Belief in Family Planning Myths at the Individual And Community Levels and Modern Contraceptive Use in Urban Africa

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Abstract

Context—Negative myths and misconceptions about family planning are a barrier to modern contraceptive use. Most research on the subject has focused on individual beliefs about contraception; however, given that myths spread easily within communities, it is also important to examine how the prevalence of negative myths in a community affects the aggregate level of method use.

Methods—Baseline data collected in 2010–2011 by the Measurement, Learning & Evaluation project on women aged 15–49 living in selected cities in Kenya, Nigeria and Senegal were used. Multivariate analyses examined associations between modern contraceptive use and belief in negative myths for individuals and communities.

Results—In each country, the family planning myths most prevalent at the individual and community levels were that "people who use contraceptives end up with health problems," "contraceptives are dangerous to women's health" and "contraceptives can harm your womb." On average, women in Nigeria and Kenya believed 2.7 and 4.6 out of eight selected myths, respectively, and women in Senegal believed 2.6 out of seven. Women's individual-level belief in myths was negatively associated with their modern contraceptive use in all three countries (odds ratios, 0.2–0.7). In Nigeria, the women's community-level myth variable was positively associated with modern contraceptive use (1.6), whereas the men's community-level myth variable was negatively associated with use (0.6); neither community-level variable was associated with modern contraceptive use in Kenya or Senegal.

Conclusion—Education programs are needed to dispel common myths and misconceptions about modern contraceptives. In Nigeria, programs that encourage community-level discussions may be effective at reducing myths and increasing modern contraceptive use.

Unmet need for family planning—defined as the proportion of women in union who are sexually active and fecund, and want to delay childbearing for at least two years or cease childbearing altogether, but are not using any method of contraception[1,2]–is high throughout Sub-Saharan Africa.[3] Many women and couples with unmet need for either spacing or limiting births do not practice contraception because they lack adequate knowledge of the social, economic and health benefits of family planning, do not know which methods are available or appropriate for them, or do not know where to obtain a method.[4] Others are discouraged from using a method because they believe that their partner, family, community or religion is opposed to contraception.

Another important barrier to contraceptive use is myths and misconceptions about modern methods, such as exaggerated or erroneous reports about side effects, misconceptions about short- or long-term health problems and negative stereotypes about persons who practice family planning.[5,6] For example, in both developed and developing countries, many women incorrectly perceive use of oral contraceptives to be more dangerous than pregnancy.[7] In a study of eight developing countries, 50–70% of women thought that using the pill posed considerable health risks.[8] According to a study in Mali, many women feared that the pill and the injectable could cause permanent infertility.[9] A qualitative study in Kenya among sexually active women aged 15–25 demonstrated that many women had misconceptions about the side effects of modern contraceptives (e.g., that they cause infertility or can harm a woman's uterus), but few had experienced or knew someone who had experienced an actual side effect (e.g., weight gain).[10] In another qualitative study in Kenya among reproductive-age women, one respondent reported that the pill "can accumulate into a life-threatening mass in the stomach, can cause blood to flow out of the nose and mouth, and can cause delivery of children with two heads and no skin."[11] Myths and misconceptions about methods can spread through informal communication via social networks and lead to continued negative perceptions.[12,13]

The prevalence of such myths and misconceptions has been demonstrated in several national-level studies[3,14,15] and in rural areas.[16] Data from the Measurement, Learning & Evaluation (MLE) project from Kenya, Nigeria and Senegal demonstrate high levels of misinformation about family planning in urban areas.[17–19] In MLE baseline surveys conducted between 2010 and 2011, at least half of the women interviewed in six cities in Senegal believed that contraceptive users will have health problems;[19] similar results were found among men. Across six Nigerian cities, the proportion of women who believed that myth ranged from 33% in Abuja to 57% in Ibadan;[18] the proportion among men was 25–48%. And in Kenya, 65–82% of women and men in the five study cities thought that contraception is dangerous to one's health.[17] At midterm MLE evaluations two years after baseline, these myths persisted among women in the three countries, although there was a slight decline.[20–22]

Inadequate and incorrect knowledge of modern contraceptives has been associated with low method uptake and use;[23] however, even in settings where knowledge of family planning is high, myths and misconceptions are associated with low demand for and use of contraceptives.[3,23] A study of 2006–2013 Demographic and Health Survey (DHS) data assessed reasons for contraceptive nonuse and found that, in 26 of the 51 countries studied, 20–50% of women who were married or in a union and at risk of unintended pregnancy reported fear of side effects and fear of health problems as their principal reasons for not practicing family planning.[3] Furthermore, among women with unmet need in Sub-Saharan African countries, 28% reported side effects and health problems as their main reasons for nonuse.[3] Myths as a reason for nonuse varied across Sub-Saharan African countries: For example, in Kenya, 43% of nonusers in 2008–2009 reported side effects and health concerns as their main reasons for nonuse, whereas in Senegal in 2010–2011, the figure was only 14% (opposition by partners and others was the most common reason in this setting).[3] This may reflect different contexts in the two countries: Kenya has higher overall contraceptive prevalence among women in and outside of union, whereas prevalence in Senegal is lower and predominantly among women in union.

Other studies have demonstrated that myths and misinformation are often related to concerns about perceived side effects or perceived future infertility.[7,11,14,15,24,25] For example, in Egypt and Kenya, fear of side effects or of having a baby with a deformity has been found to be positively associated with nonuse of modern contraceptives.[11,15] Findings from Nigeria demonstrate that fear of side effects and concerns about long-term infertility are major reasons for not using modern contraceptives.[14,24,25] Similar results were found in Mexico, where women who had never practiced contraception reported that they had chosen not to use the pill for safety reasons.[8] In cases in which women express fear of health risks from practicing contraception, misinformation may be the real barrier.

In addition, belief of myths and misconceptions about family planning has been positively associated with contraceptive discontinuation and subsequent unmet need.[6] According to findings from Mexico, a substantial proportion of urban women discontinued pill use because of fear of side effects.[8] Although some contraceptive methods have recognized side effects, previous studies have shown that when women are informed of these side effects ahead of time, they are more likely to tolerate them and continue method use or to switch to another method, rather than discontinue use.[5,26]

To date, much of the research on contraceptive myths and misconceptions has focused on individual-level attitudes and contraceptive use.[3,11,14,15,23–25] Previous research, however, has not addressed the relationship between modern contraceptive use and the proportion of women or men in a community who believe in myths about family planning. Numerous studies focused on community-level health outcomes have examined whether socioeconomic status, supply environment and quality of health care are associated with a health behavior or outcome–that is, these studies have demonstrated that women's (or men's) behaviors are associated with the behaviors or attitudes of other who live around them.[27–33] For example, Speizer et al. found that the increasing prevalence of sexual violence reported by women within a community was negatively associated with women's use of condoms at last sex and positively associated with their being HIV positive or having had an adolescent pregnancy;[34]

other studies among adults found similar results.[27,35,36] And according to an analysis of 2005–2009 DHS data from 21 African countries, contraceptive use remained associated with community demographics and fertility norms, community-level gender norms and inequalities, and health knowledge after individual factors were controlled for.[37]

Understanding how belief of myths and misconceptions about family planning in a community–in the aggregate, as well as among individuals–are associated with contraceptive behaviors is important for the development of programs and policies that aim to increase contraceptive prevalence. Latent demand for family planning may be translated into actual use if programs can dispel false perceptions about contraceptives. Moreover, understanding the myths about family planning, which often reflect community norms and attitudes, will illustrate the importance of considering strategies that go beyond individual-level knowledge and behavior change.

Methods

Data and Sample

In 2009, the Bill & Melinda Gates Foundation initiated the Urban Reproductive Health Initiative to increase contraceptive use in urban areas in four countries: India (Uttar Pradesh), Kenya, Nigeria and Senegal. For this study, we used data collected by the initiative's evaluation component, the Measurement, Learning & Evaluation (MLE) project. In each study country, the MLE project collected baseline data from representative samples of women aged 15–49 and men aged 15–59 living in intervention cities purposely selected because of their need for increased modern contraceptive use: Nairobi, Kisumu and Mombasa in Kenya; Abuja, Ibadan, Ilorin and Kaduna in Nigeria; and Dakar, Pikine, Guédiawaye and Mbao in Senegal.

Details on data collection can be found elsewhere.[17–19] Briefly, a similar two-stage sampling design was used in each country, which aimed to include a representative sample of the urban poor, where possible. In Kenya, the 2009 national census frame was used to determine whether each primary sampling unit (PSU) was informal (no land tenure/slum) or formal (land tenure/nonslum). In Senegal, municipal leaders classified neighborhoods as poor or nonpoor on the basis of the characteristics of the majority of the households; the United Nations Habitat housing criteria (type of housing, residential security, neighborhood density, access to water and access to flush toilets) were used. Classified neighborhoods were linked to the census sampling frame before selection. In Nigeria, the 2006 census sampling frame was used, but there was no way to distinguish a PSU as poor or nonpoor before or after selection. For each study city in the three countries, a representative sample of PSUs was selected; where stratification by slum or nonslum was possible, half of selected PSUs were from each group.

A random sample of households was selected (30 per PSU in Kenya, 41 in Nigeria, and 21 in Senegal) on the basis of the listing and mapping conducted in the selected PSU, as well as other sampling criteria.[*] All women aged 15–49 who had spent the previous night in a selected household were eligible for interview; in half of selected households, all men aged 15–59 who had spent the previous night in the household were interviewed. In Kenya, 5,774

women and 2,503 men were surveyed; in Nigeria, 10,353 women and 5,547 men were surveyed; and in Senegal, 5,209 women and 2,270 men were surveyed.

Women and men with no knowledge of any contraceptive method were not asked questions on myths and misconceptions–our key independent variable–and were dropped from the analysis, along with those who chose not to answer any of the myth questions. In addition, women from PSUs that contained fewer than five women providing community-level information were excluded; men from PSUs that contained fewer than five men providing community-level information were excluded. The final analytic samples consisted of 5,588 women in Kenya, 8,880 women in Nigeria and 4,952 women in Senegal.

Study methods were approved by the institutional review board at the University of North Carolina at Chapel Hill and by in-country institutional review boards in Kenya, Nigeria and Senegal.

Variables

Our outcome of interest was women's use of a modern contraceptive method, measured by asking women if they were currently using a contraceptive method and, if so, which. We considered women to be currently using a modern method if they reported using the pill, IUD, injectable, implant, emergency contraceptive pills, lactational amenorrhea method, condoms (male or female), spermicide, diaphragm or sterilization (male or female).

The key independent variables were based on agreement with specific statements reflecting common myths and misconceptions about family planning. Examples of these statements include "use of a contraceptive injection can make a woman permanently infertile" and "people who use contraceptives end up with health problems"; they were informed by prior studies on barriers to family planning use and qualitative focus group discussions conducted during needs assessment studies in some of the study sites.[10,11,38] Eight family planning myth statements were selected on the basis of cultural relevance for use in Kenya and Nigeria, and seven for use in Senegal. Response options included "strongly agree," "agree," "disagree" and "strongly disagree"; for each statement, a woman was coded 1 if she agreed or strongly agreed and 0 if she disagreed or strongly disagreed.

For the individual-level measure, we calculated the mean number of family planning myths with which a woman agreed or strongly agreed. For the community-level measures, we calculated the aggregated weighted proportion of myths with which women or men in PSUs agreed. To ensure an adequate sample size for community-level averages, we excluded PSUs with fewer than five women (for women's myths) or five men (for men's myths). The number of PSUs ranged from 153 for men in Senegal to 339 for women in Nigeria. Correlation between the women's individual-level variable and the women's community-level variable was low in all three countries (less than 0.10 in Kenya and Senegal, and 0.21 in Nigeria);

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*The PSUs come from the most recent census conducted in each of the countries. Since the census happened several years prior to our study, we conducted a presurvey exercise where we went to the selected PSUs to list all the households and to collect the geographic coordinates. The updated household list was used to select the households to participate in the study while the geographic coordinates were used to create maps that enabled the interviewers to easily locate the selected households during the main survey. The other sampling criteria were whether the cluster was poor vs. nonpoor or slum vs. nonslum.

however, the correlation between the women's and men's community-level variables was high in all three (0.77 in Kenya, 0.42 in Nigeria and 0.58 in Senegal).

Other independent variables included woman's age (coded as seven five-year age-groups), education (none or Quranic, primary, secondary, higher than secondary and missing) and religion (Muslim, non-Muslim and missing); the small number of women in Nigeria and Kenya with missing data on religion or education were dropped from the analyses. In addition, analyses controlled for marital status (never married vs. ever married), wealth (quintiles calculated across the cities within countries using household assets, similar to how they are calculated in the DHS),[39] and city of residence (for standardization, the capital city in each country was selected as the reference group).

Analyses

We used Stata version 12 for all analyses. Given a dichotomous outcome of interest, logistic regression was appropriate. We conducted three models: The first included the women's individual-level variable as the key independent variable, the second added the women's community-level variable to model 1 and the third added the men's community-level variable to model 2. All three models adjusted for sociodemographic characteristics and city of residence. In addition, all the models controlled for the country-specific clustered survey design, and all descriptive and multivariate analyses were weighted using the country-specific weights.

Results

Demographic Characteristics

More than half of women in each country were aged 20–34 (69% in Kenya, 56% in Nigeria and 55% in Senegal; Table 1, page 192). Seventy-seven percent of women in Nigeria had a secondary or higher education; 58% of women in Kenya and 36% in Senegal had that level of education. Ninety percent of women in Senegal were Muslim, whereas the same proportion in Kenya were non-Muslim; women in Nigeria were almost equally split between the two religions. The majority of women in each country were or had been married (60–68%) and, as expected, women in each country were fairly evenly distributed between wealth quintiles. In Kenya and Senegal, the highest proportion of women lived in the capital city (75% and 49%, respectively), whereas in Nigeria, the highest proportions of women were from cities other than the capital (30% from Ibadan and 29% from Kaduna).

The proportion of women who reported current use of a modern contraceptive was 42% in Kenya, 27% in Nigeria and 17% in Senegal. In Kenya, the most commonly used modern methods were the injectable and the pill (17% and 10%, respectively; not shown), followed by male condoms (8%). In Nigeria, male condoms and the injectable were the two most widely used modern methods (10% and 5%, respectively); the next most widely used were the IUD and the pill (3% each). In Senegal, the most commonly used modern methods were the pill and the injectable (5% each), followed by male condoms (3%).

Levels of Belief in Myths

In each country, the three myths most commonly endorsed by women (Table 2, page 193) were "people who use contraceptives end up with health problems" (48–74%), "contraceptives are dangerous to women's health" (47–72%) and "contraceptives can harm your womb" (37–62%). For each myth, the proportion of women in agreement was highest in Kenya. Indeed, Kenyan women believed an average of 4.6 myths; the mean number of myths believed was 2.7 in Nigeria and 2.6 in Senegal (only seven myth statements were used in Senegal, as opposed to eight in the other two countries). The pattern among men was the same; the mean number of myths believed by men was 4.3 in Kenya, 2.5 in Nigeria and 2.8 in Senegal.

The same myth statements that were most prevalent among individuals were generally found to be most prevalent at the community level (Table 3, page 194). The community-level variable for women ranged from 0.39 in Nigeria to 0.93 in Kenya; the corresponding variable for men ranged from 0.30 in Nigeria to 0.53 in Kenya. As mentioned earlier, the correlation between women's and men's community-level scores was somewhat high, which means that a community in which a high proportion of women believe in myths will also contain a high proportion of men who believe in myths.

Multivariate Analysis

The number of family planning myths women believed was negatively associated with modern contraceptive use in the first regression model for each of the three countries (odds ratios, 0.2–0.7; Table 4). For example, in Kenya, a one-point increase in the number of myths believed by a woman was associated with a 35% decrease in her likelihood of using a modern method. The significance and magnitude of the individual-level variable were unchanged in each country when the female and male community-level variables were added sequentially in models 2 and 3.

Community-level belief variables for women were not associated with modern contraceptive use in the second regression model for either Kenya or Senegal; when analyses were restricted to women in union, the women's community-level variable attained significance for Senegal, but not for Kenya (not shown). In the third model that added the men's community-level variable, neither the male nor the female community-level variable was significant in either country.

In Nigeria, however, the women's community-level variable was positively associated with modern contraceptive use in model 2 (odds ratio, 1.4). The addition of the men's community-level variable in model 3 increased the magnitude of the women's variable (1.6); the men's variable itself was negatively associated with modern method use (0.6). Yet, when we ran a model with the men's community-level variable alone and controlled for women's individual-level myths, the association lost significance (not shown).

The results for Nigeria suggested the need for a more in-depth examination, so we conducted city-level analyses (Table 5). Model 1 included the women's individual-level belief variable, model 2 added the women's community-level belief variable to model 1, model 3 added the men's community-level variable to model 1, and model 4 included all

three variables; we controlled for women's demographic characteristics in all models. The women's individual-level variable was negatively associated with modern method use in all models for the four Nigerian cities (odds ratios, 0.2–0.4). As for the community-level variables, in Kaduna, belief in myths among women was positively associated with modern contraceptive use in both the model with the individual-level variable and the full model (1.6 and 1.9, respectively); the men's community-level variable was also significant, but the association was negative (0.4–0.5). In Ilorin, women's and men's community-level variables were not significant in models 2 and 3, respectively; however, both became significant in the full model, and the associations were in the same directions as found in Kaduna (3.3 for women and 0.3 for men). In Abuja and Ibadan, the women's and men's community-level variables were not significant in any model.

Discussion

The main objective of this study was to examine associations between modern contraceptive use and individual-and community-level agreement with myths about family planning in urban Kenya, Nigeria and Senegal. As expected, we found that at the individual level, women's belief in such myths was negatively associated with use of a modern contraceptive method. Previous studies have demonstrated this relationship.[14,15,24]

As for the community level, we found important country-specific differences. In Kenya, women's and men's belief in myths at the community level were not associated with modern contraceptive use, which may reflect Kenya's higher overall contraceptive use. Interestingly, Kenya had the highest proportions of women and men reporting agreement with family planning myths. This suggests that educational activities are needed in Kenya to address these myths.

In Senegal, as in Kenya, there was no association between women's and men's agreement with myths at the community level and modern contraceptive use among all women; however, our results suggest that agreement with myths at the individual and community level is negatively associated with contraceptive use among women in union. Given that most contraceptive use in Senegal is among women in union,[19] it is not surprising that a community-level association was found for this specific group.

We found unexpected associations between community-level belief in family planning myths and women's modern contraceptive use in Nigeria: Increased community-level belief in myths among women was positively associated with contraceptive use, whereas increased community-level belief in myths among men was negatively associated with the outcome. When we examined these results at the city level, we found that Kaduna and Ilorin seem to be driving the relationships. One possible explanation of the positive associations among women in Kaduna and in Ilorin may be that these cities are rather conservative and Muslim, of the Hausa and Yoruba tribes, respectively. Compared with Abuja and Ibadan, which have more diverse populations, Ilorin and Kaduna are more ethnically and religiously homogenous;[18] thus, women in Ilorin and Kaduna are more likely to have closely knit social networks within which myths and misconceptions about family planning can be spread and are more likely to report believing those myths and misconceptions, even though they may

be using a modern method. Thus, the positive association between family planning myths and modern contraceptive use is plausible and highlights the fact that although these women had strong belief in myths, their need for contraception superseded any misconceptions about side effects of modern methods. With correct information about the mechanism of action and potential side effects of modern methods, the prevalence of modern contraceptive methods among these women could increase exponentially. Further research on the pathways through which myths and misconceptions spread within different cultural and religious populations is needed to identify appropriate ways to reduce those misconceptions.

Limitations

This study is not without limitations. First, we grouped women (and men) from a PSU to represent the aggregate belief in myths for individuals in that PSU, which is the standard approach for analyses of community-level influences using DHS data.[27–29,37] However, the use of PSUs to represent urban communities may not have been the best strategy, because women in urban settings may be influenced by individuals outside of their community (e.g., where they work, shop and visit). Future analyses that examine the cohesion of urban communities will help determine how to define "community" in complex urban settings. Second, data on women's or men's beliefs in family planning myths may reflect what they see as socially desirable responses instead of their actual beliefs; this may have been the case in conservative locations, such as Kaduna and Ilorin in Nigeria. In addition, there may have been measurement error in collecting data on belief in family planning myths, especially in northern Nigeria. For example, in Kaduna, women were reluctant to agree or disagree with myth-related statements and were more comfortable answering questions about their own behaviors than expressing opinions about general statements. This led to more missing observations in Nigeria–the site with the lowest knowledge of family planning–and, thus, a larger number of women dropped from analyses.

Program Implications and Perspectives

Our findings suggest the need for family planning programs to target myths and misconceptions about modern contraceptive methods. Mass media can be used to improve knowledge of methods and to change social norms about use.[40,41] Community mobilization and one-on-one counseling utilizing satisfied contraceptive users who can share their experiences are also ideal strategies to dispel pervasive myths. An additional strategy that is likely to reduce belief in myths, particularly among women, is the training of health workers to interact and share information with clients; these could be family planning clients or those seeking other maternal and child health services as part of integrated programming.

In places where community-level belief in myths about family planning was negatively associated with modern contraceptive use, programs are needed to encourage community-level discussions of such myths and of social norms related to contraceptive use. Programs in urban northern Nigeria (e.g., Kaduna and Ilorin) could consider strategies to improve interpersonal communication and discussion of accurate information to improve community-level attitudes. This could be achieved through the mass media (e.g., a radio drama), community outreach (e.g., street theater) or one-on-one counseling by outreach workers

visiting households and communities to influence knowledge, attitudes, skills and practices related to family planning use.

Finally, findings from this study frame an agenda for future research, including the need of qualitative studies that can be used to better understand the role of myths on family planning use in Nigeria and the relationship between the attitudes of other community members (e.g., friends and neighbors) and a woman's decision to adopt a modern method. Focus group discussions, which are usually geared toward understanding community social norms, are needed—particularly in northern Nigeria—to help clarify the effect of and the pathways through which community-level norms influence individual behaviors and if the community-level effect is moderated by gender, especially in a patriarchal society such as Nigeria's. In-depth interviews with key informants—such as the leaders of women's community groups, religious and traditional leaders—can provide insights into the mechanisms through which myths are developed and through which they can be dispelled. And ethnographic studies could help our understanding of some of the cultural and societal underpinnings that influence the development and spread of these myths and misconceptions.

Acknowledgments

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Table 1

Percentage distributions of women aged 15–49 from selected cities in Kenya, Nigeria and Senegal, by characteristics, Measurement, Learning & Evaluation project, 2010–2011

Characteristic	Kenya (N=5,588)	Nigeria (N=8,880)	Senegal (N=4,952)
Age			
15–19	10.2	14.0	18.7
20–24	29.2	17.2	22.1
25–29	24.6	20.7	18.3
30–34	15.0	17.6	14.3
35–39	10.6	14.1	12.3
40–44	6.5	9.4	8.8
45–49	3.9	7.1	5.6
Education			
None/Quranic	5.9	8.4	30.9
Primary	36.4	14.3	33.4
Secondary	39.8	48.0	29.0
>secondary	17.9	28.6	6.7
Missing	0.0	0.7	0.0
Religion			
Muslim	9.8	48.2	89.7
Non-Muslim	90.1	51.2	10.3
Missing	0.1	0.6	0.0
Marital status			
Never married	32.9	31.6	39.7
Ever married	67.1	68.4	60.3
Wealth quintile			
Poorest	17.0	16.4	18.7
Second	19.4	18.7	19.2
Middle	19.5	19.9	19.8
Fourth	20.8	21.4	19.4
Richest	23.4	23.6	22.9
City of residence			
Dakar/Abuja/Nairobi	74.8	17.4	48.8
Guédiawaye/Ibadan/Mombasa	19.8	29.6	12.6
Pikine/Ilorin/Kisumu	5.4	23.6	13.2
Mbao/Kaduna/na[†]	na[†]	29.4	25.3
Use of modern method[‡]			
Yes	42.1	26.5	16.9
No	57.9	73.5	83.1
Total	100.0	100.0	100.0

[†] na=not applicable.

‡Modern methods include the pill, IUD, injectable, implant, emergency contraceptive pills, lactational amenorrhea method, condoms (male and female), spermicide, diaphragm or sterilization (male and female).

Note: All percentages are weighted and based on analytic samples that exclude women with missing data and those from primary sampling units with fewer than five observations.

Table 2

Percentage of women and men who agree with selected family planning myths, by country

Myth	Kenya		Nigeria		Senegal	
	Women (N=5,684)	Men (N=2,477)	Women (N=9,130)	Men (N=5,041)	Women (N=5,109)	Men (N=2,244)
Use of a contraceptive injection can make a woman permanently infertile	51.7	52.1	41.0	31.2	34.0	31.6
People who use contraceptives end up with health problems	74.1	71.8	47.6	37.7	58.9	50.0
Contraceptives can harm your womb	62.1	na	42.4	na	36.9	44.1
Contraceptives reduce women's sexual urge	59.1	61.2	22.7	25.9	24.7	39.6
Contraceptives can cause cancer	55.5	51.7	25.2	30.1	24.0	26.0
Contraceptives can give you deformed babies	62.0	59.6	26.0	33.7	23.2	24.5
Contraceptives are dangerous to women's health	71.5	68.0	46.6	43.2	50.2	43.8
Women who use family planning/birthspacing may become promiscuous	35.0	40.2	23.0	25.7	na	na
Family planning/birthspacing is women's business and a man should not have to worry about it	na	15.6	na	13.9	na	na
Mean (range) [†]	4.6 (0–8)	4.3 (0–8)	2.7 (0–8)	2.5 (0–8)	2.6 (0–7)	2.8 (0–7)

[†]The average number of positive responses among eight (seven in Senegal) family planning myths.

Notes: na=not applicable. All percentages are weighted and based on women and men who know at least one modern contraceptive method.

Table 3

Mean percentage (and standard deviation) of women and men per primary sampling unit who agree with selected family planning myths, by country

Myth	Kenya		Nigeria		Senegal	
	Women (N=287)	Men (N=265)	Women (N=339)	Men (N=334)	Women (N=155)	Men (N=153)
Use of a contraceptive injection can make a woman permanently infertile	0.50 (0.15)	0.54 (0.22)	0.40 (0.18)	0.32 (0.23)	0.38 (0.16)	0.36 (0.22)
People who use contraceptives end up with health problems	0.75 (0.13)	0.75 (0.19)	0.47 (0.20)	0.39 (0.24)	0.63 (0.17)	0.53 (0.23)
Contraceptives can harm your womb	0.63 (0.17)	na	0.42 (0.18)	na	0.43 (0.18)	0.47 (0.25)
Contraceptives reduce women's sexual urge	0.61 (0.15)	0.61 (0.22)	0.22 (0.15)	0.27 (0.24)	0.30 (0.18)	0.45 (0.25)
Contraceptives can cause cancer	0.55 (0.17)	0.54 (0.23)	0.25 (0.17)	0.29 (0.23)	0.28 (0.14)	0.32 (0.23)
Contraceptives can give you deformed babies	0.65 (0.17)	0.65 (0.22)	0.25 (0.16)	0.34 (0.27)	0.27 (0.15)	0.31 (0.23)
Contraceptives are dangerous to women's health	0.71 (0.15)	0.71 (0.22)	0.23 (0.18)	0.45 (0.27)	0.54 (0.19)	0.48 (0.24)
Women who use family planning/birthspacing may become promiscuous	0.31 (0.16)	0.43 (0.22)	0.46 (0.20)	0.28 (0.23)	na	na
Family planning/birthspacing is women's business and a man should not have to worry about it	na	0.16 (0.15)	na	0.16 (0.17)	na	na
Community level (aggregate)[†]	0.93 (1.16)	0.53 (0.54)	0.39 (0.31)	0.30 (0.25)	0.71 (0.63)	0.43 (0.45)
Mean no. of observations per primary sampling unit (range)	20.1 (6–37)	9.0 (5–21)	30.5 (6–61)	16.3 (5–40)	33.6 (11–62)	14.8 (5–37)

[†]The aggregated weighted proportion of myths with which women or men in the community agreed.

Notes: N=number of primary sampling units. na=not applicable.

Table 4

Odds ratios (and 95% confidence intervals) from logistic regression analyses examining the likelihood of women's use of modern contraceptives, by individual and community-level belief in family planning myths, according to country

Model	Kenya (N=5,128)	Nigeria (N=8,377)	Senegal (N=4,562)
Model 1			
Women's individual beliefs	0.65 (0.47–0.88)[**]	0.27 (0.22–0.34)[***]	0.22 (0.17–0.29)[***]
Model 2			
Women's individual beliefs	0.65 (0.47–0.88)[**]	0.26 (0.21–0.32)[***]	0.22 (0.17–0.29)[***]
Women's beliefs at community level	1.01 (0.96–1.05)	1.43 (1.14–1.79)[***]	1.04 (0.74–1.45)
Model 3			
Women's individual beliefs	0.64 (0.47–0.88)[**]	0.25 (0.21–0.31)[***]	0.22 (0.17–0.29)[***]
Women's beliefs at community level	1.00 (0.94–1.06)	1.63 (1.29–2.05)[***]	1.00 (0.72–1.41)
Men's beliefs at community level	1.04 (0.84–1.29)	0.57 (0.41–0.79)[***]	1.08 (0.90–1.29)

[**]
p .01.

[***]
p .001.

Note: All models control for woman's age, education, religion, marital status, wealth quintile and city of residence.

Table 5

Odds ratios (and 95% confidence intervals) from logistic regression analyses examining the likelihood of Nigerian women's use of modern contraceptives, by individual and community-level belief in family planning myths, according to city

Model	Abuja (N=1,872)	Ibadan (N=2,720)	Ilorin (N=2,124)	Kaduna (N=1,640)
Model 1				
Women's individual beliefs	0.25 (0.17–0.39)***	0.26 (0.20–0.36)***	0.39 (0.27–0.57)***	0.24 (0.13–0.45)***
Model 2				
Women's individual beliefs	0.26 (0.17–0.40)***	0.26 (0.19–0.34)***	0.38 (0.26–0.56)***	0.21 (0.11–0.40)***
Women's beliefs at community level	0.79 (0.40–1.60)	1.33 (0.78–2.26)	1.40 (0.66–3.0)	1.60 (1.20–2.14)**
Model 3				
Women's individual beliefs	0.26 (0.17–0.40)***	0.26 (0.19–0.34)***	0.39 (0.27–0.57)***	0.23 (0.12–0.44)***
Men's beliefs at community level	0.55 (0.16–1.82)	1.46 (0.83–2.56)	0.61 (0.32–1.16)	0.53 (0.32–0.90)*
Model 4				
Women's individual beliefs	0.26 (0.17–0.41)***	0.25 (0.18–0.34)***	0.36 (0.24–0.53)***	0.19 (0.09–0.37)***
Women's beliefs at community level	0.92 (0.45–1.91)	1.20 (0.69–2.11)	3.29 (1.25–8.66)*	1.87 (1.36–2.59)***
Men's beliefs at community level	0.60 (0.16–2.28)	1.33 (0.75–2.38)	0.33 (0.15–0.71)**	0.38 (0.21–0.67)***

*
p .05.

**
p .01.

***
p .001.

Note: All models control for age, education, religion, marital status and wealth quintile.