

CRE HiPP BITE

Brokering Innovation Through Evidence

A bite-sized summary of a piece of research in preconception health, presented by Associate Professor Zohra Lassi, HiPPP EMR-C Conference Co-Chair



The preconception period is an ideal time for interventions aimed at (a) preventing teenage pregnancies and (b) increasing micronutrient supplementation prior to conception to improve health outcomes in teenage/early pregnancies.

Effects of preconception care and periconception interventions on maternal nutritional status and birth outcomes in low- and middle-income countries (LMICs): A systematic review

BACKGROUND

There has been growth in understanding of the importance of the preconception period, as well as initiatives to increase awareness and promotion of reproductive health from adolescence and beyond.

In order to achieve ideal maternal, birth, and neonatal health outcomes, it is important to invest in preconception care.

This study looks at the effectiveness of several types of preconception and periconception interventions in low- and middle-income countries (LMICs).

This systematic review analysed eligible studies to evaluate the following factors for women and girls living in LMICs:

- (1) The impact of preconception interventions in delaying age of first pregnancy;
- (2) Methods of optimising interpregnancy intervals; and
- (3) Benefits of periconceptual folic acid and iron + folic acid supplementation.

FINDINGS

When compared to control/placebo or standard care, this study found that:

- (1) Education on sexual health and contraception interventions to **delay age of first pregnancy** showed improvements in the use of condoms, but did not significantly reduce the risk of unintended pregnancies.
- (2) Education on sexual health and provision of contraceptives, along with involvement of male partners on **optimising interpregnancy intervals**, showed improvement in the uptake of contraceptives. However, this made little or no difference to the risk of unintended pregnancies when compared to education on sexual health only.
- (3) **Periconceptual folic acid supplementation** showed reduction in the incidence of neural tube defects.
- (4) **Periconceptual iron + folic acid supplementation** showed reduction in anaemia when supplemented weekly and in school set-ups. However, gastrointestinal side effects were commonly reported.

Lassi, Z.S., Kedzior, S.G.E., Tariq, W., Jadoon, Y., Das, J.K., Bhutta, Z.A. (2021). Effects of preconception care and periconception interventions on maternal nutritional status and birth outcomes in low- and middle-income countries: A systematic review. *Campbell Systematic Reviews*. 17(2), e1156. doi.org/10.1002/cl2.1156

RECOMMENDATIONS FOR PRACTICE

This review highlights improvements in the uptake of contraceptives through education on sexual health interventions to delay the age of first pregnancy and increase the intervals between pregnancies.

Similarly, the review underscores a reduction in neural tube defects and anaemia through periconceptual folic acid and iron + folic acid supplementation. These interventions should be promoted in countries with high prevalence of teenage/early pregnancies.

What is CRE HiPP

The Centre of Research Excellence in Health in Preconception and Pregnancy (CRE HiPP) is an innovative, passionate, multi-disciplinary team of researchers, clinicians, students and consumers.

We aim to refine and implement health promotion, lifestyle improvement and obesity prevention, strategically targeting women preconception and during pregnancy, to improve the health of women and the next generation.

Find out more about CRE HiPP at our website: hipp.org.au.

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