

7. **Overweight adults**

7.1 **Introduction**

7.1.1 **Background**

When intake of energy exceeds energy expenditure, the excess is stored, in the form of triglycerides, in adipose tissue. Although energy storage is fundamental in allowing survival when food is scarce, excessive body fat, or obesity, is associated with increased mortality and morbidity. Obesity may be defined as the degree of fat storage associated with clearly elevated health risks. However, fat mass in the human body is difficult to measure under field conditions, and the practical definition of obesity is therefore based on the body mass index (BMI), also known as Quetelet's Index, which relates height to weight (weight (kg)/height² (m²)). Because BMI does not measure fat mass or fat percentage and because there are no clearly established cut-off points for fat mass or fat percentage that can be translated into cut-offs for BMI, the Expert Committee decided to express different levels of high BMI in terms of degrees of overweight rather than degrees of obesity (which would imply knowledge of body composition).

For adults, the Expert Committee proposed classification of BMI with the cut-off points 25, 30, and 40 for the three degrees of overweight described in section 7.2.1. This classification is based principally on the association between BMI and mortality. These cut-off points of the body mass index can be translated into height and weight tables (see Annexes 2 and 3). The following points are important in interpreting the cut-offs:

- The recommended cut-offs are appropriate for identifying the extent of overweight in individuals and populations, but do not imply targets for intervention.
- The broad ranges of BMI do not imply that the individual can fluctuate within this range without consequence; for example, for an individual of height 1.75 m, the BMI range of 18.5–25 covers a weight range of 20 kg (see Annex 3, Table A3.10). Weight gain in adult life may be associated with increased morbidity and mortality independently of the original degree of overweight.
- The cut-off points for degrees of overweight should not be interpreted in isolation but always in combination with other determinants of morbidity and mortality (disease, smoking, blood pressure, serum lipids, glucose intolerance, type of fat distribution, etc.).

Many recommendations on overweight use similar cut-off points (1) and most focus on weight-loss therapy in individuals who have reached at least grade 2 overweight (BMI 30.00–39.99). However, long-term, sustained weight loss appears to be difficult to achieve; most overweight individuals who lose an appreciable amount of body weight later regain it. Repeated treatment of overweight may thus lead to “weight cycling”,