

An estimate of safe and unsafely induced abortion in Cambodia

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Introduction

Although abortion is legal in several countries in Asia, nearly one-third of unsafe abortions globally (6,500,000) take place in Southeast Asia (AGI, 1999). Induced abortion in the region is characterized by a mixture of open and restrictive laws and research is beginning to show that legal reform of abortion laws is not enough to change high levels of unsafe abortion (Jewkes et al. 2005; Feters et al. 2008). Efforts to promote equitable access to safe and legal induced abortion and reduce stigma must follow in order to reduce unsafe abortions.

Prior to 1997, Singh, Wulf and Jones used estimates from health professionals and experts to calculate the induced abortion rate in Southeast Asia. However, the calculations for Cambodia were based on only 5 interviews and were not robust enough to present as national estimates. Still, researchers proposed an abortion rate of 36 per 1,000 women age 15-44 for the nine diverse countries of Southeast Asia.

The abortion law in Cambodia was reformed in 1997 to allow abortion on request through the twelfth week of pregnancy and in certain circumstances during the second trimester. Since that time, three studies on induced abortion have been conducted in the country. The first study, an unpublished Master's thesis written by Felicia Lester, shed light upon the scope of unsafe abortion and demand for abortion services in Cambodia but is not generalizable to the broader population.

The Cambodia Demographic and Health Surveys conducted in 2000 and 2005, included questions asked of women of reproductive age about their own past abortion experience during the preceding five years (NIS 2000; NIS 2005). In 2000, only 5% of reproductive aged women reported one or more legal or unsafe abortions in their lifetime. In the 2005 survey this figure had decreased slightly to 4%. Although this study acknowledges social pressures, particularly in young and unmarried women, findings are subject to substantial underreporting.

The third study, Abortion-related complications in Cambodia, by Feters et al. published in 2008, uses abortion complications data collected from public sector facilities to make some estimation of unsafe abortion based on the symptoms of women presenting for treatment of these complications. However, this study only has information on women presenting for care at health facilities and only those in the public sector. Due to issues with Cambodian health care access and abortion practices, these results tend to underestimate the true magnitude of women seeking induced abortions and care for complications. In addition, recent research in Latin America and Cambodia has shown that the availability of misoprostol or other pharmacological agents should be considered in calculating abortion estimates (Grimes et al. 2006; Rolf 2008).

Measurement of induced abortion is important to evaluate family planning efforts, understand fertility dynamics and contraceptive failure rates, and to disaggregate the proximate determinants of fertility. Worldwide, almost one-quarter of the approximately 180,000,000 pregnancies that occur each year are believed to end in induced abortion (Incidence of Abortion Worldwide – Henshaw, Singh, Haas). In this study we propose a new method of estimation combining a household survey and public sector abortion complications data to produce a revised and updated induced abortion rate and ratios for Cambodia.

Methodology

The study was conducted in Cambodian public health facilities that provided delivery services. The sample included 100% of the country's public hospitals (n=71) and a nationally representative sample of 115 health centres drawn from a sampling frame of health facility and administrative data, using probability proportionate to size based on number of beds. (National Institute of Statistics et al., 2005). Seven hundred and sixty-six (766) health facilities met the inclusion criteria. Full details on the sampling universe, randomization and design have been published elsewhere (Fetters et al., 2008).

In the summer of 2005, data collectors (who were also abortion care providers) used a structured data capture form during 21 days in July-August 2005 to extract data on all induced abortion and all cases induced abortions, requests for induced abortion and abortion complications (women seeking postabortion care/PAC) due to incomplete, missed, inevitable, complete, and septic abortions of less than 22 weeks of gestation. The PAC cases were either the result of a spontaneous abortion (miscarriage) or an unsafely induced abortion. Patient data-capture forms measured demographics and reproductive history, symptoms that drew the patient to the facility, clinical management and costs of care. Providers were also asked to note any physical evidence of an abortion attempt and to ask women if they had "done anything to induce this abortion" as part of the routine case history taken on admission.

Data were collected over 21 consecutive days during a five-week period in July-August 2005. After weighting and multiplying by the number 21-day periods in a calendar year, case information recorded in these facilities represent the annual abortion cases managed in Cambodia's public sector.

The national abortion rate and ratio were estimated using the weighted study findings and Cambodia population estimates projected from the most recent national census (Table1). Weighted annual estimates were then re-calculated using the distribution of self-reported location of abortion reported by women in the Cambodia Demographic and Health Survey for 2005.

Results

Preliminary results provide estimates of the number and type of abortion cases captured within public health facilities in Cambodia in 2005. Three hundred and four (304) induced abortion cases were captured during the 21-day study period. Using weighted annualized projections, the total number of induced abortions for 2005 was estimated to be 17,993. The induced abortion rate in public health facilities, using US Census Bureau projections of the 2005 population of women ages 15-49 (Table 1) is 4.91(CI: 3.25-6.57) per 1,000 women. The concomitant abortion ratio is 5.28 (CI: 3.50-7.07) per 100 live births. The annual number of unsafe abortions, based on the 352 post-abortion care cases captured during the study period, was estimated to be 15,952. This resulted in a rate of 4.35 (CI: 3.22-5.49) unsafe abortions per 1,000 women and an abortion ratio of 4.69 (CI: 3.46-5.91)abortions per 100 live births. Combining the estimates of unsafe and induced abortions yielded an annual estimate of 30,563 abortions, a annual abortion rate of 8.43 (CI: 6.13-10.55) abortions per 1,000 women and an annual abortion ratio of 8.98 (CI: 6.60-11.35) abortions per 100 live births.

Using CDHS reports of abortion locations, approximations of abortions in private facilities, homes and other locations were also calculated. According to the 2005 CDHS, only 11% of abortions take place in public health facilities. The remaining portions are carried out in private clinics, at the homes of respondents or others, or in other locations. These estimates are currently being evaluated by the

research team, however, preliminary analyses suggest that the national annual number of abortions could be as high as 73,536, resulting in an abortion rate of 50.7 abortions per 1,000 women ages 15-49 and an abortion ratio of 54.6 abortions for every 100 live births.

Conclusion

This research provides an opportunity to quantify induced abortion in Cambodia where no evidence previously exists. The combination of abortion complications statistics and household survey reports provides yet another possibility for adding global evidence on safe and unsafely induced abortion in Cambodia and around the globe. Although not yet final, these data suggest that Cambodia's current abortion rate and ratio could be among the highest in Southeast Asia. Although abortion is legal in the country, most induced abortions are still being performed by unskilled or at least untrained abortion providers. These data have important repercussions for Cambodia, a country in demographic transition. Meeting the needs for safe and legal abortions, and even more importantly, preventing the unwanted pregnancies that cause this high demand could save women, their households and the national health system hundreds of thousands of dollars in treating postabortion complications.

Table 1: Cambodia demographic information (2005)

Women aged 15-49 ^a	3,644,327
Live births ^a	340,470
11% of abortions in past 5 years were performed in public facilities ^b	
89% of abortions in past 5 years were performed in private facility, woman or other person's home or elsewhere ^b	

^a US Census Bureau projections based on 1998 Cambodia census data

^b Cambodia DHS 2005

Table 2: Numbers of abortion cases for the annual and 21-day study period (2005)

	No. of cases during 21-day period	No. of cases annually*
Induced abortion	304	17,993
Induced abortions performed	178	8,236
Induced abortions referred elsewhere	126	9,756
Total abortion complications	629	31,579
Abortion complications due to unsafe abortion (strong clinical evidence or women's own reports of attempts to induce)	352	15,952

* Weighted and adjusted for sampling

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