

New data for evidencing and estimating the prevalence of traditional contraceptive use in sub-Saharan Africa

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INTRODUCTION

Globally, an estimated 92 million women aged 15-49 years currently use traditional methods of contraception (UNDESA, 2022), primarily withdrawal and periodic abstinence. Yet family planning interventions have focused almost exclusively on modern methods. This has left traditional methods, and those who use them, on the margins of family planning programmes. Recent research has suggested systematic underestimation in reported rates of traditional contraceptive method use in nationally representative surveys such as the Demographic and Health Surveys (DHS), Multiple Indicator Cluster Surveys (MICS), and the Performance Monitoring for Action (PMA) (Marston et al., 2017; Polis et al., 2021; Rossier et al., 2014). For instance, data from a nationally representative community-based survey in Ghana put the prevalence of rhythm at 13.6% compared to the DHS estimate of 4.8% (Ghana Statistical Service (GSS) & ICF, 2022; Polis et al., 2021).

The underestimation of traditional methods primary stem from the framing of questions on contraceptive use in surveys, data collection approaches and the procedure taken by surveys in reporting only the most effective method of contraception when a respondent reports using more than one method (Marston et al., 2017; Polis et al., 2021). For example, there is evidence that including words such as “method” and “using” in survey questionnaires prime respondents to focus on modern methods in their responses, and that adding probing questions on traditional methods in contraceptive use studies substantially increases their levels of reported use (Polis et al., 2021; Rossier et al., 2014; Staveteig, 2017). These gaps point to the need to accurately measure and better understand the prevalence of traditional method use relative to modern methods.

In this paper, we describe a new dataset from a cross-country comparative study on the measurement of and motivations for the use of traditional contraceptive methods in the Democratic Republic of Congo (DRC), Ghana, Kenya and Nigeria. In addition to describing the data, we examine the effects of various methodological innovation on the estimates of traditional and modern contraceptives in this new dataset. The data is from the research study “Re-Examining Traditional Method Use” (“TEAM-UP” for short) that was designed to provide data to; (a) to better measure the true prevalence of traditional methods of contraception and (b) to understand women and men’s motivations for using these methods.

STUDY DESIGN AND DESCRIPTION OF DATASET

TEAM-UP was implemented in four countries (DRC, Ghana, Kenya and Nigeria) with diversity in traditional and modern contraceptive use rates, selected to provide cross-country comparative data. The TEAM-UP consortium was led by the African Institute for Development Policy (AFIDEP), and funded by the Bill and Melinda Gates Foundation (BMGF). The data were collected between May 2021 and March 2023. The data was collected in two phases, involving four data collection stages (see figure 1 in appendix 1). The first phase was the piloting of both qualitative (Stage 1) and quantitative (Stage 2) data collection, followed by a household and women’s survey (Stage 3) and post-survey qualitative data collection (Stage 4). This resulted in four distinct datasets.

Qualitative pilot–stage 1

This formative phase collected exploratory data on the ways in which traditional methods are understood as well as how community norms, gender power relations and structural factors encouraged and constrained the use of traditional methods in the study sites. As a central focus of the qualitative pilot was to explore how people understand “traditional” and “modern” contraceptives,

interviews did not impose definitions of modern or traditional methods. In-depth interviews and focus group discussion (FGDs) were conducted in two sites in each country—see appendix 2 for KII and FGD participant list by country. The key informants in the IDIs included women users of traditional methods and family planning providers including formal health care workers and traditional healers/birth attendants. The FGDs were segmented by age, marital status and sex. This resulted in the following groups: older married women (40 years and above+), older unmarried women (40 years +), younger married women (18-39 years), younger unmarried women (18-24 years), older married men (40 years +) and younger unmarried men (18-24 years).

The qualitative pilot transcripts provide rich and detailed data on how traditional contraceptive methods are understood, defined and labelled across the four countries. Notably, the participants in the FGDs and KIIs generally understood or associated traditional methods with the use of herbs, concoctions made from various ingredients and substances as well folkloric methods. “Natural methods” were often used by respondents to describe withdrawal and rhythm¹. The findings of the qualitative pilot helped shape the way questions were phrased and how methods were defined in the subsequent quantitative pilot.

Quantitative pilot–stage 2

Stage 2 of the pilot data collection involved testing of two versions of a pilot survey instrument, Version A and B, administered in the same sites where the qualitative pilots were conducted. The goal of the quantitative pilot was to address two key methodological questions; (1) do modifications to current instruments used in national surveys result in different estimates of traditional methods? and (2) which modifications, for example, using locally defined names of methods, prompting and probing, or changing the order of questions, elicit different information compared to surveys such as DHS and PMA)?

Version A of the pilot survey instrument largely followed the standard DHS and PMA formats with minor modifications, including adding two fertility awareness-based methods (basal body temperature and cervical mucus) to the list of methods of contraception, asking questions about contraceptive use in the last 6 months, and questions about contraceptives used with particular sexual partners (for women with multiple sexual partners). Questionnaire B was more experimental, borrowing from the DHS and PMA format with the same minor modifications as in Version A, as well as more substantial modifications, including: probing questions for knowledge and use of all methods, starting with traditional methods and then modern methods; asking about number of sexual partners in the past 6 months; questions on reasons/motivations for using specific traditional methods; questions on reasons for concurrent use of different methods or method types (e.g., traditional with modern); and questions on contraceptive method switching and motivations for switching.

The pilot survey completed interviews with a total of 918 women (involving 467 interviews with version A and 451 with version B). The results showed that the percentage of women using traditional contraceptive methods in the two versions of the pilot questionnaire was identical at 7.1% (see appendix 3), suggesting that ordering of probing questions (i.e., starting with either traditional or modern methods) had no impact on the reporting of traditional method use. The percentage of women using modern methods was slightly higher in version B compared to A.

Quantitative survey–stage 3

Version B of the pilot questionnaire was adapted for the main survey, given the depth of data it could provide on contraception use dynamics and motivations, and confidence in its comparability to other

¹ For example, one of the key informants in Lagos (Nigeria) gave this description “...We have the natural method and the medical aspect. Natural aspect has to do with maybe using of ovulation calendar, to see when the individual is ovulating and withdrawal method is still part of natural method. ...We also have the traditional method where some people believe in the use of ring, so when you put on the ring you will not get pregnant...”.

survey approaches established through the methodological pilot. The questionnaire was revised to include key modifications designed to provide new and improved data on traditional method use: **(a) Follow-up questions on contraceptive method use asked of all respondents;** Unlike DHS and PMA, TEAM-UP provided detailed descriptions of each method for probing, and asked follow-up questions on contraceptive to all women including those who spontaneously reported not using any of the listed contraceptive methods. **(b) Probing questions on use:** The TEAM-UP survey asked probing questions about method use for all methods. This contrasts with the DHS and PMA approach, which probes only for method knowledge, not use. **(c) Differentiating methods as reported spontaneously or after probing:** TEAM-UP data specifies whether methods reported by respondents were spontaneously mentioned or reported only after probing on a specific method. This data allows for analysis of which methods are likely to suffer underreporting in surveys that do not probe on all methods. **(f) Collecting data on other sexual practices:** TEAM-UP survey questionnaire included questions on sexual practices other than penile-vaginal intercourse such as masturbation, oral sex, anal sex, intercrural sex and use of sex toys/aids that women or couples might use to delay or avoid pregnancy.

TEAM-UP used a gridded population sampling technique to generate sample frames across all the data collection sites. Enumeration areas and households were randomly selected through a multi-stage sampling technique. A total of 13,633 women from 10,141 eligible households were interviewed. This sample comprised 4,014 women in DRC; 2,584 women in Ghana; 3,620 in Kenya and 3,415 women in Nigeria.

Regarding the characteristics of the sample, 43% of the women in DRC were aged 15-24 years while 31% of Nigeria sample in this age group. With regards to education, about 85% of the sample in DRC had secondary or higher education (88.6% in Kinshasa, 65.2% in Mai-Ndombe), which is close to the 88.9% in the last DRC DHS. For Nigeria, 82% of women in our sample had at least some secondary education, slightly lower than the 89.9% in the 2021 Malaria Indicator Survey. In Kenya, 51% of the pooled sample had at least some secondary education, compared to 58% nationally in the 2022 DHS. The percentage with no education (4.6%) is close to the national figure (5.5%). In Ghana, 60% of women across the two TEAM-UP sites had secondary or higher education, compared to 70% nationally in the 2022 DHS. In terms of the marital status of the respondents, 41% of the TEAM-UP sample (Kinshasa and Mai-Ndombe) were currently married, slightly lower than the 46.5% reported in the 2014 DHS; 12.3% were living with a partner while 40.6% had never been married. In Ghana, 40.5% of the TEAM-UP sample was currently married, similar to the 40% in the 2022 DHS. About 12% of the Ghana sample was living with a partner (close to the 14.6% in DHS) while 37.2% had never been married, similar to the 35.1% in DHS. For Kenya, 59.9% of the sample was currently married, higher than the 48.1% in the 2022 DHS while 23.5% have never been married, lower than the 32.5% in DHS.

Effects of modifications on contraceptive prevalence estimates in TEAM-UP survey data

We analysed the TEAM-UP survey data to examine the effects of the various methodological modifications on estimates of traditional and modern method use. The analytic sample comprised married/in-union and non-married sexually-active women. We show estimates of contraceptive prevalence when using the standard approach of only reporting the most effective method of contraception when a respondent uses more than one method. The results also show the effect of follow-up questions on contraceptive method use asked of all respondents and differentiating methods as reported spontaneously or after probing.

In general, the results show that probing increased reported use of both traditional and modern methods in all the four countries, but the levels of reporting varied (see appendix 4). The results for DRC show that probing increased the percentage of women reporting traditional method use by 2.4% and modern methods by as much as 12%. In Ghana, probing increased modern methods by nearly 5% and traditional methods by about 1%. The results further indicated that follow-up questions on

contraceptive methods use asked of all women including those that were not currently using a method captures users who probably interpreted the filter question about using any method as only pertaining to modern methods or had recall issues. In DRC, the percentage of women that reported not using any method decreased by as much as 14.5% after follow-up questions on all women. The percentage of non-use declined by about 6% in both Ghana and Nigeria while the decrease in Kenya was 3%, the lowest of all the countries.

We revised the standard estimation approach to account separately for women using traditional and modern methods concurrently or interchangeably. Such women are often categorised as modern method users in the standard estimation approach, on the basis of relative efficacy. In the revised approach, we present only the results after accounting for the probing and compare these with the estimates from the standard approach. Overall, the results show that the standard estimation approach underestimates traditional method use (see appendix 5). The results show that 11% of the women in DRC classified as modern method users also used traditional methods. In Ghana, nearly 10% of the women used modern and traditional methods concurrently or interchangeably while almost 6% of women in Nigeria were concurrent users of such methods. Concurrent traditional and modern method use was lower in Kenya at 4.3%. These results, particularly in Ghana, show that traditional method use is not as negligible as may be suggested when using the standard estimation approach

Post-survey qualitative data collection–stage 4

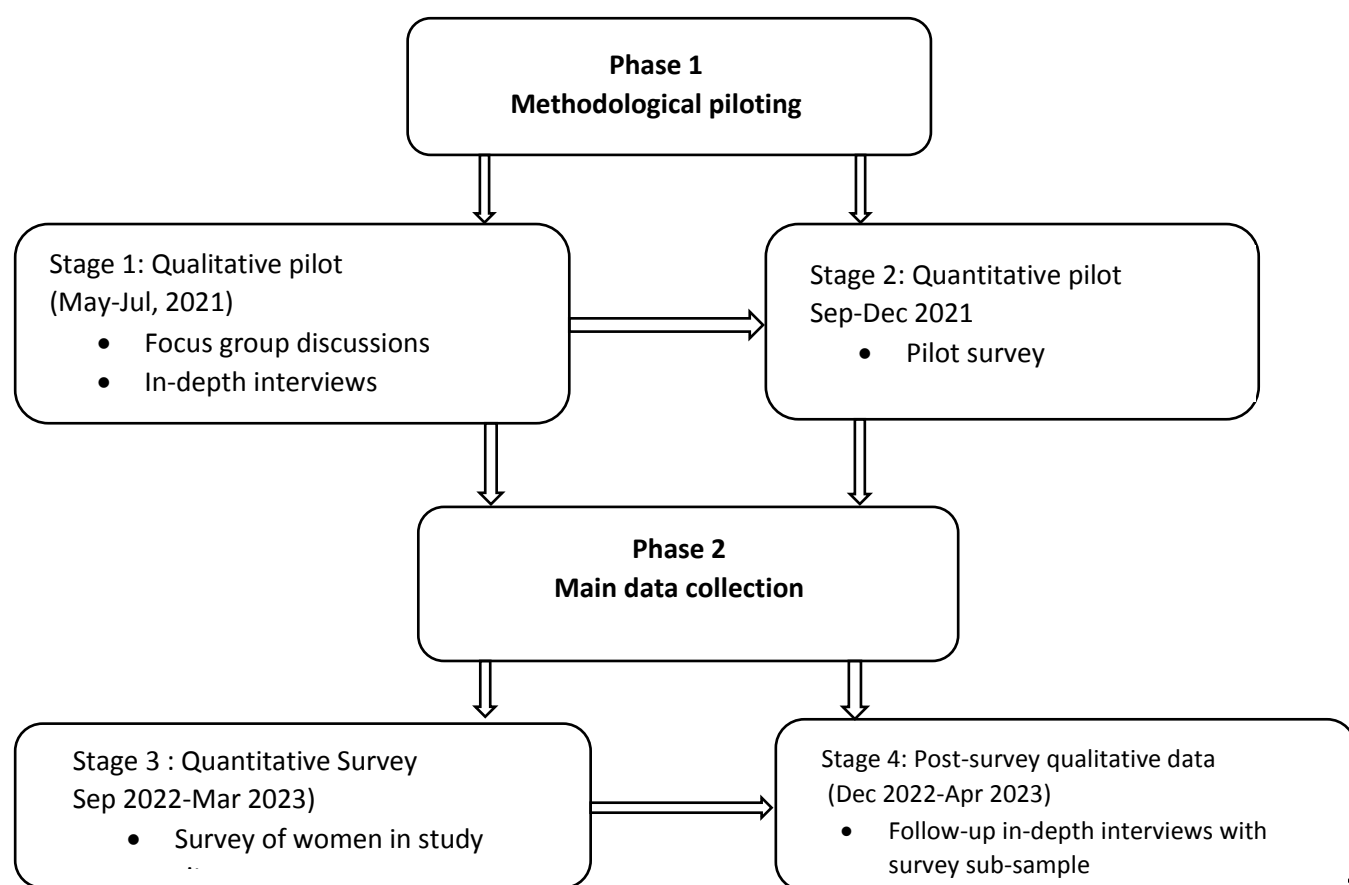
The last stage of data collection was in-depth interviews (IDIs) using a structured interview guide, to gather more information on specific findings emerging from the survey. Interviews were conducted with women and men: women from a sub-sample of respondents from the quantitative survey and men who were partners of the respondents and other men in the communities. See appendix 7 for the number of participants interviewed in each country. Interviews were audio-recorded after consent was obtained. The audio-records of the interviews were translated and transcribed verbatim into English or French (for DRC). French transcripts were then translated into English, with quality checks by the project team in each country to ensure that the text-based transcripts accurately reflected the audio recording.

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Appendices—Figures and Tables

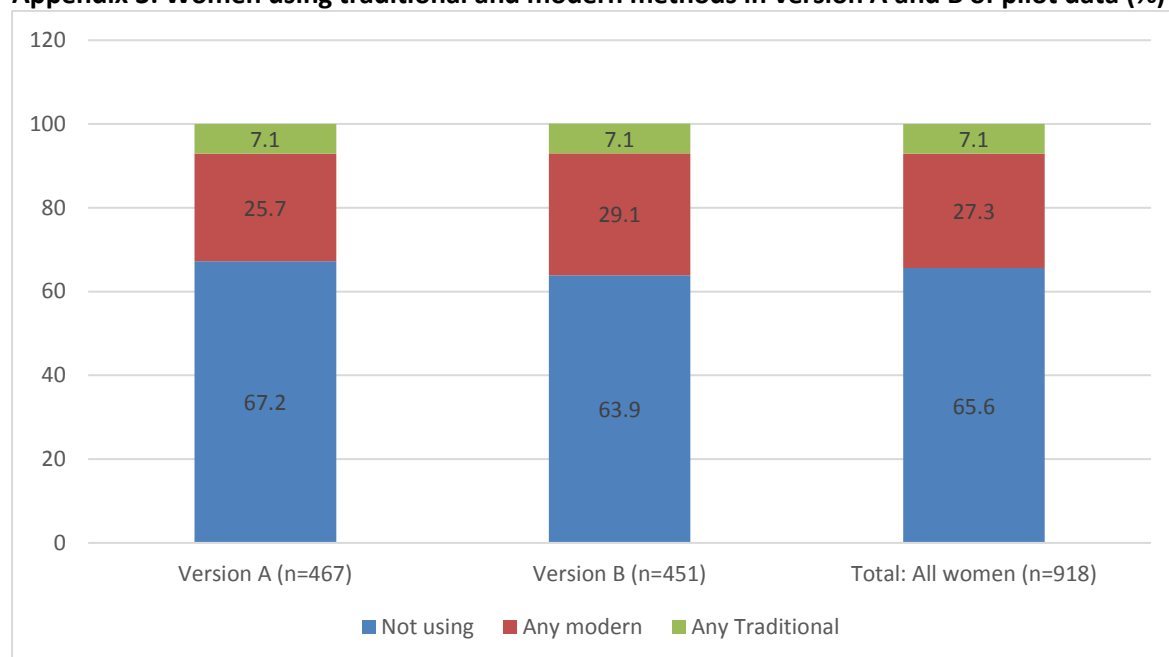
Appendix 1: Flow chart of TEAM-UP study design



Appendix 2: Number of FGDs and KIIs conducted by country, TEAM-UP, 2021

Country	FGDs	KIIs	Total
Ghana	14	22	36
Nigeria	12	20	32
Kenya	16	20	36
DRC	12	19	31
Total	54	81	135

Appendix 3: Women using traditional and modern methods in version A and B of pilot data (%)



Appendix 4: Percent distribution of current traditional and modern contraceptive use by country

Standard estimation approach	DRC n=2,533	Ghana n=1,637	Kenya n=2,546	Nigeria n=2,256
Reported use before probing				
Any modern method	510 (20.2)	414 (25.3)	1,407 (55.3)	454 (20.1)
Traditional method	227 (9.0)	78 (4.7)	100 (3.9)	273 (12.1)
Not using	1,796 (70.9)	1,145 (70.0)	1,039 (40.8)	1,529 (67.8)
Reported use after probing				
Any modern	815 (32.2)	491 (30.0)	1,464 (57.5)	549 (24.3)
Traditional method	288 (11.4)	97 (5.9)	119 (4.7)	311 (13.8)
Not using	1,430 (56.4)	1,049 (64.1)	963 (37.8)	1,396 (61.9)
Difference after probing (%)				
Any modern	+12	+4.7	+2.2	+4.2
Traditional method	+2.4	+1.2	+0.8	+1.7
Not using	-14.4	-5.9	-3.0	-5.9

Appendix 5: Percent distribution of current traditional and modern contraceptive use by country

Revised estimation approach	DRC n=2,533	Ghana n=1,637	Kenya n=2,546	Nigeria n=2,256
Only modern method	537 (21.2)	336 (20.5)	1,353 (53.2)	421 (18.7)
Concurrent use	278 (11.0)	155 (9.5)	111 (4.3)	128 (5.7)
Only traditional method	288 (11.4)	97 (5.9)	119 (4.7)	311 (13.8)
Not using	1,430 (56.4)	1,049 (64.1)	963 (37.8)	1,396 (61.9)