Summary report on the

Informal working group on promoting preconception care in the Eastern Mediterranean Region

WHO-EM/WRH/099/E

Cairo, Egypt
7–8 September 2015

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1. Introduction

The WHO Regional Office for the Eastern Mediterranean held an informal working group on promoting preconception care, in Cairo, Egypt, on 7 and 8 September 2015. The working group was attended by nine experts from Bahrain, Egypt, Switzerland, Tunisia, United Kingdom and United States of America, as well as staff from the United Nations Relief and Works Agency for Palestine Refugees (UNRWA) and WHO Regional Office.

The working group objectives were to:

- discuss the preconception care evidence-based interventions recommended during the Muscat meeting on promoting preconception care held on 25–27 March 2015 in Oman;
- reach a consensus on a set of regional core interventions based on the scientific evidence, burden of disease, accuracy and feasibility of screening, availability of effective treatment, and the impact of those interventions on maternal and child health outcomes; and
- discuss and agree on priority actions for the development of flexible preconception care programme guidance to be adopted/adapted by Member States for integrating/strengthening preconception care in national health systems.

In his opening remarks, Dr Ala Alwan, WHO Regional Director for the Eastern Mediterranean, noted that maternal and child health was one of five public health priorities in the Region. He said that the highest maternal and child mortality rates were concentrated in nine Member States and that WHO and concerned partners, particularly the United Nations Population Fund (UNFPA) and United Nations Children's Fund (UNICEF), were supporting these countries in responding to the health needs of women and children. Dr Alwan said that the process had started with a maternal and child health situation analysis and then evidence-based maternal and child health acceleration plans had been developed and

supported with cost-effective interventions that had a high impact on improving maternal and child health. He stated that in moving from the Millennium Development Goals (MDGs) to the Sustainable Development Goals (SDGs), improving maternal and child health remained a regional priority and would be addressed based on the achievements of Saving the Lives of Mothers and Children, the regional initiative launched in Dubai in 2013, and with the involvement of Member States. Dr Alwan advised that improving the content and quality of care throughout the individual's life-span, including during the preconception period, would contribute to better maternal and child health outcomes.

The Regional Director highlighted that reinforcing preconception care within maternal and child health programmes should be done by adopting and implementing evidence-based, cost-effective and culturally-sensitive interventions that had a high impact on maternal and child health, the so-called "best buys". The development of these best buys required a core set of preconception care interventions that would be selected based on specific criteria relevant to the Region and that could be assessed using process indicators and monitoring framework. Dr Alwan underscored the importance of considering the socioeconomic situations of Member States when analysing the challenges and selecting the core interventions to be adopted according to the feasibility of implementation and the disease burden. He also emphasized the need to achieve a consensus in the working group on the recommended core interventions for all Member States, along with the steps that programmes should follow to implement an integrated approach for preconception care delivery.

2. Summary of discussions

Preconception care aims to promote the health of women of reproductive age before conception in order to improve pregnancy-related outcomes. Optimizing a woman's physical, mental and social well-being in preconception care includes obtaining accurate information about her health status, general lifestyle, nutrition,

tobacco, alcohol and other substance use, obstetric and medical history, and genetic conditions in the family followed by the appropriate counselling, prevention and management interventions.

The working group deliberation focused on examining globally practiced preconception care interventions and their delivery systems in order to decide on a list of core interventions and a framework that can best be implemented in the countries of the Eastern Mediterranean Region, taking into consideration the existing preconception care interventions and the specific demands for improving birth outcomes. There was consensus on the evidence-based core interventions of preconception care that would result in a good impact on maternal and child health outcomes. The selected core interventions were defined as a set of essential preconception care activities to be adopted by all countries. In addition, it was agreed to add an expanded list of preconception care interventions that includes activities that countries can adapt according to existing resources.

Participants shared their concerns on the impact of congenital disorders on mortality and severe morbidity among newborn infants. Reducing the birth rates of these disorders through primary prevention was felt to be an important target when deciding on the core preconception care interventions. Preliminary situation analysis of observational data and advanced estimations of rates of congenital disorders and their influencing factors, showed that most countries in the Region share specific features that augment the birth rates of congenital disorders. The high consanguinity rate of 20%–50% in most countries of the Region was highlighted as a main predictor of autosomal recessive genetic disorders in the Region. Haemoglobinopathies, including thalassaemia and sickle-cell disease, are prevalent inherited disorders in most countries of the Region with varying prevalence rates. Globally, premarital and preconception screening programmes for detecting carriers are considered the most effective measure for reducing birth rates of babies with haemoglobinopathies, depending on existing regulations.

The participating experts debated the use of an effective reporting system for assessing maternal and child deaths and correlating these with preconception care interventions, such as folic acid supplementation/fortification and anti-D administration for Rhesus negative mothers, and their impact on maternal and child health.

There was agreement on the need to select preconception care core interventions based on the following criteria: scientific evidence, cost-effectiveness, feasibility, affordability, sustainability, relevance, acceptability and having an impact on reducing maternal and child mortality and morbidity. The core and extended sets of preconception care interventions were finalized in collaboration with related departments of the WHO Regional Office and are summarized in Table 1.

Participants acknowledged that a key challenge of preconception care is to identify how it can best be delivered to all those in need, both at clinical and population levels. Participants highlighted the importance of promoting the integration of services into existing health care programmes, ranging from individual care services to a public health programme. There was agreement that the health system should accommodate preconception care services and allocate the required resources including guidelines, training and educational tools. The preconception care package should be integrated within existing health care programmes.

Lessons learnt in promoting preconception care interventions in clinical settings were also discussed. One of the main objectives of promoting preconception care is raising public awareness through national and social media and through routine health promotion practices (“for every woman, every time”) at all levels of health care. The participants strongly recommended strengthening the pre-service education and training of health care providers in delivering the core preconception care interventions.

Participants felt that some essential elements need to be considered when implementing a countrywide preconception care programme, including funding, supportive leadership, multistakeholder collaboration, accessibility, quality of care, a communication strategy, and a health information system for continuous monitoring and improvement of the provided services. A plenary discussion on the main steps of building a preconception care programme at the country level identified 10 steps with core activities summarized in Table 2.

Table 1. Regional core interventions for preconception care targeting women/couples (married, planning for marriage or planning for pregnancy)

Areas	Core interventions	Expanded
1. History	• Family history of diabetes, hypertension, congenital anomalies, other chronic diseases including disability, mental disorders • Personal history/demography: age, education, occupation, consanguinity, domestic violence • Personal medical, surgical and obstetrics/gynaecology history: seizure disorders, diabetes, hypertension, mental disorders, vaccination status (tetanus, diphtheria, rubella), hepatitis C, STIs, thyroid, history of poor perinatal outcomes • Behaviour: smoking, medical prescription, self-medication (over the counter), folic acid intake • Contraception • Environmental exposures: second-hand smoking, insecticides, pesticides	• Socioeconomics (housing, income, etc.) • Air pollution • Physical exercise • Alcohol intake • Drug use • HIV
2. Medical assessment	• Physical examination, body mass index, vital signs • Mental health status (depression),	• Female genital mutilation (history and/or examination)

Areas	Core interventions	Expanded
	Patient Health Questionnaire-2, three screening questions • History and pedigree construction to detect couples with high risk for genetic diseases • Complete blood count • Screening and testing for haemoglobinopathies: sickle cell disease and beta thalassaemia • ABO blood grouping and Rhesus • Blood sugar: fasting sugar and when available HbA1c, and glucose tolerance if there is a family history of diabetes • Syphilis screening	• Screening for infectious diseases: hepatitis B/C, HIV, STIs • Vitamin D • Specific tests: thrombolytic disorders and rare genetic diseases testing (based on epidemiology of country) • Provider-initiated STI/HIV testing
3. Counselling and education	For women and/or couples: • Counselling on healthy lifestyles • Counselling on healthy reproductive life planning • Counselling on the importance of early entry into antenatal care • Folic acid intake, healthy diet • Counselling and education on avoiding tobacco, alcohol, substance use • Prevention of teratogenic infections (rubella, toxoplasmosis, cytomegalovirus, varicella) • Avoiding medication contraindicated in pregnancy • Counselling consanguineous couples on risks of congenital anomalies • Sharing information on existing screening programme services • Infertility counselling • Follow up and referral of couples with identified risks including genetic conditions	• Counselling for STI/HIV

Areas	Core interventions	Expanded
4. Prevention and management	Individual level: • Supplementing folic acid • Management and/or referral of identified medical conditions such as chronic diseases, communicable diseases, mental and personality disorders, substance use disorders, genetic disorders • Management or referral for identified risk behaviours such as tobacco, alcohol and drug use • Vaccination against rubella (if not vaccinated and at least four weeks before pregnancy) • Vaccination against tetanus and diphtheria using tetanus and diphtheria vaccine • Vaccination against hepatitis B (if there is no confirmed history of previous vaccination) • Vaccination against influenza • Promote and provide family planning services and healthy reproductive life planning Population level: • Flour fortification (folic acid, iron and other micronutrients) • Iodization of salt • Promoting child vaccination: health education on the prime importance of child vaccination according to national schedule • Health education on the importance of HPV vaccine, especially in pre-marriage counseling or with newly married women	• Iron • Promoting safe sex • HPV vaccine

Table 2: Preconception care (PCC) framework: steps to build a PCC programme

PCC programme steps	Activities
1. Goal and objectives	• Define regional vision, goals and objectives of the PCC programme (improving maternal and neonatal health outcomes and reducing the birth rates of congenital disorders and low birth weight) • Target all Member States focusing on countries with high burden of maternal and child mortality
2. Policy-makers involvement and leadership	• Inform and convince health policy-makers about the maternal, neonatal and child health needs, the existing gaps and the effect of PCC on maternal, neonatal and child health: use data to support presenting maternal, neonatal and child health situation analysis, maternal, neonatal and child health needs and gaps; share evidence showing the impact of PCC interventions on maternal, neonatal and child health outcomes; explain the rational for changing the health paradigm towards women's well-being; explain the importance of adopting the PCC core interventions (best buys); advocate for PCC funding
3. National taskforce and multilevel stakeholders and partnerships	• Establish or use an existing national taskforce to help develop/strengthen the PCC action plan at country level • Ensure intersectoral partners and stakeholders involvement with full engagement of the key maternal, neonatal and child health actors • Identify a PCC focal point at ministry of health level
4. Communication and social mobilization	• Raise the awareness of the community and health providers about the impact of PCC on maternal, neonatal and child health outcomes • Target general population with focus on school and university students, women, men and couples in the premarital and interconception stages • Educate population on advantages of PCC awareness • Use various channels to raise awareness about the importance of PCC including religious leaders, civil society, national media, community leaders and social gatherings

	• Develop and implement national PCC communication plan • Within the ministry of health: hold regular meetings with other relevant departments for updates and coordination; use existing communication channels, including social media, for promoting PCC; build on awareness campaigns to integrate PCC components • Within the private sector • Within professional organizations • Develop and implement a PCC and social mobilization plan
5. Preconception care workforce capacity-building	• Ensure training of health workforce on PCC • Develop standardized curricula and tools based on appropriate available materials • Develop standardized clinical tools and tools based on appropriate available materials • Adapt training curricula and tools to be used at national level taking into consideration the high rate of consanguinity and haemoglobinopathies • Provide PCC basic education to all health providers • Incorporate education on PCC into medical and nursing schools curricula • Provide PCC specialized training as required
6. PCC service delivery and quality of care	• Create, adapt and adopt a PCC core interventions package following WHO guidelines • Adapt tools to increase/improve quality of care by using the PCC guidelines • Deliver PCC within primary health care services with integration in reproductive, maternal, neonatal and child health care
7. Entry point in health system (“every woman, every time”)	• Use all opportunities to ask women about their reproductive life planning in: • Primary health care services • Noncommunicable disease clinics • PCC specialized clinics when available • Maternal and child health clinics • Family planning defaulters • Premarital counselling programmes • Adolescent health centres/clinics

8. Monitoring and evaluation	• Develop PCC core indicators specific to the nationally adopted package • Use data to monitor PCC quality of care • Include PCC data in national health surveys • Conduct implementation research whenever possible to monitor programme performance. Proposed indicators (in priority order): • Proportion of pregnant women who took folic acid, at least during three months before their pregnancy • Proportion of pregnant women who received PCC counselling/care • Proportion of low weight births • Proportion of newborns with neural tube defect (if possible) • Gestational age at antenatal care/registration
9. Implementation	• Field testing: select sites; ensure staff training (with supportive supervision); conduct all steps of PCC implementation; monitor, evaluate and revise • Dissemination and scaling up: demonstrate feasibility; train the trainers; ensure availability of resources • Ensuring sustainability: ensure availability of financial resources (budget line for folic acid within health programme); ensure availability of human resources; integrate in health system and supply system; maintain partners' support and engagement; build on best practices and share lessons learnt from different countries; disseminate results to policy-makers
10. PCC networking	• Establish a PCC community for the Region • Develop PCC website for sharing information and resources • Link with other websites • Engage consumers and health providers

3. Conclusions

Preconception care is essential for improving maternal, neonatal and child health in the Eastern Mediterranean Region where the disease burden and levels of congenital disorders and their influencing factors

are high. Preconception care interventions involve risk screening through a systematic family and personal history and medical assessment, along with education and motivational counselling, and prevention and management steps for conditions known to influence maternal and newborn health and referral to specialists when indicated.

The preconception care core interventions selected were based on the following criteria: evidence, cost-effectiveness, feasibility, affordability, sustainability, relevance, acceptability and having an impact on reducing maternal and child mortality and morbidity.

The finalized core and extended set of preconception care interventions need to be adopted/adapted by countries and implemented following the 10 steps agreed by the group, highlighting the importance of promoting the integration of services into existing health care programmes. Consequently, the health system should accommodate preconception care services, allocate the required resources and integrate a preconception care package within existing health care programmes.

4. Next steps for WHO

1. Finalize and edit the preconception care core interventions with the 10 steps for programme implementation.
2. Develop a list of the existing evidence for the identified preconception care core interventions.
3. Consider the adoption of the preconception care core interventions within the biennium operational plans for 2016–2017.
4. Organize a meeting with key partners to refine the preconception care core interventions with the 10 steps for programme implementation.
5. Advocate with countries on preconception care cost-effectiveness and the benefits of action or cost of inaction in relation to promoting maternal, newborn and child health.

6. Guide countries on involving health personnel in integrating the preconception care programme within primary health care to achieve universal health coverage.
7. Plan for a high level meeting in 2016 with health economists to highlight the cost–benefits of preconception care for maternal, newborn and child health.
8. Share preconception care best practices using regional network channels.

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