





# More than 90% of women planning to get pregnant were ignorant of their nutritional needs

International authorities recommend women should take multivitamin supplements before pregnancy

#### (Hong Kong, 24 November 2013, Sunday)

A fetus obtains its nutrition solely from its mother. Nevertheless, many women are likely to miss the critical period of nutritional supplementation for at least one month after conception. Thus, in addition to a balanced diet, a number of international authorities conclude that women should start taking multivitamin supplements right from the start of their pregnancy planning. It is well recognized that preconception nutrition helps to ensure a healthy start for a new life.

With the objective to investigate Hong Kong women's awareness on the importance of preconception nutrition, appointed by **The Nutrition Concern Alliance of Hong Kong Primary Care Foundation**, The University of Hong Kong's Public Opinion Programme conducted a telephone survey in October and November 2013, in which 304 Hong Kong women aged 18 to 45 planning for their pregnancy were successfully interviewed. The survey aims at investigating the most concerned issues of local Women at the stage of Pregnancy Planning and assessing their Level of Awareness towards preconception nutrition.

### Nearly half of the respondents were concerned about their overall health status for pregnancy but were largely ignorant of the importance of preconception nutrition

The survey results show that the major concerns of Hong Kong women during their pregnancy planning were economic well-being for affording a new life (46%) and whether their health conditions were fit for pregnancy (44%), followed by the future education needs of their children (29%). Only as minimal as 4% of respondents were aware of their preconception nutritional needs.

Dr. LI Fuk-him Dominic, panel member of the Nutrition Concern Alliance and a Specialist in Obstetrics and Gynaecology remarked, "From the study, it is shown that Hong Kong women in general, are health conscious when they start planning for

pregnancy. Nevertheless, their awareness on preconception nutrition is extremely low which can impact on subsequent fetal development."

The survey results also revealed the unhealthy eating habits of Hong Kong women. Owing to their busy lifestyle, over 60% of respondents dined out more than 5 times per week and 57% of them failed to take "three servings of vegetables and two servings of fruits" as recommended by the Department of Health. In addition, 61% of women did not take any nutritional supplement before pregnancy.

**Dr. Dominic Li** expressed his concern on the lack of nutritional preparation before pregnancy in most Hong Kong women. According to the survey results, only about one in ten (11%) women discussed their pre-pregnancy nutritional needs with their doctors. Even though some respondents did take nutritional supplement(s) before pregnancy, only about 30% of them sought proper advice from medical practitioners on preconception nutritional intake.

## International authorities recommend women to take multivitamins before pregnancy in order to minimize nutritional gap

**Dr. Dominic Li** further emphasized the importance of adequate nutritional intake before pregnancy. Dr Li explained, "From our clinical experience, it is understandable that it takes roughly one month or more for a woman to confirm her pregnancy. Women are therefore likely to miss the window during early pregnancy for nutritional supplementation which is considered vital to their fetuses. Women are highly recommended to obtain adequate nutritional supply starting from the stage of pregnancy planning to avoid any occurrence of "nutritional gap" from day one. An adequate supply of nutrients is conducive to an optimal maternal nutrition."

According to the current international recommendations from the Royal College of Obstetricians and Gynaecologists and the Chinese Nutrition Society, women should increase their intake of vitamins or minerals before pregnancy.<sup>1,2</sup> "In view of the fact that most women in Hong Kong are not able to obtain adequate nutrition in support of their pregnancy plan through daily diet, women can consider taking nutritional supplements to manage the deficiency in folic acid, iron, iodine or calcium as suggested by the Hong Kong Department of Health "", recommended by **Dr. Dominic Li**.

Duckworth S et al. The Obstetrician & Gynaecologist 2012;14:175–178.

<sup>&</sup>lt;sup>2</sup> 中國營養學會,孕前期婦女膳食指南. URL: http://www.cnsoc.org/cn/nutrition.asp?nid=10. Accessed on 13 November, 2013

Department of Health, Hong Kong. Nutrition information for pregnant women and lactating mother. URL: http://www.fhs.gov.hk/tc\_chi/health\_info/files/an\_21.pdf. Accessed on 10 November, 2013

Further international recommendations substantiated the benefits of taking nutritional supplements when planning for pregnancy as below:

- 1) The Society of Obstetricians and Gynaecologists of Canada (SOGC) recommends that women who are planning for pregnancy should have a balanced diet and take daily multivitamin supplements (with folic acid) for at least two to three months before pregnancy.<sup>4</sup>
- 2) Health Canada's Food Guide states that women of child bearing age should take multivitamin supplements (with folic acid) daily.<sup>5</sup>
- 3) According to the recommendations of the **American College of Obstetricians** and **Gynecologists** (**ACOG**), women should be able to obtain adequate nutritional intake from daily diet. Nevertheless, it is advisable for women planning for their pregnancy to take multivitamin supplements which can also help effectively decrease the severity of nausea and vomiting during pregnancy thereafter <sup>6,7</sup>.

### Hong Kong women lack adequate understanding on preconception nutritional needs

Referring to the survey results, **Ms. Carmen Lo, Panel Member of the Nutrition Concern Alliance and a Registered Dietitian**, said that respondents were in general knowledgeable about the importance of folic acid and calcium during pregnancy, but only 5% and 2% of respondents were aware of the importance of Vitamin D and iodine, respectively. Nearly 30% (26%) had no idea about their nutritional needs.

**Ms. Carmen Lo** remarked, "Apart from folic acid and calcium, other nutrients like Vitamin D and iodine are of equal importance to preconception nutrition. Vitamin D helps with calcium absorption, which supports the healthy growth of bones and teeth, as well as playing a significant role in brain development, while iodine facilitates the development of the fetus brain and central nervous system 10."

<sup>&</sup>lt;sup>4</sup> Wilson RD et al. J Obstet Gynaecol Can. 2007 Dec;29(12):1003-26.

<sup>&</sup>lt;sup>5</sup> Health Canada. Women of Childbearing Age – Canada's Food Guide. URL:

http://www.hc-sc.gc.ca/fn-an/food-guide-aliment/choose-choix/advice-conseil/women-femmes-eng.php. Accessed on October 31, 2013.

<sup>&</sup>lt;sup>6</sup> American College of Obstetricians and Gynecologists (ACOG). Nausea and vomiting of pregnancy. Washington (DC): American College of Obstetricians and Gynecologists (ACOG); 2004 Apr. 13 p. (ACOG practice bulletin; no. 52).

The American College of Obstetricians and Gynecologists .Good Health Before Pregnancy: Preconception Care. URL: http://www.acog.org/~/media/For%20Patients/faq056.pdf?dmc=1&ts=20131111T0053259258. Accessed on 10 November, 2013

<sup>&</sup>lt;sup>8</sup> Wagner CL et al. Women's Health (Lond Engl). 2012 May;8(3):323-40.

 $<sup>^{9}\,</sup>$  Eyles D et al . Semin Cell Dev Biol. 2011 Aug;22(6):629-36.

World Health Organization. Iodine status worldwide. WHO Global Database on Iodine Deficiency. URL: http://whqlibdoc.who.int/publications/2004/9241546123\_chap16.pdf. Accessed on October 30 , 2013

A separate study indicates that over 90% of Hong Kong women have insufficient vitamin D in blood serum level<sup>11</sup> Iodine intakes among Hong Kong adults are not up to standard<sup>12</sup>. In view of the additional requirements for iodine during gestation<sup>13</sup>, **Ms. Carmen Lo** suggested women should take care of their preconception nutritional needs before pregnancy in order to minimize the nutritional gap for fetal development.

### Women planning for pregnancy should seek advice from healthcare professionals on their preconception nutritional needs when taking nutritional supplements

In conclusion, the survey results suggested that Hong Kong women should properly address to their preconception nutritional needs right from the start of their pregnancy planning. They should also take multivitamin supplements when necessary according to the recommendations by various international authorities.

The **Nutrition Concern Alliance** advises women to maintain a healthy diet and seek professional advice about their preconception nutritional needs. They can also consider taking high quality multivitamin and mineral supplements produced by trusted manufacturers to provide the best nutritional support to the family's new life.

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<sup>&</sup>lt;sup>11</sup> Woo J, et al. Br J Nutr. 2008 Jun;99(6):1330-4.

Food and Environmental Hygiene Department, Hong Kong. Dietary Iodine Intake in Hong Kong Adults. URL: http://www.cfs.gov.hk/tc\_chi/programme/programme\_rafs/files/RA\_Iodine\_Report\_c.pdf. Accessed on October 30 , 2013 Dican SG et al. Birth Defects Res A Clin Mol Teratol. 2012 Sep;94(9):677-82.