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Global trends in dietary quality

Fumiaki Imamura and colleagues¹ assess the consumption of key dietary items internationally by comparing healthy and unhealthy dietary patterns. However, the evidence they use to inform the classification of food items is unclear and seems to lead to some arbitrary outcomes. For example, milk was classified as a healthy item, despite the fact that the health advantages associated with milk consumption remain controversial. Two large prospective studies in Sweden^{2,3} have shown that high milk intake is associated with reduced life expectancy. Moreover, in populations with high prevalence of adiposity, milk consumption might simply add excess energy intake and contribute to the obesity epidemic.

To assess quality independent from quantity, Imamura and colleagues assessed dietary intake adjusted for 2000 kcal per day. An unfortunate consequence of this adjustment is that the role of unrestrained energy intake in the obesity and diabetes epidemics seems to be rendered obsolete. For example, in the USA, the mean adult energy intake increased from 1955 kcal per day during 1971–75 to 2269 kcal per day during 2003–04.⁴ Between 1980 and 2009, average body-mass index (BMI) worldwide increased from 25.5 to 28.5 kg per m² for men and from 25.0 to 28.4 kg per m² for women.⁵ In China, mean adult energy intake was 1978 kcal per day in 1970 and 2328 in 1992.⁶ BMI increased from 21.6 kg per m² to 23.0 kg per m² for men and from 21.9 to 23.0 kg per m² for women in China between 1980 and 2009.⁵ If the public health agenda is to prevent non-communicable diseases in the world through changes in dietary habits, the emphasis should be on reducing energy intake and combating sedentary behaviour instead of assessing dietary patterns on the basis of insubstantial knowledge of the health properties of food items.

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- 1 Imamura F, Micha R, Khatibzadeh S, et al. Dietary quality among men and women in 187 countries in 1990 and 2010: a systematic assessment. *Lancet Glob Health* 2015; **3**: e132–42.
- 2 Michaëlsson K, Wolk A, Langenskiöld S, et al. Milk intake and risk of mortality and fractures in women and men: cohort studies. *BMJ* 2014; **349**: g6015.
- 3 Ludwig DS, Willett WC. Three daily servings of reduced-fat milk: an evidence-based recommendation? *JAMA Pediatr* 2013; **167**: 788–89.
- 4 Ford ES, Dietz WH. Trends in energy intake among adults in the United States: findings from NHANES. *Am J Clin Nutr* 2013; **97**: 848–53.
- 5 WHO. Global health observatory data repository: mean body mass index trends (age-standardized estimate). <http://apps.who.int/gho/data/node.main.A904> (accessed Feb 20, 2015).
- 6 Du SF, Wang HJ, Zhang B, Zhai FY, Popkin BM. China in the period of transition from scarcity and extensive undernutrition to emerging nutrition-related non-communicable diseases, 1949–1992. *Obes Rev* 2014; **15** (suppl 1): 8–15.