

Preconception care: Maximizing the gains for maternal and child health

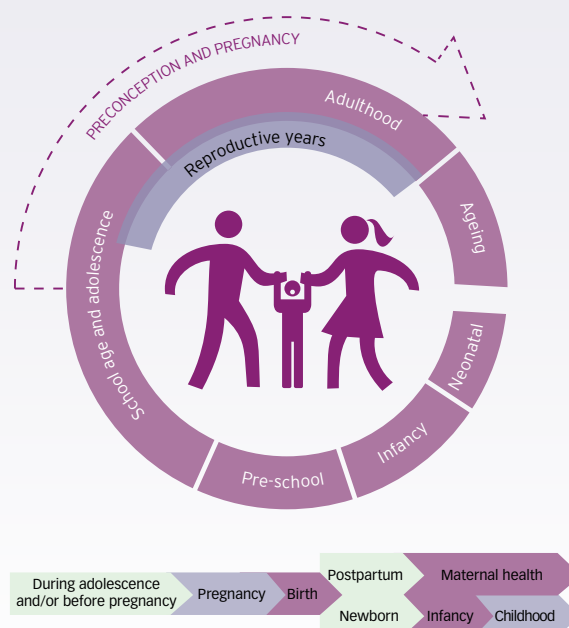


A new WHO report shows that preconception care has a positive impact on maternal and child health outcomes (1). Addressed primarily at health professionals responsible for developing national and local health policies, the report provides a foundation for implementing a package of promotive, preventive and curative health interventions shown to have been effective in improving maternal and child health. A wide range of sectors and stakeholders needs to be engaged to ensure universal access to preconception care. The report also guides non-health sectors, foundations and civil society organizations to collaborate with, and support, public health policy-makers to maximize gains for maternal and child health through preconception care.

What is preconception care, and what is its aim?

Preconception care is the provision of biomedical, behavioural and social health interventions to women and couples before conception occurs. It aims at improving their health status, and reducing behaviours and individual and environmental factors that contribute to poor maternal and child health outcomes. Its ultimate aim is to improve maternal and child health, in both the short and long term (1).

Opportunities to prevent and control diseases occur at multiple stages of life; strong public health programmes that use a life-course perspective from infancy through childhood and adolescence to adulthood are needed. Preconception care contributes to these efforts. Even if preconception care aims primarily at improving maternal and child health, it brings health benefits to the adolescents, women and men, irrespective of their plans to become parents.





Facts:

- 4 out of 10 women report that their pregnancies are unplanned (2). As a result, essential health interventions provided once a woman and her partner decide to have a child will be too late in 40% of pregnancies.
- Maternal undernutrition and iron-deficiency anaemia increase the risk of maternal death, accounting for at least 20% of maternal mortality worldwide (1).
- In 2010, 58 000 newborn babies died from neonatal tetanus (3).
- Female genital mutilation increases the risk of neonatal death (including stillbirths) by 15% to 55% (4).
- Perinatal deaths are 50% higher among children born to mothers under 20 years of age compared to mothers aged 20–29 years (1).
- Up to 35% of pregnancies among women with untreated gonococcal infections result in low birth weight infants and premature deliveries, and up to 10% result in perinatal death (1).
- In the absence of interventions, rates of HIV transmission from mother to child are between 15 and 45% (1).
- Violence against girls and women results in adverse physical, psychological and reproductive consequences, as well as increased risk for premature delivery and low-birth-weight infants (5).
- Women with epilepsy are at increased risk of having babies with congenital anomalies (both epilepsy and the medications given for its control may have adverse effects on the baby) (1).
- Estimates indicate that eliminating smoking before or during pregnancy could avoid 5–7% of preterm-related deaths and 23–24% of cases of sudden infant death syndrome (1).

Preconception care can make a difference

Why invest in preconception care?

Preconception care has a positive effect on a range of health outcomes. Among others, preconception care can:

- reduce maternal and child mortality
- prevent unintended pregnancies
- prevent complications during pregnancy and delivery
- prevent stillbirths, preterm birth and low birth weight
- prevent birth defects
- prevent neonatal infections
- prevent underweight and stunting
- prevent vertical transmission of HIV/STIs
- lower the risk of some forms of childhood cancers
- lower the risk of type 2 diabetes and cardiovascular disease later in life.

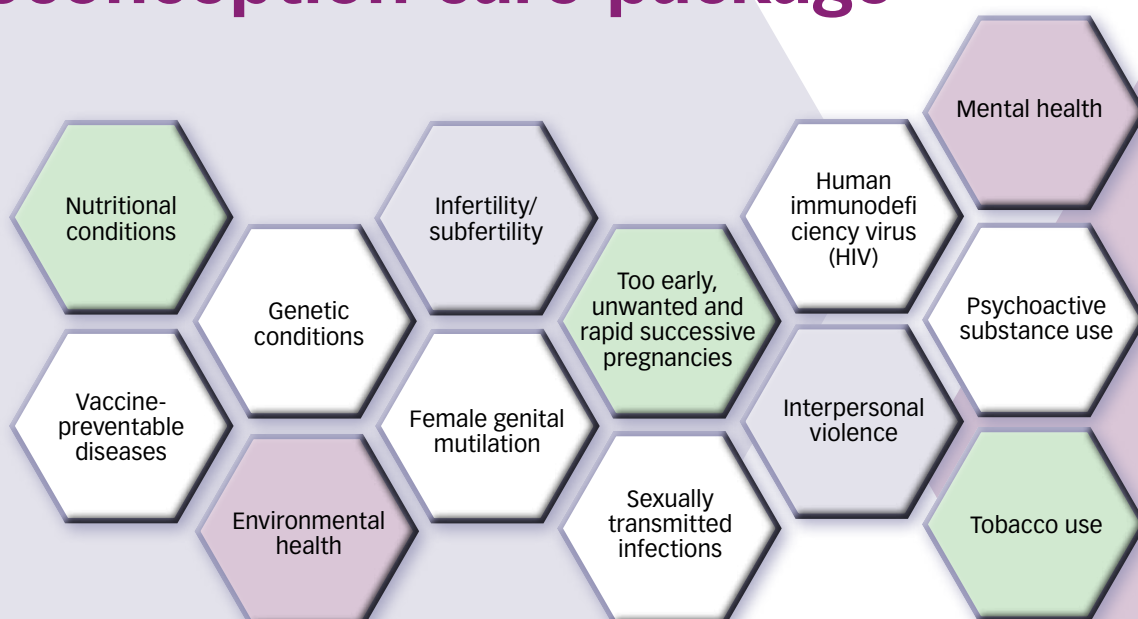
Gaps are substantial

Even where strong public health programmes are in place across the life-course, they do not guarantee that women enter pregnancy in good health.

Examples of successful preconception care initiatives are available to inform policy-makers

There is growing experience in implementing preconception care initiatives both in high-income countries, such as Italy, the Netherlands and the United States, and in low- and middle-income countries, such as Bangladesh, the Philippines and Sri Lanka (1).

Areas addressed by the preconception care package



What is the package of preconception care interventions?

Areas addressed by the preconception care package

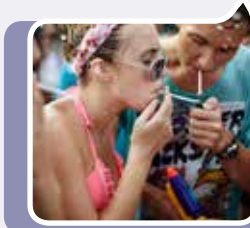
Examples of evidence-based interventions¹

Nutritional conditions



- Screening for anaemia and diabetes
- Supplementing iron and folic acid
- Information, education and counselling
- Monitoring nutritional status
- Supplementing energy- and nutrient-dense food
- Management of diabetes, including counselling people with diabetes mellitus
- Promoting exercise
- Iodization of salt

Tobacco use



- Screening of women and girls for tobacco use (smoking and smokeless tobacco) at all clinical visits using "5 As" (ask, advise, assess, assist, arrange)
- Providing brief tobacco cessation advice, pharmacotherapy (including nicotine replacement therapy, if available) and intensive behavioural counselling services
- Screening of all non-smokers (men and women) and advising about harm of second-hand smoke and harmful effects on pregnant women and unborn children

Genetic conditions



- Taking a thorough family history to identify risk factors for genetic conditions
- Family planning
- Genetic counselling
- Carrier screening and testing
- Appropriate treatment of genetic conditions
- Community-wide or national screening among populations at high risk

Environmental health



- Providing guidance and information on environmental hazards and prevention
- Protecting from unnecessary radiation exposure in occupational, environmental and medical settings
- Avoiding unnecessary pesticide use/providing alternatives to pesticides
- Protecting from lead exposure
- Informing women of childbearing age about levels of methyl mercury in fish
- Promoting use of improved stoves and cleaner liquid/gaseous fuels

Infertility/sub-fertility



- Creating awareness and understanding of fertility and infertility and their preventable and unpreventable causes
- Defusing stigmatization of infertility and assumption of fate
- Screening and diagnosis of couples following 6–12 months of attempting pregnancy, and management of underlying causes of infertility/sub-fertility, including past STIs
- Counselling for individuals/couples diagnosed with unpreventable causes of infertility/sub-fertility

1. Meeting to develop a global consensus on preconception care to reduce maternal and childhood mortality and morbidity. Geneva, World Health Organization, 2013.

Interpersonal violence



- Health promotion to prevent dating violence
- Providing age-appropriate comprehensive sexuality education that addresses gender equality, human rights, and sexual relations
- Combining and linking economic empowerment, gender equality and community mobilization activities
- Recognizing signs of violence against women
- Providing health care services (including post-rape care), referral and psychosocial support to victims of violence
- Changing individual and social norms regarding drinking, screening and counselling of people who are problem drinkers, and treating people who have alcohol use disorders

Too-early, unwanted and rapid successive pregnancies



- Keeping girls in school
- Influencing cultural norms that support early marriage and coerced sex
- Providing age-appropriate comprehensive sexuality education
- Providing contraceptives and building community support for preventing early pregnancy and contraceptive provision to adolescents
- Empowering girls to resist coerced sex
- Engaging men and boys to critically assess norms and practices regarding gender-based violence and coerced sex
- Educating women and couples about the dangers to the baby and mother of short birth intervals

Sexually transmitted infections (STIs)



- Providing age-appropriate comprehensive sexuality education and services
- Promoting safe sex practices through individual, group and community-level behavioural interventions
- Promoting condom use for dual protection against STIs and unwanted pregnancies
- Ensuring increased access to condoms
- Screening for STIs
- Increasing access to treatment and other relevant health services

HIV



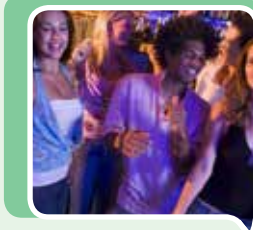
- Family planning
- Promoting safe sex practices and dual method for birth control (with condoms) and STI control
- Provider-initiated HIV counselling and testing, including male partner testing
- Providing antiretroviral therapy for prevention and pre-exposure prophylaxis
- Providing male circumcision
- Providing antiretroviral prophylaxis for women not eligible for, or not on, antiretroviral therapy to prevent mother-to-child transmission
- Determining eligibility for lifelong antiretroviral therapy

Mental health



- Assessing psychosocial problems
- Providing educational and psychosocial counselling before and during pregnancy
- Counselling, treating and managing depression in women planning pregnancy and other women of childbearing age
- Strengthening community networks and promoting women's empowerment
- Improving access to education for women of childbearing age
- Reducing economic insecurity of women of childbearing age

Psychoactive substance use



- Screening for substance use
- Providing brief interventions and treatment when needed
- Treating substance use disorders, including pharmacological and psychological interventions
- Providing family planning assistance for families with substance use disorders (including postpartum and between pregnancies)
- Establishing prevention programmes to reduce substance use in adolescents

Vaccine-preventable diseases



- Vaccination against rubella
- Vaccination against tetanus and diphtheria
- Vaccination against Hepatitis B

Female genital mutilation (FGM)



- Discussing and discouraging the practice with the girl and her parents and/or partner
- Screening women and girls for FGM to detect complications
- Informing women and couples about complications of FGM and about access to treatment
- Carrying out defibulation of infibulated or sealed girls and women before or early in pregnancy
- Removing cysts and treating other complications

An agenda for action: Learning from experience, supporting change

In February 2012, a World Health Organization (WHO) meeting brought together researchers, practitioners and programme managers with experience in preconception care, as well as United Nations agencies and partner organizations to achieve a global consensus on the place of preconception care as part of an overall strategy to prevent maternal and childhood mortality and morbidity (1).

An agenda for action was agreed upon at the meeting, including actions to:

- Build regional and national capacity to plan, implement and monitor preconception care programmes and services.
- Stimulate and support country action.
- Carry out demonstration projects in selected countries.
- Document and disseminate good preconception care practices.

The “Draft action plan for the prevention and control of noncommunicable diseases 2013–2020” which were discussed at the 66th World Health Assembly in May 2013, calls governments to reduce modifiable risk factors for noncommunicable diseases and underlying social determinants. Preconception care, as part of the national policy framework, is recognized as an important contributor to noncommunicable disease prevention and control (6).

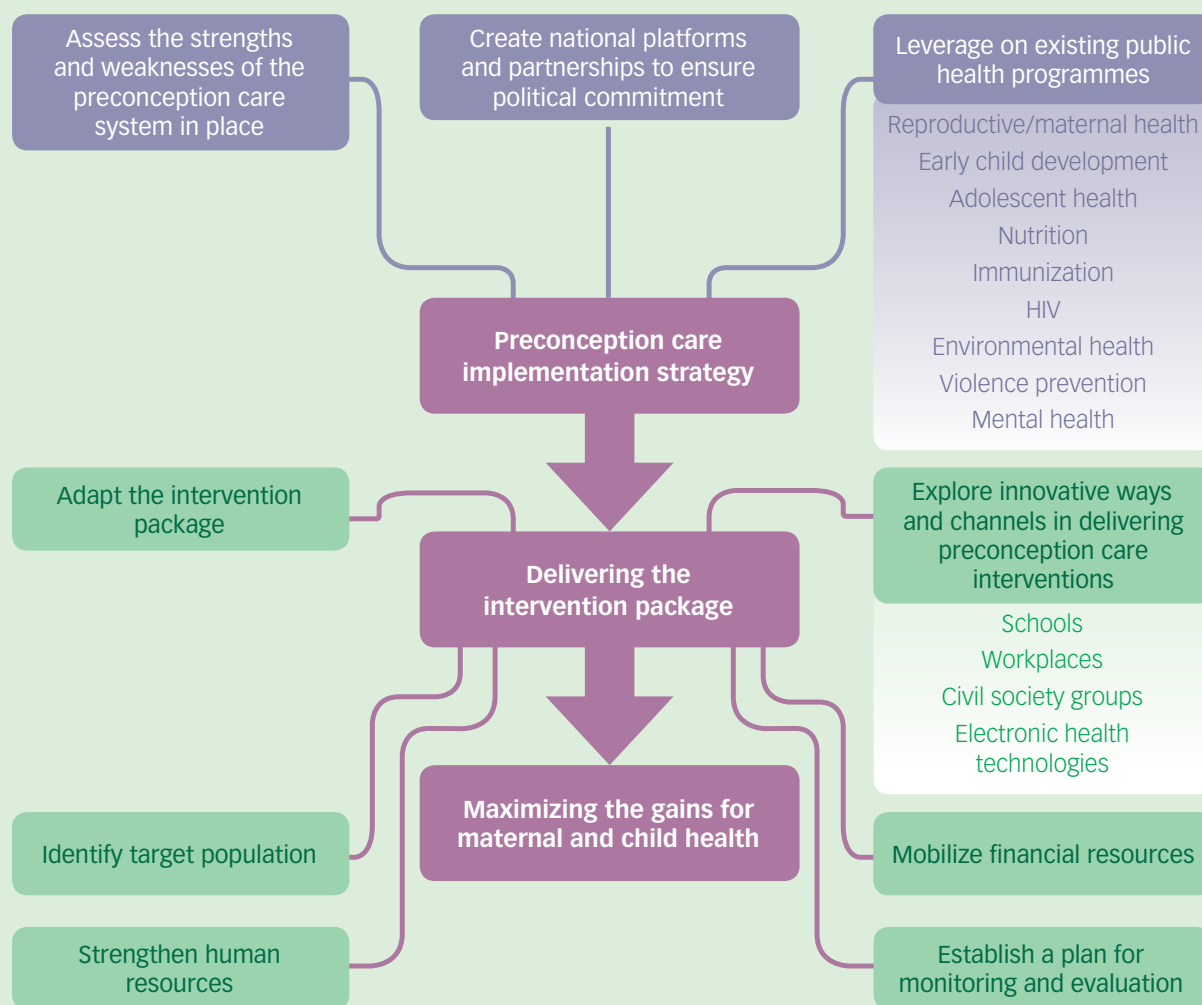
Photos credits:

Page 4 (top to bottom): 123RF, 123RF, Bill & Melinda Gates Foundation, Bill & Melinda Gates Foundation, Pippa Ranger/Department for International Development

Page 5 (top to bottom): iStock, Albert González Farran/UNAMID, bigstock, IWHC, Bill & Melinda Gates Foundation

Page 6 (top to bottom): 123RF, Pippa Ranger/Department for International Development, Bill & Melinda Gates Foundation

A strategy for country action



WHO support to countries

WHO supports regions and countries in implementing a step-by-step process to improve availability of and access to preconception care interventions:

- Create regional/national platforms and partnerships to advance preconception care interventions.
- Introduce professionals in countries to international experience, research, evidence and good practices.
- Provide a methodology to analyze and understand the strengths and weaknesses of the preconception care system in place, and opportunities for improvement.
- Explore various delivery strategies for preconception care interventions, and their comparative advantages in terms of coverage, feasibility, acceptability and cost.
- Adapt the package of preconception care interventions to regional and country priorities, and health systems contexts.
- Explore and document innovative ways to deliver preconception care outside the traditional maternal and child health programmes, while recognizing the importance of integrated delivery mechanisms.
- Develop a roadmap to make changes over time.
- Monitor, evaluate and document progress.



More information on preconception care

Further preconception care perspectives on alternative definitions, sensitive issues, target groups, delivery mechanisms, specific regional considerations, as well as the full package of interventions, are available in the report of the 2012 meeting (1).



http://www.who.int/maternal_child_adolescent/documents/consensus_preconception_care/en/

References

1. Meeting to develop a global consensus on preconception care to reduce maternal and childhood mortality and morbidity. Geneva, World Health Organization, 2013.
2. Singh et al, Unintended Pregnancy: Worldwide Levels, Trends, and Outcomes, 2010. *Studies in Family Planning*, 2010; 41(4): 241–50.
3. Liu et al, "Global, regional, and national causes of child mortality: an updated systematic analysis for 2010 with time trends since 2000". *The Lancet* 2012, 379: 2151–61.
4. An update on WHO's work on female genital mutilation: Progress report. Geneva, World Health Organization, 2011.
5. *Born too soon: The global action report on preterm birth*. Geneva, World Health Organization, 2012.
6. World Health Organization, World Health Assembly, A66/9, 6 May 2013. Draft action plan for the prevention and control of noncommunicable diseases 2013–2020. Geneva, World Health Organization, 2013.

Photos credits:

Front cover (left to right): Vicki Francis/Department for International Development, iStock, Bill & Melinda Gates Foundation
Back cover (left to right): Bill & Melinda Gates Foundation, IHH Humanitarian Relief Foundation/TURKEY, Lucy Milmo/DFID

Department of Maternal, Newborn, Child and Adolescent Health

20 Avenue Appia
1211 Geneva 27, Switzerland

Tel +4122 791 3281
Fax +4122 791 4853

Email: mncah@who.int

Website: www.who.int/maternal_child_adolescent/en



©World Health Organization 2013, all rights reserved.