EDITORIAL

**The FIGO Pregnancy and Obesity Initiative (PONI)**

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The International Federation of Obstetricians and Gynecologists (FIGO) is marshaling its resources to make a major contribution to the prevention of non-communicable diseases (NCDs) globally. NCDs now account for more than 70% of all deaths globally each year, 80% of which are in low- and middle-income countries (LMICs) [1]. NCDs are chronic conditions that are treatable but seldom curable. The risks for NCDs start from early fetal life and increase cumulatively along a trajectory throughout the life-course [2]. Effective prevention therefore depends on the early reduction of risk. FIGO has pioneered the concept that, despite being termed “non-communicable,” NCDs are communicable, at least across generations [3]. Early life interventions to prevent NCDs in future generations should include women’s health before, during, and after pregnancy. This agenda is made even more urgent by the lack of emphasis on women’s, children’s, and adolescents’ health in the recommendations of the United Nations 3rd High Level Meeting on the Prevention and Control of NCDs in 2018 [4], in contrast to that placed on these parts of the life-course in the first High Level meeting in 2011 [5].

Malnutrition is a major risk factor for NCDs in adolescents and young adults, and for the transmission of risk to their future children. Malnutrition includes both undernutrition, which is still prevalent in some LMICs to overnutrition, and nutritional imbalances, which are characterized by unhealthy diets dominated by highly processed foods with high sugar, unhealthy fat, and salt content. These diets accompany economic progress, especially in urban environments in which more than 50% of the world’s population now live [6, 7]. The prevalence of overweight and obesity is thus rising in many LMICs towards that of many high-income countries (HICs) and it is estimated that by 2025 more than 21% of women in the world will have obesity [8]. WHO calculates that one in three people in the world suffer from the consequences of some form of malnutrition [1]. To help manage this, FIGO recently published guidelines on adolescent, preconception, and maternal nutrition [9] directed not only at healthcare professionals but also public health policy makers and the general public.

The risk of transmitting NCDs across generations is exacerbated by the increasing incidence of pregnancy conditions such as obesity, gestational diabetes, hypertension, preterm birth, and low birth weight [10]. Obesity before and during pregnancy also increases the occurrence of complications such as gestational diabetes, pre-eclampsia, and preterm birth. These issues led FIGO to publish guidelines on hypertension and hyperglycemia in pregnancy, the latter leading to a global declaration of the need to measure blood glucose in all women in the first trimester of pregnancy [11].

In 2018, FIGO combined these initiatives to form a new Pregnancy and NCDs Committee (PNCDC). Within this committee, a Pregnancy Obesity and Nutrition Initiative (PONI) was formed to reduce all types of malnutrition before, during, and after pregnancy. Its mission is to “Ensure that Obstetricians and Gynecologists think nutrition first at every contact and act to reduce maternal obesity.” Over the next 2 years, the PONI team will undertake a range of activities aimed at:

* Providing key messages and a strong narrative relating to the importance of tackling malnutrition and obesity before, during, and after pregnancy to improve the long-term health of mothers and their children and future generations.
* Sharing and disseminating FIGO’s evidence-based guidelines, checklists, and tools to improve frontline services to think nutrition first at every contact.
* Ensuring a large range of stakeholders—i.e. member societies, frontline health professionals, partner non-government organizations—understand the PONI’s messages, guidelines, available tools, and the way in which they can make a difference.
* Providing publicity opportunities to increase uptake and implementation of the PONI as a basis for further outreach and resource mobilization for the PNCDC.

FIGO has a global reach through its links with member societies in 132 countries and is the only organization which can communicate directly with obstetricians and gynecologists internationally. A first step in the PONI is therefore to gain information about the level of awareness of these professionals, and also of midwives who attend the majority of deliveries in many countries, of the concept of the Developmental Origins of Health and Disease (DOHaD) and the vital role that they can play in reducing later NCD risk in prospective parents and their future children. The protocol published in this issue (Jacob et al.) discusses how healthcare practitioners are ideally placed to implement the DOHaD concept. The study will also explore the barriers and facilitators faced by midwives, obstetricians, and gynecologists for engaging women in the preconception, pregnancy, postpartum, and inter-conception periods, with the aim of preventing the transgenerational passage of NCDs. This is the first study to explore the views of healthcare practitioners using a life-course and DOHaD lens and will include participants from multiple settings.

In parallel, the PONI group is developing a core outcome set for research studies on pregnancy nutrition, on the basis that “what gets measured gets managed.” Once developed, this set of outcomes will be expected to be measured in all relevant studies globally on nutrition in pregnancy. This will enhance the international data available on key outcomes related to nutrition during pregnancy. This will help identify priorities for clinical practice and resource allocation to improve the long-term nutritional health of women and their children. The protocol for this study is also published in this issue of IJGO (Killeen et al.).

The PONI initiative thus aims to tackle NCDs in pregnancy through its focus on three critical periods of preconception, early pregnancy, and post-pregnancy periods. Before the formation of the PNCDC, the Adolescent, Preconception and Maternal Nutrition group developed a nutrition checklist for use by obstetricians, midwives, and other healthcare professionals [12], which would ideally be used in the first trimester (or at first antenatal clinic visit). The aim of the checklist is to establish a basis for a conversation with prospective parents and women in early pregnancy about diet and nutrition and support the early identification of nutritional issues. Healthcare professionals can also use the checklist to discuss appropriate gestational weight gain during pregnancy, particularly for women with obesity before pregnancy to prevent complications such as preterm labor and pre-eclampsia. The checklist is simple and takes only a few minutes to complete. We are now evaluating this checklist in Dublin, Southampton, Hong Kong, and Milan; results will be published by the PONI group in due course. Findings from the planned studies will help curriculum development and training on innovative methods to support healthcare professionals to initiate the conversation on nutrition, NCDs, and issues such as gestational weight gain.

Finally, the PONI group aims to produce a succinct set of guidelines for the management of obesity in pregnancy. This subject has been reviewed extensively, and in several countries, so the guidelines will produce a consensus summary which is applicable across a broad range of resource settings. This is an actively researched area, for example in relation to the guidelines for appropriate weight gain in pregnancy published by the Institute of Medicine [13]. Interventions to reduce weight, to improve diet, and to increase the physical activity during pregnancy have been shown so far to have only limited effects on pregnancy outcomes and childhood body composition [14]. Recent studies have shown that maternal body mass index before conception is a stronger predictor of childhood outcomes such as obesity [15]. Preconception care has been recommended as a core component of the strategies to prevent NCDs such as type 2 diabetes in the mother and outcomes in the offspring such as preterm birth, macrosomia, and even childhood obesity [16, 17]. Preventative models in the preconception period have been used with success for improving behaviors related to smoking, contraceptive use, folic acid intake, and to prevent mother-to-child transmission of HIV [18, 19]. The interconception period is also critical to target in women with a history of gestational diabetes. Failure to lose weight gained in pregnancy within 6 months post-partum is shown to be a predictor of long-term obesity in women [20, 21]. There is an opportunity now to harness the preconception and early pregnancy periods to prevent the intergenerational transmission of risk for obesity and NCDs [16]. These guidelines will use “people-first” language and recognize obesity as a chronic condition, important to driving appropriate treatments internationally.

Malnutrition is detrimental to women’s health and contributes to the transgenerational transmission of NCD risk. Obstetricians and gynecologists are uniquely positioned to improve the health of women and future generations and should consider it their responsibility to identify and address nutritional issues in women under their care. Maternal nutrition is simple to assess and is a modifiable risk factor for health. Nutritional interventions before, during, and after pregnancy have the potential to have widespread impact on the global burden of obesity and NCDs. Parents universally want to give their children the gift of the best start to life. We owe it to them to provide all the support we can to make this gift.

**Author contributions**

Mark Hanson, Moshe Hod and Fionnuala McAuliffe were involved in the conception and design of the initiative. All authors provided input into writing the manuscript.

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**Conflicts of interest**

The authors have no conflicts of interest.

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