

# Recent trends in induced abortions: a global perspective

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The debate on abortion – a highly political and emotive issue – has become particularly lively over the last few months, following the Irish referendum which overturned its restrictive abortion law, but also US proposal to restrict access to abortion – despite the lack of evidence that restrictive laws could reduce the number of abortions [1].

Estimates of numbers, rates and trends of induced abortions in various countries, areas of the world, and globally, are inherently uncertain. Historically, the most valid figures come from official statistics of countries where abortions is legal [2]. This was particularly true in the past, when most induced abortions were surgically performed in hospitals or clinics, and hence subject to registration. The greater diffusion of medical abortions over recent years may well make registration of induced abortions more complex, and hence less valid even in countries where the practice is legal [3-5].

Where induced abortions is not legal nor systematically registered, the only sources of its frequency are (nationally representative) surveys [6, 7].

Induced abortion, however, is systematically underreported in interviews as well as in self-administered questionnaires. Even in high-income and socially advanced countries like Sweden, in a case-control study of breast cancer, response bias concerning legal abortion was 25%, indicating underreporting among controls [8]. Such underreporting may well be greater in other populations. In fact, the absence of relation between induced abortion and breast cancer was established from record-linkage cohort studies, but biased from studies based on self-report of induced abortions [9].

Given these the uncertainties, Sedgh et al. [6, 7] presented two different estimates of global incidence and trends of induced abortions worldwide. Not surprisingly, even these estimates by the same senior author and based on similar data – i.e. national registrations and nationally representative surveys – provide appreciably different estimates.

Thus, for the year 2008 the estimated rate in the 2012 report was 28/1000 women aged 15 to 44, and for the period 2005-2009 it was 34/1000 in the 2016 report, with 95% uncertainty interval (UI) between 33 and 41 /1000. Despite the different absolute rates, both reports agree that there was a 10 to 20% fall of global induced abortion rates in the 1990's, but no appreciable decline thereafter. The estimated global rate for 2010–2014 was 35/1000 women aged 15 to 44 (95%/UI 33-44). In addition, despite being the best estimates of rates and trends in induced abortion available to date, even these estimates are partly or largely subject to the underreporting bias discussed above. Thus, the real abortion rate may well be 20 to 25% greater than reported, as also reflected by the uncertainty interval whose upper limit in 2010–2014 was 44/1000 women [6].

Abortion rates were about 25% higher in low-income countries than in high-income ones, and there were selected areas - including Latin America (particularly, the Caribbean) and Eastern Europe - with exceedingly high rates, i.e. over 40/1000 women in 2010–2014 and upper UI over 50/1000. Rates were much lower (below 20/1000) in North America, northern and western Europe, and Oceania. The only region showing an appreciable decline (around 40%) in induced abortion rates over the period 1990–2014 was Europe, largely due to substantial falls in rates in central and eastern Europe after the end of non-market economies in that area of the continent. Globally, these rates translate into over 56 million induced abortions per year in 2010–2014, with an upper UI of 70 million, or to a percentage of 25% of

pregnancies ending in induced abortions (upper UI 29%).

These figures, which again may well be underestimated even in their upper UIs, provide a measure of the public health importance of induced abortions worldwide, particularly considering that unsafe induced abortions are a major cause of maternal death in middle and low income countries [10].

Assuming that the global rate of induced abortions could be reduced to those now reported for North America, northern and western Europe and Oceania (i.e. below 20/1000 women aged 15 to 44), about 40% (i.e., 20 to 25 million) of all induced abortions worldwide could be avoided. There is also an inverse relation between liberal abortion laws and abortion rates [7]. Thus, despite the fact that induced abortion is an accidental event [11, 12] which cannot be totally eliminated, avoidance of such a large proportions of cases worldwide is a priority intervention for reproductive health worldwide, particularly in middle and low income countries [3, 13].

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