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## Demographic Variation in Nigerian Suicide Rates: The Akwa Ibom State Experience (1990 – 2004)

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### Abstract

*This study was carried out to determine the demographic variation in Nigerian Suicide rates: The Akwa Ibom State Experience, 1990 -2004. The retrospective research design was utilized for the study. The instruments for data collection was the review performa and interview schedules. The sample for the study consisted of four hundred and sixty five surrogate informants and fifteen records. The data were analyzed using frequencies and percentages and the chi-square statistics. The findings showed a steady decrease in the incidences of suicide in the period under review, there were high incidences of suicide among those 30-64years than the aged, among the males than the females, among the unmarried than the married, among the low income than the high income. Suicide rates varied among the unemployed, among those in poor health than those in good health. There was significant influence of age, socio-economic status and health status, occupational status and work status on suicide*

Occurrence of suicide using different variables has been described by many authorities. Different countries have shown these tendencies. Demographic variations of suicide is the occurrence of suicide according to age, sex, marital status, occupation, socio economic status and health status (Pridemore, Andrew and Spivak, 2003). Suicide occur according to the variables mentioned (Wenz 1976, Brooks and Brooks 1979 and Maris 1992). Sex differentials have been found in males (Aro, Mathunen and Lonquist, 1993; Maris, 1981; Shaffer and Fischer 1981; and Stillion 1985), for females (Maris 1981) on marital status (Brooks and Brooks 1979), occupation, Stillion (1985) on socio economic status (Arnetz, (1987); Berman (1979); and Rimpela (1989) and on health status (Bolund, 1985). The present study assessed the demographic variations of

suicide in Nigeria over the period 1990-2004 with particular reference to Akwa Ibom State.

### Methods

The retrospective survey design was utilized for the study since Nigeria has a low rate of suicide deaths. The instrument for data collection was the review proforma and interview schedule. The population for the study included village heads in the different local government areas, elders in the communities, medical health records officers and division crime officers (police) in the state. Four hundred and sixty five adult male and female surrogate informants were used for the study. The data were analyzed using frequencies and percentages and chi-square statistics of no difference was used for the study.

### Results

Between 1990 and 2004 there were 197 suicides in Akwa Ibom State, 1990 – 1994 (45.17%), 1995 – 1999 (34.51%) and 2000 – 2004 (20.30%), 185 males (93.91%) and 12 females (6.09%) respectively. Table 1 explains the demographic variations in completed suicide in Akwa Ibom state: 1990 – 2004

**Table 1**  
**The Demographic Variations of Completed Suicide in Akwa Ibom State 1990 – 2004**

Variable	1990 – 1994		1995 – 1999		2000 – 2004		Total	
	f	%	F	%	F	%	f	%
Age								
15-29 years	12	13.48	14	20.58	7	17.50	33	16.75
30-64 years	67	75.28	46	67.64	21	52.50	134	68.02
And above 64	10	11.23	8	11.76	12	30.00	30	15.23
Total	89	100.00	68	100.00	40	100.00	197	100.00
Sex								
Male	83	93.25	64	94.11	38	95.00	185	93.91
Female	6	6.74	4	5.88	2	5.00	12	6.09
Total	89	100.00	68	100.00	40	100.00	197	100.00
Marital Status								
Unmarried	71	79.77	59	86.76	36	90.00	166	84.26
Married	15	16.85	9	13.23	4	10.00	28	14.21
Widowed	3	3.37	0	0.00	0	0.00	3	1.53
Total	89	100.00	68	100.00	40	100.00	197	100.00

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Socio economic Status								
Low	61	68.53	53	77.94	25	62.50	139	70.56
Middle	20	22.47	13	19.11	15	37.50	482	4.37
High	8	8.98	2	2.94	0	0.00	10	5.07
Total	89	100.00	68	100.00	40	100.00	197	100.00
Work Status								
Employed	12	13.48	18	26.46	5	12.50	35	17.77
Unemployed	77	86.51	50	73.52	35	87.50	162	82.23
Total	89	100.00	68	100.00	40	100.00	197	100.00
Health Status								
Poor	67	75.28	59	86.76	37	92.50	163	82.74
Good	22	24.71	9	13.23	3	7.50	34	17.26
Total	89	100.00	68	100.00	40	100.00	197	100.00

Data in Table 1 shows that the respondents aged within 30 – 64 years had the highest number of completed suicide in each of the periods: 1990 – 1994(75.28%), 1995 – 1999(67.64%) and 2000 – 2004 (52.50) while respondents 64 years and above recorded lower number of completed suicide than respondents 15 – 29 years. Overall, 30 – 64 years (68.02%) had the highest. As for sex, males (93.91%) reported more completed suicide than females (6.09%).

On marital status the married reported more completed suicide in each of the period: 1990 – 1994 (79.77%), 1995 – 1999 (86.76%) and 2000 – 1004 (90.00%) while widows recorded lower number of completed suicides than the married respondents. Overall, the unmarried (84.26%) had the highest number of completed suicide.

With respect to socio-economic status the respondents in the low socio-economic status had the highest number of completed suicide in each of the periods: 1990 – 1994 (68.53%), 1995 – 1999 (77.94%) and 2000 – 2004 (62.5%) while respondents in the high socio-economic status recorded lower number of completed suicide than middle socio-economic status. Overall, the low socio-economic status (70.50%) had the highest number of completed suicide.

On work status, the respondents in the unemployed cadre had the highest number of completed suicide in each of the periods: 1990 – 1994 (86.51%), 1995 – 1999 (73.52%) and 2000 – 2004 (87.50%) while respondents in the employed cadre recorded lower number of completed suicide. Overall, the unemployed (82.23%) recorded the highest number of completed suicide.

Regarding health status the respondents in the poor health status had the highest number of completed suicide in each of the periods: 1990 – 194 (75.28%), 1995

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– 1999 (86.76%) and 2000 – 2004 (92.50%) while the respondents in the good health status recorded lower number of completed suicide. Overall, those in poor health (82.74%) recorded the highest number of completed suicide.

The demographic variations of suicide have no statistically significant influence on patterns of suicide in Akwa Ibom State: 1999 – 2004. Data verifying the above hypothesis are contained in Table 2

**Table 2**  
**Chi-square ( $\chi^2$ ) Analysis of Demographic Variations of Completed Suicide**

Age/Years <sup>a</sup>	O	E	(O-E) <sup>2</sup> /E
1990 – 1994			
15 – 29 yrs	12	14.91	0.57
30 – 64yrs	67	60.54	0.69
And above 64	10	13.55	0.93
1995 – 1999			
15 – 29 yrs	14	11.39	0.59
30 – 64yrs	46	46.25	0.00
65 and above	8	10.36	0.54
2000 – 2004			
15 – 29 yrs	7	6.70	0.01
30 – 64yrs	21	27.21	1.42
65 and above	12	6.09	5.73
*Statistically significant at .05 level of significance; df = 4; tab $\chi^2$ value = 9.488			
Sex /years <sup>b</sup>	O	E	(O-E) <sup>2</sup> /E
1990 – 1994			
Male	83	83.58	0.00
Female	6	5.42	0.06
1995 – 1999			
Male	64	63.86	0.00
Female	4	4.14	0.00
2000 – 2004			
Male	38	37.56	0.00
Female	2	2.44	0.08
df = 2; tab $\chi^2$ value = 5.991			$E\chi^2 = 0.14$
Marital status/Years <sup>c</sup>	O	E	(O-E) <sup>2</sup> /E
1990 – 1994			
Unmarried	71	74.99	0.21
Married	15	12.65	0.44
Widow	3	1.36	1.99

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1995 – 1999

Unmarried	59	57.29	0.05
Married	9	9.66	0.05
Widow	0	1.04	1.04

2000 – 2004

Unmarried	36	33.71	0.16
Married	4	5.69	0.49
Widow	0	0.61	0.61

df = 4; tab  $\chi^2$  value = 9.488

SES/Years <sup>d</sup>	O	E	(O-E) <sup>2/E</sup>
1990 – 1994			
Low	61	62.79	0.05
Middle	20	21.69	0.13
High	8	4.52	2.68
1995 – 1999			
Low	53	47.98	0.53
Middle	13	16.57	0.77
High	2	3.45	0.61
2000 – 2004			
Low	25	28.22	0.37
Middle	15	9.75	2.83
High	0	2.03	2.03

$E_{\chi^2} = 10.00^*$

\* Statistically significant at .05 level of significance; df = 4; tab  $\chi^2$  value = 9.488

Work Status/Years <sup>e</sup>	O	E	(O-E) <sup>2/E</sup>
1990 – 1994			
Employed	12	15.81	0.92
Unemployed	77	73.19	0.19
1995 – 1999			
Employed	18	12.08	2.89
Unemployed	50	55.92	0.63
2000 – 2004			
Employed	5	7.11	0.62
Unemployed	35	32.89	0.13

$E_{\chi^2} = 5.38$

df = 2; tab  $\chi^2$  value = 5.991

Health Status/Years <sup>f</sup>	O	E	(O-E) <sup>2/E</sup>
1990 – 1994			
Poor	67	73.64	0.59
Good	22	15.36	2.87

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1995 – 1999			
Poor	59	56.26	0.13
Good	9	11.74	0.64
2000 – 2004			
Poor	37	33.09	0.46
Good	3	6.90	2.21
			$E_{\chi^2} = 6.90^*$

\*Statistically significant at 0.5 level of significance;  $df = 2$ ; tab  $\chi^2$  value = 5.991

Data in Table 2 a shows that the overall calculated  $\chi^2$  value of 10.48 for age was greater than the Table  $\chi^2$  value of 9.49 at .05 level of significance with 4 degrees of freedom. The null hypothesis was therefore rejected which means that age had statistically significant influence on patterns of completed suicide in Akwa Ibom State.

As for sex data in table 2b shows that the overall calculated  $\chi^2$  value of .14 was less than the tab  $\chi^2$  value of 5.99 at .05 level of significance with 2 degrees of freedom. The null hypothesis was therefore retained which means that sex has no statistically significant influence on the patterns of completed suicide in Akwa Ibom State.

On marital status data in Table 2c shows that the overall calculated  $\chi^2$  value of 5.04 was less than the table  $\chi^2$  value of 9.49 at .05 level of significance with 4 degrees of freedom. The null hypothesis was therefore retained which means that marital status has no statistically significant influence on the patterns of completed suicide in Akwa Ibom State.

As for socio-economic status data in Table 2d shows that the overall calculated  $\chi^2$  value of 10.00 was greater than the table  $\chi^2$  value of 9.49 at .05 level of significance with 4 degrees of freedom. The null hypothesis was therefore rejected which means that socio-economic status has statistically significant influence on the patterns of completed suicide in Akwa Ibom State.

Concerning work status data in 2e shows that overall calculated  $\chi^2$  value of 5.38 was less than the table  $\chi^2$  value of 5.99 at .05 level of significance with 2 degrees of freedom. The null hypothesis was therefore retained which means that work status has no statistically significant influence on the patterns of completed suicide in Akwa Ibom State.

Data in Table 2f shows that the overall calculated  $\chi^2$  value of 6.90 was greater than the table  $\chi^2$  value of 5.99 at .05 level of significance with 2 degrees of freedom. The null hypothesis was therefore rejected which means that health status has statistically significant influence on the patterns of completed suicide in Akwa Ibom State.

## **Discussion**

Table 1 contains demographic variables of age, sex, marital status, socio-economic status, work status and health status. Table 2 shows that those with the highest number of completed suicides occurred in the age bracket of 30 – 64 years (68.02%), followed by 15-29 years (16.75%) and lastly by 64 and above years (15.23%) respectively from 1990-2004 . The finding was expected because in Nigerian population, each age group constitutes a significant proportion particularly the adolescent and youth age group. These age group according to Akpagbagha (1992), suffer most social problems such as unemployment; poor standard of living, neglect and denial than their counterparts in the developed countries. Therefore, it is expected that there may higher rates of suicide among different age groups in Nigeria. The findings show that suicide occurs most in the middle ages, 30 – 64 years, this was expected because the middle ages are considered to be the time when life can finally be enjoyed after the pressures of hard work of youth. Yet the rise in frequency of suicide during those years indicates that many people experience frustration and disillusionment instead of fulfillment.

Another reason for the increased rate of suicide in the middle ages is the emphasis with our society on the youth. A middle-aged person who is without a job is seldom able to obtain a new job with similar status to his mates and comparable salary. When aspiration turns to frustration; suicide is sometimes seen as the only way out. These findings support reports of Maris (1981), and Aro et al. (1993), who observed increased rate of suicide among adolescents and youths and low rates of suicide among children, which shows that there are certain ages of life when suicide is more prevalent than other forms of death. They attributed the increased occurrence of suicide among adolescents and youths to rapid biological and psychological changes and increase in social pressure of the age periods. Shaffer and Fischer (1981) explained the low rates of suicide among children; by suggesting that small children are protected from suicide because they lack some degree of cognitive maturity that is required to plan a successful suicide act.

Suicides in the elderly is unprecedented because many acquire a feeling of uselessness upon retirement. They find no substitute for work to which they can anchor what remains of their lives and the lack of esteem for old people in our country is an additional degradation. When they find that they simply have no one to live for, no one to care for them, they become overwhelmed by loneliness, financial insecurity, physical suffering and they choose suicide as a possible alternative.

On sex, data in Table 2 shows that males had higher suicide cumulative cases of 93.91% than female cumulative cases of 6.09% respectively from 1990 – 2004. The finding was expected because it is males' responsibilities to provide for every member

of the family and protect them. More so, due to the natural aggressive nature of males, they tend to use more aggressive methods of suicide. These make it more likely for them to succeed in their suicide attempts than females. This is because according to Stillion (1985) aggressive nature of suicide such as hanging, shooting, stabbing and jumping do not leave time for possible rescue attempts for changing one's mind. We do not know for sure whether the increased cases of suicide among males reflects the greater pressures of the competitive world in which they circulate or rather their great effectiveness in manipulating weapons. The findings agree with the observation of Stephenson (1985) that most of the suicides are committed by males, roughly three times the number of female suicides. In a similar observation, Stillion (1985) stated that males commit suicide at a higher rate than do females. Maris, (1992) gives explanation for more male suicide as that maleness (in biological, genetic or chromosomal sense) is related to premature death and the suicide in particular. The implication of the finding is that since suicide is higher among males than females, the government needs to be sensitized to the need to give the males social support, which will enable them to reduce the poor pressure of work imposed on them by need, and invariably reduce suicide incidence.

On marital status, data in Table 2 also shows that the unmarried had higher suicide cumulative cases (84.26%) followed by the married (14.21%) then the widowed (1.53%) of people who committed suicide respectively between 1990 – 2004. The finding was not expected, considering the fact that the unmarried had fewer responsibilities and obligations in terms of catering for family members than the married, and should be less stressed to solve their problems, instead of committing suicide than their married counterparts. The finding however supports Stillion's (1985) report that the married of both sexes have a lower suicide rate than the single, widowed or divorced people. The finding is also in line with the finding of Maris. (1992) that marriages and having a family are usually associated with lower rate of suicide.

On socio-economic status, data in Table 2 also shows that those in the low-income group had higher suicide cumulative cases of (70.56%) followed by the middle-income group (24.37%) and lastly by the high-income group (5.07%) respectively from 1990 – 2004. The finding was expected due to the fact that people in the low-income group cannot meet their needs and heart desires and therefore, the tendency towards suicide. This finding is also in line with a number of cross-sectional (Boor, 1982; Tavis, 1993) and longitudinal (Hamermesh, 1994 and Soss, 1974, Brenner, 1976, 1977; Adams, 1981; Waesserman, 1983) studies which revealed that suicidal behaviour has a statistical linkage between suicide and socio-economic status.

Changing social conditions in general significantly influences the level of social anomies and this may affect the suicide rates of different occupational groups.



Suicide intervention centers should be opened by the government. Whereas suicide prevention aims at eliminating suicide, the goal of suicide intervention is to reduce the lethality of the individual suicidal crisis. The emphasis should be on providing short-term care and treatment of persons in a suicidal crisis in order to reduce its inherent lethality, thus reducing the risk of suicide.

On work status, data in Table 2 shows that the unemployed had a cumulative case of 82.23% followed by the employed 24.37% and lastly, by the high-income group 5.07% respectively from 1990 – 2004. This shows that the unemployed in Nigeria are left to their fate and have no supportive help from the society and government. The finding agrees with Heikhmen. (1993) suggestion that a secure and steady employment can be considered as protective factor of suicide. The findings collaborate Garrison's (1992) findings at both national and local levels, which associated unemployment with high rates of suicide. He observed that national rise in unemployment is always followed by an increase in suicide rate, which is reversed when the employment situation brightened. The findings also agrees with Breed, (1963); Shepherd and Barraclough, (1980) who suggested that long term unemployment increases suicidal propensity, as well as Dooley, Catalano and Sexrner, (1989b) who also found out that long term unemployment increases social stress. Akwa Ibom State with 6.2 million people (1993 census) has high rate of unemployment, which may be due to reported increase in unemployment and its attendant problems in the State must have accounted for the high rate of suicide among the unemployed than employed in the State from 1990 – 2004. The implication of the finding is that suicide is higher among the unemployed. To reduce the incidence, adequate job opportunities should be created and the unemployed given some stipends to sustain them till they are gainfully employed.

On health status, data in Table 2 shows that those in poor health had a cumulative suicide incidence of (82.74%) followed by those in good health with (17.26%) respectively from 1990 – 2004. This shows that those in poor health had a higher suicide rate than those in good health. This was expected because those in poor health cannot make a living for themselves and therefore, nurse the tendency toward self-destruction. This agrees with the findings of Bolund (1985b) that physical pains are associated with varying degrees of suffering, pains may influence the risk of suicidal mortality (Bolund, 1985a) unrelieved pain may lead to suicidal behaviour if suicide is seen as the only option. The implication is that suicide is higher among those in poor health than those in good health. There was no significant influences of sex, marital status and occupation on suicide but, there was significant influence of suicide on age, socio-economic status and health status.

## **Conclusion**

Based on this, it was found out that there was steady decrease on the incidence of completed suicide in the period under review. There were higher incidences of completed suicide: among those 30 – 64 years than the aged; among the males than the females, among the unmarried than the married, among the low income than the high income earners. It however varied among the unemployed and the employed, among those in poor health and those in good health.

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