

## **Overestimating unmet need? Underreporting of traditional contraceptive methods in Demographic and Health Surveys: Results from Ouagadougou, Burkina Faso**

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### **Background**

“Unmet need for family planning” is one of the most widely used indicators to measure progress in family planning programs worldwide (Bradley et al. 2012). Unmet need is a key indicator of progress for both Millennium Development Goal 5, and the FP2020 efforts, born of the pledge made at the 2012 London Summit on Family Planning to increase access to family planning in the world’s 69 poorest countries by 2020. In this paper, we argue that estimates of unmet need are greatly overestimated, at least in some settings, due to a systematic underreporting of traditional method use in Demographic and Health Surveys (DHS).

DHS data indicate that traditional methods are not very popular: only 6.1% of women in union are reported to use a traditional method across Sub-Saharan Africa, compared to 15.7% for modern methods (UN 2011). Worldwide, estimates show that nine out of ten contraceptive users rely on a modern method (Alkema et al. 2013). In Sub-Saharan Africa, however, smaller, more localized studies have tended to show a different picture of traditional method use. The prevalence of traditional methods has been found to be high in Nigeria (Okpani and Okpani 2000), Cameroon (Johnson Hanks 2002), Uganda (Byamugisha et al. 2007), Zambia (Kabonga et al. 2010), Ghana (Abdul-Rahman 2011), and the DRC (Mathe et al. 2011).

Underreporting of traditional methods in large-scale surveys is a longstanding methodological issue. In developed countries, traditional methods of contraception were widely used to space and limit childbirths until the late 1960s (Van de Walle 2005, Rossier et al. 2004). When modern methods of contraception became widely available, national surveys were rolled out to measure the diffusion of these new methods. When the first contraceptive surveys were conducted in France in 1968 and 1978, researchers noticed that the use of traditional methods seemed to be underreported, and so added specific questions regarding traditional methods to correct for this bias (Sardon 1986). Women tended to associate the notion of contraception only with the new, modern methods, even when practicing traditional methods of pregnancy prevention. The DHS do not currently ask questions specific to traditional methods, leaving the strong possibility that a similar underreporting phenomenon is taking place in developing countries today, and that more specific questions on traditional methods may reveal a greater number of women currently using these methods than previously thought.

In this paper, we examine to what extent traditional methods such as periodic abstinence and LAM are underreported by women in DHS surveys. We compare the 2010 DHS traditional method use rates in Ouagadougou, the capital of Burkina Faso, to the results of a health survey conducted by the Ouagadougou Demographic and Health Surveillance System (Ouaga HDSS) that same year. Correcting the 2010 DHS data for Ouagadougou for the underreporting of traditional methods, we then compute a new “unmet need for family planning”, and compare it to published results.

Even if “unmet need for family planning” is much lower with a more complete reporting of traditional methods, “unmet need for modern methods” remains unchanged. While traditional methods, like

withdrawal, periodic abstinence or postpartum amenorrhea, have a relatively low degree of efficacy, some natural methods have been systematized and have gained scientific legitimacy, in particular the Standard Days Method (SDM) and the Lactational Amenorrhea Method (LAM). Whether these "modernized" traditional methods should be more heavily promoted remains an open question. However, with the current push to expand access to long-acting and easy to deliver hormonal methods, the focus of the family planning community has been elsewhere. Our results show that a significant proportion of women may be interested in methods like SDM and LAM, and that it would behoove family planning programs to pay more attention to traditional methods users.

## Methods

The Ouagadougou Health and Demographic Surveillance System (Ouaga HDSS) was established in 2008 by the Institut Supérieur des Sciences de la Population (ISSP) at the University of Ouagadougou (Rossier et al. 2012). The Ouaga HDSS is a member of the International Network for the Demographic Evaluation of Populations and Their Health (INDEPTH), which includes 48 similar demographic surveillance systems in developing countries. The Ouaga HDSS follows approximately 80,000 residents living in five neighborhoods (two formal parts of the city and three informal peri-urban developments) at the northern periphery of Ouagadougou. The population studied is somewhat younger, more likely to be a rural-urban migrant, and more likely to be poor than the average city resident.

A health survey was conducted in the Ouaga HDSS areas between February and September 2010 (Rossier et al. 2012). Using the HDSS database as the sampling frame, 1941 households were randomly drawn, in three successive drawings. Households including children under 5 and adults over age 50 were oversampled in the second and third drawings. All eligible individuals were surveyed unless they declined or were absent. The overall response rate for households was 87.5%. Women ages 15 to 49 were eligible in the first sample of 791 households. Altogether, 758 women ages 15 to 49 were successfully interviewed, of whom 518 were in union. Weights taking into account the response rate and the stratified sampling procedure were calculated for each individual and used in this analysis.

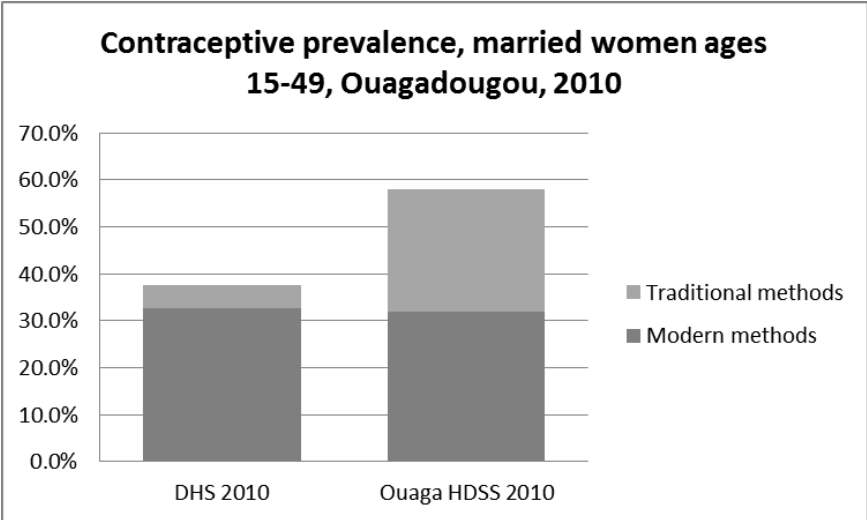
The health survey was administered in face-to-face interviews by trained fieldworkers using Pocket PCs. Women ages 15 to 49 were asked about their past and current contraceptive needs and use. This section of the questionnaire first asked about current contraceptive use using DHS wording: (*"Right now, are you doing something or are you using a method to avoid becoming pregnant?"*), after which the respondent spontaneously listed any methods she used. In addition to this standard question, we subsequently introduced three new questions on traditional method use, one on each withdrawal, periodic abstinence, and LAM. We asked women whether they were currently using each of these methods, regardless of their previous answers. The questions were phrased as follows: (*"Are you currently using the rhythm method (or periodic abstinence, or Cyclebeads [SDM, called "le Collier" or "the Necklace" in French], or the calendar method)?"*) (*"Are you currently using withdrawal?"*) (*"Are you currently using the Lactational Amenorrhea Method?"*) Fieldworkers were instructed to describe the method when necessary. A standard description of every method was provided in the fieldworkers' manual, and each fieldworker was provided with training on the relevant methods.

Using data from the 2010 Ouaga HDSS health survey, we calculate a contraceptive prevalence among women in union, first from the answers to the DHS-worded question alone, and then incorporating the follow-up questions, disaggregating by method and age. When a woman reports using several contraceptive methods, we classify her as using the most effective method cited (Trussel 2011). We then project the underreporting of traditional methods for women in union on the 2010 DHS data for Ouagadougou, calculate the unmet need for family planning with the corrected data, and compare it to the published result.

**Preliminary results**

Contraceptive prevalence in the Ouaga HDSS 2010 health survey, using the DHS wording alone, is very similar to the contraceptive prevalence found by the 2010 DHS itself. For modern method use, our survey revealed a prevalence rate of 32.0% of women 15-49 in union, compared to the DHS rate of 32.6% (INSD 2012) (Figure 1). Using the standard DHS wording on current contraceptive use, we find that 35.5% of women in union are using a method of contraception (modern or otherwise), compared to 37.6% in the 2010 DHS. When using the classic DHS wording followed with specific questions referring to traditional contraceptive methods by name, the number of married women reporting currently using a method climbs to 58.0%, a difference of 22.5% over the standard DHS wording.

**Figure 1**



For women who are doing something to avoid pregnancy (including those revealed through the follow up questions), we see that 44.9% use traditional methods, while 55.1% use a modern method (a hormonal method or the condom) (Table 1). Almost as many use traditional methods (44.9%) as hormonal methods (46.2%). The most popular traditional method among most age groups is periodic abstinence, followed by LAM, with withdrawal very rarely practiced in Ouagadougou. According to the 2010 DHS in Burkina Faso, withdrawal is the least known and used of all traditional methods there (INSD 2012).

The preference for non-hormonal methods among young married women ages 15-19 is stark. Among adolescent women in union using contraception, only 12% use a hormonal or surgical method, with condom use or extended abstinence much more highly favored. Hormonal methods of contraception

are much more likely to be used by married women after age 20. Among the 45-49 age group, more than two thirds (69%) of women preventing a pregnancy report using a hormonal method.

**Table 1: Women in union ages 15 to 49 using contraception, by method and age, Ouagadougou HDSS, Health Survey 2010**

Method	Age							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
Lactational Amenorrhea Method (LAM)	35.3%	11.4%	6.7%	11.3%	5.6%	17.4%	15.4%	11.3%
Periodic Abstinence	11.8%	30.0%	36.0%	30.2%	38.9%	30.4%	15.4%	31.2%
Withdrawal	5.9%	1.3%	3.2%	1.6%	0.0%	3.7%	0.0%	2.0%
<b>All Traditional Methods</b>	52.9%	42.9%	46.1%	43.4%	44.4%	52.2%	30.8%	44.9%
Oral Contraceptive Pills	5.9%	18.6%	22.5%	22.6%	25.0%	30.4%	23.1%	21.6%
Injectable	5.9%	17.1%	12.4%	17.0%	16.7%	13.0%	23.1%	15.0%
Implant	0.0%	11.4%	7.9%	7.5%	0.0%	4.3%	23.1%	7.6%
IUD	0.0%	0.0%	2.2%	1.9%	2.8%	0.0%	0.0%	1.3%
Sterilization, female	0.0%	0.0%	1.1%	0.0%	2.8%	0.0%	0.0%	0.7%
Sterilization, male	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>All Hormonal and Surgical Methods</b>	11.8%	47.1%	46.1%	49.1%	47.2%	47.8%	69.2%	46.2%
Condom	35.3%	10.0%	7.9%	7.5%	8.3%	0.0%	0.0%	9.0%
<b>All Modern Methods</b>	47.1%	57.1%	53.9%	56.6%	55.6%	47.8%	69.2%	55.1%
<b>Total users (n)</b>	<b>100% (17)</b>	<b>100% (70)</b>	<b>100% (89)</b>	<b>100% (53)</b>	<b>100% (36)</b>	<b>100% (23)</b>	<b>100% (13)</b>	<b>100% (301)</b>

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