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Maternal deaths averted by contraceptive use: an analysis of 172 countries

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Summary

Background

Family planning is one of the four pillars of the Safe Motherhood Initiative to reduce maternal death in developing countries. We aimed to estimate the effect of contraceptive use on maternal mortality and the expected reduction in maternal mortality if the unmet need for contraception were met, at country, regional, and world levels.

Method

We extracted relevant data from the Maternal Mortality Estimation Inter-Agency Group (MMEIG) database, the UN World Contraceptive Use 2010 database, and the UN World Population Prospects 2010 database, and applied a counterfactual modelling approach (model I), replicating the MMEIG (WHO) maternal mortality estimation method, to estimate maternal deaths averted by contraceptive use in 172 countries. We used a second model (model II) to make the same estimate for 167 countries and to estimate the effect of satisfying unmet need for contraception. We did sensitivity analyses and compared agreement between the models.

Findings

We estimate, using model I, that 342 203 women died of maternal causes in 2008, but that contraceptive use averted 272 040 (uncertainty interval 127 937–407 134) maternal deaths (44% reduction), so without contraceptive use, the number of maternal deaths would have been 1·8 times higher than the 2008 total. Satisfying unmet need for contraception could prevent another 104 000 maternal deaths per year (29% reduction).

Interpretation

Numbers of unwanted pregnancies and unmet contraceptive need are still high in many developing countries. We provide evidence that use of contraception is a substantial and effective primary prevention strategy to reduce maternal mortality in developing countries.

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