

UNMET NEED FOR FAMILY PLANNING IN THE CONTEXT OF MIGRATION: ANALYSIS OF ETHIOPIA 2017 PMA2020 SURVEY DATA

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Abstract

Migration may influence family planning in low-resource settings. We examine unmet need for family planning and migration history in Ethiopia using the 2017 sample of the Performance Monitoring and Accountability 2020 survey. We describe women's characteristics by migration history and run a model to determine migration's effect on Ethiopian women's unmet need for family planning. Due to data limitations, we cannot analyze the unmet need of international migrants in Ethiopia. We find internal migrants are on average more educated and wealthier than non-migrants. Non-migrants experience more unmet need for family planning and access health care less than internal migrants. In our multilevel logistic regression model controlling for geographic region, partnered status, wealth, education level, health facility visits in the last year, children ever born, and religion, women who had never migrated had 1.58 times the odds of unmet need for family planning, compared to migrant women who migrated from a rural to an urban area. This motivates further research on family planning needs of rural, non-migrant women in low-resource settings.

Introduction

The relationship between family planning use and migration is complex, due to differences in the context of migration and resulting effects on unmet need. In some cases, displacement results in decreased access to services and increased unmet need among migrants or partners of migrants^{1,2}. In other instances, migration provides access and exposure to modern contraception methods that would not otherwise have been available, particularly among those migrants who migrate in search of opportunity.^{3,4,5} Migration can also result in reduced demand for family planning resources due to spousal separation.^{2,6}

This study examines the influence of migration on unmet need, or the difference in women's reproductive intentions and contraceptive behavior, in Ethiopia. Ethiopia maintains an open-door asylum policy and is the second largest refugee-hosting country in Africa, hosting over 880,000 refugees from neighboring countries in 2017.⁷ The Performance Monitoring and Accountability 2020 Survey (PMA 2020) provides a population-representative survey of women in ten countries worldwide, including family planning use and preferences, and migration history.⁸ We look at women's unmet need for contraception between those women who have experienced migration within Ethiopia and those who have never left the area where they were born in the Ethiopia 2017 survey sample, which provides detailed demographic and family planning information as well as migration information.⁹

Does unmet need for family planning differ by migration history?

We first examined the differences between internal migrants and non-migrants in terms of demographics and family planning behavior and preferences according to trends and determinants for unmet need for family planning in 2017¹⁰. The Ethiopia samples include survey responses from 7,464 eligible female residents in 2017. We categorized migrant status by external (international), internal, and non-migrant for descriptive analyses. External migrants were women who were born in a country outside Ethiopia or whose last region of residence was outside of Ethiopia, non-migrants were classified as always continuously living in the region, and internal migrants were all other migrants. There were only 83 external migrants in the sample, so we decided to focus on the differences between internal migrants and non-migrants. After

dropping cases where key variables were missing, we defined the population at risk by removing infecund or menopausal women, resulting in a total study sample size of 7,002.

We observed important differences by internal migrant status. A greater proportion of internal migrants were located in the Addis Ababa region (40.52%). The majority of non-migrants lived in rural areas (54.71%), while the majority of internal migrants (84.42%) were in urban areas. Women in our sample were predominantly Orthodox Christian (42.17% of non-migrants and 56.48% of internal migrants) followed by Muslim (31.45% of non-migrants and 25.26% of internal migrants). The next most common religious group was Protestant, representing 23.19% of non-migrants and 16.35% of internal migrants. The greatest proportion of non-migrants had never attended school (42.44%), while the greatest proportion of internal migrants had primary/middle school education (40.24%). Similarly, a much greater proportion of internal migrants fall into the highest wealth score quintile (61.25%) than non-migrants (17.40%).

Non-migrants generally experience a greater proportion of total unmet need (17.29%) than internal migrants (10.38%). Fertility preferences did not appear differently distributed by migration status, but internal migrants had a larger proportion of contraception use (34%) compared to non-migrants (25.96%). More non-migrants had not visited a health facility in the last 12 months (54%) than internal migrants (46%). More internal migrants had taken steps to delay or avoid getting pregnant (58.54%) compared non-migrants (46.91%).

Table 1: Background characteristics of women surveyed in PMA2020 Ethiopia 2016-2017

Background characteristics		Non-Migrant No. (%)*	Internal Migrant No. (%)*
Number of women		5891 (90.32%)	1111 (9.68%)
Region	Tigray	988 (6.18%)	64 (2.44%)
	Afar	218 (1.14%)	6 (0.18%)
	Amhara	1147 (25.94%)	66 (9.96%)
	Oromiya	1476 (40.17%)	156 (29.81%)
	Somali	158 (0.91%)	18 (1.07%)
	Benishangul-Gumuz	144 (1.4%)	57 (9.33%)
	SNNP	1287 (21.15%)	212 (14.15%)
	Gambella	25 (0.16%)	42 (2.57%)
	Harari	29 (0.18%)	14 (0.83%)
	Addis Ababa	395 (2.62%)	457 (28.44%)
	Dire Dawa	24 (1.6%)	19 (1.22%)
Residence	Rural	3199 (79.8%)	173 (36.02%)
	Urban	2692 (20.2%)	938 (63.98%)
Religion	Muslim	1659 (31.45%)	264 (25.26%)
	Catholic	35 (0.9%)	16 (1.02%)
	Protestant	1129 (23.19%)	182 (16.35%)
	Orthodox	2998 (42.17%)	634 (56.48%)
	Traditional	3 (0.051%)	0 (0%)
	Other	9 (0.19%)	14 (0.83%)
	None of the above	58 (2.04%)	1 (0.063%)
Education level	Never attended	1977 (42.44%)	205 (28.64%)
	Primary / middle school	1987 (37.87%)	471 (40.24%)
	Secondary / post-primary	1368 (14.82%)	252 (19.36%)
	Tertiary / post-secondary	559 (4.87%)	183 (11.76%)
Wealth score quintile	Lowest quintile	891 (22.33%)	19 (4.63%)
	Lower quintile	807 (20.65%)	30 (6.55%)
	Middle quintile	850 (19.88%)	37 (7.78%)
	Higher quintile	1147 (19.72%)	171 (19.8%)
	Highest quintile	2196 (17.42%)	854 (61.25%)
Unmet need	No unmet need	5104 (82.71%)	1017 (89.62%)
	Unmet need	787 (17.29%)	94 (10.38%)
Fertility Preference	Have another child	3974 (64.57%)	778 (68.11%)
	No more children	1289 (25.06%)	239 (24.16%)
	Don't know	622 (10.29%)	92 (7.6%)
	No response or missing	6 (0.077%)	2 (0.14%)
Contraception user	No	4369 (74.04%)	758 (66%)
	Yes	1522 (25.96%)	353 (34%)

Visited Health Facility in last 12 Months	Yes	2975 (53.95%)	489 (45.55%)
	No	2916 (46.05%)	622 (54.45%)
Ever used FP	Yes	3122 (53.06%)	488 (41.46%)
	No	2765 (46.91%)	623 (58.54%)
	No response / missing	4 (0.027%)	-
		Non-Migrant Mean (SE)	Internal Migrant Mean (SE)
Age		27.39 (0.16)	27.76 (0.41)
Number of children ever born		2.75 (0.07)	1.86 (0.15)

*Percentages calculated after applying weights for results representative of the Ethiopia population

Analytical Models

To examine the relationship between migration and unmet need for family planning, we built a binary multilevel logistic regression model of women at risk for pregnancy aged 15 to 49 in sampled households. The outcomes in the first model are any unmet need or no unmet need, which is defined by the Demographic Health Surveys and PMA2020 as a woman's current pregnancy or last birth wanted later or unwanted, even if pregnancy/birth was due to contraceptive failure.¹¹ The target predictor is a binary measure of internal migrant status. We controlled for the effects of region, age, education level, wealth index, pregnancy status, married or partnered status, having other children, current urban/rural location, religion, and having been to a health facility in the last year. The analysis is clustered on enumeration area, and we use female-level weights for nationally representative results.

Table 2

Odds ratios for unmet need: results from multilevel logistic regression model

Unmet need	Odds Ratio	95% Confidence Interval
Age	0.96***	(0.93 - 0.98)
Migrant status (never is reference)		
Rural to urban	0.63*	(0.41 - 0.98)
Rural to rural	0.83	(0.51 - 1.34)
Urban to urban	0.76	(0.40 - 1.42)
Urban to rural	1.42	(0.34 - 5.95)
Religion (Muslim is reference)		
Christian	0.55***	(0.44 - 0.69)
Other	0.86	(0.50 - 1.46)
Household wealth (lowest is reference)		
low	0.91	(0.67 - 1.24)
middle	0.80	(0.59 - 1.09)
high	0.66**	(0.48 - 0.89)
highest	0.82	(0.53 - 1.28)
Education (no schooling is reference)		
primary/middle school	1.04	(0.81 - 1.35)
secondary/post-primary	0.71	(0.48 - 1.05)
tertiary/post-secondary	0.90	(0.51 - 1.57)
Children ever born	1.24***	(1.15 - 1.33)
Health care visit in last 12 months	0.93	(0.72 - 1.19)
Born in rural area	1.40	(0.94 - 2.08)
Region (Tigray is reference)		
Afar	0.10***	(0.04 - 0.23)
Amhara	0.57***	(0.43 - 0.76)
Oromiya	0.94	(0.74 - 1.21)
Somali	0.78	(0.35 - 1.74)
Benishangul-Gumuz	0.83	(0.44 - 1.59)

SNNP	1.07	(0.76 - 1.49)
Gambella	0.81	(0.30 - 2.17)
Harari	2.74***	(2.17 - 3.47)
Addis Ababa	0.99	(0.58 - 1.67)
Dire Dawa	0.66*	(0.48 - 0.93)
Partnered	5.79***	(3.67 - 9.13)
Constant	0.10***	(0.03 - 0.33)

Confidence interval in parentheses

*** p<0.001, ** p<0.01, * p<0.05

Preliminary Findings

The analytical model suggests that women who migrate from a rural to urban area are significantly less likely than to experience unmet need for family planning than women who have never migrated (OR: 0.63, 95%CI: 0.41, 0.98). Older age is associated with reduced likelihood of experiencing unmet need, but the effect size is small when controlling for other factors (OR: 0.96, 95% CI: 0.93, 0.98).

As expected, being married or living with a man greatly increases the probability of having unmet need (OR: 5.79, 95%CI: 3.67, 9.13). With every increase in wealth quintile, women are less likely to experience unmet need (ORs in increasing order: 0.91, 0.80, 0.66, and 0.82). However, only the relationship at the high quintile is statistically significant (95%CI: 0.48, 0.89). More education is associated with less unmet need as expected, but these associations are not statistically significant. Christians are less likely to experience unmet need than the reference group religion, Muslims (OR: 0.55, 95%CI: 0.44, 0.69). Women who have ever given birth had greater odds of experiencing unmet need than women who had never given birth (OR: 1.24, 95%CI: 1.15, 1.33).

Many of these findings are unsurprising given previous research, but the model contributes a new finding about the association between migration and unmet need. This finding suggests that women with a history of migration may have more exposure to and opportunities for family planning access than women who had never migrated. This provides support for the moving to opportunity narrative, where women who have migrated did so to access resources, such as education or employment. In this sample, 384 women migrated to seek employment (28.96% after population weighting*), 253 migrated for marriage (27.46%*), 200 migrated with family (15.58%*), 183 migrated for education (11.41%*), 89 returned home (4.53%*), and 33 migrated due to a job transfer or for a job (2.26%*). Only 34 women migrated due to war or drought (1.45%*), 24 migrated due to health problems (1.57%*), 17 migrated due to land shortage (3.07%*), 14 migrated due to divorce (1.43%*), 12 migrated due to death of a household member (0.7%*), 1 migrated due to death of a spouse (0.02%*), and 23 women migrated for other reasons (1.56%*).

One possible limitation of our findings is that people who are actively displaced from outside of Ethiopia may be underrepresented. Given that surveys were administered in households in more stable settings, it does not capture the effect of international migration after displacement but identifies the effects of internal migration. The sampled population did not include displaced populations representative of the foreign-born migrant population in Ethiopia.

Conclusion

This research identifies a potential gap in family planning research and programming. The disparities in urban, mobile populations and rural, non-mobile populations could reveal differences in both acceptance of and access to family planning services. While efforts ensuring

uninterrupted access to family planning for refugees and migrants remain critical, this research highlights the importance of focusing on rural non-migrants in resource-poor environments.

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