

Are Irish women following the food pyramid recommendations for pregnancy?

J. L. O’Neill¹, A. Regan¹, N. O’Connor², M. Cox¹, M. M. Kennelly² and M. J. Turner²

¹Danone Baby Nutrition, Ireland and ²UCD Centre for Human Reproduction, Coombe Women and Infants University Hospital, Ireland

There is an emerging public health interest in maternal nutrition in the face of rising levels of adult and childhood obesity. Research has shown that 1 in 5 Irish women booking for antenatal care are obese (BMI > 29.9 kg/m²)⁽¹⁾. Maternal obesity is associated with increased risk in pregnancy complications⁽²⁾.

The aim of this study was to determine whether Irish women booking for antenatal care meet the recommendations of the food pyramid⁽³⁾. Women were enrolled between November 2009 and February 2010 at their first antenatal visit. The study was confined to women with ongoing singleton pregnancy on ultrasound. Weight and height were measured digitally and BMI calculated. Socio-demographic and clinical details were also recorded. A 24-h dietary recall was carried out to record their previous day’s food and beverage intake. Dietary intake was analysed by a recently developed web-based dietary assessment tool⁽⁴⁾ using the Department of Health’s food pyramid recommendations for pregnancy⁽³⁾.

Of the 101 women studied, the mean age was 27.9 years (SD 4.9) and 50% were mothers for the first time. The mean gestation at assessment was 12.8 weeks (SD 2.7) and 34% were medical card holders. The mean BMI was 25.1 kg/m² (SD 5.4) and 14% were obese. Within the total sample, 57% felt that they had a healthy balanced diet and 84% reported to know what the food pyramid was.

Food group	Recommended intake for pregnancy	Achievement of recommendations			
		Yes		No	
		n	%	n	%
Foods high in fat/sugar	Sparingly (3 servings)	40	39.6	61	60.4
Meat, fish, eggs and alternatives	3 servings	39	38.6	62	61.4
Dairy foods	5 servings	5	5.0	96	95.0
Fruit and vegetables	5 servings	33	32.7	68	67.3
Breads, cereals and pasta	6+ servings	47	46.5	54	53.5

The table above illustrates the proportion of women achieving the recommended intakes for each of the food pyramid shelves⁽³⁾. For all food groups, less than half met the guidelines, with just 5% achieving the recommended intake for dairy foods. Of the women studied, none achieved the recommended intake for all 5 food groups and 12% did not achieve the recommended intake for any food group, with only 1% achieving 4 food groups, 22% achieving 3 food groups, 28% achieving 2 food groups and 38% achieving only 1 food group recommendation.

Pregnant women in Ireland are not achieving the national food pyramid guidelines for healthy eating during pregnancy, highlighting a serious gap in the existing public health communication.

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2. Barry S, Fattah C, Farah N *et al.* (2008) The growing challenge of maternal obesity. *Irish Med J* **102**, 5–6.
3. Department of Health and Children, Health Promotion Unit (2006) *Healthy Eating for Pregnancy*. HSE.
4. Danone Baby Nutrition (2009) Pregnancy Diet Calculator. <http://www.feedingforlife.ie>