

## Household Food Insecurity Among Women

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Received: December 1, 2014; Accepted: December 1, 2014

Keywords: Food; Women; Health

Food security is defined as sufficient, safe, and nutritious diet, which is physically, socially, and economically accessible to all people at all times. This meets the dietary requirements and food preferences of every individual for an active and healthy life. Food insecurity is more prevalent in developing than developed countries. Household food insecurity (HFI) prevails in 36.6-59.3% of Iranian population (1, 2). Some demographic predictors of food insecurity are low education, less income, larger households and aging (2, 3). Family members of insecure households are not equally at risk for adverse effects. Women of reproductive age and children aged less than 5 years are more likely to be affected by food insecurity due to under nourishment.

Food insecurity affects not only nutritional status, but also some health outcomes and behaviors. It is associated with unhealthy food choice and various micronutrient deficiencies. The most common nutrient-related deficiencies involve iron, folate, vitamin B12 and zinc which are essential elements for blood cell synthesis (4, 5). A population-based analysis of Mexican women indicated that women with insecure nutrition had 31-43% higher odds for having anemia in comparison with those living in food-secure households (6), which could lead to poor pregnancy outcomes and certain birth defects, including low birth weight, gestational diabetes mellitus, cleft palate and spina bifida (7, 8). Although food insecurity is associated with insufficient access to foods, several investigators have suggested that food-insecure women are more likely to be overweight or obese (9).

Moreover, food insecurity is inversely related to mental health and well-being. A dose-response relationship has been reported for food insecurity with perceived stress, trait anxiety and depressive symptoms. Consistently, Iranian women with HFI were more likely to suffer from depression than their secure counterparts (3). Some adverse coping strategies which may be applied by insecure women are high-risk sexual behaviors, withdrawing chil-

dren from school, theft and reduced specific food consumption such as fruit, vegetable and meat (10). A cross-sectional studies among Iranian households showed that starchy foods were consumed more frequently by insecure households, whilst dairy products, fruit, vegetables, red and white meats are taken in lower amounts (2).

So far, no study was conducted to assess the association of risky behaviors with food insecurity among Iranian women or its outcomes in pregnant women. Additionally, only few studies have evaluated dietary intakes of insecure households. Due to strong and close association of food insecurity with health, efforts should be made to resolve related complications. In this context, well-designed studies are needed to reduce the economic burden imposed by food insecurity.

### Funding/Support

This study was funded by the School of Nutrition and Food Science, Isfahan University of Medical Sciences.

### References

1. Dastgiri S, Sharafkhani R, Gharaaghaji R, Ghavamzadeh S. Prevalence, influencing factors and control of food insecurity: a model in the northwest of Iran. *Asia Pac J Clin Nutr*. 2011;**20**(4):613-7.
2. Mohammadzadeh A, Dorosty A, Eshraghian M. Household food security status and associated factors among high-school students in Esfahan, Iran. *Public Health Nutr*. 2010;**13**(10):1609-13.
3. Payab M, Motlagh AR, Eshraghian M, Rostami R, Siassi F. The association of family food security and depression in mothers having primary school children in Ray-Iran. *J Diabetes Metab Disord*. 2014;**13**:65.
4. Esmailzadeh A, Samareh S, Azadbakht L. Dietary patterns among pregnant women in the west-north of Iran. *Pak J Biol Sci*. 2008;**11**(5):793-6.
5. Akbari F, Azadbakht L. A systematic review on diet quality among Iranian youth: focusing on reports from Tehran and Isfahan. *Arch Iran Med*. 2014;**17**(8):574-84.
6. Fischer NC, Shamah-Levy T, Mundo-Rosas V, Mendez-Gomez-Humaran I, Perez-Escamilla R. Household food insecurity is associated with anemia in adult Mexican women of reproductive age. *J Nutr*. 2014;**144**(12):2066-72.
7. Carmichael SL, Yang W, Herring A, Abrams B, Shaw GM. Maternal

- food insecurity is associated with increased risk of certain birth defects. *J Nutr.* 2007;**137**(9):2087-92.
8. Laraia BA, Siega-Riz AM, Gundersen C. Household food insecurity is associated with self-reported pregravid weight status, gestational weight gain, and pregnancy complications. *J Am Diet Assoc.* 2010;**110**(5):692-701.
  9. Tayie FA, Zizza CA. Height differences and the associations between food insecurity, percentage body fat and BMI among men and women. *Public Health Nutr.* 2009;**12**(10):1855-61.
  10. Kendall A, Olson CM, Frongillo EA, Jr. Relationship of hunger and food insecurity to food availability and consumption. *J Am Diet Assoc.* 1996;**96**(10):1019-24.