Aging is known to be associated with alterations in body weight that have an important impact on health. Through middle age there is an increase in body weight (1) associated with a doubling in body fat in men and women living in developed countries (2,3). These weight and fat gains are associated with increased morbidity and mortality (4). In contrast, in late old age, body fat typically decreases even in healthy individuals (2,3) and unexplained weight loss leading to protein-energy malnutrition becomes increasingly common in diverse groups of human subjects and also animal models (5–8). It is interesting to note that, although the current epidemic of obesity (1,9) has resulted in a greater prevalence of obesity than previously, weight gain during adult life was substantial even during the earliest NHANES surveys (Fig. 1).

The underlying causes of adult weight change are not well understood and are the focus of the review papers by McCrory et al. (10) and Jakicic (11) in this edition of the Journal of Nutrition. McCrory (10) presents data showing the potential for multiple dietary and food-marketing factors to contribute to weight gain in early adult life and weight loss in late adult life. Jakicic (11) reviews the conflicting evidence on physical activity and adult weight gain to conclude that moderate to vigorous physical activity has the potential to prevent adult weight gain. These two reviews clearly indicate that dietary variables and physical activity may play an important role in minimizing harmful adult weight gain. Further research is needed to quantify the roles of different putative factors, and to design and test intervention studies on the basis of the available data.

LITERATURE CITED