RESULTS OF SECONDARY ANALYSIS OF THE 2013 NIGERIA DEMOGRAPHIC AND HEALTH SURVEY (DHS) FOR OYO STATE

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INTRODUCTION

In spite of considerable governmental efforts and donor support over the past decades, reproductive health outcomes in Nigeria are among the poorest in the world. For example, according to the 2013 Demographic and Health Survey, only 10% of married women were using a modern method; a prevalence that has not changed since 2008 (NPC/ICF Macro, 2014). The factors responsible for this low contraceptive prevalence ae multiple and operate on various level of the social ecological model, including individual, interpersonal, community, health system, and policy levels. Furthermore, the low contraceptive prevalence rate masks considerable differences across socio-demographic groups within and across regions. Evidence has shown that contraceptive use in Nigeria varies significantly by state of residence and within states by urban residence, education level, religion, socio-economic status, ethnicity, parity and other background characteristics. Understanding audience characteristics that are likely to hinder or promote contraceptive use is critical for designing potentially effective communication strategies that address the communication needs of specific audience groups. In this document, we examine variations in contraceptive use in Oyo State by socio-demographic and household characteristics. Specifically, we compare profiles of contraceptive users and non-users, describe the differences among users of various methods, examine service outlets for various methods, and describe the characteristics of consumers of various communication media. The analyses complement prior analyses on the role of ideational variables in contraceptive use in Oyo State (Babalola, 2016).

Data and Methods

The data analysed in this report come from the 2013 Nigeria Demographic and Health Survey. Information on the sampling procedure, instruments, data collection methods, ethical considerations, and other relevant aspects of the survey is provided in the original survey report available online at: www.dhsprogram.com. The data set analysed in this report included information on 915 women from Oyo State. Some of the analyses focused on all the respondents while others involved only currently married women.

CHARACTERISTICS OF RESPONDENTS

The distribution of the sample by socio-demographic and household characteristics is presented in Table 1. About two-thirds of the sample was aged between 25 and 49 years; the mean age was 29.3 years. Most the women had ever been to school and almost two thirds had secondary education or higher. The sample included proportionally more Muslims than Christians while the majority was currently married. Over one quarter of the women had no children while about half had three or more children. The mean number of children was 2.6. The sample was predominantly urban and included a large proportion of rich women by Nigerian standards.

Table 1: Weighted Percentage of Women by Socio-Demographic Characteristics and Media Exposure in Oyo State

Variables	n	Weighted Percent
Age		
15-24	312	34.8
25-34	295	33.1
35+	308	32.1
Education		
No Education	194	13.4
Primary	190	21.7
Secondary	421	48.3
Higher	110	14.6
Religion		
Christian	360	39.6
Muslim	555	60.4
Marital Status		
Unmarried	223	25.8
Married/co-habiting	692	74.2
Parity		
No children	243	28.2
1 – 2	216	23.6
3 – 5	313	34.9
6 +	143	13.3
Wealth Quintile		
Lowest	80	5.9
Second	99	8.9
Middle	118	11.9
Fourth	296	32.4
Highest	322	40.9
Type of Place of Residence		
Urban	612	70.7
Rural	303	29.3
Number of observations	915	

Media Consumption Habits

Table 2 presents information on the media consumption habits of the sample. More than two-thirds of the respondents listened to the radio at least once a week while about half watched the television at least once a week. Very few of the women reported reading newspaper/magazine on a weekly basis.

Table 2: Percent distribution of women by media consumption habits in Oyo State

Variables	n	Percent
Regularly listens to radio	597	68.3
Regularly watches TV	446	52.7
Regularly reads newspaper or Magazine	41	5.1
Exposed to neither radio nor television	260	24.9
Exposed to television only	58	6.8
Exposed to radio only	209	22.4
Exposed to both radio and television	388	45.9
Number of observations	**915**	

We considered the relative and combined reach of the media focusing only on the radio and television. The data showed that about one-fifth of the women did not have a regular (that is, at least once a week) exposure to either the radio or the television. This finding indicates that combining the radio and the television will help to ensure that messages reach at least 75 percent of the intended audience in Oyo State. Also of note is the finding that women who are exposed to either the radio or the television are also very likely to the exposed to the other medium, thereby suggesting potential synergistic effects of using both media. Overall, almost half of the women (45.9%) had regular exposure to both the radio and the television; about one quarter had exposure to the television alone while only about 6.8 percent were exposed to the radio alone.

Socio-demographic characteristics of various media consumption groups

Information on the socio-demographic characteristics of the various groups of women defined by their media consumption habits is provided on Table 3. In the following paragraphs, we

compare the profiles of the "No Media", "Television Only", "Radio Only" and "Both Radio and Television" groups.

No Media Group: Compared to the other exposure groups, the women in this group were more likely to be illiterate and of higher parity. They were also considerably poorer than the women in the other media groups. Furthermore, the women in this group were more likely to be Muslim, rural resident and currently married or cohabiting.

Television Only Group: The women in this group were all urban residents. They were similar to their peers in the "TV and Radio" group in terms of key socio-demographic characteristics. The only major difference is that the women in the "Television Only" group were less like to be married compared to the ones in the "TV and Radio" group. Furthermore, this group comprised proportionally more of richer and lower parity women compared to the "No Media" or "Radio Only" groups. Also compared to the "No Media" or "Radio Only" groups, the women in this group were more likely to be Christians.

Radio Only Group: The women in this were closer to the "No Media" group than to any other group in terms of socio-demographic characteristics. Nonetheless, compared to the "No Media" group, they were richer, and more likely to be educated, Christian, and urban residents.

Table 3: Percent distribution of women by media habits (listening/viewing at least once a week) and by socio-demographic characteristics in Oyo State (n=915)

Variables	None	TV only	Radio Only	TV & Radio
Age				
15-24	35.2	35.3	29.7	37.1
25-34	30.7	37.8	27.8	36.2
35+	34.1	26.9	42.5	26.7
Mean age in years	29.6	28.3	31.2	28.3
Education				
No Education	48.2	3.3	9.7	2.0
Primary	22.1	21.0	24.8	20.1
Secondary	26.6	51.0	53.9	56.8
Higher	3.1	24.7	11.3	21.0
SES				
Lowest	17.9	0.0	1.8	0.0
Second	79.3	0.0	10.6	0.7
Middle	0.7	1.2	22.9	6.4
Fourth	1.7	32.1	37.4	33.8
Highest	0.4	66.7	27.2	59.1
Religion				
Christian	25.0	48.6	40.8	45.5
Muslim	75.0	51.4	59.2	54.5
Marital Status				
Single	17.9	37.7	24.9	28.9
Married/co-habiting	82.1	62.3	75.1	71.1
Type of Place of Residence				
Urban	40.2	100.0	58.7	88.8
Rural	59.2	0	41.3	11.2
Mean number of children-ever-born	3.3	2.2	3.0	2.1

Television and Radio Group: The women in this group were generally richer and better educated than the women in the "No Media" or the "Radio Only" groups. Moreover, the women are more likely than their peers in the "No Media" or "Radio Only" groups to be urban residents.

Awareness about methods

The percent of women that demonstrated awareness of specific methods is presented in Table 4. The data showed that the best known methods were male condom, injectables, and the Pill. About nine out of ten women reported awareness of the male condom while about four fifths mentioned injectables or the Pill. Other commonly mentioned methods included IUD, implant and lactational amenorrhea (LAM). In contrast, relatively few women were aware of female sterilization, female condoms, and male sterilization. On average, the women mentioned 4.4 modern methods. As expected, methods awareness varied by socio-demographic characteristics. The mean number of methods known was considerably higher in urban (5.1) than in rural (2.9) areas and for married or cohabiting women (4.8) compared to their unmarried peers (3.4). Furthermore, Christians (5.0) were appeared more knowledgeable about methods than Muslims (4.0). The mean number of methods known increased steadily with wealth quintile, varying from 0.2 among the women in the lowest quintile to 5.3 among their peers in the highest quintile. Similarly, contraceptive awareness increased monotonically from 1.6 methods among the women with no education to 5.7 among their peers with post-secondary education.

Table 4: Percent distribution of women by awareness of specific modern methods, Oyo State, n=915

Methods	Percent
Pill	77.1
IUD	62.3
Injectables	80.1
Male condom	89.2
Female condom	13.7
Implant	43.0
Female Sterilization	27.0
Male Sterilization	10.8
Lactational Amenorrhea Method	39.3

Socio-demographic differentials in contraceptive use status

A little over one fifth of the women were using a modern method while 10% were using a traditional method (Figure 1). Sexually experienced unmarried youth were more likely to use a modern and less likely to use a traditional method than their currently married peers. Furthermore, about half of current non-users intend to use a method later while the half did not have such intention.

Figure 1: Percent distribution of respondents by contraceptive use and category of women
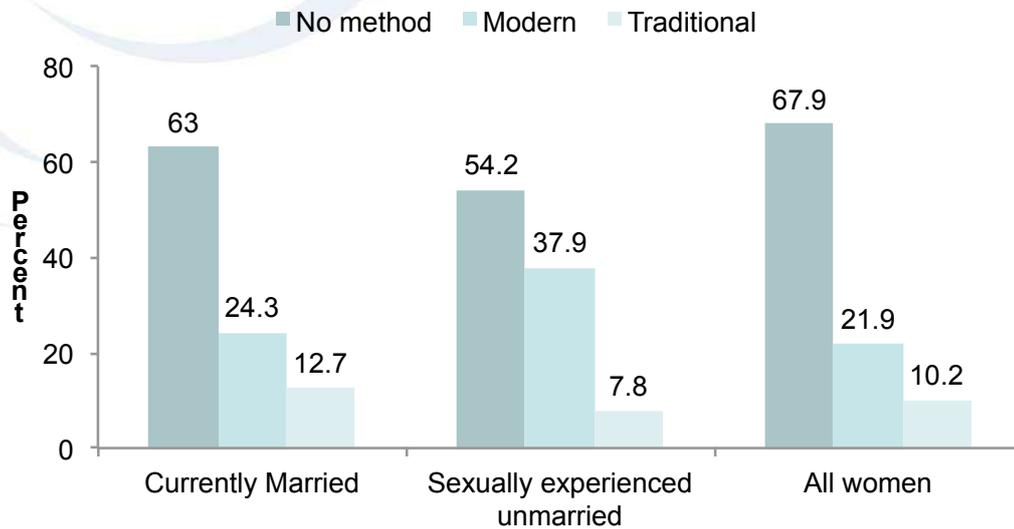
A closer look at contraceptive users reveals that almost one third were using a traditional methods while about one fifth were using male condoms (Figure 2). The other common modern methods were injectables, IUD and the Pill. In contrast, very few women were using implants or practicing lactational amenorrhea method.

We examine socio-demographic variations in contraceptive use patterns among currently married peers and the results are presented on Table 5. Differences in age by contraceptive use status are such that non-users with or without intention to use were generally older than

Figure 2: Percent distribution of current users by method used, Oyo State
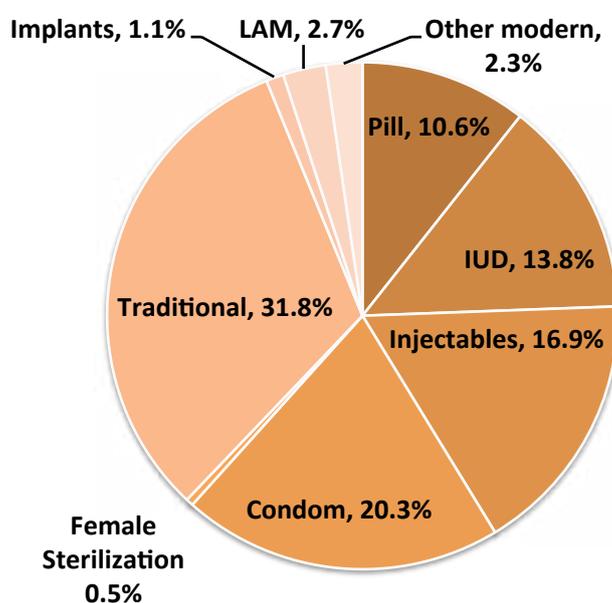
the women using modern or traditional methods. On average, users of traditional methods were not different in age from their peers currently using a modern method. Regarding differences by parity, users of traditional methods were the least likely to have had no children. On average, users of traditional or modern methods were of higher parity than the non-user groups. Non-users with no intention to use were poorer and more likely to have received no formal education than the women in any of the other three groups. Current users and non-user with intention to use were not significantly different in terms of educational level.

Table 5: Percent distribution of users and non-users of contraceptive methods, by selected socio-demographic characteristics, Oyo State

Variables	Users of modern methods	Users of traditional methods	Non-users, intending to use	Non-users, not intending to use
Age				
15-24	20.2	16.6	43.8	41.0
25-34	36.0	47.0	34.9	25.3
35+	43.8	36.4	21.3	33.7
Average age in years	32.3	32.3	26.7	28.9
Parity				
None	16.6	7.9	35.8	34.1
1 – 2	20.3	17.6	29.6	21.8
3 – 5	45.3	59.8	28.2	27.3
6 +	17.7	14.7	6.4	16.8
Average parity	3.3	3.5	1.9	2.6
Education				
No Education	5.9	3.7	5.7	33.9
Primary	30.9	31.4	17.6	17.0
Secondary	38.9	52.4	59.7	42.1
Higher	24.3	12.5	16.8	7.0
Socio-economic Status				
Lowest	0.2	0.0	0.9	16.0
Second	4.6	8.8	5.6	14.9
Middle	10.3	11.9	12.4	12.3
Fourth	32.8	37.6	35.5	27.6
Highest	52.1	41.7	45.6	29.2
Religion				
Christian	45.5	47.5	42.1	31.0
Muslim	54.5	52.5	57.9	69.0
Marital Status				
Unmarried	17.8	7.9	33.1	29.3
Married/cohabiting	82.2	92.1	66.9	70.7
Media Consumption Habits				
Neither radio nor TV	18.2	14.1	17.5	39.3
TV only	7.3	7.3	8.4	4.8
Exposed to radio only	19.8	26.2	21.4	24.0
Exposed to both radio and television	54.7	52.4	52.7	31.9
Type of Place of Residence				
Rural	16.6	25.8	22.0	45.2
Urban	83.4	74.2	78.0	54.8

In terms of religious affiliation, the main difference is between non-users with no intention to use and the other women. Specifically, the non-users with no intention to use were significantly more likely to be Muslims compared to the other women. Concerning marital status, non-users with or without or without contraceptive intention were more likely than users to be unmarried. Users of traditional methods were the least likely to be unmarried. Non-users with no intention to use were the most likely to be exposed to neither radio nor television and the least likely to be exposed to both media. Media exposure pattern did not appear to differ significantly among users of modern methods, users of traditional methods and non-users with no intention to use. Non-users with no intention to use were the most likely and users of modern methods the least likely to be rural residents.

Assuming that the number of women of reproductive age (WRA) in Oyo State was 1,687,951 in 2015 (based on projected population size of 7169770 from the 2006 census and a proportion of WRA of 23.5%), we estimated the number of women in the various use categories to be as follows: users of modern methods: 369,661; users of traditional methods: 172,171; non-users with intention to use: 557,024; non-users with no intention to use: 589,095.

Socio-demographic characteristics of respondents by method use category

Table 6 below shows the percentage distribution of FP method users by socio-demographic characteristics.

Table 6. Percent Distribution of users of FP methods by socio-demographic characteristics, Oyo state

	Short Acting	Long Acting	Traditional
Age			
15-24	24.8	4.7	13.8
25-34	37.9	20.9	41.4
35+	37.2	74.4	44.8
Education			
No Education	6.9	14	8
Primary	25.5	44.2	29.9
Secondary	43.4	25.6	51.7
Higher	24.1	16.3	10.3
SES			
Poorest	0.7	0	0
Poorer	4.1	7	9.2
Middle	11	16.3	13.8
Richer	29	55.8	37.9
Richest	55.2	20.9	39.1
Religion			
Christian	46.9	34.9	51.7
Muslim	50.3	65.1	48.3
Other	2.8	0	0
Marital Status			
Unmarried	22.1	2.3	4.6
Married/co-habiting	76.6	97.7	94.3
Divorced/separated/widowed	1.4	0	1.1

Short acting method users:

Use of short acting methods cuts across all age groups in Oyo state, almost three-quarters
of short acting method users have post primary education. Most are married and majority are
in the rich or richer wealth quintile.

Long acting method users:

Women who use long acting methods are more likely to be in the older age category of 35
and above. Majority are in the rich/richer wealth quintile and are more likely to be married.

Traditional method users:

Women who use traditional methods are more likely to be older and more likely to have post primary education. This category of women are in the richer wealth quintile and more likely to be in union.

Sources of contraceptive methods

Table 7 shows the sources of contraceptives by socio-demographic characteristics, media exposure and methods used in Oyo state.

About three quarters (73.7%) of the youth (15-24) sourced their methods from the private non-clinical (PPMVs and Pharmacy shops). Among women age 25 and above government hospitals and private non-clinical were the most utilized outlets.

Table 7. Percent Distribution of users by sources of contraceptives and by selected characteristics and contraceptive type				
Variables	Government	Private clinical	Private non-clinical	Field worker
Age				
15-24	10.5	7.9	73.7	7.9
25-34	40.6	10.9	39.1	9.4
35+	44.9	20.2	23.6	11.2
Education				
No Education	64.3	7.1	21.4	7.1
Primary	50.9	15.8	24.9	8.8
Secondary	30.4	13.9	41.8	13.9
Higher	19.5	17.1	58.5	4.9
SES				
Poorest	100	0	0	0
Poorer	40	20	30	10
Middle	40.9	9.1	40.9	9.1
Richer	36.1	15.3	34.7	13.9
Richest	34.9	15.1	43	7
Religion				
Christian	29.1	17.4	38.4	15.1
Muslim	42.6	12.9	38.6	5.9
Marital Status				
Unmarried	6.5	3.2	87.1	3.2
Married/co-habiting	43	17.1	29.1	10.8
divorced/sep/wid	0	0	50	50
Media Consumption				

No Media	37.5	18.8	31.3	12.5
Exposure Radio	36.4	18.2	45.5	0
Exposure TV	40	13.3	33.3	13.3
Both	35	13.6	42.7	8.7
Contraceptive used				
Modern	37.6	15.9	43.5	2.9
Traditional/Natural	28.6	4.8	0	66.7

Women with primary education and below were more likely to use government facilities, whereas those with secondary and tertiary education were more likely to use private non-clinical. One hundred percent of women in the poorest category use government hospitals. Women in the middle, rich and richer wealth quintiles were more likely to source their methods from private non-clinical. The most utilized source for modern method is the private non-clinical.

Fertility intentions

Women in the middle age category 25 to 34 years of age are less likely to want more children within two years. As wealth increases, desire for children in the next two years increases. Majority of women who do not want to have any more children are women 35 years and above. Muslim women and women in union are more likely to be in this category, also, about a quarter of them could be reached through radio, while about one-third do not watch TV or listen to radio.

Most women 25 to 34 years of age intend to delay their next birth for at least two years, most of the women (63.9%) in this category have at least post primary education. About two-thirds of them are in the rich or richer wealth quintile, slightly more than two thirds are Muslims and more than four-fifths (86.7) are married. About three-quarters of them can be reached through radio, TV or both.

About four-fifth (79.2%) of women who do not want to have any more children are older in

Oyo state. About half of them are in the rich/richer wealth quintile and majority (97%) are in

union. Close to two-thirds can be reached through radio or TV.

Table 8. Percent Distribution of users by fertility intentions and by selected characteristics, Oyo				
Variables	Wants within 2years	Wants after 2+ years	Wants, unsure of timing	Wants no more
Age				
15-24	28.1	37.4	79.9	0.4
25-34	44.3	52.1	15.5	20.3
35+	27.6	10.4	4.6	79.2
Education				
No Education	26.6	18.5	8.7	25.1
Primary	23.4	17.5	8.2	32.5
Secondary	35.4	50.2	66.7	36.8
Higher	14.6	13.7	16.4	5.6
SES				
Poorest	13.5	8.1	4.6	13
Poorer	15.1	13.7	4.6	17.4
Middle	9.4	10	14.2	15.2
Richer	26.6	31.8	37	23.9
Richest	35.4	36.5	39.7	30.4
Religion				
Christian	33.3	35.5	40.2	42.4
Muslim	65.1	64.5	57.5	57.1
Other	1.6	0	2.3	0.4
Marital Status				
Unmarried	5.2	12.3	85.4	0
Married/co-habiting	94.3	86.7	13.7	97
divi/sep/wid	0.5	0.9	0.9	3
TV & Radio Exposure				
No media	31.8	28.9	18.3	30.3
Only TV	4.7	10.4	5.9	4.3
Only Radio	24	15.2	21.9	27.7
Radio & TV	39.6	45.5	53.9	37.7

SUMMARY AND RECOMMENDATIONS

Only about two-thirds have regular exposure to radio and about half, to television. A combination of radio and TV in Oyo state for carrying FP messaging will ensure that majority (about 75%) of the target audience will have regular exposure.

From the three media consumption groups created, our results showed that the "no media group" are mostly illiterates and have high parity. This category of women are poor, muslims and resides in rural areas. Family planning programs need to explore the use other traditional avenues for reaching the women in this group. Use of religious institutions and other facility based interventions for carrying FP messages need to explored. e no-media group. Naming, wedding and other ceremonies may be promising options.

Women in the radio group only category are more likely to be educated and resident in urban areas. This findings should inform the focus on radio stations that will ensure the most optimal delivery of FP related messaging in this geography.

Having a knowledge of a wide range of Family planning methods is important in order to make informed choice. This analysis showed that knowledge of some Family planning methods such as female condoms, Implants are still poor and can be drastically improved, efforts need to focus on this area as part of efforts to improve contraceptive use in Oyo State.

For a woman to use contraceptives, she must first intend to use. About three-quarter of non-users who intend to use Family Planning in future. This segment of Women have at least secondary education, and are more likely to be Muslims and more likely to listen to radio more. Family planning messaging on radio will continue to be means to reach this category of women. Additionally, the majority   of them are in the urban areas, Family planning programs need to be intentional in the effort to reach these women as they are closest to using contraceptives.

Among all women, about 10% re traditional methods users. Most (about four-fifths) are in their prime age and three-quarters have parity three and above. Majority are in the secondary and higher age category and are from the fourth and fifth wealth quintile, almost all are married and they have regular exposure to radio and TV. This group of users appear to be easy to reach and with the most minimal effort.

Assessing FP methods through non clinical providers such as PPMVs and community pharmacy shops is very common among women in Oyo state. Majority of modern method users in Oyo states source their method from non-clinical providers (43.5%) followed by those using government hospitals (37.6%). This calls for a more deliberate effort to target non-clinical outlets as means of improving the contraceptive use of the people of Oyo state. Not only for those that are currently using this services but for women who may be reached by demand generation efforts and whose point of call will be these channels. Working with this sector can contribute to reduction in the myths around FP use and could also form part of the non-traditional means of reaching women who are referred as the "no media" category in passing on accurate and correct information to men and women who needs them.

A reasonable proportion of women in Oyo state who are not using any FP methods either wants to space or wants to limit the number of children they have. FP programs need to see this category of women as "low hanging fruits" whose when targeted with the right information can be easily converted to users. or do not

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