

# Priorities for research on family planning impact: recommendations of a WHO Think Tank meeting

Moazzam Ali ,<sup>1</sup> James Kiarie,<sup>1</sup> Iqbal Shah <sup>2</sup>

**To cite:** Ali M, Kiarie J, Shah I. Priorities for research on family planning impact: recommendations of a WHO Think Tank meeting. *Fam Med Com Health* 2023;**11**:e002406. doi:10.1136/fmch-2023-002406

## INTRODUCTION

Contraception, a novelty in the 1960s when less than 10% of couples in developing regions<sup>1</sup> were using a method has now become a norm in much of the world. In 2023, global contraceptive prevalence of any method was estimated at 65% and of modern methods at 59%.<sup>2</sup> With an estimated 748 million women using a modern method,<sup>2</sup> no other modern technology has been used voluntarily by so many people. US Centers for Disease Control has included family planning among the 10 great public health achievements of the 20th century.<sup>3</sup> Yet, close to one in five women continue to have an unmet need for family planning in 2023<sup>2</sup> and 40% of users discontinue use within 12 months of contraceptive adoption.<sup>4</sup>

WHO commissioned systematic reviews to synthesise the evidence on the impact of family planning on health and empowerment of women. A Think Tank meeting was held from 23 to 24 February 2023 to review the evidence and to identify gaps in knowledge. Thirty-four international experts and staff of partner agencies attended the meeting. This commentary highlights knowledge and research gaps that emerged from deliberations at the meeting. We present these gaps under two main sections: (1) knowledge gaps and future research; and (2) aspects on improving methodologies and interpretation of results.

## Knowledge gaps and future research Understanding uptake and continuation of contraceptive use

While levels of contraceptive prevalence have reached over 50% in many countries, prevalence among married or in-union women continues to be <20% in 19 countries mostly in Africa.<sup>5</sup> An important priority is thus to understand the barriers to low contraceptive use and high unmet need in order to formulate evidence-based focused efforts to meet existing demand for contraception.<sup>6</sup>

The health benefits of contraception can wither away when discontinuation of contraceptive use is high. Side-effects and health concerns (such as infertility) are the main reported reasons for discontinuation and non-use; however, there is little understanding of how experience of side-effects of different methods impact continuation. The group suggested a longitudinal study, preferably in some demographic surveillance sites, following up users, by method, non-users, adopters and discontinuers and examine symptoms and complications among users and non-users, by specific contraceptive methods. The analysis can quantify and compare both medically defined and user-defined side-effects. Methods associated with documented high medical side-effects would need concerted efforts of further refinement through research and development.

Studying the reasons for non-use among women with expressed need can be insightful both to address their concerns and also to design optimal women-centred interventions.

## Challenges in service provision

Family planning providers influence the choice of method by the user.<sup>7</sup> There is little information available on the method providers use, prefer or oppose. An interventional research with a focus on training family planning service providers to dispel their bias towards different methods to inform expansion of choice and method mix that is better suited to the needs and preferences of users can help identify remedial actions. Besides providers bias, policy-makers often decide on the allocation of funds, import and pricing of commodities and on matters related to supply and stockouts. Therefore, a similar study of the perspectives and use of contraceptives by policy-makers can reveal barriers to expanding the range of methods and facilitate addressing them.



© World Health Organization 2023. Licensee BMJ.

<sup>1</sup>Department of Sexual and Reproductive Health and Research, World Health Organization, Geneva, Switzerland

<sup>2</sup>Global Health and Population, Harvard University T H Chan School of Public Health, Boston, Massachusetts, USA

## Correspondence to

Dr Moazzam Ali;  
alimoa@who.int

The group suggests studying successful experience of antenatal care (ANC) interventions to inform family planning interventions in low contraceptive use settings. The use of ANC has risen rapidly and there may be lessons in the approaches used to promote ANC visits that can be applicable to promoting family planning.

The group also identified a number of knowledge gaps related to private sector, quality of care and use of national guidelines for family planning. In addition, the contraceptive and reproductive health needs of growing number of women in workforce are not well studied. The optimal approaches for counselling and provision of services to women in workforce need to be identified as these are likely to be different from women not in workforce who could be reached through community health workers or mobile clinics.

The group indicated that the evidence on the impact of integrated compared with vertical programmes is a topic of high priority for future systematic reviews and evidence generation. It is important to document the impact, especially of the performance of programmes that are integrated, but also identify aspects of integration that work well to inform optimal integration modalities. The challenges in implementing integrated services and of evaluation need to be better studied as well as the service context, such as high volume facilities versus low volume facilities where such efforts can be meaningful.

### Understanding the context

The group recommended to conduct a historical review of how and why contraception was adopted rapidly by countries in East Asia, Latin America, South-East Asia compared with the experiences in Africa. Such a study can identify approaches adopted by countries that led to rapid rise in contraceptive use. Family planning issues, such as stagnant method mix, inequality in use and limited choice of method in low fertility contexts need to be better addressed to articulate the continued need for family planning.

Another research gap identified by the group was about identifying the platform (community, school, clinic or digital) most effective for sexual and reproductive health interventions, including family planning, for adolescents and young women. Adolescent and young women may not reach out to facilities and providers that cater for adult women, though they may have family planning needs as much. Evidence on the most effective platform for the provision of sexual and reproductive health, including family planning, information and services for adolescents and young women is of high priority to prevent unintended and risky childbearing.

The group also recommended to broaden the evidence base of cost-effectiveness of various methods in preventing maternal morbidity and mortality and also economic benefits of family planning so as to strengthen country commitments and support domestic financing for family planning.

The relationship between climate change and population and family planning is complex and reciprocal.

The studies should define the aspects of climate change that are relevant for family planning, including health systems issues such as supply chain disruptions (due to pandemics) and storage as well as behavioural changes at the individual, household and at community level.

### Improving methodologies and interpretation of results

The group made three main observations and recommendations. First, approaches to study the impact of contraceptive use, both in terms of its benefits and costs, required longer-term studies with extended follow-up. Such studies should, therefore, be launched and supported in future. Second, in some cases, and especially for the study of the impact of contraceptive use on maternal mortality, the option of modelling the cumulative probability of risk may be the most appropriate choice. Systematic reviews are good to discern precise estimates by pooling randomised controlled trials (RCTs). However, RCTs are not always feasible or ethical in family planning. Therefore, the body of evidence on the impact of family planning interventions is weak especially for pooling studies to draw conclusions not affected by heterogeneity. Observational studies have their own limitations in terms of comparability and confounding factors. Thus, results should be carefully interpreted in the context of relative and absolute risk.

Third, future studies should use consistent measures. Observational studies can be more rigorous by considering selection biases and confounding factors to get high-quality evidence. Comparability in definitions and measurement is important. The group called for consistency in impact indicators, particularly around empowerment and agency.

### DISCUSSION

The WHO Think Tank meeting attended by world-renowned family planning experts from academia, bilateral and multilateral agencies, and with varying regional and disciplinary background, reviewed the large evidence synthesised and analysed in six papers. This review of evidence, supplemented by information provided by the participants assisted in the identification of research gaps and priorities by the participants.

The meeting noted that despite the success in increasing prevalence and contraceptive method mix globally, one in five women continue to have an unmet need for family planning in 2023, and 40% of users discontinue use within 12 months of contraceptive adoption. This demands further investigation and it was suggested that studying the reasons for non-use among women with expressed need can be insightful both to address users' concerns and also to design optimal women-centred interventions. Furthermore, contraceptive and reproductive health needs of growing number of women in workforce need to be studied to better address their needs.

Another challenge noted was that for impact assessment most of the published studies were either cross-sectional or poorly designed. There is a need to have longitudinal

studies, preferably in some demographic surveillance sites, focusing on factors affecting uptake and continuation of contraceptive use can help to understand determinants of users and non-users, adopters and discontinuers by specific contraceptive methods.

Most studies were focused on women's issues, however providers play a crucial role through counselling in helping to make decision in contraceptive choice. Providers bias towards certain methods needs to be studied further.

Furthermore, role of private sector in quality of care provision of family planning is an understudied area. There is realisation of the latest challenges globally such as relationship between climate change and its impact on family planning is complex and needs further understanding. It is pertinent to generate evidence to help policy and programme managers in making evidence-based decision. Besides the systematic reviews to generate evidence, it was noted that the option of modelling the cumulative probability of risk may be the most appropriate choice to study of the impact of contraceptive use on maternal mortality.

## CONCLUSION

Despite impressive gains in contraceptive uptake and the large amount of accumulated research on family planning, the WHO Think Tank meeting identified major knowledge gaps and priorities for future research. Despite a large number of studies that were reviewed and presented, the number of studies with low risk of bias and rigorous scientific design were few, making it harder to draw direct causal impact of contraceptive use on aspects of women's health and empowerment. Additional studies with robust scientific study design and longitudinal follow-up are needed.

**Twitter** Moazzam Ali @moazzam2000

**Acknowledgements** The authors would like to gratefully acknowledge comments, insights and guidance from the WHO Technical Advisory Group (TAG) on assessment of impact of family planning on women's health and socioeconomic status, consisting of (listed in Alphabetical order): Dr Ann Biddlecom; Dr Harriet Birungi; Professor Herbert Peterson; Dr Iqbal Shah; Professor John Cleland; Dr John Townsend; Dr Manala Makua and Professor Sonalde Desai. Furthermore, we are grateful to Dr Shayesteh Jahanfar, Tufts University School of Medicine, USA, Dr Nadia G Diamond Smith and Alison M El Ayadi, University of California San Francisco, USA, Zohra S Lassi, University of Adelaide, Australia for conducting the systematic reviews and colleagues and all meeting participants at John Hopkins University for their contributions in identifying research and knowledge gaps in

family planning field. This is also to declare that USAID did not participate in the analysis or interpretation or the decision to submit it for publication.

**Contributors** The Think Tank meeting was organised by MA to review the current global evidence and to identify gaps in knowledge on impact of contraceptive use on women's health. The idea for this paper was conceptualised by MA and IS. IS wrote the first draft and MA provided the key notes and recommendations from Think Tank meeting. The draft was reviewed, edited and refined by IS, MA and JK. All authors reviewed and provided input to earlier versions and approved the final version.

**Funding** This study received support from the USAID consolidated grant 7200GH211000005.

**Disclaimer** The author is a staff member of the World Health Organization. The author alone is responsible for the views expressed in this publication and they do not necessarily represent the views, decisions or policies of the World Health Organization. This report contains the collective views of an international group of experts and does not necessarily represent the decisions or the stated policy of the World Health Organization.

**Competing interests** None declared.

**Patient and public involvement** Patients and/or the public were not involved in the design, or conduct, or reporting or dissemination plans of this research.

**Patient consent for publication** Not applicable.

**Ethics approval** Not applicable.

**Provenance and peer review** Not commissioned; externally peer reviewed.

**Open access** This is an open access article distributed under the terms of the Creative Commons Attribution IGO License (CC BY NC 3.0 IGO), which permits use, distribution, and reproduction in any medium, provided the original work is properly cited. In any reproduction of this article there should not be any suggestion that WHO or this article endorse any specific organization or products. The use of the WHO logo is not permitted. This notice should be preserved along with the article's original URL.

## ORCID iDs

Moazzam Ali <http://orcid.org/0000-0001-6949-8976>

Iqbal Shah <http://orcid.org/0000-0001-8850-4374>

## REFERENCES

- 1 Bongaarts John. Implications of fertility trends for contraceptive practice. *Population and Development Review* 1984;10:341.
- 2 United Nations Population Division. Available: [www.population.un.org/dataportal/home](http://www.population.un.org/dataportal/home)
- 3 Centers for Disease Control (CDC). 10 great public health achievements of 20th century. *Morbidity and Mortality Weekly Report (MMWR)* 1999;48:241–3.
- 4 Ali Mohammed M, John JC, Shah I. *Causes and consequences of contraceptive discontinuation*. Geneva: World Health Organization, 2012.
- 5 United Nations Department of Economic and Social Affairs Population Division. World contraceptive use. 2022. Available: [Un.org/development/desa/pd/data/world-contraceptive-use](http://un.org/development/desa/pd/data/world-contraceptive-use) [Accessed 7 Jul 2023].
- 6 Cleland J, Shah IH. The contraceptive revolution: focused efforts are still needed. *Lancet* 2013;381:1604–6.
- 7 Solo J, Festin M. Provider bias in family planning services: a review of its meaning and manifestations. *Glob Health Sci Pract* 2019;7:371–85.