Unsafe abortion continues to be an important factor affecting women's reproductive lives and survival in the developing world, where 98% of all unsafe abortions occur [1]. It has not declined in recent years, continuing at an annual rate of 16 per 1000 women of reproductive age in the developing world according to updated information for 2008 [2,3]. Laws that are highly restrictive help to explain the prevalence of unsafe abortion; however, even in some countries where the law permits abortion under broad indications, difficulties in accessing legal and safe services mean that high proportions of abortions are still unsafe [4].

Unsafe abortion has important consequences for morbidity and mortality, accounting for an estimated 13% of maternal deaths in developing countries, and for 5 million women being treated for complications of induced abortion each year [5], even though not all women who have abortion complications obtain needed medical care [6]. Abortion also has economic consequences in terms of direct cost for health systems and indirect cost for women, their families, and societies. Abortion impacts women's and families' budgets, since they must pay for the unsafe abortion, for some or all of the costs of treatment for complications, and for costs incurred by inability to perform normal economic and domestic activities for a period of time [7]. Abortion has social consequences including the risk of being denounced to authorities or imprisoned [8], the impact on the well-being of children and other family members from the death of a mother, and stigma experienced by women and their families [9,10]. Abortion is stigmatized because it violates the "three cherished 'feminine' ideals: perpetual fecundity; the inevitability of motherhood; and instinctive nurturing" [9], but stigma is particularly strong where abortion is highly legally restricted. For these reasons stigma tends to be strongest regarding young and unmarried sexually active women. Stigma may appear at the individual, community, or institutional levels. Abortion stigma can increase the risk of morbidity and mortality due to unsafe abortion because it can provoke a delay in seeking treatment; in addition, the negative attitude of health workers leads to poor quality of care, including further delays in attending to women seeking postabortion care.

This Supplement presents 16 papers that examine aspects of these 3 major consequences of unsafe abortion. These papers were presented at an international seminar organized by the Scientific Panel on Abortion Research of the International Union for the Scientific Study of Population (IUSSP), held in San Juan del Rio, Mexico, in November 2010, and coordinated by the Population Council, Mexico office [11]. The papers were revised based on comments by discussants, seminar participants, and panel members.

Eight of the papers address mortality and morbidity that result from unsafe abortion and postabortion care. Adler et al. [12] assess the global burden of the range of complications associated with unsafe abortion through a systematic review of published studies on women hospitalized for abortion complications. Schiavon et al. [13] propose a new indicator to estimate abortion mortality in Mexico: the number of abortion-related deaths per 100 000 hospitalizations for treatment related to all types of abortion, and apply it to government data for the public sector. Another paper on Mexico by Van Dijk et al. [14], analyzing case studies of women whose deaths were due to unsafe abortion using qualitative analysis to understand the conditions that led to their deaths, reveals the poor quality of postabortion services in facilities, as well as stigma among providers. Prada et al. [15] and Singh et al. [16] present new findings on trends in facility-based treatment of abortion-related complications in Colombia and Brazil, respectively. In Brazil, the incidence and severity of complications declined over the past two decades, probably owing to increased use of misoprostol; in Colombia, there is little change, possibly because of the relatively more recent increase in use of this method and associated higher incorrect and/or ineffective use of this now widely used method. Applying an established measure of level of severity of abortion-related morbidity in a pilot project in one province in Ethiopia, Gerds et al. [17] found that rural residence, lower education, being married, and being older were associated with having more severe morbidity. In a study in Madhya Pradesh (India), Banerjee et al. [18] examined differences in access to postabortion treatment comparing women with unsafe induced abortion and another group with spontaneous abortion. They concluded that the first group had more severe complications and experienced greater social and economic consequences due to a longer and more complicated pathway before finally obtaining medical care at a facility. Ogu et al. [19] assessed the quality of postabortion care in 8 states in Nigeria after a community-based intervention project to improve the quality of postabortion care offered by private providers. Based on client exit interviews, the authors concluded that provider training can reduce mortality and morbidity due to unsafe abortion in this highly legally restricted context.

Three papers addressed the economic consequences of unsafe abortion, combining empirical data and models (variations of a WHO model) to estimate the costs of providing postabortion care, including drugs, supplies, and personnel inputs, and out-of-pocket payments by women. Vlassoff et al. [20] analyzed a survey of 14 public and private health facilities in Ethiopia and found that the average total cost of postabortion treatment per patient was US $36, and the cost–benefit ratio if contraception was provided to...
help women avoid unintended pregnancy is 6:1 (for every dollar spent on contraception, $5 are saved on postabortion care costs). In Nigeria, Benson et al. [21] found that the cost of postabortion care for patients with moderate complications is 60% higher than the cost for patients with the least serious complications, and that the cost of using manual vacuum aspiration (MVA) is lower than the use of dilatation and curettage (D&C). In a study in Bangladesh, Johnston et al. [22] also found that providing postabortion care with MVA is less expensive than using D&C. The paper highlights the importance of permitting midlevel providers to offer postabortion care and provide postabortion contraceptive counseling and services.

Five papers on social consequences address an important consequence: stigma.

In Zambia, a country with a liberal abortion law, Geary et al. [23] interviewed community members, men and women, and in Malawi where the law is restrictive, Levandowski et al. [24] interviewed stakeholders. In both countries, the authors found that stigma is associated with abortion but also with unwanted pregnancies associated with non-marital sexual relationships, especially among adolescents and unmarried women. In Zambia, the authors also note that respondents thought that women seek abortion from traditional healers because of the stigma associated with abortion in formal abortion services. McMurtie et al. [25], in a study in Mexico, developed an indicator of stigma based on questions on hypothetical situations about women who aborted, and found that abortion stigma appears to be very common. This situation could have important implications for the possibility of improving access to legal abortion and postabortion care, as well as for the support that women can obtain from family members. Shellenberg et al. [26] explored perceived and internalized stigma among abortion patients in the USA and found that two-thirds of women perceived abortion stigma, mainly from their family or friends but also from healthcare providers, and that the majority of respondents had internalized stigma, expressed for example in the need to keep their abortion a secret from friends and family. Hosseini Chavoshi et al. [27], in a study in Iran where abortion is highly legally restricted, examined social and psychological consequences of abortion and found that stigma was associated with women concealing abortion, and that it influenced the way women seek abortion services and care for complications experienced.

Conflict of interest

The authors have no conflicts of interest to declare.

References