

## A Comparative Assessment of the Health Problems of Rural and Urban Residents in Ogun State, Nigeria: Implication for Sustainable Development

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**Abstract:** The study assessed the health problems of rural and urban residents in Ijebu –Ode and Ijebu North-East local government area of Ogun State, Nigeria. A total of two hundred and thirty three (233) residents were interviewed. One hundred and thirty five (135) in the rural and ninety eight(98) in the urban . The mean age of the respondents was  $36.1 \pm 13.6$  years. A descriptive research survey method was adopted for the study. Self-structured questionnaire and a modified symptom check list with 0.82 reliability was used for data collection. Chi square tests of significance and fishers exact p values were used to compare variables with respect to place of residence. Significance levels were set at 95%. Four hypotheses were formulated and tested in this study. The results revealed that there was no statistically significant difference in the educational level, type of marriage and monthly income. However, there was a significant difference in the marital status and occupation of the respondents in both areas. Based on these findings, some recommendations were suggested among which are: the need for the government to intensify efforts in the provision of social amenities, give priority to health related issues and integrate it into long- term development plan to enhance sustainable development.

**Keywords:** Sustainability, Development, Health, Health problem.

### I. Introduction

The concept of health as a sustainable state became part of the health lexicon in the last two decades of the twentieth century. It is related to the idea of environmental sustainability and makes explicit the notion that humans and other living creatures on earth are interdependent. However, Sustainable development is a pattern of resource use that aims to meet human needs while preserving the environment so that these needs can be met not only in the present, but also for generations to come. The term was used by the Brundtland Commission which coined what has become the most often-quoted definition of sustainable development as development that "meets the needs of the present without compromising the ability of future generations to meet their own needs."<sup>1,2,3</sup> It contains within it two key concepts: 'the concept of needs, in particular the essential needs of the world's poor, to which overriding priority should be given; and the idea of limitations imposed by the state of technology and social organization on the environment's ability to meet present and future needs.'<sup>3</sup> Agenda 21- the United Nations program on sustainable development comprises a framework for action for sustainable development that focuses on economic, environment, socio-demographic and health factors. Agenda 21, the United Nations' call to action for sustainable development, envisaged that the necessary harmonization and extension of existing policies and plans would occur through the adoption of an identifiable strategy for sustainable development. Rather than develop a new strategy document, the overall objective was "to improve or restructure the decision-making process so that consideration of socio-economic and environmental issues is fully integrated and a broader range of public participation assured (paragraph 8.3, Agenda 21 – UNCED 1992)<sup>4</sup>.

Health has become a more central concern in development, both as a contributor to, and an indicator of sustainable development. While health is a value in its own right, it is also key to productivity, emphasizing the fundamental commitment within sustainable development of protecting and promoting human health<sup>5</sup>. The WHO commission on health and the environment was convened in 1990.<sup>5,6,7</sup> and provided key input for the subsequent Earth Summit. The central relevance of the human factor to the concept of sustainable development was stressed in the preamble to the Rio Declaration, as follows: 'Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature'. Chapter 6 of Agenda 21 takes this principle further by emphasizing the fundamental commitment within sustainable development of 'protecting and promoting human health'<sup>4</sup>.

Health problems are morbidity conditions that affect the health of an individual and this may be physical, spiritual, social and psychological.<sup>8,9</sup> Differences in location of residence may have an effect on the

health problems experienced by individuals in different communities.<sup>10,11,12</sup> Knowledge of these differences may be necessary to develop effective community based approaches in dealing with these problems since a climate of ill-health in a population impacts negatively the efforts to achieving sustainable development. Similarly, the goals of sustainable development in respect to health cannot be achieved when there is a high prevalence of debilitating illnesses, and health problems. This is to say that the connection between human health and sustainable development are inextricably linked. This study therefore assess and compare the health problems of rural and urban residents and sought to determine the factors that affect the health of both rural and urban residents and to also determine the relationship between the socio-economic status of rural and urban residents and their health problems in the two local government (LGAs) Ogun State, Nigeria.

### ***The problem***

The state of health of a population involves not only health and medical services and facilities and level of scientific knowledge that can be applied in various circumstances, but many social and economic factors as well, and a comprehensive study of differences in health problems between rural and urban populations would take these factors into account. Unfortunately, not much empirical research has been conducted in Ogun State to determine how the health problems of rural populations in general compare to that of urban populations in Nigeria. This oversight follows a long established tendency for researchers and policy makers to fail to recognize the unique circumstances relevant to rural areas and can result in rural residents not receiving the targeted interventions or services needed for health promotions and improvement. Therefore, the researchers set to critically examine the factors that may contribute to the differences in health problems faced by urban residents and especially the rural residents in Ogun State, Nigeria. To achieve this, four hypotheses were formulated and tested.

1. There is no significant relationship between socio-economic status and health problems of rural and urban residents in Ogun State, Nigeria.
2. There is no significant difference in the health problems of male and female residents in rural and urban area of Ogun State, Nigeria.
3. Health problems of rural and urban residents will not vary significantly by level of education in Ogun State, Nigeria.
4. Health problems of rural and urban residents will not vary significantly by type of marriage.

## **II. Methods**

### ***2.1 Design***

This is a descriptive survey research which employed the use of questionnaire and modified symptom check list for the purpose of collecting data on the health problems of urban and rural residents in Ogun State, Nigeria.

### ***2.2 Study setting***

Two local governments were randomly selected among twenty LGAs in Ogun State, Nigeria for the study sites. Ijebu-Ode local government which is urban and Ijebu North-East which is rural. Ijebu-Ode local government area is predominantly divided into 4 geo-political zones which comprise 11 wards (Ward1: Isoku Ososa, Ward 2: Odo-Esa, Ward 3: Itantebo/Ita Ogbin, Ward 4: Ijada/Imepe I, Ward 5: Ijada Imepe II, Ward 6: Porogun I, Ward 7: Porogun II, Ward 8: Ijasi/Idepo, Ward 9: Odoegbo/Oliworo, Ward 10: Isiwo, Ward 11: Itamapako) while Ijebu North-East has 10 political wards (Idona, Odosenbora, Oke-Efon, Odosenlu, Igbede, Iworo, Isonyin, Ogbogbo) among others.

### ***2.3 Sample and sampling procedure***

Two hundred and thirty three (233) residents were interviewed in both LGAs. One hundred and thirty five (135) in the rural LGA and ninety eight (98) in the urban LGA. Multi stage sampling method was used and this involves doing simple random sampling in 3 stages from which the streets and the residential households was randomly chosen without bias.

### ***2.4 Instrument***

The instrument used for data collection was a self-structured questionnaire and a modified symptom check list which was validated using test-retest method given reliability coefficient of 0.82.

### ***2.5 Ethical Approval***

Ethical clearance was sought and granted at the two LGAs by HOD (medical). Informed consent was given to participants to sign or thumb print before all interviews.

### ***2.6 Procedure***

The researchers visited the two local governments along with four research assistants that were trained in the administration of the questionnaires. Apart from soliciting for cooperation, the respondents were informed of the purpose of the study and the need for factual and objective response. They were also reassured of confidentiality.

2.7 Data analysis

This was carried out using the SPSS version 21.0 and winpepi softwares. The socio economic scale was calculated using scores from educational level, occupation, housing, income and ownership of private transportation. A maximum score of 36 points was obtainable on this scale. This scale was classified into three, Low, middle and High by dividing the maximum score into three equal parts. Chi square tests of significance and fishers exact p values were used to compare variables with respect to place of residence. Significance levels were set at 95%.

III. Results

Table 1: Socio demographic characteristics of the respondents.

Variable	Rural n=135 Freq.(%)	Urban n=98 Freq.(%)	Total N=233 Freq.(%)	df	p
Mean age±SD	38.3±14.5	32.3±11.1	36.1±13.6		0.00
<b>Sex</b>					
Male	63(46.3)	52(60.5)	115(54.8)	1	0.044
Female	73(53.7)	34(39.5)	107(31.8)		
<b>Religion</b>					
Christianity	93(68.4)	67(77.9)	160(72.1)	2	0.02
Islam	39(28.7)	16(18.6)	55(24.8)		
Other	4(2.9)	3(3.5)	7(3.2)		
<b>Total</b>	<b>135(100)</b>	<b>98(100)</b>	<b>233(100)</b>		
<b>Highest level of education</b>					
No formal	14(10.5)	4(4.7)	18(7.3)	<b>0.07</b>	
Nomadic	6(4.5)	1(1.2)	7(3.2)		
Primary	8(6.0)	2(2.4)	10(4.6)		
Secondary	38(28.6)	39(45.9)	77(35.3)		
Post-Sec	8(6.0)	8(9.4)	16(7.3)		
HND	34(25.6)	16(18.8)	50(22.9)		
BSc.	16(12.0)	12(14.1)	28(12.8)		
Masters/P.H.D>	9(6.8)	3(3.5)	12(5.5)		
<b>Marital status</b>					
Single	37(27.2)	37(43.5)	74(33.5)	<b>5</b>	<b>0.00</b>
Married	84(61.8)	41(48.2)	125(56.6)		
Separated	0(0.0)	3(3.5)	3(1.4)		
Divorced	1(0.7)	0(0.0)	1(0.5)		
Widowed	5(3.7)	0(0.0)	5(2.3)		
Living as married	9(6.6)	4(4.7)	13(5.9)		
<b>Types of Marriage</b>	<b>n=84</b>	<b>n=41</b>			
Monogamous	62(73.8)	30(73.2)	92(73.6)	<b>1</b>	<b>0.9</b>
Polygamous	22(26.2)	11(26.8)	33(26.4)		
<b>No. of wives(Polygamous)</b>					
2	12(52.2)	5(45.5)	14(50.0)	<b>3</b>	<b>0.82</b>
3	3(13.0)	3(27.3)	3(17.6)		
4	4(17.4)	2(18.2)	4(17.6)		
>4	4(17.4)	1(9.1)	1(14.7)		
<b>Occupation</b>					
Farmer	6(4.8)	1(1.3)	7(3.4)	<b>6</b>	<b>0.00</b>
Trader	32(25.6)	9(11.3)	41(20.0)		
Civil Servant	40(32.0)	9(11.3)	49(23.9)		
Professional	16(12.8)	19(23.8)	35(17.1)		
Self employed	23(18.4)	23(28.8)	46(22.4)		
Pensioner	2(1.6)	1(1.3)	3(1.5)		
<b>Monthly income (in # thousands of Naira)</b>					
<20	50(46.3)	27(41.5)	77(44.5)	<b>8</b>	<b>0.3</b>
20-50	25(23.1)	13(20.0)	38(22.0)		
50-100	24(22.2)	13(20.0)	37(21.4)		
100-150	5(4.6)	5(7.7)	10(5.8)		
150-200	1(0.9)	0(0.0)	1(0.6)		
200-300	1(0.9)	4(6.2)	5(2.9)		

<b>300-400</b>	1(0.9)	1(1.5)	2(1.2)		
<b>400-500</b>	1(0.9)	0(0.0)	1(0.6)		
<b>&gt;500</b>	0(0.0)	2(3.1)	2(1.2)		
<b>Socio economic scale</b>					
<b>Low</b>	78(57.4)	46(53.5)	124(55.9)	2	<b>0.7</b>
<b>Middle</b>	55(45.3)	39(45.3)	94(42.3)		
<b>High</b>	3(1.2)	1(1.2)	4(1.8)		
<b>Mean</b>	12.04±5.5	12.27±5.4	12.13±5.5		

**Table 2:** Present health status of the respondents

Variable	Rural Freq(%)	Urban Freq(%)	Total Freq(%)	P value
<b>Is currently acutely ill</b>				
<b>Yes</b>	45(34.4)	10(12.0)	55(25.7)	0.00
<b>No</b>	86(65.6)	73(88.0)	159(74.3)	
<b>Known hypertensive</b>				
<b>Yes</b>	3(2.4)	2(2.6)	5(2.4)	0.92
<b>No</b>	124(97.4)	76(97.4)	200(97.6)	
<b>Known diabetic</b>				
<b>Yes</b>	8(6.7)	3(4.1)	11(5.7)	0.45
<b>No</b>	112(93.3)	70(95.9)	182(94.3)	

Up to a third (34.4%) of respondents in the rural areas and 12% of those in the urban areas say they are currently ill. This difference was statistically significant. Less than 5 percent(2.4% of the rural and 2.6% of the urban respondents) are known hypertensive, while 6.7% of the rural and 4.1% of the urban respondents are known diabetics. These differences were not statistically significant.

**Table 3:** Respondents satisfaction with health status

Perception of quality of health	Rural	Urban	Total	P
<b>Very Poor</b>	6(4.4)	0(0.0)	6(2.7)	0.06
<b>Poor</b>	5(3.7)	0(0.0)	5(2.3)	
<b>Neither good nor poor</b>	11(8.1)	8(9.5)	19(8.7)	
<b>Good</b>	55(40.7)	30(35.7)	85(38.8)	
<b>Very good</b>	58(43.0)	46(54.8)	104(47.5)	
<b>Personal satisfaction with own health</b>	Rural	Urban	Total	P
<b>Very Poor</b>	3(3.6)	2(4.1)	5(3.8)	0.28
<b>Poor</b>	7(8.4)	0(0.0)	7(5.3)	
<b>Neither good nor poor</b>	11(13.3)	8(12.2)	17(12.9)	
<b>Good</b>	59(71.1)	39(79.6)	98(74.2)	
<b>Very good</b>	3(3.6)	2(4.1)	5(3.8)	
<b>Satisfaction with sex life</b>				
<b>Very dissatisfied</b>	5(3.8)	2(2.3)	7(3.2)	0.21
<b>Dissatisfied</b>	4(3.0)	1(1.2)	5(2.3)	
<b>Neither</b>	11(8.3)	5(5.8)	16(7.3)	
<b>Satisfied</b>	57(43.2)	28(32.6)	85(39.0)	
<b>Very satisfied</b>	55(41.7)	50(58.1)	105(48.2)	
<b>How often they need any medical treatment to function daily</b>				
<b>Not at all</b>	13(9.8)	5(6.2)	18(8.5)	0.44
<b>A little</b>	38(28.8)	16(19.8)	54(25.4)	
<b>Moderately</b>	40(30.3)	28(34.6)	68(31.9)	
<b>Mostly</b>	19(14.4)	15(18.5)	34(16.0)	
<b>Completely</b>	22(16.7)	17(21.0)	39(18.3)	
<b>Have enough money to meet daily needs</b>				
<b>Not at all</b>	10(7.5)	4(4.8)	14(6.5)	0.44
<b>A little</b>	30(22.6)	18(21.4)	48(22.1)	
<b>Moderately</b>	33(24.8)	20(23.8)	53(24.4)	
<b>Mostly</b>	23(17.3)	16(19.0)	39(18.0)	
<b>Completely</b>	37(27.8)	26(31.0)	63(29.0)	

There was no statistically significant difference in respondents' perception of their health, their personal satisfaction with their own health and their satisfaction with their sex life. There was also no significant difference in the frequency of their need for medical treatment to function daily and whether they have enough money to meet their daily needs.

**Table 4:** The health problems of the residents

Regular headaches	Rural Freq(%)	Urban Freq.(%)	Total freq.(%)	P
Never	34(25.8)	18(20.9)	52(23.9)	0.59
Seldom	34(25.8)	23(26.7)	57(26.1)	
Quite Often	45(34.1)	36(41.9)	81(37.2)	
Very often	10(7.6)	3(3.5)	13(6.0)	
Always	9(6.8)	6(7.0)	15(6.9)	
<b>Eye problems</b>				
Never	83(61.9)	54(62.8)	137(62.3)	0.63
Seldom	17(12.7)	15(17.4)	32(14.5)	
Quite Often	21(15.7)	8(9.3)	29(13.2)	
Very often	8(6.0)	5(5.8)	13(5.9)	
Always	5(3.7)	4(4.7)	9(4.1)	
<b>Sleeplessness</b>				
Never	50(37.3)	34(39.5)	84(38.2)	0.81
Seldom	30(22.4)	21(24.4)	51(23.3)	
Quite Often	35(26.1)	20(23.3)	55(25.0)	
Very often	12(9.0)	9(10.5)	21(9.5)	
Always	7(5.2)	2(3.3)	9(4.1)	
<b>Stomach problems</b>				
Never	73(55.3)	39(45.3)	112(51.4)	0.64
Seldom	22(16.7)	20(23.3)	42(19.3)	
Quite Often	22(16.7)	16(18.6)	38(17.4)	
Very often	14(10.6)	10(11.6)	24(11.0)	
Always	1(0.8)	1(1.2)	2(0.9)	
<b>Anxiety/depression</b>				
Never	56(44.1)	40(43.5)	96(43.8)	0.92
Seldom	31(24.4)	24(26.1)	55(25.1)	
Quite Often	24(18.9)	18(19.0)	42(19.2)	
Very often	12(9.4)	6(6.5)	18(8.2)	
Always	4(3.1)	4(4.3)	8(3.7)	
<b>Easy fatiguability</b>				
Never	83(65.4)	37(43.5)	120(56.6)	0.02
Seldom	24(18.9)	24(28.2)	48(22.6)	
Quite Often	16(12.6)	20(23.5)	36(17.0)	
Very often	2(1.6)	2(2.4)	4(1.9)	
Always	2(1.6)	2(2.4)	4(1.9)	
<b>Breathing difficulty/asthma</b>				
Never	116(88.9)	70(83.3)	186(86.5)	0.13
Seldom	9(6.9)	12(14.0)	21(9.8)	
Quite Often	4(3.1)	1(1.2)	5(2.3)	
Very often	0(0.0)	1(1.2)	1(0.5)	
Always	2(1.5)	0(0.0)	2(0.9)	
<b>Low libido/impotence</b>				
Never	96(76.8)	64(72.1)	160(76.9)	0.98
Seldom	13(10.4)	8(9.6)	21(10.1)	
Quite Often	10(8.0)	8(9.6)	18(8.7)	
Very often	3(2.4)	2(2.4)	5(2.4)	
Always	3(2.4)	1(1.2)	4(1.9)	
<b>Arthritis</b>				
Never	88(69.3)	59(71.1)	147(70.0)	0.21
Seldom	15(11.8)	8(9.6)	23(11.0)	
Quite Often	12(9.4)	14(16.9)	26(12.4)	
Very often	6(4.7)	1(1.2)	7(3.3)	
Always	6(4.7)	1(1.2)	7(3.3)	
<b>Back pain</b>				
Never	40(30.1)	36(40.9)	76(34.4)	0.02
Seldom	22(16.5)	21(23.9)	43(19.5)	
Quite Often	36(27.1)	23(26.1)	59(26.7)	
Very often	29(21.8)	6(6.8)	35(15.8)	
Always	6(4.5)	2(2.3)	8(3.6)	

There was no statistically significant difference in the occurrence of regular headaches, eye problems, sleeplessness, stomach problems, anxiety/depression, breathing difficulty, Low libido or arthritis. However, respondents in the rural areas were more likely to experience easy fatiguability while respondents in the urban areas were more likely to experience back pain.

#### IV. Discussion

The study aimed at assessing and comparing the health problems of rural and urban residents in Ogun State, Nigeria. The demographic data is highlighted in table 1 and the results of the tested hypotheses are

highlighted in tables 3-4. Table 2 revealed the result of the present health status of the respondents. Up to a third (34.4%) of respondents in the rural areas and 12% of those in the urban areas said they are currently ill. This difference was statistically significant. The outcome of this finding corroborates the work of Timothy et.al who found that residents living in rural U.S. counties are more likely to have poorer health outcomes along a variety of measurements than their counterpart in urban<sup>10</sup>. Similarly, the finding also concur with a study conducted by Endurance and Oluwatosin<sup>11</sup> on a comparative study of rural and urban health status in Bayelsa State, Nigeria.<sup>11</sup> The authors found that those who live in rural are more likely to have health problems than those in urban. Less than 5 percent (2.4% of the rural and 2.6% of the urban respondents) are known hypertensive, while 6.7% of the rural and 4.1% of the urban respondents are known diabetics. These differences were not statistically significant. Table 3 showed the results on the respondents' satisfaction with their health status. There was no statistically significant difference in respondents' perception of their health status, their personal satisfaction with their own health and their satisfaction with their sex life. There was also no significant difference in the frequency of their need for medical treatment to function daily and whether they have enough money to meet their daily needs. Furthermore, table 4 the results on the health problems of the residents, there is no statistically significant difference in the occurrence of regular headaches, eye problems, sleeplessness, stomach problems, anxiety/depression, breathing difficulty, Low libido or arthritis. However, respondents in the rural areas were more likely to experience easy fatigability while respondents in the urban areas were more likely to experience back pain. This might be because majority engages in farming as the major occupation.

## V. Conclusion/Recommendation

This study established that there is difference in health problems of rural and urban residents in the study sites in Ogun State, Nigeria. It was however recommended that progress should be made to ensure closer links between health and other sectors, particularly through local and national intersectional health and development plans and through increase use of planning tools such as health impact assessment procedures, integrated monitoring and surveillance systems and improve health information system and indicators. Both rural and urban residents need education for regular medical check-ups to keep healthy. This can be achieved through continuous education by the community/public health practitioners. There is need for the Nigerian government to intensify efforts in the provision of social amenities, give priority to health related issues and integrate it into long- term development plan to enhance sustainable development.

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