The Demographic, Socio-Cultural and Economic Dimensions of the Practice of Vital Registration in the Federal Capital Territory, Nigeria.

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DOI: https://dx.doi.org/10.47772/IJRISS.2025.90300263

Received: 19 February 2025; Accepted: 10 March 2025; Published: 12 April 2025

ABSTRACT

Reliable demographic data is required to assist in national planning and development. Vital event registration provides an opportunity for the continuous collection, recording, collation, analysis, presentation and distribution of data on the occurrences and characteristics of vital events, such as live birth, death, foetal death, marriage, divorce, adoption, legitimization of birth, recognition of parenthood, annulment of marriage, or legal separation the continuous. Vital registration has the advantage of being continuous, as different from censuses and surveys which are conducted at time intervals. The study assessed the influence of demographic, socio-cultural and economic characteristics on the practice of vital FCT. The study obtained primary data from questionnaires administered to 1,266 residents selected through a multistage sampling process. The data were analysed using STATA version 12 and the result was presented using descriptive statistical tools in the form of tables, simple percentages, charts, qualitative analytical methods, and bivariate analysis. Overall, 72.8% of residents had registered a vital event (birth or death) in the FCT. The probit regression of the data indicated that respondents' demographic, socio-cultural and economic characteristics significantly influenced the practice of vital registration. Married respondents as well as respondents with higher education and income levels were observed to have registered for more vital events than those with lower educational and income levels.

Keywords: Vital, Registration, Awareness, Knowledge, Practice

BACKGROUND

Planning for national growth and development requires demographic data because, Population is at the centre of every planning initiative. The inability to measure performance on the key SDG indicators has been traced to the non-availability of accurate demographic information for the measurement of development goals (Uzobo and Ogbanga, 2017)

Population issues elicit much interest as there is an intrinsic tie between population change and development on the one hand and the quality of life of people on the other. It is in this regard that it is generally agreed that the only way to make everyone count, is by counting everyone (Setel, Macfarlane, Szreter, Mikkelsen, Jha, Stout and AbouZahr. 2007)

The major source of demographic information is the population census. How ever, census issues in Nigeria has been mired in controversies of acceptability by stakeholders. These controversies are driven by perceptions of its use for shaping geopolitical, state and ethnic relations and benefits as well as the role of population in the balance of political power (Ezeah, Iyanda & Nwangwu, 2013; Ikande, 2018).

Since 2006, demographic data have been mostly drawn from estimates and projections of that years national population census. Planning for development based on such projections cannot be expected to yield positive outcomes in terms of improving the lives of the people. Moreover, an estimate can only be as good as the data from which it is drawn. The population of Nigeria in 2020 was estimated at 206,139,589 people at mid-year according to United Nations (UN) data (UNFP, 2021).

The three primary sources of demographic data are censuses, surveys and through the registration of vital events. Mahmud (2020) has added sample enumeration in census as an additional source of demographic data. Censuses provide more detailed information about the population as it can capture several variables and characteristics of the population. Between population census, sample estimate of the census, household surveys and administrative records, a country should be able to derive all demographic information required for planning and development. While censuses and surveys are conducted periodically, the latter (vital registration) is expected to be collected on a continuous basis to update the former (Pai, 2017).

In the face of irregular censuses and persistent controversies around census figures, administrative records from vital registration provide an opportunity to collect vital population statistics. Vital registration can provide accurate information that will inform regional and national planning decisions. Vital registration is particularly important for providing reliable data for planning between censuses and it also helps to circumvent the institutional, political and social challenges associated with implementing a census of population (Feyi-Waboso, 2016)

Vital registration (also commonly referred to as civil registration) is the continuous collection, recording, collation, analysis, presentation and distribution of data on the occurrences and characteristics of vital events, such as live birth, death, foetal death, marriage, divorce, adoption, legitimization of birth, recognition of parenthood, annulment of marriage, or legal separation (United Nations 2014). These events are termed "vital" because they relate to happenings that affect the individual's entry into or departure from life, including changes affecting the individual's civil status during his/her lifetime (Okereka, 2015). Records from these events provide vital statistics that can be used for planning for development (Mikkelsen, Lopez, and Phillips, 2015).

Apart from the fact that vital registration and statistics are an important data source for demographic and public health research, it can provide incessant, instantaneous, and localised flows of information regarding health and social issues (Mikkelsen et al, 2015). Another advantage of registering vital events is that they are more detailed than periodic surveys and are more relevant for demographic and socioeconomic policy development (Muñoz, Daniel, and deSavigny, 2018).

Nigeria is a signatory to conventions that established the compulsory registration of births and deaths. At the country level, the enabling legislation for vital registration is Act 39 of 1979 and Act 69 of 1992. The compulsory registration of births, deaths and other related matters is also reinforced under section 23 of the 3rd schedule of the Constitution of the Federal Republic of Nigeria as amended.

Countries with functioning vital/civil registration systems have been found to have better health outcomes than countries with weaker systems, irrespective of income and other factors that are likely to affect the health status of the population (Phillips, AbouZahr, Lopez, Mikkelsen, deSavigny, Lozano, Wilmoth, and Setel, 2015).

Vital registration and statistics are highly practiced in developed countries such as the United Kingdom with a rate of 100% in 2019 (United Nations Children's Fund-UNICEF, 2019). This is not the case in developing countries where about 51 million births remain unregistered every year despite government, civil society, UNICEF and international organisations' efforts to universalise birth registration in a free and timely manner (Isara and Atimati, 2015). In the quest for data for social and economic development planning, developing countries have repeatedly struggled with information that is incomplete or is not available at the time it is needed (Williams, 2014).

Nigeria's birth registration coverage from 1994 to 2007 ranged from 0.01% to 23.9% (NPC, 2008). A nationwide survey by the National Bureau of Statistics (NBS) put birth registration completeness in the country at 30.2% in 2003 and subsequently rose to 42% in 2011 (National Bureau of Statistics, 2017; Abbas 2014). Birth registration completeness was 43% while the completeness of death registration was 10% in 2018 (UNICEF, 2018). This is far below the NPC target to achieve universal registration (100%) by 2015.

The current weak vital event registration systems in Nigeria, characterised by incompleteness and low coverage, as well as major deficiencies in quality and timeliness, statistics generated from the current vital registration efforts will not be able to fill the gaps in the use of population census for planning purposes. If the need to

ISSN No. 2454-6186 | DOI: 10.47772/IJRISS | Volume IX Issue III March 2025

provide individuals with the legal benefits of civil registration systems is also considered, an improved vital registration system is indispensable (WHO, 2010; IDRC, 2019),

It is based on these observable trends and patterns of the vital registration practice in Nigeria especially in the context of its low coverage and consequent inability to generalize for planning and development that the present study was carried out to understand the demographic, socio-cultural and economic dimensions of vital registration in Nigeria with the FCT as case study. The mean birth registration for children above five years of age for the FCT in 2016 was 33.2%., lower than the national average of 35.7%. For children between the ages of 1 and 4 years, the mean registration for the FCT was 20.7%, lower than the national average of 31.1%. It is only the registration rate for children under the age of 1 year that the FCT surpassed the national average of 33.1% at a mean registration rate of 46.21% (NBS, 2017). The scope of the study was on the registration of births and deaths, because these are the most registered vital events and for which data are mostly available.

Research question and objective.

What is the extent of the practice of vital registration by residents of the FCT and how is this influenced by the demographic, socio-cultural and demographic characteristics of the respondents. The objective of the study was to assess the influence of demographic, socio-cultural and economic characteristics of respondents on the practice of vital registration in the FCT.

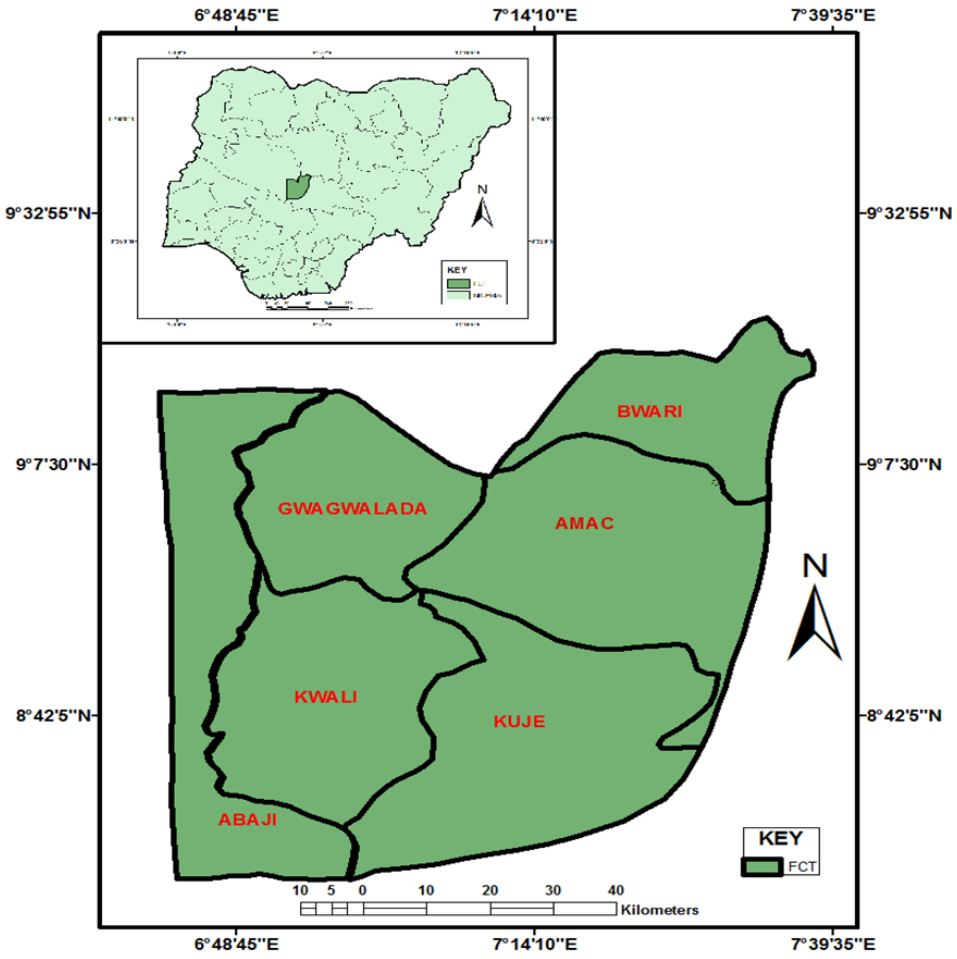

Figure 1: FCT showing the area councils

METHODOLOGY AND DATA ANALYSIS

The survey approach was adopted for this study. Survey respondents were selected through a multistage sampling process. At the first stage, all the Area Council for the FCT were sampled. At the second stage, 30% of the wards

in the 6 area councils were sampled (19 wards). At the third stage, 30% of the settlements in each of the sampled wards were selected (80 settlements) and finally at the fourth stage 10% of the households in each sampled settlement were sampled. A total of 1,266 respondents were selected for the administration of questionnaires. The sample size was digitally determined (www.calculator.net/sample-size) with a confidence level of 98% and a margin of error of 3.25. A structured questionnaire was administered to the respondents digitally with Kobocollect. The questionnaire fielded questions on the demographic, socio cultural and economic characteristics of respondents as well as the "practice" questions.

The data was downloaded from the kobotoolbox platform and exported to STATA version 12.0 for further analysis. The data was analysed using both descriptive and inferential statistics. The results obtained were summarized and presented in tables and discussed. Probit regression was used to test the relationship between demographic, socio cultural and economic characteristics of respondents and the practice of vital registration. The strength of probit regression is that it helps to resolve assumptions about the distribution of errors in an observation especially in the context of dichotomous or binary outcomes Binary outcome/ variables are dependent variables with two possibilities, like yes/no, positive test result/negative test result or single/not single. The probit model estimates the probability that a value will fall into one of the two possible binary (i.e. unit) outcomes (Long, 1997).

RESULTS AND DISCUSSIONS

To explore the practice of vital registration by FCT residents, this study put together some vital registration "practice" questions as follows.

- Have you ever registered for a vital event? (Birth, death, etc)
- What vital event have you ever registered?
- What year did you register the vital event?
- Where did you register the vital event?
- Were you issued a certificate for the vital event you registered?

Anyone who has ever registered a vital event was considered to have practised vital registration. Only such a person will also be able to tell what vital event they registered and answer other questions relating to the year of registration and the documentation associated with the registration of the event.

General practice of vital registration among respondents

The information on the practice of vital registration in the FCT is presented in Table 1. Overall, 72.8% of respondents indicated they had registered a vital event. The Area Council variations indicated that respondents from AMAC with 84.5% had the highest proportion of persons who has registered a vital event. This is followed by Gwagwalada (84%), Abaji (72.7$), Kwali (52%) and Kuje (39%) area councils.

Table 1 Practice of Vital Registration in the Federal Capital Territory.

Ever registered a vital event?	AMAC		Abaji		Bwari		Gwagwalada		Kuje		Kwali		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Not Registered	67	15.5	35	27.3	88	42.3	50	16	70	60.9	34	47.9	344	27.2
Registered	364	84.5	93	72.7	120	57.7	263	84	45	39.1	37	52.1	922	72.8
Total	431	100	128	100	208	100	313	100	115	100	71	100	1,266	100

Practice of vital registration by demographic characteristics

The practice of vital registration by the demographic characteristics of respondents is shown in Table 1. The demographic characteristics considered include sex, marital status and age of respondents.

Practice of vital registration by sex of respondents.

The information on the practice of vital registration based on the sex of the respondents is presented in Table 2. Overall, 76.6% of the female respondents had registered a vital event while 71.1% of the male respondents had registered a vital event. A slight increase in the proportion of females over males regarding the registration of a vital event is understandable because females are more involved in the process of childbirth which is the most registered vital event (Aidenagbon, 2023). Females are directly involved in childbirth and have the first contact with health personnel who recommend them to register the birth of their children. The situation may be different depending on local and cultural practices influencing the registration of births of new-borns.

Table 2: The Practice of Vital Registration by Demographic Characteristics of Respondents

Demographic characteristics		Practice of registration by selected demographic characteristics					
		Not Registered		Registered		Total	
		No%		No%		No %	
Sex	Female	119	23.4	390	76.6	509	100.0
	Male	219	28.9	538	71.1	757	100.0
	Total	338	26.7	928	73.3	1266	100.0
Marital status	Divorced	0	0.0	5	100.0	5	100.0
	Married	225	23.0	752	77.0	977	100.0
	Separated	9	25.0	27	75.0	36	100.0
	Single	97	43.5	126	56.5	223	100.0
	Widowed	2	11.8	15	88.2	17	100.0
	Others	5	62.5	3	37.5	8	100.0
	Total	338	26.7	928	73.3	1266	100.0
Age	15-19	8	42.1	11	57.9	19	100.0
	20-24	18	37.5	30	62.5	48	100.0
	25-29	42	42.4	57	57.6	99	100.0
	30-34	53	33.1	107	66.9	160	100.0
	35-39	65	28.5	163	71.5	228	100.0
	40-44	58	25.8	167	74.2	225	100.0
	45-49	39	21.8	140	78.2	179	100.0
	50-54	26	19.1	110	80.9	136	100.0
	55-59	16	18.8	69	81.2	85	100.0
	60-64	8	13.8	50	86.2	58	100.0
	65-69	4	21.1	15	78.9	19	100.0
	70 and above	1	10.0	9	90.0	10	100.0
	Total	338	26.7	928	73.3	1266	100.0

Practice of vital registration by marital status of respondents.

The practice of vital registration was observed to be highest among divorced respondents (100%) (Table 2).

Widowed respondents (88.2%) were next in line regarding the practice of vital registration. For married persons, 77.09% of respondents had registered a vital event, while 77.6% of separated respondents had also registered a vital event. Single respondents took the rear with 56.5% of respondents having registered a vital event. If considered from the point of view of birth registration, the fact that married women have high practice of vital registration is understandable as with each child born, there is a normal tendency to register the birth. The same applies to separated persons, but less likely for single persons with less expectation culturally for bearing children and registering births.

Overall, marital status can have a significant influence on the practice of vital registration, particularly in relation to recording and reporting events such as marriages, divorces, and deaths.

Practice of vital registration by age of respondents

There is an observed progressive increase in the practice of vital registration with age especially from the respondent age of 25 – 29 years up to the age group of 60 -64 years (Table 2). The implication from the above is that at a certain age, all that one needs to know about the concept may have been known and practice may continue to grow based on people's appreciation of the value of registration. The age structure of a population has a significant influence on the practice of vital registration, affecting the accuracy, completeness, and interpretation of vital registration data. In societies with a higher proportion of younger

individuals, there might be greater emphasis on registering births. This is particularly important for countries with a high birth rate, as accurate birth registration is crucial for tracking population growth, planning healthcare services, and ensuring access to education and social services for children. Efforts to improve the practice of vital registration should consider the age-specific needs and challenges associated with accurate registration of births, deaths, and other vital events. This can involve training registration personnel, implementing digital registration systems, raising public awareness about the importance of accurate reporting, and ensuring that registration practices align with the age structure of the population.

The practice of vital registration by the socio-cultural characteristics of respondents

The socio-cultural characteristics of respondents considered in the study are ethnicity, religion and education. Information on the practice of vital registration by socio cultural characteristics of respondents in shown in Table 3.

Table 3 Practice of Vital Registration by Socio-Cultural Characteristics of Respondents

Practice of Registration by Selected Socio-Cultural Characteristics						
By Ethnic Group						
Ethnic Group	**Not Registered**	**% Not Registered**	**Registered**	**% Registered**	**Total**	**% Total**
Bassa	18	40.90%	26	59.10%	44	100.00%
Gbagyi	82	47.40%	91	52.60%	173	100.00%
Hausa	71	31.70%	153	68.30%	224	100.00%
Igbo	41	17.70%	190	82.30%	231	100.00%
Koro	8	40.00%	12	60.00%	20	100.00%
Yoruba	28	16.10%	146	83.90%	174	100.00%
Others Specify	90	22.50%	310	77.50%	400	100.00%
Total	**338**	**26.70%**	**928**	**73.30%**	**1266**	**100.00%**
By Level of Education						

Level of Education	Not Registered	% Not Registered	Registered	% Registered	Total	% Total
No formal education	56	52.80%	50	47.20%	106	100.00%
Primary education	82	44.10%	104	55.90%	186	100.00%
Secondary education	131	26.50%	363	73.50%	494	100.00%
Tertiary education	62	13.80%	388	86.20%	450	100.00%
Others	7	23.30%	23	76.70%	30	100.00%
Total	**338**	**26.70%**	**928**	**73.30%**	**1266**	**100.00%**
By Religion						
Religion	**Not Registered**	**% Not Registered**	**Registered**	**% Registered**	**Total**	**% Total**
Christianity	182	23.80%	584	76.20%	766	100.00%
Islam	154	31.20%	339	68.80%	493	100.00%
Traditional religions	2	28.60%	5	71.40%	7	100.00%
Total	**338**	**26.70%**	**928**	**73.30%**	**1266**	**100.00%**

Practice of vital registration by ethnic classification of respondents

The practice of registration of vital events was most prominent among the Yoruba ethnic group within the FCT (83.9%). This was followed by the Igbos (82.3%), Hausas (68.3%) and 60% for Koro descent had registered a vital event. For the Gbagyi ethnic group, 52.6% of respondents had registered a vital event. The 77.5% of respondents from the other groups comprising Igbiras, Binis, Tivs among others is also significant as it demonstrated that such minority tribal groups were well informed and were fully involved in the registration of vital events.

Ethnicity can impact how vital events are recorded, reported, and interpreted. Different ethnic groups often have unique cultural practices related to birth, marriage, and death ceremonies. These practices influence the timing, manner, and formality of registering vital events. For example, the rituals surrounding childbirth and naming may affect how and when births are officially recorded. Different ethnic groups may have distinct naming conventions and practices. Ethnic groups with migratory or nomadic lifestyles may face challenges in accessing vital registration services, especially if they move frequently between regions or countries. This may lead to underreporting or incomplete registration of vital events.

Practice of vital registration by respondent educational characteristics

Overall, 86.2% of respondents with tertiary education had registered a vital event while 73.5% of respondents with secondary education had registered a vital event. For respondents with education up to the primary school level, 55.9% had registered a vital event while 47.2% of respondents with no formal education had registered a vital event. From the above it is shown that the practice of vital registration increases with educational status. Higher educational accomplishment helps to promote awareness, knowledge and practice of vital registration in the FCT. Consequently, efforts to promote vital registration should concentrate at the lower educational levels since respondents at the higher educational levels had most probably already received the required awareness and knowledge to drive the practice of vital registration. Educated individuals are more likely to comprehend

the long-term implications of registering births, deaths, and marriages, including benefits related to inheritance, social services, and public policy (Atama et al, 2020).

Practice of vital registration by religious affiliation

Adherents of the Christian faith registered more vital events (76.2%) than adherents to the Islamic faith (68.8%). Explanations for this pattern are quite deep and relate to social and health practices, as well as perceptions and attitudes. These affect the propensity to promote behaviours that encourage the registration of vital events. Religious beliefs can vary among ethnic groups and influence the way vital events are registered. Some religious traditions require specific rituals or ceremonies to be performed before a birth, marriage, or death is considered officially recognized. This can impact the timing and documentation of these events.

Practice of Vital Registration by Economic Characteristics of Respondents

The economic characteristics considered were occupation and income levels. Table 4 shows the information on the practice of vital registration by economic classification of respondents.

Table 4: Practice of vital registration by economic characteristics of respondents

Economic characteristics		Practice of vital registration					
		Not Registered		Registered		Total	
Occupation	Artisan	31	29.80	73	70.20	104	100.00
	Farming	72	53.70	62	46.30	134	100.00
	Military/ paramilitary services	0	0.00	35	100.00	35	100.00
	Petty trading/business	162	27.10	435	72.90	597	100.00
	Public/ private sectors	24	10.30	209	89.70	233	100.00
	Others	49	30.10	114	69.90	163	100.00
	Total	338	26.70	928	73.30	1266	100.00
Monthly Income	No Income	38	36.20	67	63.80	105	100.00
	30,000 and below	189	33.80	370	66.20	559	100.00
	30,001-50,000	64	26.30	179	73.70	243	100.00
	50,001-100,000	33	15.70	177	84.30	210	100.00
	100,001- 200,000	11	9.50	105	90.50	116	100.00
	200,001-300,000	3	13.60	19	86.40	22	100.00
	300,001 - 400,000	0	0.00	7	100.00	7	100.00
	400,001 - 500,000	0	0.00	3	100.00	3	100.00
	above 500,000	0	0.00	1	100.00	1	100.00
	Total	338	26.70	928	73.30	1266	100.00

Practice of vital registration with occupational status

Five key occupational categories within the FCT were identified. These include artisans, local /petty/small businesses including contractors, public and private sector employees, the military and others. Table 4 shows that vital events have been mostly registered by respondents in the class of traders and small businesses (100%). This was followed by those in the organised public and private sectors of the economy (72.9%). Overall, artisans were least likely to register their vital events (46.3%). The occupation of individuals can impact the accuracy

and completeness of vital registration data. People with certain occupations, such as healthcare professionals, may have a better understanding of the importance of accurate record-keeping and may be more diligent in providing complete and accurate information. On the other hand, individuals in occupations with less awareness about vital registration might provide incomplete or inaccurate information. Occupation can be linked to social status and cultural practices, which in turn can influence attitudes toward vital registration.

Practice of vital registration and income of respondents

There was an observed progression of the practice of vital registration from the lower income levels to the upper income levels. The positive progression peaked at the income levels of N100,000 to N300,000 and then shot to 100% from income levels of N300,000 to N500,000 and above. Income plays a role in influencing the practice of vital registration, particularly in terms of individuals' access to resources, awareness, and willingness to comply with registration requirements. People with higher incomes often have better access to healthcare services, including medical professionals and facilities involved in births and deaths (Ye et al, 2012). This can lead to more accurate and timely reporting of vital events due to the involvement of healthcare professionals. Greater effort should be paid at mobilising lower income levels for rapid registration of vital events since those on the upper rungs of the income ladder are already self-propelled to register vital events.

Relationship between demographic and socio-economic characteristics of residents with the practice of vital registration in the FCT.

A probit regression was conducted to test the strength of relationship between the practice of vital registration (dependent variable) and some selected independent variables. With 1,266 observations, the likelihood ratio chi-square (LR chi2) was 461.87 at 5 degrees of freedom. The Pseudo R-squared (Pseudo R2) was 0.3144, meaning that the model explained approximately 31.44% of the variation in vital event registration (Table 5)

Table 5: Summary of probit regression of the relationship between demographic and socio-economic variables and the practice of vital registration

Have you registered a vital event before	Coef.	Std. Err.	z	P>z	[95% Conf. Interval]	
marital	0.3106701	0.0994863	3.12	0.002	0.1156805	0.5056597
income	0.1215396	0.1592472	0.76	0.445	-0.1905792	0.4336583
Have you ever heard of vital event registration	1.365689	0.1095702	12.46	0	1.150936	1.580443
Are you aware that births and deaths are to be registered	0.0037115	0.1078592	0.03	0.973	-0.2076887	0.2151117
Do you know the process to follow to reg a birth	0.7743215	0.1044949	7.41	0	0.5695152	0.9791278
_cons	-1.101643	0.1837283	-6	0	-1.461744	-0.7415426
Probit regression	Number of obs	=	1,266			
	LR chi2(5)	=	461.87			
	Prob > chi2	=	0			
Log likelihood = -503.64011	Pseudo R2	=	0.3144			

The coefficients show a positive relationship between the dependent variable and the selected independent variables suggesting that marital status, awareness of vital event registration, and knowledge of the registration process are significant predictors of the practice of vital registration.

CONCLUSION

Among the demographic, socio-cultural and economic characteristics of the respondents; marital status, age, educational and income levels have the more impact on awareness, knowledge and practice of vital registration. Awareness knowledge and practice of vital registration generally increased with age, level of education and income. Awareness and practice of vital registration was high among married respondents. Awareness is the key driver of the practice of vital registration, as it has a significant influence on the practice of vital registration.

While there was a high level of the practice of vital registration in the FCT (72.8%), it still fell short of the NPC desired target of 100% registration by 2015. Thus, the practice of vital registration in the FCT is still at a sub-optimal level. This calls for the strengthening of information dissemination, advocacies and behavior change initiatives to promote positive attitude towards the registration of vital events in the FCT and Nigeria.

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