

Trends in the Use of Reversible Modern Contraceptives in Burkina Faso between 2010 and 2015

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Abstract

Background: In Burkina Faso, efforts have been made between 2010 and 2015 to address the low levels of contraceptive utilization. However, the socio-cultural context in the country still reinforces traditional gender roles, low status for women, and a strong desire for larger families. The objectives of this study are twofold: 1) to analyze the trends in reversible modern contraceptive prevalence, and 2) to identify the factors influencing the use of reversible modern contraceptives, comparing the urban and rural areas. **Data and Methods:** We conducted an analysis using data from Burkina Faso sourced from the 2010 Demographic and Health Survey (DHS) and the 2015 Demographic and Health Module (DHM). The 2010 DHS received responses from 17,087 women aged 15 - 49 years, achieving a response rate of 98.4%. Similarly, the 2015 DHM garnered responses from 11,504 women aged 15 - 49 years, with a response rate of 96.6%. **Results:** Our findings revealed that while advancements were observed in urban areas, the majority of underprivileged women still faced limited access to modern contraception. Moreover, we did not observe any significant interaction effects between age and parity with the year of the survey. However, there was a slight decrease in the impact of marital status, although the difference between married and non-married women remained significant in 2015. It is noteworthy that family planning discussions and approval continued to play crucial roles. **Conclusion:** The initiatives to subsidize contraceptive costs and establish mobile clinics have proven inadequate in facilitating rural, impoverished, and young women's access to modern contraception. Additional endeavors are required to enhance geographical accessibility to modern contraceptives by expanding the

availability of supply sources, particularly in rural areas. Furthermore, providing psychosocial support has the potential to empower women in making informed contraceptive decisions and exercising greater control over their reproductive choices.

Keywords

Modern Contraceptives, Reversible Contraceptives, Contraception, Family Planning, Burkina Faso

1. Background

Modern contraceptives are recognized as crucial tools in promoting women's health, autonomy, and the ability to make choices regarding family size [1]. However, sub-Saharan Africa stands out with higher fertility rates and lower prevalence of contraception compared to other regions [2]. In Burkina Faso, the level of contraceptive use has been a recent focus of attention, with commitments made between 2010 and 2015 to address this issue. Initiatives such as the Ouagadougou partnership in 2011, the London summit in 2012, and the re-launch of family planning in 2013 aimed to increase contraceptive prevalence by 1.5 percentage points per year by 2015 [3]. Measures such as subsidizing contraceptive prices and improving service delivery through community-based distribution and mobile clinics, particularly in rural areas, were implemented [4]. Consequently, between 2010 and 2015, the prevalence of modern contraception among women increased from 15% to 22.5% [4]. Despite these efforts, the socio-cultural context in Burkina Faso continues to reinforce traditional gender roles, women's low status, and a strong desire for more children [3]. Therefore, further analysis is needed to understand the underlying factors and sustainability of this significant increase in modern contraceptive prevalence in a society where such practices face resistance.

While numerous studies have examined the association between socio-demographic characteristics and contraceptive use, particularly in sub-Saharan Africa, only a few studies have specifically focused on Burkina Faso [5] [6] [7] [8]. Factors such as age, socioeconomic status, urban-rural location, marital status, sexual activity, fertility preferences, and partner's approval have been identified as important determinants of contraceptive use [9]. The availability of contraceptive services also varies between urban and rural areas, with urban areas generally having better access [10]. Additionally, education has been found to positively influence contraceptive use by empowering women to adopt new behaviors and negotiate their reproductive choices [11]. A study conducted in Uganda has shown that higher education is associated with increased contraceptive use [12].

Age and marital status are significant factors influencing contraceptive use. Younger women are generally less exposed to the risk of pregnancy compared to

older women. Moreover, marital status plays a role, especially in societies where sexual activity and reproduction are primarily accepted within the institution of marriage. Historically, family planning programs have primarily targeted married couples, leaving unmarried individuals, including young unmarried girls, at risk of unintended pregnancies due to early sexual activity and delayed marriages [13]. So, there is an increasing need for contraception among adolescents and youth, especially for birth spacing purposes [14]. However, barriers still exist in the widespread dissemination of contraception among young people, largely due to societal stigmas surrounding non-marital sexual activity. Several studies have highlighted these barriers and the persistence of social norms and perceptions that hinder access to contraception for unmarried individuals [15] [16] [17].

Attitudinal factors, including religion, partner refusal, and discussions about family planning, have been shown to affect contraceptive use among women. Studies have found higher contraceptive use among Christians compared to Muslims [18]. The partner's opinion also plays a significant role, with women being less likely to use contraception when their partners disapprove of it [19]. FP discussions between couples have been found to positively influence contraceptive use, with women who discuss family planning with their partners being more likely to use modern contraceptives. Furthermore, women's fertility preferences, such as desiring to space or limit births, have been found to impact contraceptive use, with couples being less likely to use contraception when the woman wants more children compared to when she wants to stop childbearing [20].

Limited research has focused specifically on access to modern contraceptives in Burkina Faso, with most studies either covering multiple countries or utilizing qualitative data [21] [22]. Unmet need has been examined using 2010 Demographic and Health Survey data [23], although it does not capture the percentage of women currently at risk of unintended pregnancy and not using contraception [24]. Recent research based on PMA2020 data has primarily focused on specific contraceptive methods [5] [25] [26] [27]. Most previous studies have investigated modern contraceptive use or unmet need among all women, regardless of their current risk of pregnancy. The uniqueness of our study lies in our focus on women currently at risk of pregnancy, including both married and sexually active unmarried women who are fertile, non-pregnant, and non-amenorrheic. Additionally, we will consider women's fertility preferences in terms of their desire to space or stop childbearing. Through this research, we aim to provide evidence that can inform policy and program development in the field of family planning in Burkina Faso.

2. Data and Methods

2.1. Data

For our study, we analyzed data from Burkina Faso using the 2010 Demographic and Health Survey (DHS) and the 2015 Demographic and Health Module

(DHM). The DHS program obtained approval from the ICF Institutional Review Board (IRB) and the National Ethics Committee of Burkina Faso, while the DHM survey received approval from the National Council of Statistics in 2013. The 2010 DHS had a response rate of 98.4%, with 17,087 women aged 15 - 49 years participating. The 2015 DHM had a response rate of 96.6%, with 11,504 women aged 15 - 49 years participating. Both surveys utilized similar methodologies and questionnaires, ensuring comparability of indicators.

2.2. Study Sample and Variables

Our study focused on women currently in need of contraception, that is fertile, non-pregnant, married, or sexually active unmarried women. A respondent is sexually active if she declares to have had sex within the last 30 days. After excluding irrelevant cases, we had 5147 observations for 2010 and 3671 observations for 2015.

We constructed the dependent variable based on two questions asked to non-pregnant women. The first question was, “Are you currently doing anything or using any method to delay or avoid pregnancy?”, with possible responses of “Yes” or “No”. If the response was “Yes”, the interviewer would ask, “What method do you use?” In cases where the respondent used multiple methods, we considered the most effective one. The dependent variable, current use of a modern contraceptive method, was created by grouping contraceptive modalities according to Burkina Faso’s definition [28]. We excluded permanent methods (male and female sterilization) from the analysis to focus on reversible methods, as permanent methods were used by only approximately 0.1% of women in total across the two surveys.

The independent variables were classified into four groups. The first group comprised socioeconomic variables, including place of residence (capital, other cities, rural), educational level (no education, primary, secondary, or higher), and standard of living (categorized as poor, medium, or rich). The second group considered life stage variables, including age (grouped into three categories: 15 - 24 years old, 25 - 39 years old, and 40 - 49 years old), parity (grouped into three categories: no children, one to three children, four children or more), and marital status (in a union or not in a union, which included single women, as well as those who were separated or divorced but sexually active). The third group focused on attitudes regarding contraception, including religion (Muslim or non-Muslim), discussion of family planning with a partner (yes or no), and partner’s approval of contraception (yes or no, including cases where the partner did not approve, women without partners, or those who did not answer the question). The fourth group considered fertility preferences based on the type of family planning need, categorizing women into two groups: those with a need for spacing or a need for limiting.

2.3. Analyzes

In the descriptive analyses, we used cross-tabulation and chi-squared analyses to

determine the distribution of the two samples (non-users and users) for each survey. We also calculated the prevalence of reversible modern methods among women in the two surveys. Before conducting the multivariate analyses, we performed tests for multicollinearity among the independent variables, which indicated no multicollinearity. We employed multivariate logistic regression to estimate the likelihood of a respondent using a reversible modern method and analyzed the effects of independent variables using a final adjusted model.

To compare the differences between the two survey dates, we included an interaction term with the year of the survey. Additionally, to account for potential differences based on the place of residence, we included an interaction term with residence in an analysis of the last survey. For significant interaction effects, we presented graphs showing the average marginal effect with a 95% confidence interval, illustrating the probability of using a modern reversible method compared to the reference level. For each model, we conducted the Hosmer-Lemeshow goodness-of-fit test to assess the model's fit to the binary response data using survey data (estat gof). A p-value greater than 0.05 indicated a good fit for the model.

3. Results

3.1. Trends in the Use of Reversible Modern Contraceptives by Socio-Demographic Characteristics between 2010 and 2015

In **Table 1**, the chi-squared tests indicate that all the independent variables, except the type of family planning (FP) need, are associated with the use of reversible methods in 2010. Among fertile, non-pregnant, married, or sexually active unmarried women, 40.1% were using a modern method. The prevalence of use was nearly double in urban areas compared to rural areas. Additionally, it increased with higher levels of education and a better standard of living. When considering the woman's life stage, the level of use was similar across all age groups, although it was higher among unmarried women and decreased with an increasing number of children. In terms of attitudinal variables, non-Muslim women, those who discussed family planning, and those whose partners approved of family planning were more likely to use reversible modern contraceptives.

In 2015, there were significant associations between the independent variables and the use of reversible modern contraceptives. During that year, 55.3% of women were using a modern contraceptive, indicating a rapid growth of approximately three percentage points per year. Rural areas exhibited a 17-point increase, while urban centers saw an 11-point increase. However, despite this trend, inequalities based on the place of residence persisted. Similar patterns were observed regarding education and standard of living, where women from disadvantaged backgrounds experienced substantial increases but did not close the gap entirely.

The increase in contraceptive use was more pronounced among younger women

Table 1. Links between socio-demographic characteristics and the use of reversible modern contraceptives.

Socio-demographic characteristics	2010				2015			
	Not using		Using reversible modern method		Not using		Using reversible modern method	
	N	%	%	Chi ²	n	%	%	Chi ²
Whole sample	5147	59.9	40.1		3671	44.7	55.3	
Place of residence				323.5 (p < 0.001)				144.5 (p < 0.001)
Rural	3215	68.8	31.2		2530	51.9	48.1	
Other cities	1444	40.8	59.2		887	30.1	69.9	
Capital city	488	42.6	57.4		254	32.3	67.7	
Education level				413.9 (p < 0.001)				138.5 (p < 0.001)
None	3627	68.2	31.8		2668	51.1	48.9	
Primary	795	47.1	52.9		456	33.8	66.2	
Secondary or more	725	31.3	68.7		547	26.5	73.5	
Standard of living				434.3 (p < 0.001)				154.9 (p < 0.001)
Lower	1497	75.3	24.7		1225	56.9	43.1	
Middle	2039	64.7	35.3		1563	45.0	55.0	
Higher	1611	38.9	61.1		883	29.6	70.4	
Woman's age				6.5 (p < 0.038)				34.8 (p < 0.001)
15 - 24	1434	59.7	40.3		850	46.4	53.6	
25 - 39	2811	59.2	40.8		2072	41.7	58.3	
40 - 49	902	62.5	37.5		749	54.1	45.9	
Marital status				90.3 (p < 0.001)				17.7 (p < 0.001)
Not in a union	354	34.7	65.3		357	34.7	65.3	
In a union	4793	61.5	38.5		3314	46.4	53.6	
Number of children				102.1 (p < 0.001)				50 (p < 0.001)
No children	386	38.8	61.2		317	38.8	61.2	
1-3 children	2200	57.7	42.3		1502	39.5	60.5	
Four children or plus	2561	65.0	35.0		1852	51.0	49.0	
Religion				20.8 (p < 0.001)				7.4 (p < 0.007)
Muslim	3076	62.4	37.6		2222	47.1	52.9	
Christian and others	2071	56.0	44.0		1449	42.5	57.5	
FP* discussion				392.8 (p < 0.001)				216.4 (p < 0.001)
No	3714	67.1	32.9		2588	53.1	46.9	
Yes	1433	39.4	60.6		1083	26.6	73.4	
Partner FP approval				784.9 (p < 0.001)				828.6 (p < 0.001)
Yes	3280	45.5	54.5		2334	27.4	72.6	
No	1867	84.5	15.5		1337	76.5	23.5	

Continued

Type of FP need	1.1 (p < 0.301)			9.7 (p < 0.002)		
For spacing	3648	60.3	39.7	2597	43.627	56.4
For limiting	1499	58.9	41.1	1074	49.255	50.7

Notes: *FP = Family planning; the analysis is done on fertile, non-pregnant, married, or sexually active unmarried women in need of contraception at the time of the survey application. Proportions are weighted, but frequencies are not. Data are from the women's 2010 Demographic and Health Survey and the 2015 Demographic and Health Module of the continuous multisectoral survey.

(aged 15 - 24 and 25 - 39), women in unions, and women with children. Conversely, there was no change among women without children, unmarried women, and those without children. Although Muslim women experienced a significant increase, they still lagged behind other groups, maintaining their disadvantaged position.

A similar pattern emerged between women who discussed family planning and those who did not. Women whose partners approved of family planning witnessed an 18-point increase, eight points higher than those whose partners disagreed. Among women with spacing needs, there was a substantial 16.7-point increase in the use of modern contraceptives, while those desiring to limit child-bearing experienced an approximately eight-point increase. Consequently, women with spacing needs exhibited a higher prevalence of contraceptive use (56.4%) compared to limiters (50.7%).

3.2. Factors Associated with the Use of Reversible Modern Contraceptives in 2010 and 2015

Table 2 presents an analysis of the effects of independent variables on the use of modern contraceptives between 2010 and 2015. The first model pertains to the overall sample from both surveys, while the second model includes interaction terms with the year of the survey to highlight differences between the two periods. The first model indicates that the odds ratio (OR) of using modern contraceptives is twice as high in 2015 compared to 2010.

Regarding socioeconomic variables, the likelihood of using modern methods is 28% higher in urban areas than in rural areas, and it increases with higher levels of education and wealth. In terms of life stage variables, young women aged 15 - 25 are less likely to use modern methods, while sexually active unmarried women tend to use them more than married women. The number of children does not exhibit significant differences. Regarding attitudinal variables, women who discuss family planning are twice as likely to be users compared to those who do not, while women whose partners disapprove of family planning have a lower odds ratio of using modern contraceptives. However, based on the goodness-of-fit criteria used in this analysis, this model does not provide a good fit for the data.

The final model, which includes interaction terms, provides a better fit for the data, even though some of the interaction terms for variables such as place of residence, education, age, and parity are not statistically significant. In this model,

Table 2. Change in odds ratio of reversible modern contraceptives in Burkina between 2010 and 2015.

Variables	Adjusted effects, (standard errors) Model without interaction terms	Adjusted effects, (standard errors) Model with interaction terms
Year (ref 2010)		
2015. Year	2.016*** (0.149)	2.620*** (0.375)
Residence (ref = rural)		
2. Urban	1.285*** (0.120)	1.272** (0.119)
2015. Year#2. Urban		
Education (ref = No formal education)		
2. Primary	1.281*** (0.115)	1.287*** (0.116)
3. Secondary+	1.514*** (0.177)	1.545*** (0.176)
2015. year#2. Primary		
2015. Year#3. Secondary+		
Wealth (ref = poor)		
2. Middle	1.438*** (0.103)	1.381*** (0.124)
3. Rich	1.893*** (0.209)	2.265*** (0.299)
2015. Year#2. Middle		1.118 (0.162)
2015. Year#3. Rich		0.614*** (0.106)
Age (ref = 15 - 24 years)		
2. age3	1.303*** (0.105)	1.334*** (0.108)
3. age3	1.290** (0.152)	1.358*** (0.151)
2015. Year#2. 25 - 39		
2015. Year#3. 40 - 49		
Martital status (ref = married)		
2. Non-married	2.470*** (0.453)	3.539*** (0.871)
2015. Year#2. Non-married		0.530** (0.151)
Parity (ref = 4/morechildren)		
2. 1 - 3 children	1.137* (0.088)	1.124 (0.0831)
3. 0 child	1.035 (0.215)	1.015 (0.211)
2015. Year#2. 1 - 3 children		
2015. Year#3. 0 child		
Religion (ref = muslim)		
2. Non-muslim	1.044 (0.071)	
2015. Year#2. Non-muslim		
Discussion with partner (ref = No)		
2. Yes	2.008*** (0.138)	2.100*** (0.197)
2015. Year#2. Yes		0.875 (0.122)

Continued**Partner approval of FP* (ref = Yes)**

2. No	0.179*** (0.012)	0.200*** (0.0172)
2015. Year#2. No		0.750** (0.101)

Type of FP need (ref = for spacing)

2. Limiting	1.060 (0.088)	
2015. Year#2. Limiting		
Sample size	8818	8818
Goodness of fit: F statistic	3.33	1.60
Goodness of fit: p-value	0.0005	0.111

Notes: *FP = Family planning; The analysis is done on fertile, non-pregnant, married, or sexually active unmarried women in need of contraception at the time of the survey application. Data are from the women's 2010 Demographic and Health Survey and the 2015 Demographic and Health Module of the continuous multisectoral survey. ***p < 0.01, **p < 0.05, *p < 0.1.

the level of modern contraceptive use has more than doubled (2.6 times) between the two periods. The differences between categories and the reference groups remained largely unchanged. Significant changes, indicated by significant interaction terms, were observed in household wealth, marital status, and partner approval. These differences are illustrated in **Figure 1**.

Figure 1 illustrates the following trends: In 2010, the likelihood of using modern contraceptives increased with higher levels of wealth. However, in 2015, the two higher wealth categories (Middle and Rich) were no longer statistically different, although they remained consistently different from the poor category. Regarding marital status, sexually active unmarried women were more likely to use modern contraceptives compared to married women. Although there was a decreasing trend in the differences between these two categories, the change was not significant as the confidence intervals of 2010 and 2015 overlap. The difference based on partner approval appears to have increased between the two periods, as women whose partners disapproved of family planning had significantly lower chances of using modern methods in 2015 compared to 2010.

3.3. Factors Associated with the Use of Reversible Modern Methods by Place of Residence in 2015

Table 3 presents the associations between various factors and modern contraceptive use in 2015, specifically focusing on the place of residence. The results indicate that education, religion, and the type of family planning need were not significantly associated with modern contraceptive use. At the overall level, urban women were 50% more likely to use modern contraceptives than rural women. However, no significant differences were observed based on education levels, parity, religion, or type of family planning need.

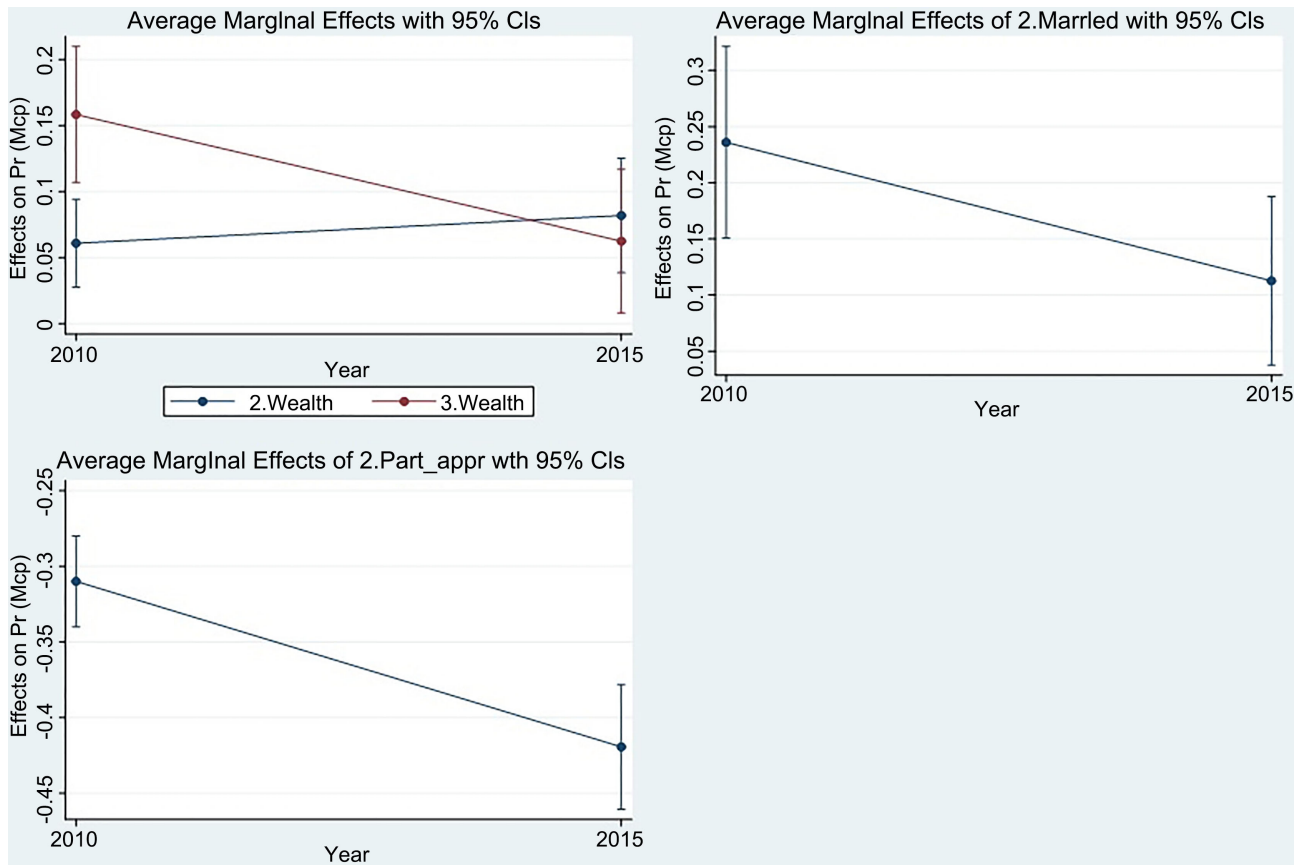


Figure 1. Interaction between household wealth, marital status, and partner approval with the year of surveys (2010 and 2015).

Table 3. Differences in odds ratio of the use of reversible modern contraceptives in urban and rural areas in 2015.

Variables	Adjusted effects, (standard errors) Model without interaction terms	Adjusted effects, (standard errors) Model with interaction terms
Residence (ref = rural)		
2. Urban	1.495*** (0.206)	1.817** (0.507)
2015. Year#2. Urban		
Education (ref = No formal education)		
2. Primary	1.179 (0.182)	
3. Secondary+	1.240 (0.222)	
2015. year#2. Primary		
2015. Year#3. Secondary+		
Wealth (ref = poor)		
2. Middle	1.499*** (0.174)	1.519*** (0.181)
3. Rich	1.298* (0.200)	1.469** (0.224)
2015. Year#2. Middle		
2015. Year#3. Rich		

Continued

Age (ref = 15 - 24 years)*		
2. age3	1.426*** (0.177)	1.334*** (0.108)
3. age3	1.317 (0.240)	1.358*** (0.151)
2015. Year#2. 25 - 39		0.739 (0.187)
2015. Year#3. 40 - 49		0.693 (0.220)
Martital status (ref = married)		
2. Non-married	2.366*** (0.745)	2.660***
2015. Year#2. Non-married		0.518**
Parity (ref = 4/morechildren)		
2. 1 - 3 children	1.237* (0.138)	
3. 0 child	0.859 (0.302)	
2015. Year#2. Parity		
2015. Year#3. Parity		
Religion (ref = muslim)		
2. Non-muslim	0.968 (0.105)	
2015. Year#2. Non-muslim		
Discussion with partner (ref = No)		
2. Yes	1.837*** (0.190)	1.824*** (0.227)
2015. Year#2. Yes		1.027 (0.234)
Partner approval of FP* (ref = Yes)		
2. part_appr	0.149*** (0.0156)	0.123*** (0.0156)
2015. Year#2. part_appr		1.685** (0.380)
Type of FP need (ref = for spacing)		
2. Limiting	0.973 (0.134)	
2015. Year#2. Limiting		
Sample size	3671	3671
Goodness of fit: F statistic	0.54	0.29
Goodness of fit: p-value	0.848	0.976

Notes: *FP = Family planning; The analysis is done on fertile, non-pregnant, married, or sexually active unmarried women in need of contraception at the time of the survey application. Data are from the women's 2010 Demographic and Health Survey and the 2015 Demographic and Health Module of the continuous multisectoral survey. ***p < 0.01, **p < 0.05, *p < 0.1.

Among the examined variables, only women in the middle wealth category had a significantly higher odds ratio (OR) of using modern methods compared to the poor category. Non-married sexually active women were 2.4 times more likely to use contraceptives than married women. Additionally, women who engaged in discussions about family planning and whose partners approved of

family planning were more inclined to use modern contraceptives than those who did not discuss family planning or whose partners disapproved. The second model, which included interaction terms with place of residence, provided the best fit for the data. However, only two variables showed significant interactions with the place of residence: marital status and partner approval. Therefore, the other variables did not exhibit significant differences based on the place of residence.

Significant differences in modern contraceptive use were observed concerning partner approval and place of residence. Although the likelihood of using modern methods was lower among women whose partners disapproved of family planning in both urban and rural areas, the difference appeared to be more pronounced in rural areas.

Figure 2 displays the average marginal effects resulting from the interaction of marital status and partner approval with the place of residence. The analysis reveals that there is no significant difference in modern contraceptive use based on marital status among women residing in urban areas. However, in rural areas, non-married women have a higher likelihood of using modern methods compared to married women.

4. Discussion

The bivariate analysis reveals a significant increase in the prevalence of reversible modern contraceptive use among all categories of women analyzed between 2010 and 2015. However, there have been notable changes in the composition of contraceptive users based on independent variables. Socioeconomic inequalities in access to contraception have not significantly reduced during this period. Education levels remained unchanged, and improvements in household wealth primarily benefited the middle- and higher-income groups, leaving behind the poorest segment. The lack of significance in interaction terms between place of residence and education suggests that these variables did not undergo significant changes at the national level, and the differences between their categories remained largely unchanged. This stagnant inequality confirms the insufficient

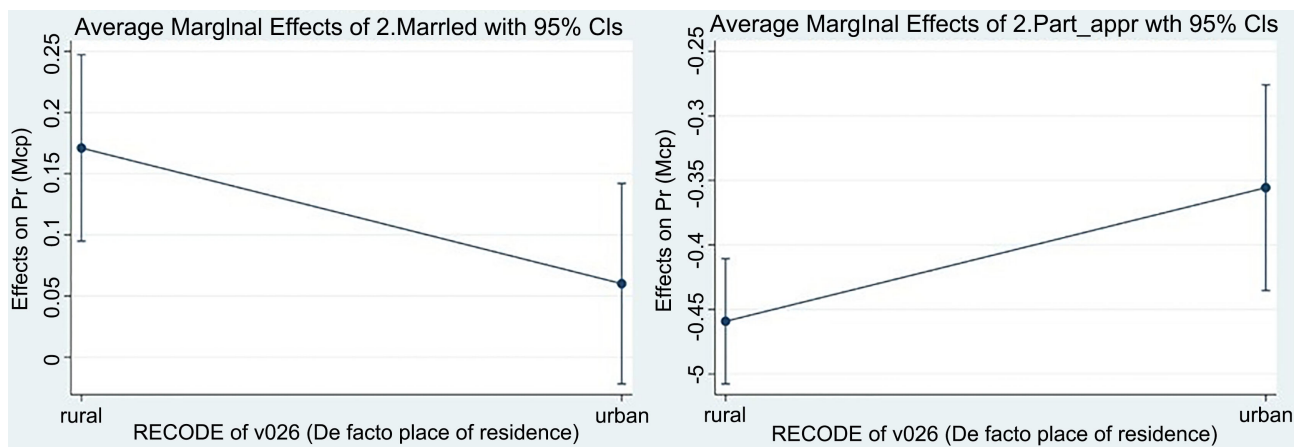


Figure 2. Interaction between household wealth, marital status, and partner approval with the year of surveys (2010 and 2015).

reach of recent interventions to address the needs of underprivileged groups. These findings are consistent with a recent study that revealed higher unmet contraceptive needs among rural women compared to urban women in Burkina [27]. The persistence of geographical barriers, such as limited access to mobile clinics and inadequate stock at certain locations, may contribute to the continued disparity between urban and rural areas [10]. The sporadic availability of services and the associated travel costs may pose significant challenges for women in the poorest category. These persistent inequalities indicate that poor, uneducated, and rural women continue to face greater difficulties in accessing family planning services.

The effects of life stage factors remained evident between the two survey years. There were no significant interaction effects between age, parity, and the survey year. Although there was a slight decrease in the impact of marital status, the difference between married and non-married women remained significant in 2015. The persistence of inequalities based on age suggests that younger women still experience limited access to family planning services. This may reflect an emphasis on married and older women in previous interventions, neglecting the needs of younger women. Insufficient information, lack of resources, and provider biases, such as the refusal to provide services to adolescents, may contribute to inadequate access for young women [16]. Moreover, inadequate and unfavorable information from providers may lead to the proliferation of rumors about contraceptive side effects, which can discourage young women from seeking contraception. Regarding marital status, the higher use of contraceptives among sexually active unmarried women can be attributed to their commitment to avoid pregnancy, primarily through short-term methods. Unmarried women may have greater concerns about the consequences of an unplanned pregnancy [15]. Additionally, married women may rely on traditional methods like periodic abstinence [29].

Attitudinal variables, particularly discussions about family planning with partners and partner approval of family planning, remain influential factors in modern contraceptive use in both survey years. The persistent effects of these variables suggest that women's autonomy in contraceptive decision-making has not diminished. Partner approval has become even more significant in 2015, indicating the continued importance of partner opinions in women's family planning choices.

This study has some limitations, including a lack of data on perceptions of fertility and sexuality in the country. Consequently, it was not possible to examine disparities related to young people, particularly those influenced by provider biases. The effects of norms that promote high fertility and discourage contraceptive use, particularly among young women, could not be tested. Furthermore, associations between modern contraceptive use and the independent variables may be bidirectional, as contraceptive use may precede discussions or approval of family planning by partners. Despite these limitations, we were able to draw meaningful conclusions by incorporating findings from previous studies.

5. Conclusions

This article aimed to examine the changes in disparities regarding modern contraceptive use in Burkina Faso between 2010 and 2015. A sample of women at risk of pregnancy was selected, and their likelihood of using modern contraceptives was analyzed based on socioeconomic, life stage, and attitudinal characteristics, including fertility preferences. The findings of this study reveal that most disparities in contraceptive use, particularly those stemming from socioeconomic factors, remain unresolved. The interventions implemented during this period had similar effects across all categories, and disadvantaged groups in 2010 still lacked access to modern contraception in 2015. Strategies such as subsidization of contraceptives and the use of mobile clinics have not adequately addressed the needs of rural and economically disadvantaged women to accessing modern contraception. Furthermore, recent efforts have not sufficiently reached young women who continue to face barriers in accessing contraceptive information and products. Women's autonomy in contraceptive decision-making is a crucial aspect that needs to be addressed in family planning initiatives. Although progress has been made, it is insufficient to ensure the widespread availability and use of modern contraception. Discussions about family planning and partner approval remain important determinants of contraceptive use, indicating the presence of attitudinal barriers in 2015.

In summary, this study identifies several factors that require attention to improve modern contraceptive use in Burkina Faso. New strategies should focus on improving financial accessibility in rural areas, particularly for poor and uneducated women. Efforts should be made to enhance geographical accessibility by increasing the density of health centers and family planning supply sources. Messaging and counseling programs need to specifically target rural, uneducated, and young women to address their specific needs. The needs of young women, who are at higher risk of unintended pregnancies, should be prioritized. Additionally, more emphasis should be placed on empowering women and raising awareness among men to strengthen women's decision-making power in reproductive matters. While this study had limitations, future research will aim to address some of these limitations by examining women's cognitive and psychosocial access to contraception and its impact on contraceptive use.

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Declaration

We utilized secondary data from the DHS and DHM. The DHS program obtained approval from the ICF Institutional Review Board (IRB) and the National

Ethics Committee of Burkina Faso, while the DHM survey received approval from the National Council of Statistics in 2013. Data can be accessed from the DHS program and INSD site.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Abbreviations and Acronyms

DHM: Demographic and Health Module

DHS: Demographic and Health Survey

FP: Family planning

OR: Odds ratio

INSD: Institut national de la statistique et de la démographie

IRB: Institutional Review Board

PMA2020: Performance monitoring and accountability 2020