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High hopes *versus* harsh realities: the population impact of emergency contraceptive pills

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Black *et al.* examine changes in the prevalence of emergency contraception (EC) use in Britain between 2000 and 2010; a period of major change in the availability of emergency contraceptive pills (ECPs).

We find two findings in this paper striking. First, despite increased availability there was no meaningful increase in the proportion of sexually active women aged 16-44 not intending pregnancy who used any type of EC in the past year between 1999-2001 (2.3%) and 2010-2012 (3.6%). Second, there was a shift toward obtaining ECPs from retail outlets (mostly pharmacies). These twin findings replicate earlier results from Marston and colleagues (BMJ 2005 Jul 30;331(7511):271), who found no increase in use in the past year from 2000 (8.4%) to 2001 (7.9%) to 2002 (7.2%) but a shift towards obtaining ECPs from a pharmacist (a third in 2002). It is puzzling that Black *et al.* found much lower use (based on NATSAL 2&3) than did Marston *et al.* (based on the Omnibus Survey), particularly since the latter included all women in the denominator whereas the former included only sexually active women.

The United States has also seen dramatic changes in EC access over the last 15 years. Ever-use of ECPs is reported in the National Survey of Family Growth (NSFG). These data demonstrate increases in ever-use from 4% in 2002 to 11% in 2006-10 to 18% in 2011-12 among women aged 15-44 who had ever had intercourse (NSFG Key Statistics: http://www.cdc.gov/nchs/nsfg/key_statistics/e.htm#emergency).

While there were high hopes that ECPs could reduce unintended pregnancy, the harsh reality is that at the population level, they have not. Thus, they are not cost-effective either. Only one of 15 published studies has demonstrated that increasing access to ECPs reduces pregnancy or abortion rates, despite one demonstration project and four clinical trials specifically designed to address this issue (Trussell *et al.*, 2016: <http://ec.princeton.edu/questions/EC-Review.pdf>). ECPs are, however, effective in preventing unintended pregnancy

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Linked article: This is a mini commentary on KI Black *et al.*

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at the individual level when actually used, so the most likely explanation for the lack of a population impact is that they are not used nearly often enough (*i.e.* they are not used after every act of unprotected intercourse). Barriers include inconvenience, cost, and failure to recognize pregnancy risk. Strategies to increase correct use of ECPs, including removal of the prescription requirement for ulipristal acetate ECPs, lowering the cost of levonorgestrel ECPs, and patient education regarding timely and appropriate EC use are important targets for future work.

Another option that offers a potential solution to infrequent ECP use for some women is the copper IUD. Unlike ECPs, which when taken today provide no protection against pregnancy from unprotected intercourse next week, placement of a copper IUD provides at least five or ten (depending on brand) years of highly effective contraception thereafter. Moreover, it is by far the most effective EC option, with a failure rate of 1 per 1,000 (Cleland *et al. Hum Reprod* 2012;**27**:1994-2000). Reducing barriers to copper IUDs, including providing same-day placement and ensuring provider training will offer women a greater choice of EC methods.

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