The incidence of abortion in Ethiopia: Current levels and trends

Abstract: In 2005, the Ethiopian Parliament amended the penal code to allow abortion in cases of rape/incest, if the woman has physical or mental disabilities; it is needed to preserve the woman's life or physical health; she is a minor who is physically or mentally unprepared for childbirth. Researchers estimated that 382,000 induced abortions were performed in 2008; 73% were performed outside of the designated heath facilities. There have been numerous national efforts to implement the law and increase access to safe abortion care. In 2014 we repeated the national assessment to see whether government programs have been effective at increasing access to safe abortion. This study documents the national incidence of induced abortion including the abortion rate and ratio, proportion of all abortions that is legal and safe, and rate of treatment of abortion complications in health facilities. These estimates will be compared with those documented in 2008.

Background

An estimated 22 million unsafe abortions take place every year worldwide, resulting in the deaths of approximately 47,000 women and the temporary or permanent disability of an additional 5 million (1). The tragic deaths and suffering continue to occur even though they are almost entirely preventable with the appropriate training, skills, technology, and commitment.

In Ethiopia, where one in four births is unintended or mistimed (2), researchers estimated that 382,000 induced abortion procedures were performed in 2008, and as many as 73% of them were performed outside of the designated heath facilities (3). Several studies have also estimated deaths due to unsafe abortion to contribute about 20-54% of all maternal deaths in Ethiopia (4-7).

Cognizant of the public health importance of unsafe abortion, the Ethiopian Parliament amended the penal code on abortion in 2005. The new law has stipulated to improve access to safe abortion care by expanding the legal indications. According the amended law, safe abortion can be performed legally in cases of rape or incest, if the woman has physical or mental disabilities, if it is needed to preserve the woman's life or her physical health, or if she is a minor who is

physically or mentally unprepared for childbirth. The reforms were intended at preventing unsafe abortion through the expansion of safe abortion services throughout the health care system.

In the years since enactment of the new law, the Ethiopian Ministry of Health has led a range of partners to make comprehensive abortion care available at all levels of the public health-care system. Ethiopia's thorough, systematic approach has ensured that women throughout the country – and especially poor, rural and young women – can obtain safe abortion-related care. National efforts have included the development and dissemination of national standards and guidelines for provision of abortion care in 2006, based on internationally endorsed guidance from the World Health Organization; training health care workers for their essential roles in service provision; ensuring that health-care facilities are equipped to offer high-quality care on a reliable basis, including planning for the sustainable supply of required equipment and medications; enabling private-sector providers to expand services, and integrating safe abortion and postabortion contraception into existing reproductive health services. While significant progress has been made over the past five to six years, the impact of this effort has not yet been evaluated.

The health sector in Ethiopia has expanded greatly in the last few years. As a result of these efforts, in the past 5 years, more than 5,000 health care workers (mostly mid-level providers) have been trained in comprehensive abortion care. In 2012, more than 200,000 Ethiopian women obtained abortion care safely through government and other health facilities preventing them from potential long and short-term morbidity due to unsafe abortions.

Using the same method employed in the 2008 study, this study provides updated estimates of the national and regional abortion incidence in 2014 (number, rates and ratios), the number and rates of legal, safe induced abortions, maternal morbidity and rates of abortion complications treated in health facilities. The new estimates will be compared with those documented in 2008 so as to determine the impact of the reformed law and service implementation on access to safe abortion services (3, 8-9). Using the 2008 study as a baseline enables us to know the extent to which the reduction of unintended pregnancies, unsafe abortions and the consequent morbidity have been achieved. Specifically, this research allows us to examine whether the changes to the

law and its implementation have affected the number of abortions being performed safely and in health facilities, whether abortion morbidity is decreasing, and whether unintended pregnancies are decreasing.

Methodology

The study was developed by a research team consisting of the Ethiopian Federal Ministry of Health (FMOH), Ethiopian Society for Obstetricians and Gynecologists (ESOG), Guttmacher Institute, Ipas and an independent consultant (YD). The Ethiopian Public Health Association (EPHA) was also involved in the administration and management of the study.

The specific objectives of the project were to estimate for 2014 the:

1. National and regional incidence of all abortion and legal, safe abortions;
2. National and regional abortion-related morbidity;
3. Proportion of women with complications who received care in health facilities; and
4. Proportion of pregnancies that is unintended in Ethiopia.

Study design:

The study will use a study design previously used in Ethiopia as well as other African nations. This study, with a facility-based design requires the fielding of three surveys:

a) Health facility-based prospective morbidity survey (PMS)
b) Cross-sectional health facility survey (HFS)
c) Cross-sectional Health Professional Survey (HPS)

Both the PMS and HFS were nationally representative surveys of health facilities that are likely to provide abortion services and /or treatment of abortion complications. In early 2013, a list of public hospitals and health centers was obtained from the Food, Medicine and Health Care Administration and Control Authority of Ethiopia (FMHACA)[1]; the list of private hospitals,

[1] FMHACA distributes food, medicine and medical equipment to public health facilities in Ethiopia.

higher and medium clinics was obtained from FMHACA and DKT[2]; the list of Blue Star clinics (MSE-franchise clinics) and MSE clinics was obtained from Marie Stopes Ethiopia; the list of FGAE clinics was obtained from the Family Guidance Association of Ethiopia; and the list of Ipas facilities was obtained from Ipas. These multiple sources were assembled to create a listing of the universe of health facilities in Ethiopia. The list was cross-checked to remove redundant and closed facilities.

A stratified random sampling plan was used, with an intention to include representation in all regions. The sample consists of a census of all hospitals and a proportion of facilities in each of the remaining level of health facilities: we maintained sampling fractions greater than 8% overall in each facility type in each region. Sampling fractions were for the whole country as well as within each region-facility type combination. Sampling was done without replacement and no attempt was made to identify abortion-providing facilities prior to inclusion in the sample. All facility types allowed to provide abortion care, either with MVA or MA, by the FMOH was entered into the sampling universe. This rendered a nationally representative sample of public, private, and non-governmental health facilities responsible for treating women with gynecological complications.

For the prospective study portion, all women seeking abortion care (for postabortion complications and safe legal abortion) in the selected health facilities during a 28-day period of data collection was the study population. A standardized questionnaire was used to capture demographic characteristics, reproductive history, presenting clinical signs and symptoms, and treatment information on all women who present for abortion care at participating health facilities. The data collectors in each facility, who are also the primary providers of abortion care during the study period, were trained to complete the study questionnaire. All other secondary providers were also oriented to complete the questionnaire for cases they manage.

For the cross-sectional health facility survey, one abortion care provider knowledgeable about postabortion and/or safe abortion care provision at the facility was selected for participation in

[2] The DKT list of facilities is a documented list of to whom DKT distributes their contraceptive supplies as they sell contraceptives to all facilities.

the survey. The health provider will be interviewed in person to provide estimates of the number of women who sought safe abortion services and postabortion care during the month preceding the interview as well as the number of women who seek abortion and postabortion care in a typical month. The same provider also provided information on various aspects of postabortion abortion care including availability of trained providers and appropriate technology to provide care and provision of postabortion contraceptive services.

For the key informants survey (HPS), a purposive sample of experts familiar with the situation of abortion in Ethiopia (urban and rural) was selected for a face-to-face interview. A list of potential respondents was collaboratively identified by members of the study team, members of the interviewer team, as well as with input from a few experts on abortion in Ethiopia who are involved at both the NGO and the clinical level. Then the list was vetted by members of the study team. A balance was sought to make sure that the list contained approximately two-thirds medical doctors and midwives, and about one-third non-medical individuals, e.g. researchers, policymakers and reproductive health program managers. Each key informant was asked to provide estimates of the rate of complications among women who have unsafe abortions according to different types of providers, where they reside (urban/rural), and their wealth status (nonpoor/poor) as well as the proportion who do not obtain medical care for complications they experience from unsafe abortion.

The interviewers for the HPS were gynecologists with backgrounds in public health. One had previous experience administering the HPS in 2008. The interviewers were trained over two days in Addis by members of the study team. For the HFS, 14 interviewers were selected, most of whom came from regional health bureaus. They all had backgrounds in both clinical and family health. They were trained over a three day training in Addis by members of the study team during which time they were given information about the overall study; the HFS questionnaire was explained in detail and every question was discussed. They had time to practice mock interviews with one another during the training. The HPS and HFS trainings were conducted in English with Amharic translation by Ethiopian co-investigators when necessary to make sure that comprehension among the field team was high. The HFS interviewers were also the Prospective Data Survey (PDS) supervisors and assisted the study team with the PDS training in their

respective region(s). The PDS trainings were held regionally over one days after the HFS training with appropriate providers invited from all relevant health facilities. The PDS trainings occurred mostly in Amharic. Fieldwork took place December 2013-April 2014.

An indirect estimation technique (the Abortion Incidence Complications Methodology) was applied to calculate the total number of induced abortions occurring in the country using as input the data generated from the prospective case capture, abortion care providers estimate, and key informants. Data from other sources, including the Demographic and Health Survey, the Central Statistics Office, Ministry of Health, and the United Nations was used for the purpose of estimating national and regional indices.

The study underwent an expedited review for the HFS and HPS and a full IRB review for the PDS with the Guttmacher Institute's IRB panel. Following Guttmacher IRB approval, the study was submitted and reviewed and approved by the Ethiopian Ministry of Science and Technology's IRB.

Of the facilities sampled for HFS (955), 885 not all of them were visited (the rest could not be reached due to their remoteness and security concerns reaching them). 517 facilities reported safe abortion care (SAC) estimates from either the HFS or the PDS; 233 facilities reported SAC estimates from HFS and PDS; 33 facilities reported SAC estimates in the PDS only; and 251 facilities reported SAC estimates in the HFS only. 601 facilities report PAC estimates from either the HFS or the PDS, 300 facilities have PAC estimates from both the HFS and PDS, 25 facilities have PAC estimates in the PDS only, and 276 facilities have PAC estimates in HFS only. One hundred key informants were interviewed as part of the Health Professionals' Survey.

Data analysis is currently ongoing.

Implications of the Research

This research is one of very few in the world to explore the incidence and rate of abortion over time and one of even fewer studies to assess the impact of the reform of abortion policy and practice over time.

The data is being used as vital input to the Federal Ministry of Health and Regional Health Bureaus for program planning, resource allocation, and the future evaluation of the long-term impact of existing and/or new interventions. Implementing partners working in the fields of safe motherhood, contraceptive services, safe abortion and postabortion care are also using the data to align their programs with the reality on the ground. The larger global reproductive health community may also benefit from this study because the impact of improving access to safe abortion has been documented in this study – this aspect has not been well documented in previous studies elsewhere. Moreover, the data will be an essential input for calculating future global and regional estimates of the impact of increases in contraceptive use in averting unintended pregnancies and further impacts including infant deaths and Disability-Adjusted Life Years by global organizations such as the WHO.

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