expect to survive if the age specific mortality rates of that year remain constant for the remainder of their life (Woolf, Masters and Aron 2021; Trias-Llimós, Riffe and Bilal, 2020).

According to Andrasfay and Goldman (2021), life expectancy at birth declined from 2019 to 2020 in 27 out of 29 countries. Islam *et al* (2021) also notes that the highest reduction in life expectancy was observed in countries such as Russia, United States, Bulgaria and Luthiana. They further argue that some reduction in life expectancy may persist beyond 2020 because of continued COVID-19 mortality and long-term health, social, and economic impacts of the pandemic. The works of Chan, Cheng and Martin shows 83% of reduction of life expectancy as attributable to direct effect of the pandemic, and 17% attributable to indirect effects of COVID-19 pandemic. According to Jack (2021), there have been nearly 5 million reported deaths caused by the new coronavirus so far. The COVID-19 pandemic reduced life expectancy in 2020 by the largest amount since World War Two (WE Forum, 2021).

According to the Guardian (2020), it is feared that the current health situation is associated with recent rise in sudden and unexplained deaths in Nigeria and consequently, shortening of life expectancy of the population as well as a rise in sudden death among COVID-19 survivors. This has become a problem in rural areas especially because of the lack of health facility to manage COVID-19 cases.

Influence of Covid-19 on crime rate in rural areas.

Nigeria among other countries have always prepared itself to fight against crime, but with the event of COVID-19, things appear a bit different. According to Yang, Chen, Zhou, Liang and Bai (2020) It was found that the distributions of crime significantly changed in 2020 and local changes in theft, battery, burglary, and fraud displayed an aggregative cluster downtown. The results all claim that spatial and temporal patterns of crime changed significantly affected by

COVID-19. In areas such as Scotland, the number of offences recorded by the police in Scotland was 29% lower in April 2020 than in April 2019, reducing from a total of 21,644 to 15,449 (Scottish Government, 2021), but the same is not the case in all places. For instance, in the United States, the Council of Criminal Justice (2021) examines crime rates for ten offenses in 28 American cities during the COVID-19 pandemic and social unrest, they eventually found changes in crime rates in American cities during the calendar year 2020, with a special emphasis on homicide and other violent crimes.

Across Africa, crime is widespread among the government officials as well as the populations that comprises the state. Several corruption cases have been tied to the management of COVID-19 funds among countries such as Malawi, Kenya, Nigeria, Uganda and South Africa (Africa News, 2020). This is a serious criminal issue that requires appropriate intervention. In Nigeria, the crime fighters were also caught as culprits of unlawful activities. For instance, the Premium Times (2020), reported a viral video showing a policeman extorting the sum money from people apparently flouting the lockdown orders. In some cases the victims if females were sexually assaulted (Punch 2020). The same report also narrates that the police do threaten to kill their victim if they do not comply. The happenings of extrajudicial killings by the police and other violations of human rights was also observed during the COVID-19 pandemic (AfricLaw 2020; BBC News 2020; Transparency International 2020).

In Nigeria, the crime rate was believed to have escalated, such that the Government was accused of hoarding COVID-19 relief materials whereas, citizens' move forward to loot them. According to the Voice of Africa (2020), many state authorities have halted distribution of the

aid since the easing of lockdowns. Some Nigerians accuse authorities of hoarding items, while millions of people experience hunger despite leaders collecting tens of millions of dollars' worth of aid and tons of relief materials for corona virus victims. Hence, crime at this period was believed to outweigh the pandemic. In addition, Kwaskebe (2020), in a study argues that the escalation of rape cases in Nigeria is another outbreak of social vices that should be pursued as public health emergency. According to Ogunlana, Nwosu, Abiola and Ogunsola (2021), the incidence of rape increased steadily from 5.1% in March to peak at 33.3% in June and declined sharply by the end of August 2020 to 5.1% with rape being more prevalent in Northern Nigeria. And there is a need for urgent measures by relevant stakeholders to curtail rape in Nigeria.

The COVID-19 pandemic experience in Nigeria is such that have influenced the social life negatively by reducing the life expectancy of individuals as well as increasing the rate of crime at all levels between the government and the citizenry of the Nigerian state, this problem is not only observed in urban areas, it is also common in rural areas.

Conclusion

A rural area is also known as a countryside, it is a geographic area that is located outside towns and cities. The word “rural” also connotes a place with agricultural orientation (Egbe, 2019). One key area of development that is of utmost importance to rural settlers among others, is specifically pointed to areas of social development. Social development means investing in people. But presently Nigerian health authorities say the country's life expectancy is among the worst in the world, and harsh living conditions in Nigeria have now put life expectancy at 54

years. But the Outbreak made matters worse, because the excess years of life lost associated with the COVID-19 pandemic in 2020 were more than five times higher than previous epidemics. In Nigeria, the government and the crime fighters were also caught as culprits of unlawful activities, while crimes like rape, sexual assault, homicide and other violent crimes were on the increase. Hence, the influence of the COVID-19 pandemic have in the country's social systems has been a disaster especially in rural settlements.

Recommendation

The study was very resourceful in providing insights to the reality of the Covid-19 Pandemic on the social lives of the individuals; however it is appropriate that the following suggestion is made:

- i. The government could approach the scenario from a holistic perspective, the government in many underdeveloped countries primarily ensured that the lockdown policy and the isolation policy was well implemented without considering other social needs of the people such as their security from social vices.
- ii. The government should develop a rapid response mechanism to the problems of outbreaks such as the COVID-19 pandemic, hence the government should work with stakeholders from the health sector of the economy to make life better in order to improve life expectancy of the citizens.
- iii. The government should improve its research institutes to develop existing scientific capacity to efficiently manage such health emergency calls such as viral or disease outbreaks.

Reference

- Adepoju P. (2020) Nigeria responds to COVID-19; first case detected in sub-Saharan Africa. *Nature Medicine*. <https://www.nature.com/articles/d41591-020-00004-2>.
- Africa News (2021) <https://www.africanews.com/2021/05/25/africa-s-covid-19-corruption-that-outweighs-pandemic/>
- AfricLaw (2020) Enforcement of lockdown regulations and law enforcement brutality in Nigeria and South Africa. Retrieved May 12, 2020, from <https://africlaw.com/2020/06/23/enforcement-of-lockdown-regulations-and-law-enforcement-brutality-in-nigeria-and-south-africa/>
- Ajibo, H. (2020) Effect of Covid-19 on Nigerian Socio-economic Well-being, Health Sector Pandemic Preparedness and the Role of Nigerian Social Workers in the War Against Covid-19. *Social Work in Public Health*. Pages 511-522. <https://www.tandfonline.com/doi/full/10.1080/19371918.2020.1806168>
- Aljazeera (2019) Once Africa's promise, Nigeria is heaving under crime, few jobs. <https://www.aljazeera.com/economy/2021/6/15/once-africas-promise-nigeria-is-heaving-under-crime-scare-jobs>.
- Amabipi, A. K. (2016) Understanding Host Community Distrust and Violence Against Oil Companies in Nigeria. *Walden dissertation and Doctoral studies*. Retrieved from <https://scholarworks.waldenu.edu/cgi/viewcontent>.
- [Andrasfay](#) T. and [Goldman](#), N. (2021) Reductions in 2020 US life expectancy due to COVID-19 and the disproportionate impact on the Black and Latino populations. 118 (5) e2014746118. <https://doi.org/10.1073/pnas.2014746118>
- Amabipi, A. K. (2016) Understanding Host Community Distrust and Violence Against Oil Companies in Nigeria. *Walden dissertation and Doctoral studies*. Retrieved from <https://scholarworks.waldenu.edu/cgi/viewcontent>.
- Balogun, C. E. (2021) Rural Crime: The Social Cost of Youth Unemployment in Nigeria. *Nigerian Journal of Rural Sociology* Vol. 21, No. 1. <https://rusan.org.ng/issues/RUSAN-JOURN-2021-1102.pdf>

- Barker, G., Ricardo, C. & Nascimento, M. (2007). Engaging men and boys in changing gender based inequity in health: Evidence from programme interventions. Geneva: WHO/Promudo http://www.who.int/gender/documents/Engaging_men_boys.pdf
- BBC News (2020) Coronavirus: security forces kill more Nigerians than Covid-19. Retrieved June 23, 2020, from <https://www.bbc.com/news/world-africa-52317196>
- BBC (2020) Geography and rural environment: Characteristics of rural areas. Retrieved from <https://www.bbc.co.uk/bitesize/guides/zpmq4j6/revision/1>
- Browne, E. & Millington, K. A. (2015). Social development and human development: Topic guide. Birmingham / Oxford: GSDRC, University of Birmingham / HEART.
- Beaney T, Clarke JM and Jain V, et al (2020) Excess mortality: the gold standard in measuring the impact of COVID-19 worldwide? *J R Soc Med*;113:329-34. doi:10.1177/0141076820956802. pmid:32910871
- Chan EYS, Cheng D, Martin J. Impact of COVID-19 on excess mortality, life expectancy, and years of life lost in the United States. *PLoS One*. 2021 Sep 1;16(9):e0256835. doi: 10.1371/journal.pone.0256835. PMID: 34469474; PMCID: PMC8409675.
- Chigbu U. E. and Antonio, D. R. (2019) Rural-Urban Inter-Relationships in an Urbanising World: The Literature Perspective of Nigeria. Conference: FIG Working Week retrieved from <https://www.researchgate.net/publication/332221715>
- Council of Criminal Justice (2021) Impact of COVID-19 on crime [.https://counciloncj.org/impact-report-covid-19-and-crime-6/](https://counciloncj.org/impact-report-covid-19-and-crime-6/)
- Dijkstra L., Hamilton E., Lall, S. and Wahba, S (2020) How do we define cities, towns, and rural areas? <https://blogs.worldbank.org/sustainablecities/how-do-we-define-cities-towns-and-rural-areas>
- Essai, S. M. (2018) Growth Model and Rural Development. Olayide S. o. et al (eds) element of rural economics university of Ibadan.

- Gebre, T. Gebremedhin, B. (2019) The mutual benefits of promoting rural-urban interdependence through linked ecosystem services, *Global Ecology and Conservation*, Volume 20. <https://doi.org/10.1016/j.gecco.2019.e00707>
- Islam, N., Shkolnikov, V. Kawachi, I., Lewington S., (2021) Effects of covid-19 pandemic on life expectancy and premature mortality in 2020: time series analysis in 37 countries. *BMJ* ; 375 doi: <https://doi.org/10.1136/bmj-2021-066768>
- Jack V. (2021) COVID-19 pandemic cut life expectancy by most since World War Two –study. <https://www.reuters.com/business/healthcare-pharmaceuticals/covid-19-pandemic-cut-life-expectancy-by-most-since-world-war-two-study-2021-09-26/>
- José Manuel Aburto, Jonas Schöley, Ilya Kashnitsky, Luyin Zhang, Charles Rahal, Trifon I Missov, Melinda C Mills, Jennifer B Dowd, Ridhi Kashyap, Quantifying impacts of the COVID-19 pandemic through life-expectancy losses: a population-level study of 29 countries, *International Journal of Epidemiology*, Volume 51, Issue 1, February 2022, Pages 63–74, <https://doi.org/10.1093/ije/dyab207>
- Kwaskebe, J. (2020) Covid19 Lockdown and outbreak of rape in Nigeria: A Review of the Public Health implications. *Sapientia Foundation Journal of Education, Sciences and Gender Studies* Vol 2, No 3 <https://sfjesgs.com/index.php/SFJESGS/article/view/55>
- Lu J, Yuan F (2005) The effect of drinking water quality on the health and longevity of people-A case study in Mayang, Hunan Province, China. *IOP Conf. Series: Earth and Environmental Science* 82 (2017): 012005.
- Lukumon, O. (2012) *Social Policy and Social Services*. 2nd Ed. New York: Random House.
- Naimark, D. M. J. (2017) Life Expectancy Measurements in *International Encyclopedia of Public Health* (Second Edition). <https://www.sciencedirect.com/topics/immunology-and-microbiology/life-expectancy>
- National Bureau of statistics (2020) Crime statistics Reported offences 2020. Retrieved from https://www.nigerianstat.gov.ng/pdfuploads/Crime_Statistics_Reported_Offences_-_2017.pdf

National Conference of State legislatures (2020) Challenges Facing Rural Communities. <https://www.ncsl.org/research/agriculture-and-rural-development/challenges-facing-rural-communities.aspx>

Nwabughio, L (2021) Life expectancy in Nigeria now 54 years – Doctors. Retrieved from. <https://www.vanguardngr.com/2021/03/life-expectancy-in-nigeria-now-54-years-doctors/>

Ministry of Health (2004) *Nigeria Revised Health Policy*. .

Mishra, B. K., Keshri, A. K., Rao, Y. S., Mishra, B. K., Mahato, B., Ayesha, S., Rukhaiyyar, B. P., Saini, D. K., & Singh, A. K. (2020). COVID-19 created chaos across the globe: Three novel quarantine epidemic models. *Chaos, solitons, and fractals*, 138, 109928. <https://doi.org/10.1016/j.chaos.2020.109928>

Muanya C (2019) Nigerians have fifth worst average life expectancy of 55 years, says report. <https://guardian.ng/news/nigerians-have-fifth-worst-average-life-expectancy-of-55-years-says-report/>

Ilker Etikan, Ogunjesa Babatope, Meliz Yuvalı, Savaş İlgi. Effects of Socioeconomic Factors on Nigeria’s Life Expectancy at Birth. *Annal Biostat & Biomed Appli*. 1(5): 2019. ABBA.MS.ID.000523. DOI: 10.33552/ABBA.2019.01.000523.

Obiezu, T. (2022) Nigerian Authorities Raise Concerns Over Low Life Expectancy. *Voice of Africa*. <https://www.voanews.com/a/nigerian-authorities-raise-concerns-over-low-life-expectancy/6414707.html#:~:text=Nigerian%20health%20authorities%20say%20the,the%20cases%20of%20respiratory%20diseases.>

Ogunlana, M. O. Nwosu, I. B., [Abiola](#), F. And [Ogunsola](#) B. F. (2021) Pattern of rape and femicide during COVID-19 lockdown: content and discourse analysis of digital media reports in Nigeria. *Journal of Gender Studies* DOI:[10.1080/09589236.2021.2012134](https://doi.org/10.1080/09589236.2021.2012134)

Ozor, N. Ozioko, R and Acheampong, E (2015) Rural-Urban Interdependence in Food Systems in Nsukka Local Government Area of Enugu State, Nigeria. *Journal of Agricultural Extension*. <https://www.ajol.info/index.php/jae/article/view/126616>

- Oxford Reference (2020) Rural urban fringe. Retrieved on 29th February 2022 from <https://www.oxfordreference.com/view/10.1093/oi/authority.20110803100433659>
- Relief web (2021) First case of coronavirus disease confirmed in Nigeria. Retrieved from <https://reliefweb.int/report/nigeria/first-case-coronavirus-disease-confirmed-nigeria>
- Rodney, W. (1972). How Europe Underdeveloped Africa, Darres Salam, Ethipe Press.
- Rücker, F., Hårdstedt, M., Rücker, S.C.M. *et al.* From chaos to control – experiences of healthcare workers during the early phase of the COVID-19 pandemic: a focus group study. *BMC Health Serv Res* **21**, 1219 (2021). <https://doi.org/10.1186/s12913-021-07248-9>
- Sahara Reporters (2019) Nigeria has third lowest life Expectancy in the World. Retrieved from <https://saharareporters.com/2019/09/04/nigeria-has-third-lowest-life-expectancy-world>
- Sede, P.I., Ohemeng, W. (2015) Socio-economic determinants of life expectancy in Nigeria (1980 – 2011). *Health Econ Rev* **5**, 2. <https://doi.org/10.1186/s13561-014-0037-z>
- Premium Times (2020b) Lockdown: police officer caught on camera extorting N40,000 from motorist. Lagos: The Premium Times Nigeria. Retrieved August 10, 2020, from <https://www.premiumtimesng.com/news/top-news/387378-lockdown-police-officer-caught-on-camera-extorting-n40000-from-motorist.html>
- Punch (2020a) Policeman raped me after arrest for face mask violation—rivers widow. Lagos: The Punch Newspaper. Retrieved August 10, 2020, from <https://punchng.com/policeman-raped-me-after-arrest-for-face-mask-violation-rivers->
- Transparency International (2020) In Nigeria, COVID 19 brings home the need for effective criminal justice complaint channels. Lagos: Transparency International. Retrieved from <https://www.transparency.org/en/blog/in-nigeria-covid-19-brings-home-the-need-for-effective-criminal-justice-complaintchannels>
- Trias-Llimós S, Riffe T. and Bilal U (2021) Monitoring life expectancy levels during the COVID-19 pandemic: Example of the unequal impact of the first wave on Spanish regions. *PLoS One* 2020;15:e0241952. doi:10.1371/journal.pone.0241952. pmid:33152009

The Guardian (2020) Concerns as COVID-19 survivors live with life threatening conditions. Retrieved from <https://guardian.ng/features/concerns-as-covid-19-survivors-live-with-life-threatening-conditions/>

The Scottish Government (2021) Impact of COVID-19 on crime. Retrieved from <https://www.gov.scot/news/impact-of-covid-19-on-crime/>

WHO (2020) Life expectancy at birth (years). <https://www.who.int/data/gho/indicator-metadata-registry/imr-details/65>

Woolf SH, Masters RK and Aron LY (2021) Effect of the covid-19 pandemic in 2020 on life expectancy across populations in the USA and other high income countries: simulations of provisional mortality data. *BMJ*2021;373:n1343. doi:10.1136/bmj.n1343. pmid:34162598.

WHO (2020) Life expectancy at birth (years). <https://www.who.int/data/gho/indicator-metadata-registry/imr-details/65>

Ugwu L. (2022) An Evaluation of the Performances of the Rural Development Agencies in Enugu State, Nigeria: <https://www.researchgate.net/publication/358295908>.

[Yang](#),M., [Chen](#), Z., Zhou, M., [Liang](#), X., and [Bai](#), Z.(2020) The Impact of COVID-19 on Crime: A Spatial Temporal Analysis in Chicago. *Int. J. Geo Inf.* 2021, 10(3) 152; <https://doi.org/10.3390/ijgi10030152>