

ORIGINAL RESEARCH ARTICLE

“They come when you build it”: the impact of introducing a model abortion clinic on safe abortion care access expansion in Ethiopia

DOI: 10.29063/ajrh2025/v29i9s.11

Abraham Fessehaye Sium^{1*}, Abrham Getachew², Lemi B. Tolu¹ and Sarah Prager³

Department of Obstetrics and Gynecology, St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia¹; School of Public Health: Department of HSM, HP, RH, & Nutrition, St. Paul's Hospital Millennium Medical College, Addis Ababa, Ethiopia²; Division of complex family planning, Department of Obstetrics and Gynecology, University of Washington (UW), Medicine, Seattle, USA³

*For Correspondence: Email: abrahamfessehaye4@gmail.com; Phone: +251929123745

Abstract

Current strong evidence supports that making abortion legal, safe, and accessible significantly reduces unsafe abortion-related maternal morbidity and mortality. We conducted a decade-long (2009 – 2019) trend-analysis study of safe abortion care and post-abortion care services in relation to introduction of a new abortion clinic at St. Paul's Hospital in Ethiopia. There were 9491 total abortions (6449 post-abortion care cases and 3042 safe abortion cases) during the study period (between September 2009 to August 2019). Following the opening of a model abortion clinic, access to safe abortion care significantly increased, and post-abortion care abortion service dominance was replaced by safe abortion care. Before the introduction of the clinic in 2016, only 1 in 3 abortions were safe abortions, the rest being post-abortion care cases. During the years 2017-2018 and 2018-2019, safe abortion care increased to 6 in 10 and 7 in 10 of all comprehensive abortion care provided, respectively. This “They come when you build it” effect on the trends of safe abortion - a paradigm shift of post-abortion care into safe abortion care - can be implemented in other Sub-Saharan settings. (*Afr J Reprod Health* 2025; 29 [9s]: 132-136).

Keywords: Abortion clinic; MICHU; abortion care; unsafe abortion; safe abortion; Sub-Saharan Africa

Résumé

Des données probantes solides confirment actuellement que la légalisation, la sécurité et l'accessibilité de l'avortement réduisent significativement la morbidité et la mortalité maternelles liées aux avortements à risque. Nous avons mené une analyse des tendances sur une décennie (2009-2019) concernant les soins d'avortement médicalisé et les services de soins post-avortement, en lien avec l'ouverture d'une nouvelle clinique d'avortement à l'hôpital St. Paul en Éthiopie. Au total, 9 491 avortements ont été pratiqués (6 449 cas de soins post-avortement et 3 042 cas d'avortement médicalisé) durant la période d'étude (de septembre 2009 à août 2019). Suite à l'ouverture d'une clinique d'avortement modèle, l'accès aux soins d'avortement médicalisé a considérablement augmenté, et la prédominance des services de soins post-avortement a été remplacée par des soins d'avortement médicalisé. Avant l'ouverture de la clinique en 2016, seul un avortement sur trois était un avortement médicalisé, le reste étant des cas de soins post-avortement. Au cours des années 2017-2018 et 2018-2019, les soins d'avortement médicalisé ont augmenté, atteignant respectivement 6 sur 10 et 7 sur 10 de l'ensemble des soins d'avortement complets dispensés. Cet effet « Ils interviennent quand vous le construisez » sur les tendances en matière d'avortement médicalisé – un changement de paradigme des soins post-avortement vers des soins d'avortement médicalisé – peut être mis en œuvre dans d'autres contextes d'Afrique subsaharienne. (*Afr J Reprod Health* 2025; 29 [9s]: 132-136).

Mots-clés: Clinique d'avortement ; MICHU ; soins d'avortement ; avortement à risque ; avortement médicalisé ; Afrique subsaharienne

Introduction

The low- and middle-income countries such as those in sub-Saharan Africa have some of the highest levels of unintended pregnancy and unsafe abortion.¹⁻³ According to a recent global report, the estimated unintended pregnancy rate was 145 (131 to 159) in Uganda per 1000 women aged 15–49

years over 5 years (2015-2019).⁴ In contrast to this, Ethiopia has made significant progress towards reducing maternal death and severe morbidity due to unsafe abortion⁵ through a strategic implementation of expanding access to safe abortion care across the country.

Currently, a strong body of evidence shows that the simple means to drastically reduce unsafe

abortion-related maternal deaths and morbidity is to make abortion legal, safe, and accessible. For this reason, large professional and scientific societies such as FIGO are in favor of greater access to safe abortion.⁶

In 2005, a new criminal code was established to align Ethiopia's laws with its new Constitution. The passage of the law and the establishment of technical guidelines of safe abortion resulted in wider integration of safe abortion services as essential health care across public health institutions and expanding the scope of practice for multiple cadres of healthcare providers, including emergency surgical officers, nurses, and health extension workers to provide safe abortion and post-abortion care.^{7,8} Comprehensive abortion care was also integrated as part of the curriculum for post-graduate students across institutions that provide obstetrics and residency training in Ethiopia, which was pioneered at St. Paul's Hospital Millennium Medical College as a model approach initially.⁹ This college runs the only available Family planning fellowship training in Africa. The hospital is considered a national family planning excellence center in Ethiopia, as it covers the largest comprehensive abortion care services in the country in addition to other complex family planning services.

Furthermore, the MICHU clinic (an organized abortion care and other SRH services) stationed at this hospital is considered a model approach that helped the country ascend towards becoming a champion in reproductive health through larger expansion of comprehensive abortion services, incorporation of family planning training into the curriculum of undergraduate and postgraduate medical students, and pioneering of family planning fellowship training.¹⁰ Safe abortion is permitted in Ethiopia for the following cases: rape or incest; when the pregnancy endangers the woman's life or health; fetal abnormalities; if the woman is physically or mentally disabled; and if the woman is physically or psychologically unprepared to raise a child due to young age.¹¹ This study aimed to determine the trends of safe abortion care and post-abortion care in-relation to the opening of an abortion clinic at St. Paul's Hospital Millennium Medical College (SPHMMC) in Ethiopia in 2016.

Methods

Study design, study period, and study setting

This is a retrospective trend analysis study on rates of safe abortion and post-abortion care in relation to the opening of an abortion clinic and introduction of a family planning fellowship program at one of the largest hospitals in Ethiopia, St. Paul's Hospital Millennium Medical College. MICHU clinic, a newly redesigned, woman-friendly reproductive health unit (abortion clinic), which mainly provides abortion care and family planning, was introduced at this hospital in 2016. This model abortion clinic approach was expanded across Ethiopia, and MICHU clinics are now available across several institutions that run Obstetrics and Gynecology residency training programs.

Inclusion and exclusion criteria

All abortion cases (post-abortion care and safe abortion care) over the study period were reviewed. The primary exclusion criterion was incomplete information.

Data were extracted by reviewing abortion registries, labor ward and emergency Gyn-OPD delivery registries. Four data collectors reviewed the registries and collected the data over 6 months' time (June 22, 2023- December 31, 2023).

Sample size and sampling procedure

We employed convenient sample size calculation, in which records of abortion patients managed in this hospital over a decade from September 2009 - August 2019 were included based on the inclusion and exclusion criteria.

Data collection

Data were extracted by reviewing abortion registries, labor ward and emergency Gyn-OPD delivery registries using a data extraction format prepared in English. We collected data on abortion care type (safe abortion vs post-abortion care), total number of deliveries with live birth (deliveries beyond 28 weeks), abortion complications (maternal death and sepsis). Four data collectors reviewed the

registries and collected the data over 6 months' time (June 22, 2023- December 31, 2023).

Data analysis

Quantitative data were analyzed using SPSS version 23. Simple descriptive statistics were used to analyze the abortion rate, complications of abortion, and trends of post-abortion care and safe abortion care. We calculated the abortion rate as the ratio of abortion per 1000 live births per annum

Ethical considerations

Ethical clearance was obtained from St. Paul's Hospital Millennium Medical College IRB, before data collection was started. The requirement for

written informed consent was waived by this ethics committee.

Results

There were 9491 total abortions (6449 post-abortion care cases and 3042 safe abortion cases) during the 10-year study period between September 2009 and August 2019 (Table 1). After opening the clinic, there was a significant rise in safe abortion care, from 297 safe abortions (1 in 3 of total abortions) in the year before the introduction of the abortion clinic (2014-2015) to 710 safe abortions (7 in 10 abortions) in 2017-2018 and 845 safe abortions (6 in 10 abortions) in 2018-2019. There was no encounter of maternal death due to complications of abortion during the study period, over ten years.

Table1: Abortions (safe abortion care & post-abortion care) and live births trends in Ethiopia (2009-2019)

Year	Live births	Total Abortions	Post Abortion care	Safe abortion
2009-2010	1488	361	353	8
2010-2011	2674	468	453	15
2011-2012	3996	364	338	26
2012-2013	4369	428	371	57
2013-2014	5266	884	801	83
2014-2015	6005	954	657	297
2015-2016	9708	1794	1343	451
2016-2017	9670	1768	1218	550
2017-2018	10,978	1014	304	710
2018-2019	9024	1456	611	845
Total	63, 178	9491	6449	3042

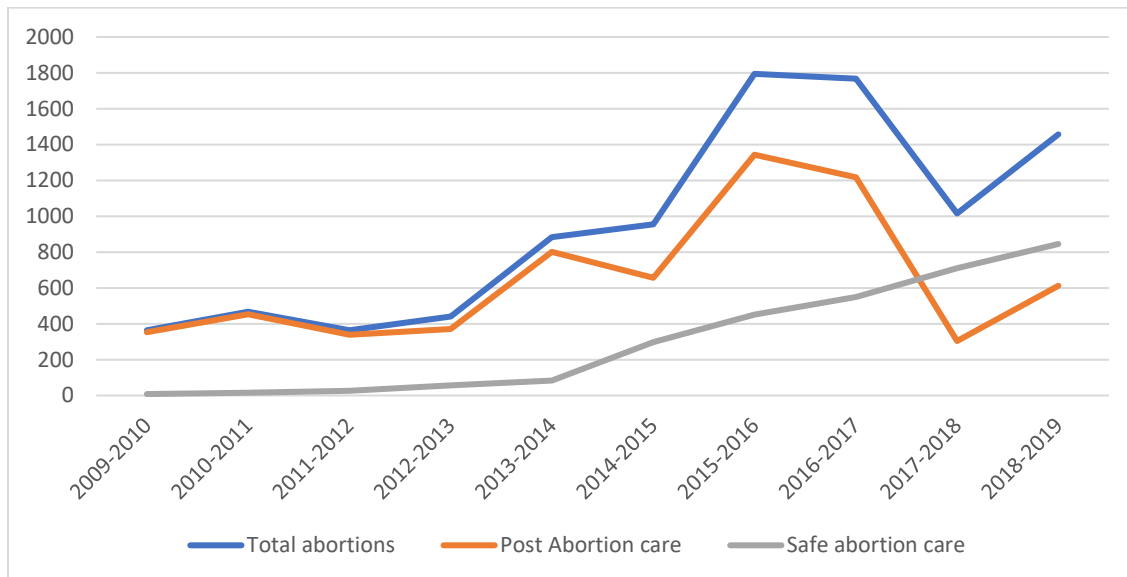


Figure 1: Safe abortion and post-abortion care trends 2009-2019

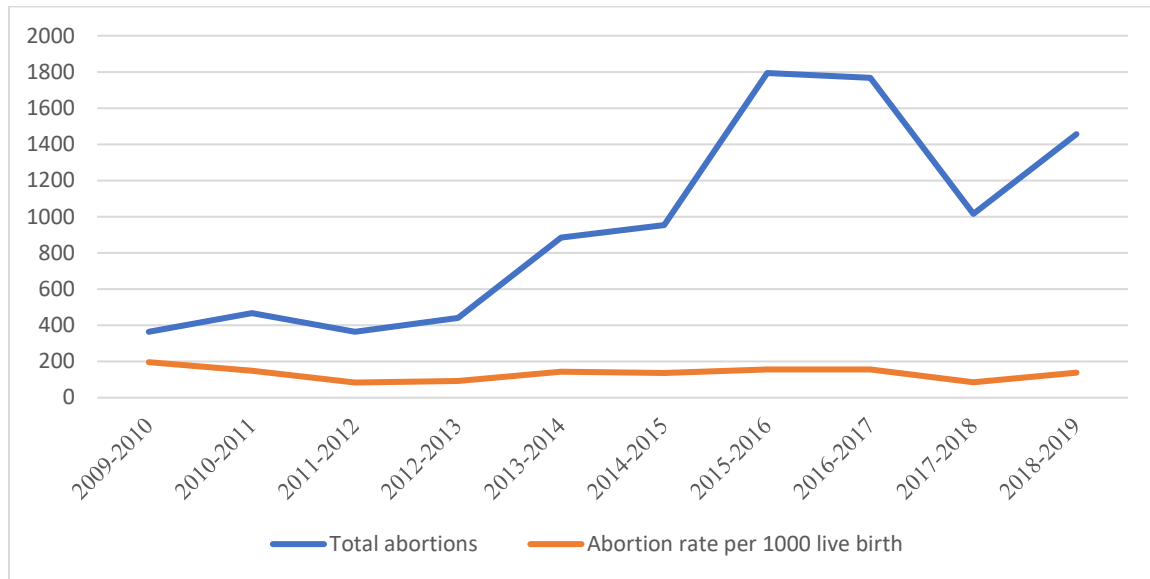


Figure 2: Abortion rate per 1000 live births from 2009-2019

Our trend analysis shows that there was an overall major shift from post-abortion care to safe abortion care after the introduction of the abortion clinic (Figure 1).

The abortion rate calculated as per 1000 live births remained similar both before and after the opening of the clinic and launching of the family planning fellowship program (below 200/1000 live births) (Figure 2).

Discussion

In this study, the introduction of a new abortion clinic had a significant impact on transitioning from mostly post-abortion care to mostly safe abortion care. Case-flow of safe abortions increased while that of post-abortion care decreased with no change in abortion rate during the study period.

Unsafe abortion and maternal death from unsafe abortion remains high in Sub-Saharan Africa.¹² The replacement of unsafe, illegal abortions by safer and legal procedures significantly reduces abortion-related maternal mortality and severe morbidity.¹³ Apart from making abortion legal, travel distance is an important determinant of abortion care access. Greater distance to abortion facilities is associated with greater out-of-pocket costs, emergency room follow-up care, negative mental health, and delayed care. In 2014, close to 1 in 5 abortion patients in the US traveled more than 50 miles one-way with the most common reason reported being the clinic of choice being the closest clinic.¹⁴

Ethiopia liberalized its abortion law in 2005, making it one of the early champions in Africa of expanding access to safe abortion services.^{15,16} One of the effective interventions that resulted in expansion of safe abortion care at the MICHU clinic in 2016.⁹ This clinic model was then replicated at other institutions with obstetrics and gynecology residency training programs around Ethiopia. In this study we found relative stability in the total abortion rate, with the rate of safe abortion care gradually replacing that of post-abortion care.

The wider abortion care access created following introduction of a model abortion clinic resulted in shifting the balance towards safe abortion compared to post-abortion care, which was the commonest practice in the years prior to this service expansion. There was no encounter of maternal death during the study period. These findings imply that it takes expansion of abortion care access through establishment of abortion clinics for the desired impact of abortion law reforms (from more restrictive to more liberal one) to occur, which serves a valuable lesson to other countries in low-middle income countries that have successfully revised their abortion laws but access to safe abortion care remains restricted despite existing enabling abortion policy.

Presenting one of the largest and primary data on trend-analysis of safe abortion following liberal abortion law reforms and introduction of model abortion clinic from low-middle income countries, the findings of this study have wider

implications for practice change across low-middle income settings from abortion policy reform point of view-from more restricted to more liberal one with wider access for safe abortion through introduction of model abortion clinic. Currently, despite existence of more liberal abortion law reforms in some countries in Africa, access expansion remains far from reality. The lessons of introduction of model abortion clinic from our study could be adopted to bring similar changes in these countries. The primary limitation is a lack of analysis abortion care by trimester and by method of abortion (medical versus surgical). Adding qualitative data from providers' perspective could have given our study further strength.

In conclusion, findings from our study show that expanding access to safe abortion care through opening a dedicated abortion clinic helped replace post-abortion care with safe abortion care. This "They come when you build it" effect on the trends of safe abortion, a paradigm shift of post-abortion care into safe abortion care, can be implemented in other Sub-Saharan settings to significantly reduce the high level of maternal mortality and severe morbidity due to unsafe abortion across the region.

Authors contributions

AFS and AG contributed conception and development of the study design, and data collection. AFS and AG performed data analysis. AFS, AG, LBT, and SP contributed manuscript write up. The final manuscript was edited by SP. All authors critically revised the article for intellectual content. All authors reviewed the final manuscript and approved its submission.

References

- Kulczycki A. The imperative to expand provision, access and use of misoprostol for post-abortion care in sub-Saharan Africa. *African journal of reproductive health*. 2016 Nov 15;20(3):22-5.
- Sedgh G, Bearak J, Singh S, Bankole A, Popinchalk A, Ganatra B, Rossier C, Gerdtz C, Tunçalp Ö, Johnson BR and Johnston HB. Abortion incidence between 1990 and 2014: global, regional, and subregional levels and trends. *The Lancet*. 2016 Jul 16;388(10041):258-67.
- Shah IH, Åhman E and Ortayli N. Access to safe abortion: progress and challenges since the 1994 International Conference on Population and Development (ICPD). *Contraception*. 2014 Dec 1;90(6):S39-48.
- Bearak JM, Popinchalk A, Beavin C, Ganatra B, Moller AB, Tunçalp Ö and Alkema L. Country-specific estimates of unintended pregnancy and abortion incidence: a global comparative analysis of levels in 2015–2019. *BMJ global health*. 2022 Mar 1;7(3):e007151.
- Berhan Y and Berhan A. Causes of maternal mortality in Ethiopia: a significant decline in abortion related death. *Ethiopian journal of health sciences*. 2014 Sep 12;24:15-28.
- Faúndes A and Shah IH. Evidence supporting broader access to safe legal abortion. *International Journal of Gynecology & Obstetrics*. 2015 Oct;131:S56-9.
- Bridgman-Packer D and Kidanemariam S. The implementation of safe abortion services in Ethiopia. *International Journal of Gynecology & Obstetrics*. 2018 Oct;143:19-24.
- Feyssa MD and Gebru SK. Liberalizing abortion to reduce maternal mortality: expanding access to all Ethiopians. *Reproductive Health*. 2022 Jun 27;19(Suppl 1):151.
- Gebremedhin LT, Nigatu B, Bekele D, Fisseha S and Gebremeskel BG. Integrating Family Planning Training into Medical Education: A Case Study of St. Paul's Hospital Millennium Medical College (SPHMMC), Addis Ababa. Michigan Publishing; 2016.
- Sium AF, Prager S, Wolderufael M, Abubeker FA, Tufa TH and Grentzer JM. Foley catheter for cervical preparation prior to second trimester dilation and evacuation: a supply-based alternative for surgical abortion: a case series. *Contraception*. 2022 Jan 1;4:100085.
- https://www.moh.gov.et/sites/default/files/2024-07/Technical%20and%20Procedural%20Guideline%20for%20Abortion%20care%20services%20in%20Ethiopia_2023.pdf
- Gebremedhin M, Semahegn A, Usmael T and Tesfaye G. Unsafe abortion and associated factors among reproductive aged women in Sub-Saharan Africa: a protocol for a systematic review and meta-analysis. *Systematic reviews*. 2018 Dec;7:1-5.
- Cates W, Grimes DA and Schulz KF. The public health impact of legal abortion: 30 years later. *Perspectives on Sexual and Reproductive Health*. 2003 Jan 1;35(1):25-8.
- Fuentes L and Jerman J. Distance traveled to obtain clinical abortion care in the United States and reasons for clinic choice. *Journal of Women's Health*. 2019 Dec 1;28(12):1623-31.
- Wada T. Abortion law in Ethiopia: a comparative perspective, *Mizan Law Review*, vol. 2. Addis Ababa: St. Mary's University; 2008. p. 1–32
- Feyssa MD and Gebru SK. Liberalizing abortion to reduce maternal mortality: expanding access to all Ethiopians. *Reproductive Health*. 2022 Jun 27;19(Suppl 1):151.