

CD 7212 112
1982
151

**1980 LAGOS CONTRACEPTION AND BREAST-FEEDING STUDY
FINAL REPORT**

June 1982

1980 LAGOS CONTRACEPTION AND BREAST-FEEDING STUDY

FINAL REPORT

June 1982

Paulina K. Makinwa-Adebusoye, DSc¹

Douglas J. Nichols, PhD²

S. Elizabeth Kelly, BA²

¹Centre for Social, Cultural and Environmental Research,
University of Benin, Benin City, Nigeria

²International Fertility Research Program, Research Triangle Park,
North Carolina

ACKNOWLEDGEMENT

Field work for this project was carried out under the auspices of the Centre for Social, Cultural and Environmental Research, University of Benin. Financial support was provided through Grant AID/pha/G-1198 from the Office of Population, United States Agency for International Development.

Introduction. In many of the rapidly growing urban areas of sub-Saharan Africa, there is evidence that the traditional restraints on fertility—prolonged breast-feeding and postpartum sexual abstinence—are breaking down more rapidly than modern methods of family planning are being adopted to replace them. It is possible that birth rates among certain urban populations may be increasing, thus exacerbating conditions of rapid population growth resulting from declining mortality and high net in-migration.

Prolonged breast-feeding in conjunction with the widespread practice of postpartum abstinence has resulted in average birth intervals of up to three years in traditional African societies in which modern contraceptive methods are unknown or not available. These longstanding practices, however, are changing as Africa modernizes and becomes more "western" in orientation. The popularity and successful marketing of infant formula has effected a tremendous increase in bottle feeding; very few women are breast-feeding their babies without milk supplements, and those who do are breast-feeding for shorter periods of time. Postpartum abstinence from sexual relations is also becoming less common and of shorter duration. These changes are occurring most rapidly in urban areas, and particularly among educated women and those working outside the home.

In most populations in which such changes are occurring, the introduction of alternative methods of child spacing has had limited impact. Demand for modern family planning is often extremely low, reflecting the limited available information and the reluctance, under such circumstances, of individuals to adopt new and unfamiliar practices. Similarly, the supply side of the equation is less than satisfactory. The establishment and

/

maintenance of distribution systems, especially as managed by the public sector, is fraught with problems not encountered in developed countries. Over the short run, at least, the above conditions are likely to result in increased fertility as a "traditional" society evolves into a "modern" one.

The Present Investigation. In order to examine in detail the relationships between traditional and modern child-spacing practices and their impact on fertility in Lagos, Nigeria, a survey of contraceptive knowledge and practice, breast-feeding patterns and postpartum sexual abstinence was conducted in late 1980 among a representative sample of women of reproductive age. The principal purpose of the study was to collect information to calculate cumulative and period fertility levels, to assess the impact of breast-feeding and abstinence on birth intervals, to examine the use of and demand for modern contraceptives, and to evaluate the implications for fertility levels and family planning utilization during the 1980s.

Lagos is an ideal setting for such a study. A sprawling industrialized metropolis and major regional port, Lagos is the largest city in tropical Africa* and the capital of the continent's most populous nation. Changes now occurring in Lagos are likely to ensue in other African cities in the near future, making our understanding of the dynamics of child spacing of regional as well as local importance.

*The last officially-recognized though widely criticized count of the Nigerian population, the Census of 1963, gave a population for "metropolitan Lagos" of slightly under one million. Most independent demographers feel that this reflects an undercount. The adjusted 1963 population is 1,135,854, while the 1980 figure is estimated as 4.40 million. This represents an annual growth rate in excess of nine percent during the 1960s and 1970s.

Initial Preparations. According to the Federal Ministry of Economic Development, Nigeria, any survey must have prior written approval of the relevant state governor. To meet this directive a letter dated April 22, 1980, was sent to His Excellency, Alhaji Lateef Jakande, Governor of Lagos State. This letter was circulated to the Ministry of Health, the Chief Statistician of the Ministry of Economic Planning and Land Matters and other concerned agencies of the Lagos State Government. Since no opposition was raised by any of these, a letter granting "Permission to Conduct a Demographic Survey in Metropolitan Lagos" was sent from the Governor's Office to the chief investigator of the survey team on May 23, 1980.

In addition to securing the approval of the Governor of Lagos State, other pre-survey work consisted of several visits to the offices of the National Population Bureau (NPB) and the Federal Capital Development Authority (FECADA) to brief and enlist the assistance of relevant officials as well as to obtain up-to-date information on the project area. These two agencies provided maps of the Census Enumeration Areas, which formed the primary sample clusters, as well as copies of the questionnaires and sample designs employed in recent surveys.

After obtaining the permission of the Governor of Lagos State to conduct the survey, a special request was made to the Lagos State Commissioner for Local Government to alert all Secretaries of Local Government Areas (LGAs) to co-operate with interviewers. Since this survey necessitated

house to house visits within the sample enumeration areas, other measures included:

- (a) A press release on the nature and significance of this survey which was issued by the Director of CenSCER, University of Benin, and made available to all the major news media;
- (b) A centre-page news item about the survey carried in the Daily Times (Nigeria's largest circulating daily) of July 1, 1980;
- (c) A radio news talk by the Project Director, Dr. P.K. Makinwa-Adebusoye on the general nature of the activities of the sponsoring agency, the International Fertility Research Program, and the significance and importance of the information to be collected by the home interviewers.

Sample Selection. The study is based on a two-stage, stratified, systematic sample design. As part of the preparations for the 1973 Census of Nigeria, the results of which were subsequently rejected, Lagos was divided into Enumeration Areas (EAs). Each EA had a total population of between 750 and 1250, with an average size of approximately 1000 persons. More recently, the Federal Capital Development Authority (FECADA) divided metropolitan Lagos into four strata based principally on residential density. Each stratum was constructed such that its limits coincided with previously defined EA boundaries, and each of the four strata contained approximately the same total population.

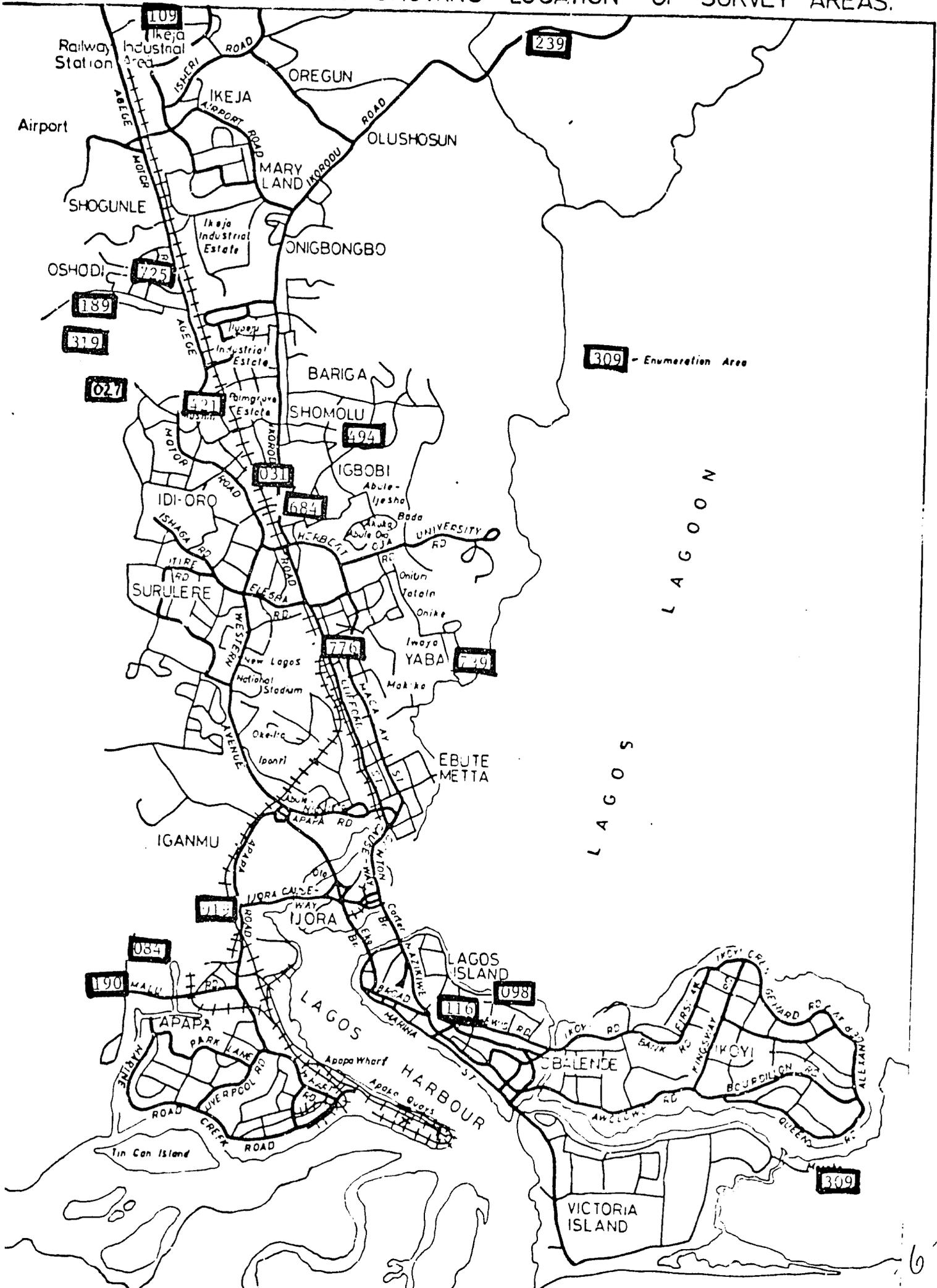
During 1979-80, FECADA conducted a survey of households and housing and living conditions in metropolitan Lagos. The study covered 175 sample EAs selected from among the four strata. Analysis of individual level data collected indicate that women between the ages of 15 and 49 constitute

slightly less than one fourth of the total population. To yield a sample in the present study of 3000 to 4000 women of reproductive age, 18 EAs were selected from among the 175 used in the FECADA survey. Figure 1 shows the location of each of these EAs within metropolitan Lagos.*

Selection and Training of Interviewers. A survey of this type which necessitates delving into delicate personal matters--fertility histories and other intimate information such as postpartum sexual abstinence--requires a special cadre of knowledgeable and tactful interviewers. Such interviewers may be recruited from among any group of educated women such as school teachers who may then be specially trained to cope with survey questionnaires. An alternative and better source of interviewers will be women who as part of previous training and current occupation are already accustomed to eliciting such personal information from Nigerian women. Accordingly, the interviewers for this survey were chosen from among well trained and highly qualified paramedical staff who were expected to require a shorter training period to become competent interviewers. The 19 women who served as interviewers for this survey were drawn mainly from the nursing staffs of Lagos General Hospital, Lagos Island Maternity Hospital and Massey Street Children's Hospital. The interviewers included two Matrons, two Senior Nursing/Midwifery Sisters, four Nursing/Midwifery

*Lagos metropolitan area was defined for the purpose of this survey to include six Local Government Areas: Badagry (Awori/Ajeromi), Lagos Island, Lagos Mainland, Mushin, Shomolu, and Ikeja. The area excludes Badagry town, and is thus slightly smaller than the area delineated by the Lagos State Government.

LAGOS METROPOLITAN SHOWING LOCATION OF SURVEY AREAS. Figure 1



Sisters, four Midwifery Sisters, one Community Health Sister, five Staff Nurse/Midwives and one Medical Interviewer from the Island Maternity Hospital's branch of the Planned Parenthood Federation of Nigeria (PPFN).

By kind permission and full cooperation of the Chief Medical Officer and the Senior Matrons in charge of the Island Maternity Hospital, the doctors' library in this hospital served as the training venue for prospective interviewers. As hospital staff usually work in three shifts, the full cooperation of the Senior Matrons was necessary to the efficient coordination of training sessions and for circulating announcements concerning the Survey throughout the three hospitals concerned.

The training session lasted for two weeks. Training was continuous and while prospective interviewers had to attend at least two sessions, some attended additional sessions. A number of women who did not volunteer as interviewers attended the training sessions to acquaint themselves with the survey objectives. At the end of the training session the interviewers met individually with the Project Director to ensure that none had any problems or doubts concerning any part of the questionnaire. A prepared manual for interviewers which formed the major material for the formal training session was later revised and updated to incorporate new ideas emanating from the initial field trials of questionnaires and the training sessions.

Fieldwork. Household interviewing in the 18 sample EAs commenced in August 1980, and continued for approximately three months. Initially, a single interviewer was assigned to each EA for the duration of the field work. This decision enabled the interviewer to become known in the

neighborhood, to find women at locations other than their places of residence, and in general to ensure the best possible coverage within an EA. This course was followed with few exceptions (replacement of an interviewer due to illness and one or two instances where intra-city transportation problems became insurmountable due to persistent high water in parts of Lagos following a period of excessive rainfall). Working on off-duty hours, including evenings and weekends, the nurse-interviewers completed 3178 questionnaires. On the whole, the interviewers did an excellent job. In only one of the 18 EAs was coverage judged by the Project Director to be substantially incomplete; in all the rest it was determined to be very good to exhaustive. Eighty-four percent of the eligible women residing in the study area were actually interviewed. The refusal rate was four percent, and an additional twelve percent could not be reached even after repeated visits by the interviewer.

Processing of Questionnaires. After the questionnaires had been returned from the field, physical checks of the questionnaires were immediately made by the supervisors to ensure that the interviewer had completed each returned questionnaire. Attempts were made to rectify any missing items. Where these were determined to be irreparable, the questionnaires were returned to the interviewers for the necessary corrections. Before coding, each of the questionnaires was once more carefully checked by the Project Director and a team of research assistants.

The actual coding of questionnaires was done in two phases by separate teams of workers. First, the circled or written response to each item was

coded into a boxed space provided* in the margin of the survey instrument. Periodic random checks of the accuracy of this work was conducted by the Project Director. At the completion of this phase, the coded questionnaires were dispatched to the International Fertility Research Program, North Carolina, for data processing and analysis. Information on the questionnaires was keypunched directly to magnetic tape. A resulting data file of 3165 records* was jointly analyzed by the Project Director and IFRP research staff.

The Study Population. The Lagos Contraception and Breast-feeding Study collected information from all women between the ages of 15 and 49 regardless of marital status. As indicated in Table 1, substantial differences exist between married and unmarried women, especially as they relate to fertility behavior and patterns of contraceptive use. For this reason, the analysis which follows, unless otherwise indicated, is restricted to the 2352 women (74% of the total sample) in the currently married state. (A subsequent report will investigate in detail the knowledge and use of and attitudes toward family planning among the 710 never-married individuals included in the study.)

The average age of currently married women is 28.3 years, substantially older than those who have never been married and younger than the small number of formerly married respondents. Over one half are between 20

*Questions that were not precoded, such as occupational status, were coded at this time; classifications recognized by the Federal Office of Statistics were utilized whenever possible.

*13 cases were deleted due to missing information.

Table 1. Selected Characteristics According to Marital Status, Lagos, 1980

	Currently Married	Formerly Married	Never Married
Mean age	28.3	36.1	18.6
Mean parity	3.2	3.8	0.1
Percent with some education	49.4	38.4	88.7
Percent previously pregnant	93.4	96.0	7.7
Percent currently pregnant	19.1	2.6	1.9
Percent with some family planning knowledge	46.8	53.9	28.5
Percent currently using family planning	23.5	21.1	12.0
Number of women	2352	76	710

and 29 years of age, 28 percent aged 30 to 39 and 11 percent are 40 and over.**

Slightly less than half the respondents have completed primary schooling. Among these women, less than three out of ten have proceeded through secondary school, and education beyond this level is extremely uncommon. Although older women have the lowest levels of educational attainment, the relationship is not strictly linear. Married women below age 25 are less educated, on the average, than those aged 25 to 29. This is most likely a consequence of the earlier age at marriage of uneducated women and their disproportionate representation at the lower ages. Husbands' educational levels are substantially higher. Over three fourths have completed primary school, and nearly half have finished secondary school or beyond.

**There is a high degree of age heaping on years ending in zero and five: 44 percent of the women--more than twice the proportion expected based on a random age distribution within each quinquennial group--report age as 15, 20, 25, etc.

Over one half of the respondents reported their occupation as "petty trader," which is broadly defined as a self-employed vendor, selling various wares or foodstuffs in local markets or other public places. Nearly thirty percent said that they were housewives, neither conducting a business from the home nor in the labor market. The remaining 20 percent was divided among professional/administrative, clerical and semi-skilled workers. Husbands were almost evenly divided among the four occupational groups described above: 26 percent in professional and administrative positions, 25 percent in trade, 23 percent clerical workers, and 20 percent semi-skilled laborers.

Fertility. At the time of the household interview, 19 percent of the currently married women said that they were currently pregnant. Ninety-three percent reported one or more previous pregnancies, 90 percent have had at least one live birth and 89 percent have one or more surviving children. The cumulative effects of high fertility and high infant and child mortality may be seen in the increasing difference between live births and surviving children with successive five-year age groups of women (Table 2). Women between the ages of 45 and 49 have had an average of nearly six and one-half live births over the course of their reproductive years, of which only slightly over five were reported as living at the time of the interview.

It is of interest to note that, unlike retrospective fertility data collected in many sample surveys in both traditional and modern societies, there is no evidence to suggest a high degree of recall error among older women. It is not uncommon for reported cumulative fertility to reach a peak among women at ages 35 to 39, and decline thereafter as children who

have died or who no longer live in the mother's home are more likely to be omitted, but this pattern does not exist with the data from the present survey.

Table 2. Mean Number of Total Pregnancies, Live Births and Surviving Children to Currently Married Women, Lagos, 1980

Age	Number of Women	Total Pregnancies	Live Births	Surviving Children
15-19	141	.94	.71	.62
20-24	577	2.02	1.76	1.58
25-29	696	3.25	2.93	2.58
30-34	434	4.48	3.94	3.50
35-39	227	5.31	4.77	4.15
40-44	171	6.48	5.78	4.58
45-49	78	7.23	6.46	5.09
Total*	2352	3.61	3.21	2.77

*Includes 28 respondents of unknown age (15-49).

Levels of current fertility are similarly high. Table 3 presents age-specific fertility and age-specific marital fertility for the twelve months preceding the study. The data have been adjusted to reflect the age distribution of women at the time of births occurring over the past year and the extreme heaping of reported past pregnancy outcomes at six-month intervals. At ages 25 and over, ASFR approaches ASMFR due to the near universality of marriage by that age.

A Total Fertility Rate (TFR) of 6.57 may be calculated from the current age-specific data given in Table 3. The TFR is calculated as the sum of age-specific birth rates (multiplied by five when data are available only for five year age groups). TFR is thus independent of the age distri-

bution of a population, and represents hypothetical completed fertility of a cohort passing through its reproductive years at age-specific fertility

Table 3. Adjusted Age-Specific Fertility and Age-Specific Marital Fertility Rates, Lagos, 1980

Age	ASFR	ASMFR
15-19	104	294
20-24	283	345
25-29	313	327
30-34	263	271
35-39	198	203
40-44	115	124
45-49*	38	32

TFR = 6.57

*Low marital fertility and several reported births to non-married women in this age group produce this apparent anomaly of ASFR > ASMFR.

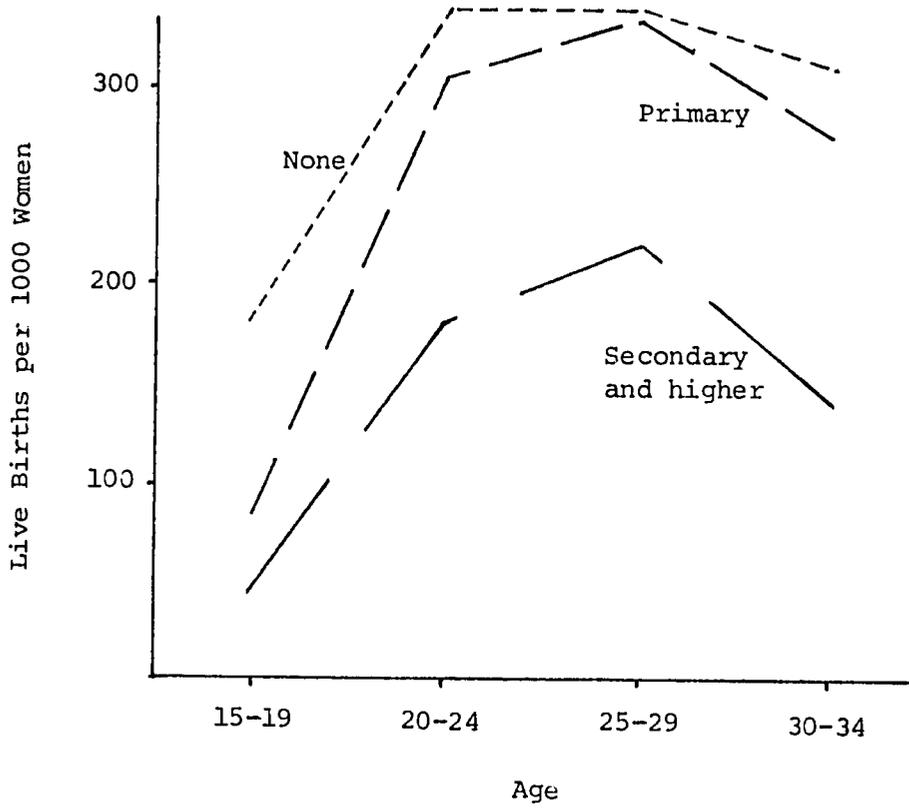
rates as currently reported. When compared with a mean cumulative fertility of 6.46 live births among all women aged 45 to 49 (Table 2), it does not appear to be the case that fertility in Lagos is on the decline. On the contrary, the present analysis suggests that current levels of fertility are, if anything, slightly higher than those of the recent past.

Morgan (1976) has suggested that there is a consistent relationship between transitional status (from traditional norms and values to modern ones) and increased fertility. According to his thesis, individuals with no education have high fertility, those with limited schooling--transitional toward modern values--even higher fertility, with lower fertility existing only among the relatively few persons with advanced education. In Figure 2 we present age-specific fertility by level of education for women aged 15-19 through 30-34 (women aged 35 and over are excluded due to insufficient numbers with primary or secondary education).

Although the data do not show a higher level of fertility among "transitional" (some education) than "traditional" (no education) women, it is clear that substantially lower fertility is found only among women with secondary or higher education.

Knowledge and Use of Contraception. The high level of cumulative and current fertility among women in the sample is reflected in the respondents' low levels of awareness and practice of family planning methods. Indeed, were it not for the relatively widespread knowledge and practice of breast-feeding and postpartum abstinence from sexual activity, these levels would be substantially lower--and fertility commensurately higher.

Figure 2. Adjusted Age-Specific Fertility, by Level of Education, Lagos, 1980



Knowledge of family planning was obtained in two ways. First, the respondent was asked "what ways or methods [that are used by couples to avoid becoming pregnant] have you heard about? Each method mentioned by the respondent was listed by the interviewer for subsequent coding. As shown in Table 4, less than half (47%) of the currently married women spontaneously reported knowledge of any means of avoiding pregnancy. One third knew of at least one modern method (nearly all of whom listed oral contraceptives). Fifteen percent said they knew of IUDs, and 14 percent volunteered knowledge of injectable contraception. Fewer than three

Table 4. Knowledge and Use of Family Planning Methods Among 2352 Currently Married Women, Lagos, 1980

	Knowledge		Use	
	Without Probing	With Probing	Ever Used	Currently Using
Any method	47%	69%	53%	23%
Modern method	34	47	17	7
Oral contraceptives	33	45	15	5
IUD	15	23	3	1
Injection	14	21	<1	<1
Female sterilization	3	6	<1	<1
Vasectomy	1	3	<1	<1
Conventional method	23	32	9	3
Condom	23	32	9	3
Diaphragm	3	5	<1	<1
Foam	2	5	<1	0
Traditional method	32	61	43	16
Prolonged breast-feeding*	17	42	31	8
Abstinence*	19	49	20	8
Rhythm	7	12	3	<1
Withdrawal	9	17	7	2
Other	na	16	3	<1

*Only if reported for family planning purposes.

percent knew of female sterilization, and only one percent knew of vasectomy. Almost one fourth of the women mentioned condoms, a higher proportion than spontaneously reported knowledge of prolonged breast-feeding (17 percent) or postpartum abstinence (19 percent) as methods of avoiding or delaying pregnancy. An explanation for this lies in the fact that breast-feeding and postpartum abstinence are normative practices which many women may not readily associate with intentional child spacing.

A second procedure, in which the interviewer read from a list of specific methods to each respondent, resulted in a considerably higher

level of awareness of child-spacing methods than the spontaneous responses had produced. The difference is greatest in the category of traditional methods (see Table 4). Nearly one half of the women said they had heard of one or more of the enumerated modern methods; almost all of these were familiar with oral contraceptives. About one third of the respondents said they knew of a conventional method* (condoms), and over three fifths knew of one or more of the traditional child-spacing practices read to them by the interviewer. In the cases of both breast-feeding and postpartum abstinence, method familiarity after probing is over twice that reported in the spontaneous responses. A substantial proportion of women in Lagos are evidently aware--when asked--that each is associated with reducing the likelihood of becoming pregnant; less than half of such women, however, tend to spontaneously consider either as a means of contraception.

Slightly over one half (53 percent) of the women have ever practiced family planning. One woman in six has used a modern method (15 percent have used pills; three percent, IUDs). Nine percent have used condoms with their partners; only a handful have had experience with a diaphragm or with foam. Although neither of the traditional methods of rhythm or withdrawal has been used by large numbers of women, the importance of breast-feeding and abstinence is clearly evident. Almost one out of every three women has practiced prolonged breast-feeding specifically as a means of avoiding pregnancy; one in five has abstained from sexual relations following the birth of a child for the same reason.

*Reported separately from "modern" methods in Table 4, but combined in all subsequent analyses.

Current Contraceptive Behavior. Of more immediate interest is the reported level of current contraceptive use. Slightly fewer than one fourth (23 percent) of the respondents are currently using a method of family planning. Seven percent are using a modern method (mostly pills), three percent a conventional method (condoms), and 16 percent are using a traditional method. A small percentage of women report the simultaneous practice of two or more methods, one of which being prolonged breast-feeding.

The percentages given in Table 4 are based on all currently married women, and thus do not depict contraceptive patterns of those **at risk** of an unwanted pregnancy. Excluding those women who were pregnant or trying to become pregnant at the time of the interview and also those who said they were no longer able to have children, an "at risk" group is identified (Table 5). One third of such women reported the current use of family planning, which includes those who were breast-feeding or abstaining (to the exclusion of other methods) only if the respondent reported that she was using either of these traditional methods to avoid or delay pregnancy. Fourteen percent were using a modern method, a rather low percentage in view of the fact that it is based on only those women who are able to become pregnant, but neither are at the moment nor are seeking to become pregnant. In short, only one woman out of every seven in need of effective family planning is using a modern method.

Breast-feeding and Abstinence. The prevalence of breast-feeding and postpartum abstinence is, quite obviously, closely related to the level of fertility in a population. No more children can be breast-fed than are born, nor can a woman abstain from sexual intercourse following the birth

Table 5. Child-Spacing Practices Among 1324
Currently-Married Fecund Women Neither
Pregnant Nor Trying to Become Pregnant,
Lagos, 1980

Practice	% Using	(N)
All family planning methods*	34%	(455)
-Modern method (incl. condom)	14%	(186)
Breast-feeding (all)	41%	(537)
Postpartum abstinence (all)	41%	(545)
Breast-feeding <u>and</u> abstinence	28%	(369)

*Includes breast-feeding and abstinence only if reported as using for "family planning" or "child-spacing" purposes.

of a child unless she has given birth to a child. These statements are intended to introduce an alternative means of analyzing the postpartum variables, recognizing that their practice is almost entirely for the purpose of spacing desired births.

To reduce the effects of biological and motivational factors on the practice of either of the postpartum variables, the following analysis is restricted to 1813 respondents whose last pregnancy resulted in a surviving live birth.* Virtually all (99%) said they breastfed their last-born child, and three fourths (76%) reported that they practiced postpartum abstinence following the birth.

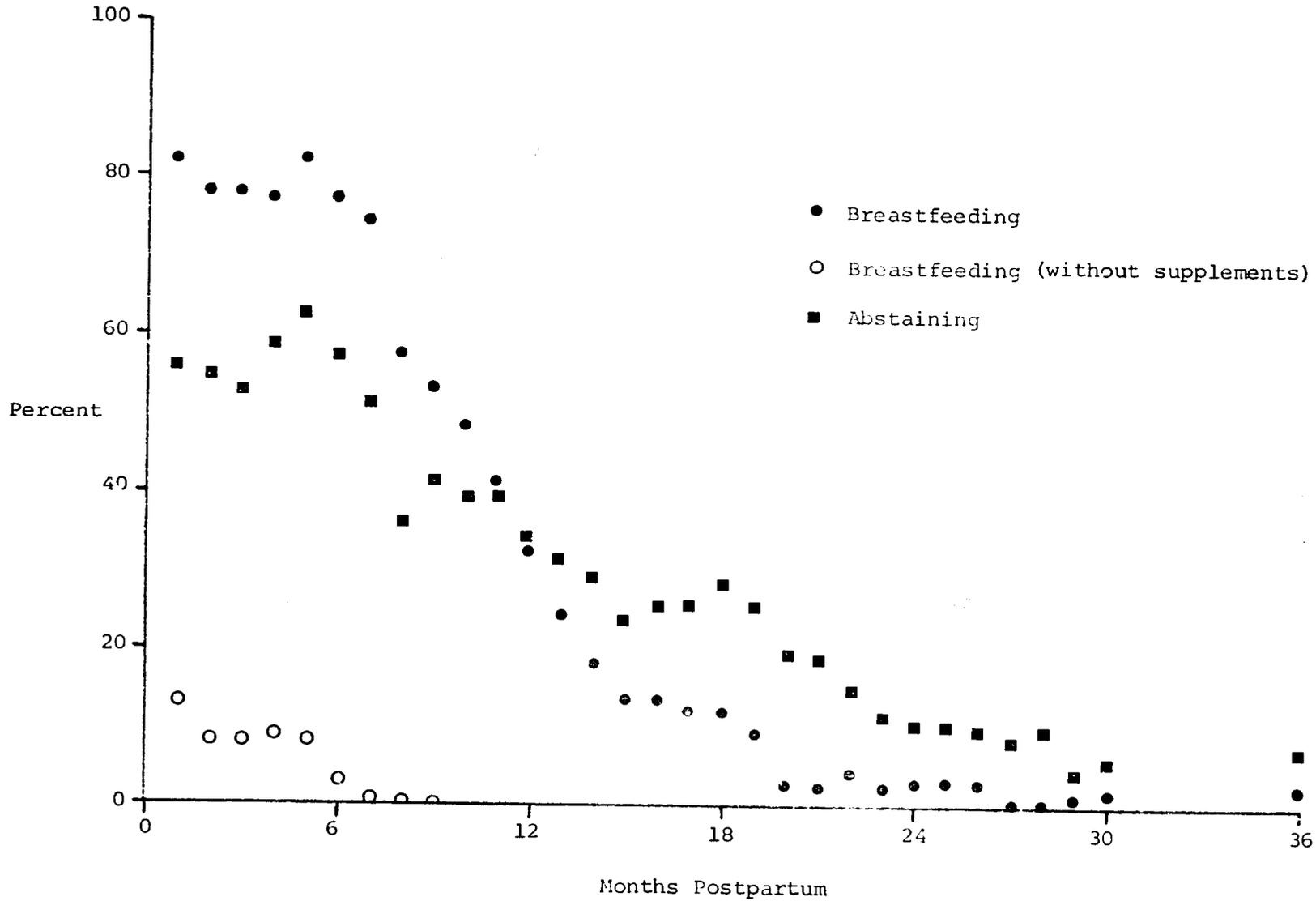
When we examine the practice of these two traditional postpartum variables from a current status perspective, however, it appears that the retrospective question (ever use during the interval) results in an

*Excluded are 315 women reporting no pregnancies, and 224 whose last outcome was other than a surviving live birth.

overestimate, particularly in the case of breast-feeding. As depicted in Figure 3, in which current practice of each variable is plotted according to the number of months since the last outcome, breast-feeding is practiced by a relatively constant 80 percent at each of the first six months postpartum. Between six and around 15 months, a rather precipitous decline apparently occurs (to 10-15%); beyond 24 months postpartum fewer than four percent continue to breast-feed. As regards the resolution of the difference between the reported universality of breast-feeding on the one hand (99% of the women reported that they breast-fed their last live-born child) and the data presented in Figure 3, we conclude that almost all mothers do breast-feed a newborn child, but the use of supplements starts at a very early age. Full breast-feeding is practiced by a very small minority of women (see Figure 3).

Of greater importance in determining the length of the postpartum amenorrhoeic period is the **intensity** rather than the duration of breast-feeding. Two questions, "How old (in months) was your last live-born baby when you gave him/her milk or food supplements?" and "Type of supplement given?" which were included in the survey instrument permit a closer look at the intensity of breast-feeding. Two thirds of the mothers of live-born children were already giving supplements, usually milk, by the time the infant had attained the age of one month; by three months an overwhelming majority, 90 percent, of the women had introduced milk or food supplements. Consequently, the contraceptive effect of lactational amenorrhoea is diminished due to the curtailment of the duration of full breast-feeding. It is

Figure 3. Breastfeeding and Abstinence in the Open Interval, Among Currently Married Women Whose Last Outcome was a Surviving Live Birth (3-month moving average), Lagos, 1980



12

widely recognized that the duration of amenorrhoea is much shorter among women who partially breast-feed than among women who fully breast-feed their infants.

Although abstinence from sexual relations following the birth of a child is practiced by **fewer** women, its use is more prolonged and does not show the sharp decline beginning at six months as plotted from current status data on breast-feeding. Furthermore, if one makes allowance for the reported practice of abstinence among women in the first three postpartum months (the difference between the points and the path of the abstinence curve at these durations is very likely those women who have not yet resumed sexual relations following childbirth but do not report it as "abstinence" per se), the retrospective proportion of 76 percent appears to fit the current status data. At 12 months postpartum, the proportion abstaining (34%) is equal to that breast-feeding; thereafter there are more women continuing to abstain than are still breast-feeding.

When the proportions breast-feeding or abstaining at each duration are summed, an aggregate measure of the practice of each may be obtained. It is the mean number of months of breast-feeding (or of abstinence) over a sufficient period to cover all--or nearly all--of the practice of each, usually 36 or 48 months. Calculated on the basis of current status data (practicing or not practicing at n months postpartum), the procedure, though not without deficiencies, yields a measure which is free of bias inherent in the recollection of closed breast-feeding or abstinence intervals. Using current status data, the mean number of months breast-feeding (through 36 months) is 9.4; for postpartum abstinence, the mean is 9.6

months. The average duration of full breast-feeding (ie, without supplements), is approximately 0.6 month.

To examine the effects of other variables on patterns of breast-feeding and abstinence, we have further limited our analysis to 1202 respondents reporting an open interval of 24 months or less. This number is three fourths of those for whom the length of the interval is known; information from those with longer intervals appears to be less reliable due to smaller sample size and, in the case of abstinence, it may reflect what is known as "terminal abstinence" which is often practiced when a desired number of surviving children is reached or when grand-maternal status is attained. Multiple classification analysis (MCA) is used to look at the impact of a change in any single independent variable on the practice of either breast-feeding or abstinence, holding constant the distribution of all other independent variables as well as the length of the interval.

The grand mean for breast-feeding is .38, which means that 38 percent of the women included were currently breast-feeding at the time of the survey (Table 6). With all other variables plus the length of the interval controlled, we see that 15 to 19 year-olds with a surviving pregnancy outcome in the past 24 months are considerably more likely to be breast-feeding than are older women, especially those aged 40 and over. Breast-feeding is positively associated with parity and family planning knowledge, and negatively associated with level of education. Breast-feeding bears an expected positive relationship with the mother's work status: housewives and women working in the home are found to be more likely to be breast-feeding than are women working outside the home.

Table 6. Adjusted Proportions Currently Breast-feeding and Abstaining, by Age, Parity, Education, Work Place and Family Planning Knowledge (Multiple Classification Analysis for Currently-Married Women, Open Interval \leq 24 months, Child Surviving), Lagos, 1980

	Breast-feeding		Abstinence
	Any	Full	
Grand mean (N = 1202)	.38	.02	.36
Adjusted proportion			
Age			
15-19 (N = 54)	.50	.01	.43
20-24 (N = 346)	.42	.02	.39
25-29 (N = 422)	.38	.02	.38
30-34 (N = 236)	.35	.03	.31
35-39 (N = 103)	.33	.02	.29
40-49 (N = 41)	.13	.00	.24
Parity			
1 (N = 203)	.30	.01	.30
2-3 (N = 558)	.37	.02	.35
4-6 (N = 365)	.43	.02	.41
7 or more (N = 150)	.47	.02	.36
Education			
None (N = 594)	.44	.03	.42
Primary (N = 458)	.32	.01	.30
Secondary or more (N = 150)	.32	.01	.30
Work place			
Housewife (N = 221)	.38	.04	.29
Works at home (N = 393)	.44	.02	.43
Works outside home (N = 333)	.31	.02	.27
Not reported (N = 225)	.38	.01	.42
Family planning knowledge			
No (N = 629)	.36	.02	.37
Yes (N = 573)	.40	.01	.35

Education and work outside the home--both of which are correlates of a modernizing population--are associated with lower levels of breast-feeding.

Table 6 also shows that 36 percent of all women with a surviving outcome up to 24 months ago are currently practicing postpartum abstinence. We observe, however, that the similar grand means for the two postpartum variables mask two sharply differing distributions as presented in Figure 3. Women with some educational background are less likely to be abstaining, as are women working outside the home. Knowledge of modern family planning bears no strong relationship to the practice of abstinence. It may be that more traditional women, who are less likely to be familiar with family planning, practice abstinence without considering it to be a method of avoiding pregnancy (in the same manner as an adherent of the rhythm method may deny she is practicing contraception).

Women working at home are usually those with little or no education, are self employed in petty trading, crafts and service occupations such as hair plaiting and dress making. As such they exhibit different contraceptive patterns and fertility behavior from those of their more educated counterparts who are paid employees and work outside their homes. It is among the former group that most adherents of traditional practices such as prolonged breast-feeding and postpartum sexual abstinence are likely to be found. This statement is substantiated by the findings of the present survey which show that a greater proportion of women who work at home breast-feed and/or abstain than their counterparts who work outside the home. The category of women who are classified as housewives in this survey is a mixture of the uneducated or poorly educated women who have no marketable skills, as well as a group of more highly educated westernized women who are outside the labor force but form the core of voluntary organizations in Lagos. The heterogeneous nature of this group, not foreseen in the design

of the questionnaire, likely accounts for its intermediate position between the two work status groups in the use of traditional practices.

Use of Health Care Facilities. A substantial proportion of the women included in the study have made use of available health facilities, usually public hospitals and private clinics serviced by trained health personnel. About 80 percent of those who have been pregnant attended antenatal clinics by the time they were four months pregnant, the modal number of visits being eight (reported by 51 percent of the respondents). Eight out of every ten mothers (79%) delivered the last live-born baby in hospitals or clinics.

As expected, the higher the educational level of a woman the more likely she is to have made use of health facilities. Seventy-five percent of the women who did not receive antenatal care, and over two thirds (69%) of those who delivered the baby at home had not had any formal education (Table 7). The proportion of women receiving antenatal care from a physician is 66 percent among women educated beyond primary school level, 55 percent among those with partial or completed primary education and only 43 percent among women with no education. Similarly, 79 percent of the women in the highest educational level delivered the last live-born baby in a hospital as compared with 64 percent and 53 percent, respectively, among women with primary and no education. It is interesting to note that women with primary or no education are much more likely than those with higher level education to have visited a nurse/midwife before delivery and to have delivered the baby in a clinic.

Table 7. Use of Health Care Facilities by Level of Education
Among Women with at least One Pregnancy, Lagos, 1980

	Level of Education		
	None	Primary	Secondary
Antenatal care			
From physician	43%	55%	66%
From nurse-midwife	33	33	25
From other source	5	5	2
No antenatal care	<u>19</u>	<u>7</u>	<u>7</u>
Total	100%	100%	100%
Number of women	(1065)	(740)	(292)
Last delivery			
Hospital	53%	64%	79%
Clinic	20	19	13
Home	20	11	5
Other	<u>7</u>	<u>6</u>	<u>3</u>
Total	100%	100%	100%
Number of women	(1033)	(730)	(282)

One fifth (19%) of the respondents reported having had one or more spontaneous abortions (miscarriages). Five percent said that they had terminated a pregnancy by means of induced abortion. Nearly all of the former group (96%) and a substantial majority (70%) of the latter, received outside care following the abortion.* The principal source of treatment following either type of abortion is hospitals or clinics: public facilities are more favored for care following miscarriage, and private ones are more likely to be used by women requiring treatment following induced abortion. As reported by the respondents, about half the cases for each type of abortion resulted in complications.

Desire for Family Planning Services. All current or past users were asked why they practiced family planning. The overwhelming reason was to "postpone" the next pregnancy (84 percent) as opposed to "avoiding" a future pregnancy (15%); almost all in the latter category were aged 40 and over and of high achieved fertility. Clearly, the acceptability of family planning among married women in Lagos is almost entirely restricted to the spacing of desired births (see Ware 1976 for an exposition of similar findings from other studies in West Africa). Such is the function of both breast-feeding and abstinence; the demand for modern contraceptive services will doubtless come from women no longer practicing, or not continuing for as prolonged durations as in the past, these traditional methods of child spacing.

*The illegal status of induced abortion most probably accounts for this difference.

All women, regardless of current contraceptive status, were asked if they were interested in using a method to "prevent or postpone" pregnancy. Thirty-nine percent replied in the affirmative, of which 25 percent were interested, but "not at the present time." Almost one half (48%) of those interested in future use have not yet reached a decision on a specific method. Of those who have, pills and condoms are favored almost to the exclusion of all other methods.

Fourteen percent, roughly one of every seven respondents, indicate a desire to practice contraception at the present time. Nearly one half (48%) of them wish to use pills, followed by 20 percent who prefer condoms and eight percent preferring an IUD.

Although the current use of modern contraception is far higher among those expressing an interest in pills (31%) than for the entire sample (5%), there remains a substantial number of potential method switchers (10% who are using traditional methods only) and new users (58% not practicing contraception). Over two thirds of those expressing an interest in oral contraception are currently protected by either less effective methods or no method at all.

Conclusion. This survey documents a number of important findings relating to reproduction and contraception among currently married women in Lagos. First, it appears that the level of fertility currently prevailing is at least as high as it has been in the recent past. Women with higher education do show lower fertility, but it is only among the comparatively few with schooling through the secondary level and beyond that the difference is appreciable. Second, the use of effective modern methods of

contraception is limited to a small minority of the population. Even among those who state that they are not trying to become pregnant, fewer than one woman in six is practicing modern family planning. Third, although traditional methods of child-spacing remain deeply-rooted, their demographic impact is considerably less than in the past. Not only is the average duration of breast-feeding declining, its contribution to the length of the postpartum amenorrheic period may be far less than previously thought. Data on the initiation of supplemental feeding by breast-feeding mothers reveals that full breast-feeding lasts, on average, for less than a month. As it is the **intensity** of breast-feeding, rather than the number of months it continues, which is thought to affect the return to ovulation, previous indices based on aggregate duration may be seriously misleading. Fourth, the demand expressed for family planning services is clearly for spacing purposes. Of those indicating a preference, fewer than one percent are interested in a permanent method. Pills are preferred by a clear majority, followed at a distance by condoms and IUDs.

For women who are abandoning traditional child-spacing practices, there is an urgent need for alternative means of family planning. The availability of safe and effective modern contraceptive services is today far from a reality in the urban centers of sub-Saharan Africa, but it must be recognized as a compelling need if couples are to be able to have the number of children they wish to have, and to space pregnancies adequately to insure the optimal health of both mother and children.

References

- Acsadi, G., A. Igun and G. Johnson. 1972. Surveys of Fertility, Family, and Family Planning in Nigeria. Institute of Population and Manpower Studies, University of Ife.
- Adegbola, O., H.J. Page and R. Lesthaege. 1977. Breast-feeding and Post-partum Abstinence in Metropolitan Lagos. Presented at the Annual Meeting of the Population Association of America, St. Louis, April 1977.
- Bamisaiye, A., C. De Sweemer and O. Ransome-Kuti. 1978. Developing a Clinic Strategy Appropriate to Community Family Planning Needs and Practices: An Experience in Lagos, Nigeria. *Studies in Family Planning* 9:44-48.
- Bracher, M. and G. Santow. 1981. Some Methodological Considerations in the Analysis of Current Status Data. *Population Studies* 35:425-437.
- Brass, W. 1975. Methods for Estimating Fertility and Mortality from Limited and Defective Data. Laboratories for Population Statistics, University of North Carolina at Chapel Hill.
- Caldwell, J.C. 1977. The Economic Rationality of High Fertility: An Investigation Illustrated with Nigerian Survey Data. *Population Studies* 31:5-28.
- _____ and P. Caldwell. 1977. The Role of Marital Sexual Abstinence in Determining Fertility: A Study of the Yoruba in Nigeria. *Population Studies* 31:193-217.
- _____ and A. Igun. 1970. The Spread of Anti-natal Knowledge and Practice in Nigeria. *Population Studies* 24:21-34.
- Dow, T.E., Jr. 1977. Breast-feeding and Abstinence Among the Yoruba. *Studies in Family Planning* 8:208-214.
- Ejiogu, C. 1975. Metropolitanization: The Growth of Lagos. In J.C. Caldwell (ed.), *Population Growth and Socioeconomic Change in West Africa*. Columbia University Press, New York.
- Jelliffe, D.B. and E.F.P. Jelliffe. 1978. *Human Milk in the Developing World*. Oxford University Press, Oxford.
- Kent, M.M. 1981. Breast-feeding in the Developing World: Current Patterns and Implications for Future Trends. Population Reference Bureau, Washington.
- Lesthaege, R., H.J. Page and O. Adegbola. 1981. Child-Spacing and Fertility in Lagos. In H.J. Page and R. Lesthaege (eds.), *Child-Spacing in Tropical Africa: Traditions and Change*. Academic Press, New York.

- Mabogunje, A.L. 1976. The Population Census of Nigeria, 1973. In J.T. Coppock and W.R.D. Sewell (eds.), Spatial Dimensions of Public Policy. Pergamon Press, Oxford.
- Makinwa, P.K. 1976. Government Policies and Population Growth in Nigeria. Presented at the Annual Meeting of the Population Association of America, Montreal.
- McCann, M.F. et al. 1981. Breast-feeding, Fertility and Family Planning. Population Reports, Series J, Number 24.
- Morgan, R.W. 1976. Yoruban Modernization and Fertility in Lagos. In Smithsonian Institution, New Perspectives on the Demographic Transition (Occasional Monograph Series, Number 4).
- _____ and P.O. Ohadike. 1975. Fertility Levels and Fertility Change. In J.C. Caldwell (ed.), Population Growth and Socioeconomic Change in West Africa. Columbia University Press, New York.
- Okediji, F.O. et al. 1976. The Changing African Family Project: A Report with Special Reference to the Nigerian Segment. Studies in Family Planning 7:126-136.
- Olusanya, P.O. 1969. Nigeria: Cultural Barriers to Family Planning among the Yorubas. Studies in Family Planning 37:13-16.
- _____. 1975. Population Growth and Its Components: The Nature and Direction of Population Change. In J.C. Caldwell (ed.), Population Growth and Socioeconomic Change in West Africa. Columbia University Press, New York.
- Page, H. J. and R. Lesthaege (eds.). 1981. Child Spacing in Tropical Africa: Traditions and Change. Academic Press, New York.
- Perez, A., P. Vela, R. Potter and G. Masnick. 1971. Timing and sequence of resuming ovulation and menstruation after childbirth. Population Studies 25:491-503.
- Taylor, C., J. Newman and N. Kelly. 1976. The Child Survival Hypothesis. Population Studies 30:263-279.
- Van Ginneken, J.K. 1974. Prolonged Breast-feeding as a Birth Spacing Method. Studies in Family Planning 5:201-206.
- Ware, H. 1976. Motivations for the Use of Birth Control: Evidence from West Africa. Demography 13:479-493.
- Wilbur Smith Associates. 1978. Demographic Analysis of Lagos Metropolitan Area 1978-2000. Master Plan for Metropolitan Lagos, Technical Report No. 1.

APPENDIX

Survey Questionnaire

UNIVERSITY OF BENIN
Centre for Social, Cultural and
Environmental Research (CenSCER)



3234

BREASTFEEDING. CONTRACEPTIVE USE AND CHILDCARE AMONG LAGOS MOTHERS

We are studying changes in the Nigerian Family. This is an important research that will aid in planning for the welfare of women and children in Lagos. The interview is short and will take little of your time, what ever information you supply are entirely confidential so please co-operate with us.

Locality _____ E.A. No. _____

Local Government Area _____

Building/Compound No. _____ Dwelling Unit _____

Household No. _____

Name of Interviewer _____

Interview Visits

	1st	2nd	3rd
Date of visit			
Interviewer's Name			
Result (Use Codes)			

1. Questionnaire completed
2. Questionnaire only partly filled out
3. Interview postponed until _____
4. Refused: specify reason _____

Time Interview started _____ Time Ended _____

Language Used _____

PART A

HOUSEHOLD SCHEDULE

H1. Questionnaire number _____

H2. Interviewer's name _____ and number _____

For Official Use			
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 1-4
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> 5-6

H3. District/Sector identification _____

For Official Use

7 - 11

H4. Name of Household head _____

H5. Household address _____

H6. Number of persons residing in household. _____

Male 12 - 13
 Female 14 - 15

Males _____ Females _____

H7. Number of women aged 15 to 49 years residing in this household

16

H8. INTERVIEWER: Obtain the following information for each woman aged 15 to 49 years residing in this household. If no woman aged 15 to 49 years in this household, end the interview.

	Name	Age Years	Marital Status	No. Chrn. Alive	No Chrn. Dead	Marital Status* Live Births					
						Age					
(1)						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17 - 21
(2)						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	22 - 26
(3)						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	27 - 31
(4)						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32 - 36
(5)						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	37 - 41
(6)						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	42 - 46
(7)						<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	47 - 51

*0) never married

(1) previously married

52

(2) currently married

80

PART B

INDIVIDUAL SCHEDULE

1. In what month and year were you born?

Month _____ Year _____

month

5 - 8
Year

2. How old are you? (completed years) _____

9 - 10

INTERVIEWER: remember to circle only one correct answer.

3. What is your present marital status?

- 1) married
- 2) consensual union
- 3) separated, divorced
- 4) widowed
- 5) never married

11

4. What is the highest level of schooling you have completed?

- 1) primary
- 2) modern
- 3) secondary
- (4) Teachers' Training College
- 5) Technical College
- 6) University, 1st degree
- 7) Postgraduate, professional
- 8) Unknown; refuses to answer.

12

5. What Certificate did you obtain on completing full-time education? _____

13

6. What is the highest level of schooling that your husband has completed?

- 0) none
- 1) primary
- 2) Modern
- 3) secondary
- 4) Technical College
- 5) Teacher's Training College
- 6) University, 1st degree
- 7) Postgraduate professional
- 8) not currently married.

14

7. What is your ethnic origins?

- 1) Yoruba
- 2) Ibo
- 3) Hausa
- 8) other, specify _____

15

8. What is your occupation? _____

16

9. What is your husband's occupation?
Not currently married _____

17

10. Are you self-employed? (not working for anyone)

- 0) no
- 1) Yes

18

11. Is your husband self-employed? (not working for anyone)

- 0) No
- 1) Yes
- 8) Not currently married

19

12. (If salaried) What is your salary level and number of years at that level?

Level _____ No. Years _____

(If non-salaried) How much income do you earn monthly?

- 0) does not work
- 1) less than ₦100
- 2) ₦100-199
- 3) ₦200-399
- 4) ₦400-599
- 5) ₦600-799
- 6) ₦800-)and above

13. (If salaried) What is your husband's salary level and number of years at that level?

Level _____ N.o. Years _____

If non-salried) How much income does your husband earn monthly? (Circle correct answer.)

- 0) does not work
- 1) Less than ₦200
- 2) ₦100-199
- 3) ₦200-399
- 4) ₦400-599
- 5) ₦600-799
- 6) ₦800 and above
- 8) not currently married

14. How much income do you both (together) earn monthly?

- 1) less than ₦200
- 2) 200-399
- 3) 400.599
- 4) 600-799
- 5) 800-899
- 6) 1000-1199
- 7) 1,200 and above
- 8) not currently married

For Official Use

20

21

22

INTERVIEWER: Calculate this after completing the interview.

15. Do you earn a part of your income in kind (goods and/or services)?

0) No _____ 1) Yes _____

For Official Use

23

16. Does your husband earn a part of his income in kind?

0) No

1) Yes

8) not currently married _____

24

17. How much time (one way) does it take you to get to work?

0) None (housewife; works at home)

1) Less than 30 minutes

2) 30 - 59 minutes

3) 1 - 2 hours

4) over 2 hours.

25

18. What means of transportation do you usually use to get to work?

0) does not work outside the home

1) drives own automobile (car, motorcycle etc.)

2) drives employer's automobile

3) rides in someone else's automobile

4) bus/danfo/molue

5) taxicab

6) walks

8) other, specify _____

26

19. (If uses automobile) How many miles (round Trip) do you travel to and from work each day?

miles _____

27 28

20. (If uses other transportation) What is the total cost of your travel to and from work each day?

N _____

29

21. Is it necessary for you to make regular arrangements for child-care while you are working?

- 0) No → ask Question 22
- 1) Yes → ask Question 23 and 24

30

22. Why it is not necessary to make such arrangements?

- 1) no children under age 18 living at home
- 2) does not work
- 3) works inside the home
- 8) other, specify _____

31

23. What child-care arrangements have you made?

- 1) in own home by relatives
- 3) in relative's home
- 4) in someone else's home
- 5) at School or group-care centre
- 8) other, specify _____

32

24. What is the average weekly cost of child-care to you?

- 0) no cost
- 1) less than ₦10.00
- 2) ₦10 - 14
- 3) ₦15 - 19
- 4) ₦20 or more _____

33

25. Are you pregnant now?

- 0) no
- 1) not sure
- 2) yes

34

26. Have you ever been pregnant before?

- 0) no → skip to Question 53
- 1) yes → continue with Question 27

35

	For	Official	Use
27. How many living children of your own do you have _____ (8 or more - 3)	<input type="checkbox"/>		36
28. How many babies did you have born alive that later died? _____	<input type="checkbox"/>		37
29. How many live births have you had? _____	<input type="checkbox"/>	<input type="checkbox"/>	38 - 39
30. How many babies did you have that were born dead? _____	<input type="checkbox"/>		40
31. How many miscarriages and induced abortions have you had? _____	<input type="checkbox"/>		41
32. Let's see now, that makes _____ pregnancies altogether, is that right? (Total of Question 29, 30 and 31, less multiple births)	<input type="checkbox"/>	<input type="checkbox"/>	42 - 43
33. What was the outcome of your last pregnancy? 1) live birth; still living 2) live birth; deceased 3 stillbirth 4) miscarriage 5) induced abortion 8) other, specify _____		<input type="checkbox"/>	44
34. How long ago did your pregnancy end? (in months; 96 or greater - 96) _____ months	<input type="checkbox"/>	<input type="checkbox"/>	45 - 46
35. Did you receive antenatal care during your last pregnancy? 0) No → skip to Question 38 1) Yes, from physician 2) Yes, from nurse-midwife 8) Yes, from other source, specify _____		<input type="checkbox"/>	47
36. During that month of your last pregnancy did this care begin? month _____	<input type="checkbox"/>		48

37 How many times did you visit a clinic/hospital for antenatal care during your last pregnancy?

(8 or more - 8)

_____ times

38. Where was your last bay born?

1) home

2) hospital

3) clinic

8) other, specify _____

INTERVIEWER: Ask Question 39 through 51 only if the respondent has had at least one live birth.

39. Did you practice sexual abstinence after the birth of your last live-born baby?

0) No → skip to Question 42

1) Yes continue with Question 40

40. Age of child (in months) when you resumed sexual

activity _____ months

(still practising sexual abstinence - 88)

41. Why did/do you abstain from sexual relations at that time?

1) to avoid unwanted pregnancy

2) to regain strength

3) social taboo

8) other, specify _____

42. Did your last live - born baby receive any postnatal care?

0) No

1) Yes, from physician

2) Yes, from nurse-midwife

8) Yes, from other source, specify _____

43. Did you breast-feed your last live-born baby?

0) No → skip to Question 49

1) Yes proceed to Question 44

For Official Use

49

50

51

52 - 53

54

55

56

42

44. How many months did you breast - feed your last live-born baby?

_____ months

(Currently breast-feeding - 88)

57 - 58

45. Did you practice contraception at any time while you were breastfeeding your last live born baby?

0) No _____ ask Question 46

1) Yes _____ ask Question 47 and 48

59

46. Why not?

1) because contraception reduces milk supply

2) because contraception makes milk bad

3) no need to contracept while breastfeeding

8) other, specify _____

60

47. What method did you use?

1) pills

2) IUD (loop)

3) Sterilization

4) Condoms (Durex, Rubber)

8) other, specify _____

61

48. How old (in months) was your baby when you started using this method?..

months _____

62 - 63

49. Why did you not breast-feed or stop breast-feeding your last live-born baby?

0) not applicable (still breast-feeding)

1) become pregnant

2) employment reasons

3) illness

4) illness of child

5) death of child

6) insufficient milk

7) maturity of child

8) other, Specify _____

64

50. How old (in months) was your last live-born baby when you first gave him/her milk or food supplements?
months _____
(no supplement given - 88)

65-66

51. Type of supplement given:
0) none (breast-feeding only)
1) milk supplements
2) other food supplements

67

52. The last time you were pregnant, did you want to be?
1) Yes
2) No, didn't want any more children
3) No, wanted more children but at a later time

68

53. Do you think that you are (still) able to become pregnant?
0) No
1) Not sure → ask Question 54
2) Yes → skip to Question 55

69

54. Why do you think that you cannot become pregnant?
0) menopause (no longer menstrating)
1) wife of husband contraceptively sterilized
2) not able to have children as a result of a medical operation or procedure
3) have been attempting to become pregnant for at least three years, but without success
8) other, specify _____

70

55. Do you want any (more) children at any time in the future?
0) No
1) Yes, trying to become pregnant
2) Yes, want more children but not at the present time
8) other, specify _____

71

21

56. Do you think it is possible for a woman to become pregnant during the time she is breast-feeding?

- 0) No
- 1) Not sure
- 2) Yes

7 2

57. Would you be interested in finding a way to avoid pregnancy and to have sexual relations at the same time?

- 0) No
- 1) Yes

7 3

58. Do you know about any ways or methods that are used by couples to avoid becoming pregnant?

2 8 0

If Yes ask Question 59 and continue

If No ask Question 60 and continue.

5

59. What ways or methods have you heard about?

	<u>Yes</u>	<u>No</u>
Abstinence (living apart)	1	2
Prolonged breast feeding	1	2
Rhythm (safe period)	1	2
Withdrawal	1	2
Condom (rubber, Durrex)	1	2
Foam, jelly	1	2
Diaphragm	1	2
Injection	1	2
Oral Tablets (pill)	1	2
IUD (loop)	1	2

6

7

8

9

10

11

12

13

14

15

45

74. What is/was the last contraceptive method you have used? (circle correct answer).

- 00) never used any method _____ Go to Question 79
- 01) Prolonged breastfeeding
- 03) Rhythm (safe period)
- 04) Withdrawal
- 05) Condom (rubber, Durex)
- 60) Foam, jelly
- 07) Diaphragm
- 08) Iniection
- 09) Oral Tablets (pill)
- 10) IUD (loop)
- 11) Female Sterilization
- 12) Male Sterilization
- 13) Traditional methods
(specify) _____
- 14) Other, specify _____

31 - 32

75. Are you still using this method?

- 0) No
- 1) Yes

33

76. Why are you using (did you use) contraception?

- 1) to avoid any future pregnancy
- 2) to postpone the next pregnancy
- 8) other, specify _____

34

77. Where do (did) you or your husband obtain the method you are now using (last used)?

- 0) supply not necessary (rhythm, withdrawal, etc.)
- 1) hospital
- 2) family health clinic
- 3) private physician/clinic
- 4) pharmacy
- 8) other, specify _____

35

78. How much time does (did) it normally take you to get to this place?

- 0) supply not necessary
- 1) less than 15 minutes
- 2) 15-29 minutes
- 3) 30-59 minutes
- 4) 1-2 hours
- 5) over 2 hours

 36

79. How do (did) you normally get to this place?

- 0) supply not necessary
- 1) walk
- 2) public transportation
- 8) other, specify _____

 37

INTERVIEWER: Ask Question 80 through 85 only if the respondent is not currently contracepting.

80. Do you want to use a contraceptive method to prevent or postponed pregnancy

- 0) no → skip to Question 81
- 1) Yes, but not at the present time
- 2) Yes, now
- 8) do not know

 38

81. What method would you prefer to use?

- 1) pills
- 2) IUD
- 3) Sterilization
- 4) Condoms (Durex, Rubber)
- 5) Injection
- 6) Foam, jelly
- 7) Diaphragm
- 8) Any method (no preference given)
- 9) Other, specify _____

 39

82. Where would you go to obtain this method?

- 0) does not know → *Go to Question 85*
- 1) family health clinic
- 2) private physician/clinic
- 3) pharmacy (chemist)
- 8) Other, specify _____

40

83. What method of transportation would you normally use to get to this place?..

- 0) does not know
- 1) walk
- 2) public transportation
- 3) private transportation
- 8) Other, specify _____

41

84. How much time would it take you to get to this place?

- 0) does not know
- 1) less than 15 minutes
- 2) 15-29 minutes
- 3) 30-59 minutes
- 4) 1-2 hours
- 5) over 2 hours.

42

85. Why are you not using contraception at the present time?

- 01) currently pregnant
- 02) trying to become pregnant
- 03) postpartum amenorrhea (not yet menstruating after recent child birth)
- 04) breast-feeding
- 05) menopause (no longer menstruating)
- 06) subfecund, infertile (having trouble getting pregnant)
- 07) postpartum abstinence (not with husband due to recent childbirth)
- 08) not sexually active
- 09) does not think she can become pregnant
- 10) side effect from past use
- 11) fear of side effects
- 12) general health reasons
- 13) opposition of husband

- 14) religious reasons
- 15) costs too much
- 16) does not have time to obtain supplies
- 17) does not know where to obtain supplies
- 18) does not have any knowledge of contraception
- 88) other, specify _____
- 99) unknown, not stated

43 — 44

I'd like to conclude by asking a bit more about any previous pregnancies you may have had that we haven't covered.

86. How many miscarriages (spontaneous abortions) have you had altogether?

None \longrightarrow skip to Question 91
 _____ spontaneous abortions

45

87. What was the date of your last miscarriage?

month Year 46 — 49

88. Were there any complications at the time of your last miscarriage?

0) No \longrightarrow skip to Question 91
 1) Yes

50

89. Did you receive care from anyone following your last miscarriage?

0) No \longrightarrow skip to Question 91
 1) Yes

51

90. Where did you receive treatment at the time of your last miscarriage?

- 1) public hospital/clinic
- 2) private hospital/clinic
- 3) pharmacy (chemist)
- 4) own home
- 5) home of friend or relative
- 8) other, specify _____

52

91. How many induced abortions have you had altogether?

Abortions _____

(If none \longrightarrow skip to Question 96.)

53

92. What was the date of your last induced abortion?

month _____ Year _____

month

Year

54 - 57

93. Were there any complications at the time of your last induced abortion?

0) no → skip to Question 96

1) yes

58

94. Did you receive care from anyone following your last induced abortion?

0) no → skip to Question 96

1) yes

59

95. Where did you receive treatment at the time of your last induced abortion?

1) public hospital/clinic

2) private hospital/clinic

3) pharmacy (chemist)

4) own home

5) home of friend or relative

8) other, specify _____

60

96. Would you prefer to obtain contraceptives from a person in your community other than a doctor and from a place other than a hospital or clinic?

0) no, not interested in obtaining contraceptives

1) no, not interested in extra-medical source

2) no opinion

3) yes

61

Questions 97 and 98 reserved for interviewer.

97. _____

62 - 63

64 - 65

EA