# Exploring Unmet Need: Contraceptive Use Patterns Among Repeat Abortion Seekers in Addis Ababa, Ethiopia

Prata Ndola<sup>1,\*</sup>, Holston Martine<sup>2</sup>, Caitlin Gerdts<sup>1</sup>, Melkamu Yilma<sup>3</sup>,

<sup>1</sup> Bixby Center for Population, Health, and Sustainability; University of California, Berkeley, USA
<sup>2</sup> Venture Strategies Innovations, California, USA
<sup>3</sup> 3Addis Ababa University, School of Public Health, Addis Ababa,Ethiopia

# 1. Introduction

Characteristic of most of sub-Saharan Africa, fertility in Ethiopia remains high (5.4) nation-wide. Close to one third of births are either mistimed or unwanted, unmet need for family planning is burgeoning (34%), and 30% of maternal deaths are abortion related. (Central Statistical Authority, 2006). Despite high national fertility, the capital city, Addis Ababa has experienced rapid fertility decline in recent decades. According to the Ethiopia Demographic and Health Survey 2005 (DHS), Addis Ababa has a total fertility rate (*TFR*) of 1.4 (Central Statistical Authority, 2006). Furthermore, women in Addis Ababa, report a desired family size of 1.2 children. The below-replacement fertility rate in Addis Ababa and corresponding desired fertility of 1.2 illustrates the fertility aspirations of women in large urban settings.

This pattern--high national fertility rates accompanied by below-replacement fertility in large cities—is not unique on the African continent. Nonetheless, despite greater contraceptive prevalence in Addis Ababa (45% vs. 15% country-wide) and better access to family planning services, many pregnancies are still unwanted or mistimed, and one in ten married women living in Addis Ababa report unmet need for family planning (10%).

High demand for abortion-related services and repeat abortions in the city underscores the role of abortion in the fertility aspirations of women in Addis Ababa. While abortion services are safe and relatively accessible in the capital city, improvements in access and availability of abortion services should not be a deterrent to strengthening family planning services; lack of access to modern contraceptives in populations that desire smaller families can lead to repeat abortions. The purpose of this paper is three-fold: 1) to describe demographic characteristics of clients seeking abortion services in Addis Ababa, Ethiopia, 2) to explore their contraceptive use patterns and choices—with a focus on repeat abortion seekers, 3) to make recommendations for improving services to meet the contraceptive needs of women in Addis Ababa and similar urban settings.

#### 2. Methods

\_

<sup>\*</sup> Corresponding author: e-mail address: <a href="mailto:ndola@berkeley.edu">ndola@berkeley.edu</a>. Bixby Center for Population, Health, and Sustainability, University of California, Berkeley, School of Public Health, 229 University Hall, Berkeley, CA 94720-6390 USA; Tel: (1) 510-643-4284.

We analyzed the service statistics of 1,200 women seeking abortion-related services from October 2008 to February 2009 in three public and three private health facilities in Addis Ababa, Ethiopia. Data were collected on key variables from a sample of randomly selected clients who attended the clinics for safe abortion or post-abortion care (PAC) during the study period, and included: socio-demographic characteristics, obstetric and gynecological history, service provision, history of contraceptive use, and family planning method provided at time of service. Bivariate and multivariate analyses were conducted to describe the characteristics of women who sought abortion-related services by type of service provided (safe abortion vs. PAC) and repeat abortion.

### 3. Results

As seen in Table 1, more women came to the health facilities seeking safe abortion (82%) than PAC (18%). Almost all safe abortions occurred within the first trimester (96%); average uterine size was 8 weeks. Examination of the sociodemographic characteristics revealed that overall most women seeking abortion-related care during the study period were young (79% aged 20-29), educated (75% attained secondary education or above), and single (52%). While most women lived in Addis Ababa (91%), some came from other

Table 1 Sociodemographic and reproductive history of women coming for safe abortion and post-abortion care services.

	Total	Safe Abortion	Post-abortion	p-value
			Care	
	N (%)	N (%)	N (%)	
Total	1200 (100)	986 (82.2)	214 (17.8)	
Mean age ( $\pm$ SD)	25.1 (4.4)	24.9 (4.1)	25.9 (5.6)	0.003
Marital Status				
Single	641 (53.8)	598 (60.7)	45 (20.6)	< 0.001
Married	495 (41.6)	337 (34.2)	165 (77.1)	
Divorced	49 (4.1)	45 (4.6)	5 (2.3)	
Widowed	6 (0.5)	6 (0.6)	0	
Current Residence				
Addis Ababa	1086 (91.2)	889 (90.2)	206 (96.3)	0.017
Outside Addis Ababa	89 (7.5)	81 (8.2)	8 (3.7)	
Abroad	16 (1.3)	16 (1.6)	0	
Education				< 0.001
No Education	94 (7.9)	71 (7.2)	24 (11.2)	
Primary	201 (16.9)	134 (13.6)	69 (32.7)	
Secondary	619 (52.0)	531 (53.9)	91 (42.5)	
Above Secondary	276 (23.2)	249 (25.3)	30 (14.0)	
Occupation				< 0.001
Housewife/unemployed	335 (27.9)	234 (23.7)	101 (47.2)	< 0.001
Student	187 (15.6)	170 (17.2)	17 (7.9)	< 0.001
Professional/Clerical/Sales	427 (35.6)	361 (36.6)	66 (30.8)	0.110
Hospitality/Housework b	251 (20.9)	221 (22.4)	30 (14.0)	0.006
Mean gravity $(\pm SD)$	2.2 (1.4)	2.1 (1.4)	2.3 (1.5)	0.250
Mean parity (± SD)	0.8 (1.2)	0.8 (1.2)	0.9(1.3)	0.201
Mean number of previous				
abortions (± SD)	0.4 (0.7)	0.4 (0.7)	0.4 (0.7)	0.8425

<sup>&</sup>lt;sup>a</sup> From γ<sup>2</sup> or t-test

regions in Ethiopia (8%) or abroad (1%). Over half of the women had ever used family planning. While women had an average of 2.2 pregnancies, the average number of live births was 0.8, indicating the role of abortion in fertility control.

### 3.1 Characteristics of women seeking safe abortion vs. post-abortion care

Women seeking PAC were more likely to be older (26 vs. 25), married (77% vs. 34%), unemployed (47% vs. 24%), and less educated (57% reaching secondary or above vs. 79%) compared to women seeking safe abortion. Women coming to the clinics for safe abortion were twice as likely to be students (17% vs. 8%) or work in hospitality or housework (22% vs. 14%).

<sup>&</sup>lt;sup>b</sup> Includes hostess, cleaner, waitress, housemaid, commercial sex worker, cook

# 3.2 Characteristics of women seeking first vs. repeat abortion

As seen in Table 2, almost one third of women (30%) had a previous abortion with an average of 1.3 previous abortions. Women seeking repeat abortions were older (26.1 vs. 24.7 years), more likely to be married (48% vs. 39%), and have secondary education or above (79% vs. 73%) than women attending the facility for their first abortion. While housewives/unemployed women were equally likely to be having their first or repeat abortion, students were more likely to come to the clinic for their first abortion (18% vs. 10%), and women who were employed in professional/clerical positions were more likely to have had a previous abortion (40% vs. 34%).

Women having had at least one previous abortion were more likely to have ever used contraceptives (69% vs. 51%) compared to women coming for their first abortion. Ever use of short-term reversible modern methods, such as contraceptive pills and condoms, were more prevalent among women coming for a repeat abortion (47% vs. 29%). Most women were provided a contraceptive method post-abortion (78%). Women who had at least one previous abortion were more likely to choose short-term reversible methods at the time of their abortion (56% vs. 48%).

In Table 3 (*not shown*), results of multivariable logistic regression will be presented. After adjusting for socio-demographic characteristics and gynecologic history women coming for a repeat abortion were twice as likely as those seeking a first abortion to have ever used family planning (OR 1.4, 95% CI 1.0-2.0). After adjusting for socio-demographic and gynecologic characteristics (Table 3—not shown), women coming for a repeat abortion had twice the odds of being provided a contraceptive method post-abortion, (OR 1.9, 95% CI 1.4-2.5). Further multivariable analyses will explore relationships between contraceptive knowledge and history, abortion history, and post-abortion contraceptive choices.

Table 2 Sociodemographic characteristics; reproductive, contraceptive, and abortion history and service provision among women coming for their first or repeat abortion.

	Total	First Abortion N (%)	Repeat Abortion N (%)	p-value <sup>a</sup>
	N (%)			
Total	1200 (100)	837 (69.8)	363 (30.3)	
Mean age (± SD)	25.1 (4.4)	24.7 (4.3)	26.1 (4.6)	>0.001
Marital Status				
Single	642 (53.5)	468 (55.9)	174 (47.9)	0.04
Married	502 (41.8)	328 (39.2)	174 (47.9	
Divorced	50 (4.2)	36 (4.3)	14 (3.9)	
Widowed	6 (0.5)	5 (0.6)	1 (0.3)	
Education				
No Education	95 (7.9)	70 (8.4)	25 (6.9)	0.112
Primary	203 (16.9)	153 (18.3)	50 (13.8)	
Secondary	622 (51.8)	414 (49.5)	208 (57.3)	
Above Secondary	279 (23.3)	199 (23.8)	80 (22.0)	

Occupation				0.002
Housewife/unemployed	335 (27.9)	238 (28.4)	97 (26.7)	0.5438
Student	187 (15.6)	151 (18.0)	36 (9.9)	0.0004
Professional/Clerical/Sales	427 (35.6)	283 (33.8)	144 (39.7)	0.0516
Hospitality/Housework <sup>b</sup>	251 (20.9)	165 (19.7)	86 (23.7)	0.1198
Mean gravity (± SD)	2.2 (1.4)	1.8 (1.3)	3.0 (1.3)	< 0.001
Mean parity (± SD)	0.8 (1.2)	0.8 (1.3)	0.7 (1.1)	0.6052
Mean number of previous abortions ( $\pm$ SD)			1.3 (0.7)	
Ever use of contraceptives	679 (56.6)	428 (51.1)	251 (69.2)	< 0.001
Last contraceptive method used				>0.001
None	521 (43.4)	409 (48.9)	112 (30.9)	>0.001
Short-term reversible modern methods <sup>c</sup>	415 (34.6)	243 (29.0)	172 (47.4)	>0.001
Long-term reversible modern methods <sup>d</sup>	245 (20.4)	175 (20.9)	70 (19.3)	0.5218
Traditional/non-modern methods	19 (1.6)	10 (1.2)	9 (2.5)	0.1017
Type of service provided				0.1383
Safe termination	986 (82.2)	690 (82.4)	296 (81.5)	
Post-abortion care	214 (17.8)	147 (17.6)	67 (18.5)	0.138
Mean uterine size/Gestational age	8.8 (3.2)	8.8 (3.2)	8.6 (3.1)	0.3913
Provided contraceptives at time of abortion	932 (77.7)	638 (76.2)	294 (81.0)	0.069
Type of contraceptives provided				0.011
None	268 (22.3)	199 (23.8)	69 (19.0)	0.0687
Short-term reversible modern methods <sup>c</sup>	608 (50.7)	405 (48.4)	203 (55.9)	0.0164
Long-term reversible modern methods <sup>d</sup>	291 (24.3)	217 (25.9)	74 (20.4)	0.0397
Other	33 (2.8)	16 (1.9)	17 (4.7)	0.0070

<sup>&</sup>lt;sup>a</sup> From χ<sup>2</sup> or t-test

## 4. Discussion

Proper information and access to contraceptive methods is necessary and paramount for all women to prevent unwanted pregnancies as well as prevent repeat abortion. As seen in these data, repeat abortion is common amongst women in Addis Ababa. Fertility and abortion trends point to women using abortion as a method of family planning to delay, space, or limit childbearing. Women seeking a repeat abortion in this study were more likely to have used reversible, short-term methods of modern contraception and choose a short term method post-abortion, a pattern also seen amongst women seeking repeat abortion in both urban areas of Africa and in Europe. Given that short-term methods such as pills and condoms require correct and consistent use to be effective, the correlation of method failure and repeat abortion is understandable. Post-abortion family planning services need to pay special attention to repeat abortion clients. Contraceptive counseling for repeat abortion clients needs to address reasons for previous contraceptive failure.

#### 5. Conclusion

<sup>&</sup>lt;sup>b</sup> Includes hostess, cleaner, waitress, housemaid, commercial sex worker, cook

<sup>&</sup>lt;sup>c</sup> Pills, condoms, emergency contraception

<sup>&</sup>lt;sup>d</sup> Injectable, implant, intrauterine device

Women in Addis Ababa desire to control their fertility, but are not armed with the correct knowledge to protect against an unwanted pregnancy. Although service-seeking behavior varies between groups of women, most lack correct knowledge of family planning and use contraceptive methods improperly and/or inconsistently. In order to reduce the burden of repeat abortions, policy-makers in Ethiopia should focus their efforts on reaching single, poor, and young women and facilitate regular supply of contraceptive methods at facilities. In addition, more information and education is needed to ensure that, once provided a method, women will use it consistently and correctly to prevent unwanted pregnancy.

#### References

Central Statistical Agency [Ethiopia] and ORC Macro. 2006. *Ethiopia Demographic and Health Survey 2005*. Addis Ababa, Ethiopia and Calverton, Maryland, USA: Central Statistical Agency and ORC Macro.