The Estimated Incidence of Induced Abortion In Ethiopia, 2014: Changes in the provision of services since 2008

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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. We conducted a study using the Abortion Incidence Complications Methodology (AICM) and the Prospective Morbidity Methodology (PMM) to determine the incidence of abortion so as to assess progress in Ethiopia since the last incidence study was conducted in 2008. In 2014, we found that an estimated 620,296 induced abortions occurred in Ethiopia, resulting in a rate of 28 abortions per 1,000 women 15-49 annually as compared to a rate of 22 in 2008. The abortion rate remains highest in Addis Ababa and the densely populated urban regions of Dire-Dawa and Harari. The proportion of abortions occurring in health facilities increased from 27% in 2008 to 53% in 2014, while an estimated 294,127 abortions (47% of all abortions) occurred outside of health facilities in Ethiopia in 2014. The number of women receiving treatment for complications from induced abortion increased by 97% between 2008 and 2014 from 52,607 to 103,648. The percent of pregnancies that were unintended in 2014 was 38%, slightly lower than the proportion (42%) in 2008. The government’s efforts to improve access to healthcare services as well as greater availability of free service and increased awareness of these services are commendable; nevertheless, unsafe abortion remains a reality which must be addressed.
Background

Cognizant of the public health impact of unsafe abortion, the Ethiopian Parliament amended the penal code on abortion in 2005. The new law improves 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 to prevent unsafe abortion through the expansion of safe abortion services throughout the health care system. For a country with a maternal mortality ratio of 676 maternal deaths for every 100,000 live births over the seven years preceding the 2011 DHS survey, the reforms are welcome attention to an area of public health that requires attention.

In the years since enactment of the new law, the Ethiopian Ministry of Health has led the expansion of comprehensive abortion care. Efforts have included the development and dissemination of national guidelines for provision of legal and safe abortion care in 2006 based on World Health Organization standards the which specified 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; introducing and expanding nationwide medical abortion as an option for induced abortion; enabling private sector providers to expand services; and integrating safe abortion and postabortion contraception into existing reproductive health services. The guidelines were revised in 2014 to update the clinical regimens and gestational limits for the use of medical abortion; the expanded provision of second trimester services; and the expansion of Integrated Emergency Surgical Officers (IESOs) as mid-level providers with the
capacity to provide comprehensive abortion care. In the years since the revision of the law, there has been an emphasis on reaching more women closer to where they reside by constructing and improving services in existing health centers and expanding the scope of work that midlevel providers in those health centers can provide, especially in abortion care. Given the continuing efforts to expand access to safe abortion care, it is important to assess the impact of these efforts on the incidence of legal abortion relative to the incidence of unsafe abortion.

In Ethiopia, where one in four births is unplanned, researchers estimated that 382,000 induced abortion procedures were performed in 2008, and as many as 73% of them were performed outside of designated health facilities. Since then, while access to legal abortion has increased, at the same time there have been changes in behaviors that affect unintended pregnancy and subsequently abortion—the increasing preference for smaller families and the rise in contraceptive prevalence. Using a methodology that is comparable to that employed in the 2008 study, we conducted a follow-up study to measure abortion service provision and the incidence of abortion and unintended pregnancy in 2014. Comparing new estimates for 2014 with those documented in 2008 permits assessment of the impact of the reformed law and service implementation on access to safe abortion services. Updated estimates of abortion incidence also allow us to monitor change in the incidence of unintended pregnancy. This paper focuses on changes in the number and rates of abortion and unintended pregnancies between 2008 and 2014 and their implications.

**DATA AND METHODS**

**Data Sources**
This study employed a variant of the approach that was used in the 2008 study, which collects information retroactively through the Abortion Incidence Complications Methodology (AICM) for indirectly estimating abortion incidence, and the Prospective Morbidity Methodology (PMM) for capturing abortion morbidity to estimate the regional and national incidence of abortion in Ethiopia in 2014. In addition, we used clinical data provided by two non-governmental clinic networks which provide abortion care.

The three surveys which were conducted to provide the information needed to estimate abortion incidence were:

- A Health Facilities Survey (HFS) which obtained information from a nationally representative sample of health facilities on the number of women provided abortion-related services – both legal abortions and postabortion care (PAC);
- A Prospective Data Survey (PDS) of all women receiving legal abortions as well as abortion complication patients treated during a 30-day period at a subsample of the same health facilities included in the HFS; and
- A Health Professionals Survey (HPS) conducted with a sample of knowledgeable experts which obtained estimates of the proportions of all women obtaining abortions who likely have untreated complications and those who do not have complications.

**Health Facilities Survey and Prospective Morbidity Survey**

Official data regarding abortion provision and treatment for postabortion care in Ethiopia are incomplete, as they are in many countries. Therefore, in early 2013, we assembled the universe of health care facilities in Ethiopia which are allowed by the Ministry of Health (MOH)
to provide abortion care. The Food, Medicine and Health Care Administration and Control Authority of Ethiopia (FMHACA) provided the most complete list of health facilities; this list was then cross-checked and compared to other available lists from other organizations: DKT International (an international organization that distributes contraceptives worldwide and which is the only distributor of medication abortion in Ethiopia); Marie Stopes International-Ethiopia (MSIE); and the Family Guidance Association of Ethiopia (FGAE). These lists were compared and combined into a single list and duplicates were deleted, to constitute the sampling frame for the HFS and PDS surveys. There has been a significant increase in the number of health facilities since the 2008 study. Whereas there were 898 eligible facilities in 2008, there were 4,033 eligible facilities in 2014, with most of the growth coming from a quintupling of public health centers and a large increase in private clinics.

The HFS and PDS samples were not identical: Both samples included government hospitals, private or nongovernmental organization (NGO) hospitals and public health centers but only the HFS sample included private clinics. Of the universe of 4,033 eligible facilities—that is, all facilities that were potential providers of abortion services—3% were government hospitals, 2% were private or NGO hospitals, 62% were public health centers and 33% were private clinics. 100% of public hospitals were included; proportions of the remaining five facility types (NGO/private hospitals, public health centers, higher private clinics, Blue Star private medium clinics*, private medium clinic s(non-Blue Star), and non-governmental clinics) were selected

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* Blue Star clinics are private primary care centers that have received additional training in SRH, especially contraceptive and induced abortion provision with MA. Post-training, these facilities are branded with the Blue Star logo for recognition of their expanded role in SRH care. Therefore, because of their greater likelihood of performing medical abortion, were sampled at a higher proportion of Blue Star clinics than private medium clinics that did not participate in the program.
within each of the country’s 11 regions using a multi-stage design that included 55 strata.† We determined proportions based on the likelihood of each type of facility providing abortion-related services, and selected a large enough proportion of facilities and number of facilities to minimize the sample weights and ensure adequate representation of variation within each strata. The HFS sample included 903 facilities while the PDS sample included 655. The response rate for the HFS was 91% while the response rate for the PDS was 82%. The final HFS sample comprised 822 facilities and the final PDS sample included 594 facilities.

The HFS is conducted as a face-to-face interview with one eligible staff member at each selected health facility using a structured questionnaire. The respondent is typically the person most knowledgeable about abortion care at that facility, often a midwife or a nurse, but it can also be an obstetrician/gynecologist (OB/GYN) or facility director depending on the size of the facility. The questionnaire covers the facility’s relevant infrastructure and equipment, and caseloads of legal abortion and postabortion care in an average month as well as in the past month. Separate counts were obtained for the number of outpatients and inpatients obtaining postabortion care. The PDS obtained data on each woman who was provided an abortion or treated for abortion complications during the 30-day study period including her demographic characteristics, reproductive history, presentation and clinical management. For the NGO facilities (MSIE and FGAE clinics), we used their service provision statistics as they were deemed more reliable than HFS-based estimates for these facilities. The data are weighted for sampling and non-response.

Interviewers for the HFS were primarily drawn from Regional Health Bureaus (RHBs); in three regions where RHBs did not have appropriate staff to conduct the fieldwork, interviewers were

† Some regions had no private or NGO clinics.
identified by the study team from other sources. All interviewers had backgrounds in health service provision and all but two had an MPH degree. These same individuals were supervisors for the PDS.

Health Professionals Survey
To estimate women’s likelihood of experiencing abortion complications and receiving treatment, we interviewed 82 knowledgeable key informants using a structured questionnaire from 8 of the 11 regions including service providers, researchers, program managers, policy makers and health experts. Respondents were selected from a list that was compiled by the study team in consultation with other stakeholders knowledgeable about abortion service provision in Ethiopia. About two-thirds of the sample was health care providers; one-third was composed of other types of knowledgeable informants. This was done to ensure that the estimates represented a wide range of perspectives and experiences. The inclusion of key informants who have non-health backgrounds provides community-based perspectives, while providers bring a perspective that reflects experience in health facilities. The three interviewers who were OB/GYNs.

Respondents were asked about three key aspects of abortion care: the distribution of women according to the types of providers from whom they obtain abortions, the probability that a woman would experience complications that need treatment in a facility by type of abortion provider, and that the likelihood that a woman would get care for such abortion complications. Key informants were asked to make estimates on each of these dimensions for four subgroups: urban poor, urban nonpoor, rural poor and rural nonpoor women.
Fieldwork for all three surveys took place between December 2013 and April 2014. The study underwent ethical review by the Guttmacher Institute’s IRB and by the Ethiopian Ministry of Science and Technology. Data collection was facilitated by approvals from the RHBs.

**Other data sources**

Other sources of information that we draw on for calculations include the 2011 Ethiopia Demographic and Health Survey (DHS) which provides information on sexual behavior, fertility, contraceptive use, the planning status of births and unmet need for contraceptive services for a nationally representative sample of women aged 15-49. The 2014 Ethiopia Mini Demographic and Health Survey provided information on the regional total fertility rates and the proportion of women who delivered in health facilities and we used projections of the number of women of reproductive age nationally and for each region from the Central Statistical Agency’s population projections. Lastly we used the Households Consumption Expenditure Survey from 2011 for the country’s rural/urban population distribution according to poverty level. The estimates are for 2014, the year in which most of the fieldwork was conducted.

**Estimating the Incidence of Induced Abortion**

**Number of legal induced abortions.** Our sources for the number of legal abortions are the HFS and PDS. We used an average of three data points to arrive at the best estimate of this number: From the HFS, we obtained two estimates—the number of legal procedures performed in the past month and in a average month; and from the PDS we obtained the number of women obtaining legal abortions in a 30 day period, annualized. These results are supplemented by service provision statistics for 2014 for the two largest NGO providers (MSIE and FGAE). The sum of the estimated number of abortions at all facilities other than those run by MSIE and FGAE plus the total number of abortions provided by the facilities run
by the two organizations gives us the total number of legal abortions in Ethiopia in 2014. The calculation differed for medium private clinics which were not covered by the PDS; for these facilities, the estimate is based on the average of the two data points from the HFS.

**Number of abortions induced outside of health facilities.** The sources of data for estimating abortions occurring outside of health facilities are the HFS, PDS and HPS surveys. The first two sources provide a count of women treated for abortion complications and the third provides a multiplier or factor that is applied to the number of women treated for induced abortions occurring outside of facilities (calculations described below) to provide an estimate of the total number of women having induced abortions outside of facilities.

**Complications from induced abortions treated in health facilities.** The number of women treated for abortion complications was estimated as the average of three values as we did for estimating legal abortions (the number treated in the average month and in the past month from the HFS and the total number of women treated for postabortion complications during the 30-day PDS data collection period). Again, the calculation differed for medium private clinics which were not covered by the PDS; for these facilities, the estimate is based on the average of the two data points from the HFS.

The HFS and PDS provide estimates of the total number of women who received treatment for abortion complications from both spontaneous and induced abortions no matter where the induced abortion occurred. However, for this analysis, we needed the number of women treated for complications from induced abortion occurring outside of facilities. To obtain a count of the number of women treated for complications from abortions occurring outside of facilities, we made two adjustments:
**a) Adjustment for late spontaneous abortions:** We used an indirect estimation approach to calculate the number of women likely to be treated for complications from miscarriages in health facilities in 2014. The distribution of miscarriages by gestation and the proportion of pregnancies ending as miscarriages are both fairly constant across populations. Information from prior clinical studies established the biological pattern of spontaneous abortion.\textsuperscript{14,15} For the purposes of this methodology, we assume that spontaneous abortions in the first trimester would not be treated in health facilities while late spontaneous abortions (13–21 completed weeks gestation) are likely to be result in complications that require care in health facilities. Late spontaneous abortions can be expressed as a proportion of pregnancies ending in live births, and this standard proportion is then applied to the number of live births in an area or country to obtain an estimate of the number of women having late spontaneous abortions. The proportion of all pregnancies that end as late spontaneous abortions (3.4\%) is applied to the number of live births for 2014 (3,521,021), yielding an estimate of 120,067 women with late spontaneous abortions in Ethiopia during 2014.

Due to barriers to accessing healthcare, not all women with late spontaneous abortions are expected to obtain care in health facilities. We therefore assume that the proportion obtaining facility-based care for late spontaneous abortions is equal to the proportion of all women who either delivered their last birth in a health facility or who did not deliver in a health facility because they considered it not necessary to do so. This proportion was calculated for each region using information obtained from the 2014 Mini DHS.\textsuperscript{11} The estimated number of spontaneous abortions likely to have been treated in health facilities was then removed from the regional postabortion caseload, yielding the number of women treated in health facilities for induced abortion complications. Nationally, of 166,133 women treated for postabortion complications, an estimated 38\% (63,602) were treated for spontaneous abortion complications, and 103,649 were treated for induced abortion complications.
b) Adjustment for complications from legal abortions: Some legal abortions result in complications, and some of these are treated in health facilities. This group also needed to be removed from the number of women treated in facilities for induced abortion complications to obtain the number treated for induced abortion complications performed outside of facilities. We estimated the likelihood of complications that need facility-based care occurring from procedures done by doctors or midlevel providers providing services in health facilities based on clinical data (3.3% of all medical abortion (MA) procedures). We used the complication rate from medical abortion since most legal abortions in Ethiopia are conducted with MA. We applied this proportion to the total number of legal abortions (326,169, nationally), and subtracted the estimated number likely to have been treated for complications in facilities (16,276) to obtain the number of women treated in facilities for complications from induced abortions done outside of facilities (86,255).

Total number of induced abortions occurring outside of health facilities: We estimated the total number of women having induced abortions outside of facilities by computing a multiplier or inflation factor based on HPS data, and applying this factor to the number treated in facilities for postabortion complications. The HPS provides estimates of the proportion of women who obtain treatment for complications from induced abortions outside of facilities. Using HPS estimates of the proportion of abortions that are performed outside of facilities, the likelihood of a woman experiencing complications and the probability of women getting treatment for those complications, we calculated a multiplier. Because the conditions under which women obtain abortions vary greatly by socioeconomic status and place of residence, information was obtained for each of four socioeconomic subgroups (urban poor and nonpoor, and rural poor and nonpoor). In the case of Ethiopia, we estimated a multiplier of 3.36—for each woman treated in health facilities for complications of an induced abortion outside of a facility,
there were 2.36 other women who either did not have complications that needed care in a facility or did not get care for their complications. The multiplier was applied to the number of cases treated for complications from induced abortions happening outside of facilities to produce estimates of the total number of such abortions in each region. Regional values were summed to provide a national estimate (294,127).

**Total number of induced abortions:** The number of legal abortions and abortions performed outside of facilities were summed for each region to produce the overall total number of abortions in that region in 2014. Abortion rates were calculated for each region and for the country as a whole (the number of induced abortions per 1,000 women aged 15-49) and also as ratios (the number of abortions per 100 live births). To produce low and high estimates of induced abortion incidence and rates, we calculated 95% confidence intervals around the both the mean number of legal abortions and the mean number of PAC cases from the HFS and PDS.

**Estimating Unintended and Intended Pregnancies:** To calculate the number of unintended pregnancies regionally and nationally, we summed the numbers of induced abortions, spontaneous abortions attributable to unintended pregnancies and unplanned births. The last measure was derived by multiplying the proportion of unplanned births (mistimed or unwanted at the time of conception, in the three years before the interview, based on the 2011 DHS) by the number of live births. To estimate the number of unintended pregnancies that end in miscarriage, we used a model-based approach from clinical studies of pregnancy loss by gestational age.\textsuperscript{14,17} We applied the parameters from that model—pregnancy losses are estimated to be 20% of live births plus 10% of induced abortions—to the number of unplanned births and the total number of abortions, respectively. The number of planned pregnancies was calculated similarly, by summing planned births and miscarriages from intended
pregnancies. The sum of all live births, abortions and miscarriages (from intended and unintended pregnancies) yields the total number of pregnancies.

Results

Provision of Safe Abortion Services and Postabortion Care

An estimated 4,033 facilities in Ethiopia were potential providers of abortion-related care in 2014 (Table 1). Of these facilities, 72% provide either legal abortion services or postabortion care. The large majority of public hospitals provide these services (98%), followed by private or NGO facilities (80%) and provision of abortion care is somewhat lower in public health centers (67%). Most legal abortion services (66%) are provided by private or NGO facilities while the majority of postabortion care (72%) is provided by public hospitals and health centers.

The number of women receiving treatment for complications from induced abortion increased by 97% between 2008 and 2014 from 52,607 to 103,648 (Table 2). Part of this increase is due to population growth: The population of women of reproductive age increased 28% in this time period. Therefore, there was only a 58% increase in the treatment rate per 1,000 women from 3.0 to 4.7. Another factor accounting for this increase in treatment is improvements in access to healthcare services in general including the greater availability of free service as well as increased awareness of these services among the population. The annual average caseload of legal abortion cases was 151 cases per facility. Hospitals had 235 cases per annum while private facilities had 221 legal cases per annum. The average number of postabortion cases treated per annum was 295 in public hospitals and approximately 50 in public health centers and private facilities.

Current Levels and Recent Trends in Legal and Illegal Abortion Incidence
Between 2008 and 2014, the proportion of abortions that were legally induced (i.e. performed in approved health facilities) increased from 27% in 2008 to 53% in 2014 which is a 97% increase, with the rate of legal abortions more than doubling, rising from 5.8 to 14.7 per 1,000 women. Despite the large gains made, abortions taking place outside of facilities remain a reality. An estimated 294,127 abortions (47% of all abortions) occurred outside of health facilities in Ethiopia in 2014, down from 73% in 2008; this represents a decline of 16% in the rate of abortions taking place outside of facilities between the time periods (dropping from a rate of 15.8 to a rate of 13.3).

Based on the HPS, mid-level providers in a facility are the most common providers of abortion: 28% of urban nonpoor, 43% of the urban poor, 46% of the rural nonpoor and 51% of rural poor are likely to have had their abortions performed by this type of provider. Only a very small proportion of women having abortions (between 1-3%), no matter where they reside, are believed to induce their own abortion (data not shown). Of those given an abortion by a mid-level provider, approximately a quarter are believed to have a complication while abortions performed by the woman herself are estimated to result in complications in more than 75% of the cases (data not shown). These differences are explained by the fact that while manual vacuum aspiration (MVA) and MA are widely used by service providers for inducing abortion, women who self-induce use oral herbs and insert solid objects in to their vaginas to initiate termination of pregnancy.

Between 2008 and 2014, all socio-economic groups were perceived to have made gains in access to facilities for abortion care. The exception is urban residents not considered poor who were perceived to have good access and utilization of care for abortion complications at both points in time. Poor women in rural areas were believed to have made the greatest progress, from less than half in 2008 to two-thirds of women in 2014 who needed postabortion care seeking and receiving care for their
complications. The main reasons why women were not accessing safe abortion services and still resorting to unsafe abortion, according to HPS key informants, were: Lack of knowledge of the law (76% gave this response), perceived cost of services (66%), lack of knowledge on service availability (64%), fear of stigma (56%) and lack of services in accessible sites (56%) (data not shown).

**Incidence of Induced Abortion**

In 2014, the estimated number of induced abortions in Ethiopia was 620,296. The 95% confidence interval around this estimate was 520,684 - 731,167 (Table 3). Thus, the median estimated number of abortions in 2014 is 60% higher than the comparable estimate in 2008 (382,000) -- this is partly due to population growth as stated above. Nationally, the induced abortion rate has increased from 22 to 28 per 1000 women 15-49 between 2008 and 2014. The national abortion ratio is estimated at 17.6 abortions per 100 live births. This means that there is approximately one abortion for every six pregnancies that end in a live birth.

In both study years, there was substantial regional variation in abortion rates that followed a similar rural, urban and peri-urban pattern. The abortion rate continues to be lowest in the least densely populated and most traditional rural regions – Afar, Gambella, Somali and Benshangul-Gumuz – either due to limited access, lower use of abortion services, or both. The abortion rate remains highest in Addis Ababa, where the desire for small families is greatest resulting in nearly one in ten pregnancies ending in abortion. The densely populated urban regions of Dire-Dawa and Harari also have a higher abortion rates relative to other regions. It is likely that all three of the regions with higher that average abortion rates have abortion seekers who do not reside in these regions coming into these urban areas to obtain abortion care in order to maintain their confidentiality.
Incidence of Unintended Pregnancy

The overall pregnancy rate in 2014 was 222 pregnancies per 1000 women 15-49, almost the same as the rate in 2008 (242). Combining induced abortions, unplanned births and unplanned pregnancies that ended in spontaneous abortion provides an estimate of the rate of unintended pregnancies, which in 2014 stood at 85 pregnancies per 1,000 women 15-49, 10% lower than this rate was in 2008 (94 per 1,000 women 15-49). Nationally, the percent of pregnancies that were unintended was estimated at 38% in 2014, slightly lower than the proportion in 2008 (42%, Table 4).

In 2014, the unintended pregnancy rate was much higher than the national average in urban provinces—Addis Ababa and the two urban regions, Harari and Dire Dawa (rates within the range of 120-123 per 1,000 women 15-49). The unintended pregnancy rate was somewhat higher than the national average in Oromiya (a rate of 97), close to average in SNNP and Amhara (77-80) and below average in Tigray (a rate of 60) and in the four rural regions combined (a rate of 37). Regional variation in the percent of pregnancies that are unintended follows the same pattern—much higher than the average of 38% in the urban regions (52-70%), and similar to the average in Amhara, SNNP and Oromiya; but below average in Tigray and the four rural regions (Table 4).

Discussion

Ten years since the passage of the revised abortion law, Ethiopia has achieved major progress in making legal abortion a reality for many women in the country. The proportion of all abortions occurring outside of health facilities in non-approved settings has declined dramatically, indicating that women with unplanned pregnancies now have greater access to legal abortions performed in health facilities than they did in 2008. The proportion of women who are accessing PAC has also increased. Even as access to abortion services has improved, the abortion rate rose only moderately, from 22 in 2008 to 28
per 1000 women 15-49 in 2014, and remains amongst the lower known abortion rates in Sub-Saharan Africa. For point of comparison, Nigeria’s abortion rate in 2012 was 33; Kenya’s abortion rate for the same year was 48; Senegal’s abortion rate also for 2012 was 17, the only country’s rate that is lower than Ethiopia’s; while Tanzania’s abortion rate for 2013 was 36.

Between 2008 and 2014, the total fertility rate decreased 24%, from 5.4 to 4.1. While we don’t have a measure of the wanted fertility rate for 2014, between 2008 and 2011, the wanted fertility rate went from 4.0 to 3.0. Unintended pregnancy declined moderately between 2008-2014, from a rate of 94 to 85 per 1,000 women 15-49. The country has achieved gains in modern contraceptive utilization, now at 40% of married women, up from just 27% in 2011. Married women’s unmet need for contraception has dropped from 34% in 2005 to 26% in 2011, the latest year for which data are available.

These trends reflect extensive efforts by government as well as the private and NGO sectors to increase access to health care in general (including sexual and reproductive health care) in Ethiopia over the past decade. Expanded efforts to create and improve infrastructure, particularly health centers, to increase the number of practicing midwives, to distribute and utilize medical abortion, to create a new category of midlevel providers called IESOs who can provide abortions, and to reach communities through greatly expanded social marketing and community outreach programs by Health Extension Workers (HEWs), have paid off in both reach and impact.

Ethiopia’s efforts to improve access to abortion since its liberalized law was put into place are to be commended. Abortion access has continued to improve in recent years and this has direct benefits for women’s health and the health of their families. The implications for policies and programs, as identified in the most recent Annual Performance Report of the Federal Ministry of Health and modified to be
relevant to abortion, are to scale up the training of mid-level providers in all health centers, increase the hours during which these services are provided, implement compensation mechanisms for staff to improve retention, ensure availability of water and electricity at these health facilities, and advocate for male partner involvement. Improving the capacity of health facilities would result in an increase in the proportion of health facilities that can provide legal abortion and PAC. Supportive male partner involvement would likely improve women’s access to finances that would improve their ability to access transport, a qualified provider, and follow-up care, if need be. A focus on improving access for women in rural areas and those who are most disadvantaged (illiterate women, women married very young, and women pastoralists, to name some of the groups) requires the most immediate attention. Ethiopia’s firm commitment to improving access to safe abortion will continue to improve women’s lives as the country’s progressive health policies are further implemented.
Acknowledgements

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References


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Table 1. Indicators of availability of legal abortion and postabortion services, by type of facility, 2014

<table>
<thead>
<tr>
<th>Facilities that provide postabortion or legal abortion services</th>
<th>All (N=822)*</th>
<th>Public hospitals (N=117)*</th>
<th>Public health centers (N=368)*</th>
<th>Private or NGO facility‡ (N=337)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of facilities that potentially provide legal abortion or postabortion services</td>
<td>4,033</td>
<td>120</td>
<td>2,596</td>
<td>1,239</td>
</tr>
<tr>
<td>% of facilities that actually provide services</td>
<td>72</td>
<td>98</td>
<td>67</td>
<td>80</td>
</tr>
<tr>
<td>Number of facilities that actually provide services</td>
<td>2,904</td>
<td>118</td>
<td>1,738</td>
<td>1,048</td>
</tr>
</tbody>
</table>

Facilities that provide legal abortion services

| % of facilities that actually provide services | 53           | 93                         | 41                            | 74                               |
| Number of facilities that actually provide services | 2,156        | 112                        | 1,076                         | 969                              |
| Average no. of women obtaining legal abortion procedures per facility† | 151          | 235                        | 79                            | 221                              |
| Total no. of women obtaining legal abortion procedures       | 326,169      | 26,217                     | 85,434                        | 214,518                          |

Facilities that provide postabortion services

| % of facilities that actually provide services | 70           | 98                         | 65                            | 75                               |
| Number of facilities that actually provide services | 2,809        | 118                        | 1,698                         | 993                              |
| Average no. of women treated per facility              | 60           | 295                        | 50                            | 49                               |
| Total no. of women treated for abortion complications** | 166,133      | 34,823                     | 84,291                        | 47,019                           |

* Unweighted numbers of actual surveys collected.
** Includes spontaneous and induced abortion complications.
† Caseload averages exclude facilities that reported no patients during the 30-day fieldwork period.
‡ Includes hospitals and clinics.
Note: All data in this table is weighted.
## TABLE 2. Abortion incidence, treatment rates and related demographic measures, 2014

<table>
<thead>
<tr>
<th>Measure</th>
<th>2008</th>
<th>2014</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Treatment /incidence rates</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of women receiving treatment for complications from induced abortion in a health facility</td>
<td>52,607</td>
<td>103,648</td>
<td>+ 97</td>
</tr>
<tr>
<td>Treatment rate for abortion complications*</td>
<td>3.0</td>
<td>4.7</td>
<td>+ 58</td>
</tr>
<tr>
<td>Number of legal induced abortions</td>
<td>102,818</td>
<td>326,169</td>
<td>+ 217</td>
</tr>
<tr>
<td>% of all induced abortions that are facility-based</td>
<td>26.9</td>
<td>53.0</td>
<td>+ 97</td>
</tr>
<tr>
<td>Facility-based abortion rate</td>
<td>5.8</td>
<td>14.7</td>
<td>+153</td>
</tr>
<tr>
<td>Number of induced abortions occurring outside of facilities</td>
<td>279,509</td>
<td>294,127</td>
<td>+ 5</td>
</tr>
<tr>
<td>% of all induced abortions that occur outside of facilities</td>
<td>73.1</td>
<td>47.0</td>
<td>- 36</td>
</tr>
<tr>
<td>Abortion rate of abortions occurring outside of facilities</td>
<td>15.8</td>
<td>13.3</td>
<td>- 16</td>
</tr>
<tr>
<td><strong>Demographic measures</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of women aged 15‒49</td>
<td>17,707,953</td>
<td>22,183,796</td>
<td>+ 25</td>
</tr>
<tr>
<td>No. of live births</td>
<td>2,964,323</td>
<td>3,521,021</td>
<td>+ 19</td>
</tr>
<tr>
<td>Total fertility rate†</td>
<td>5.4</td>
<td>4.1</td>
<td>- 24</td>
</tr>
<tr>
<td>Wanted total fertility rate†</td>
<td>4.0</td>
<td>na</td>
<td>na</td>
</tr>
</tbody>
</table>

* Per 1,000 women aged 15–49.
† Based on 2005 DHS and 2014 Mini DHS, respectively.

Sources: Population estimates for 2014 are based on 2012 estimates for women aged 15–49 by five-year age-groups from the 2007 Census, projected forward two years; DHS 2005, DHS 2011 and Mini DHS 2014. Figures for 2008 are interpolated from DHS 2005; some 2014 figures are interpolated from DHS 2011.
Table 3. Total number of facility-based abortions, estimated total number of abortions taking place outside of facilities, and estimated total number of induced abortions, the abortion rate and the abortion ratio, according to region, 2014

<table>
<thead>
<tr>
<th>Region</th>
<th>Total number of facility-based abortions</th>
<th>Estimated total number of abortions taking place outside of facilities</th>
<th>Estimated number of induced abortions</th>
<th>Abortion Rate</th>
<th>Abortion Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>All</td>
<td>326,169</td>
<td>294,127</td>
<td>520,684</td>
<td>20,621</td>
<td>39,679</td>
</tr>
<tr>
<td>Tigray</td>
<td>22,282</td>
<td>17,397</td>
<td>118,613</td>
<td>95,899</td>
<td>144,202</td>
</tr>
<tr>
<td>Amhara</td>
<td>45,812</td>
<td>106,325</td>
<td>152,137</td>
<td>185,662</td>
<td>19.9</td>
</tr>
<tr>
<td>Oromiya</td>
<td>105,132</td>
<td>39,070</td>
<td>95,899</td>
<td>12.2</td>
<td>18.3</td>
</tr>
<tr>
<td>SNNP</td>
<td>76,764</td>
<td>75,891</td>
<td>88,822</td>
<td>19.9</td>
<td>34.2</td>
</tr>
<tr>
<td>Addis Ababa</td>
<td>63,532</td>
<td>39,910</td>
<td>70,885</td>
<td>135,999</td>
<td>63.2</td>
</tr>
<tr>
<td>4 rural regions*</td>
<td>5,268</td>
<td>8,247</td>
<td>5,627</td>
<td>2.8</td>
<td>6.7</td>
</tr>
<tr>
<td>2 urban regions†</td>
<td>7,379</td>
<td>7,287</td>
<td>8,424</td>
<td>44.9</td>
<td>78.2</td>
</tr>
</tbody>
</table>

*Includes Afar, Somali, Benshangul-Gumuz and Gambela.
†Includes Harari and Dire Dawa.


Note: All data in this table are weighted.
Table 4. Number of pregnancies, rate of unintended pregnancy, percentage of pregnancies that were unintended and estimated pregnancy rate by region, 2014

<table>
<thead>
<tr>
<th>Region</th>
<th>No. of pregnancies*</th>
<th>Rate of unintended pregnancy†</th>
<th>% of pregnancies that are unintended</th>
<th>Pregnancy rate‡</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>4,927,554</td>
<td>85</td>
<td>38</td>
<td>222</td>
</tr>
<tr>
<td>Tigray</td>
<td>286,135</td>
<td>60</td>
<td>29</td>
<td>203</td>
</tr>
<tr>
<td>Amhara</td>
<td>915,489</td>
<td>77</td>
<td>43</td>
<td>179</td>
</tr>
<tr>
<td>Oromiya</td>
<td>1,958,062</td>
<td>97</td>
<td>39</td>
<td>249</td>
</tr>
<tr>
<td>SNNP</td>
<td>969,914</td>
<td>80</td>
<td>37</td>
<td>217</td>
</tr>
<tr>
<td>Addis Ababa</td>
<td>198,381</td>
<td>123</td>
<td>70</td>
<td>177</td>
</tr>
<tr>
<td>4 rural regions§</td>
<td>555,917</td>
<td>37</td>
<td>13</td>
<td>276</td>
</tr>
<tr>
<td>2 urban regions**</td>
<td>43,656</td>
<td>120</td>
<td>52</td>
<td>233</td>
</tr>
</tbody>
</table>

*Includes births, abortions and miscarriages.
†Number of unplanned births, abortions and miscarriages per 1,000 women 15–49 per year.
‡Number of pregnancies per 1,000 women 15–49 per year.
§Includes Afar, Somali, Benshangul-Gumuz and Gambela.
**Includes Harari and Dire Dawa.

Note: SNNP=Southern Nations, Nationalities and Peoples.

Sources: Population estimates for 2014 are based on 2012 estimates for women aged 15–49 by five-year age-groups from the 2007 Census, projected forward two years. Age specific fertility rates obtained from the 2011 DHS were applied to the population of women by five-year age-groups in 2011, to estimate the number of births in 2014. The proportion of births that were unplanned (unwanted or mistimed, also from the 2011 DHS) was applied to the total number of births (nationally and by region), to obtain the number of unplanned births in 2014. The number of abortions and miscarriages are estimates developed by the authors.