

What You Need To Know: Weight-for-Height Reference Charts for Singaporeans

S C Emmanuel

INTRODUCTION

Abundant scientific evidence correlate excess body weight with several of the important diseases of today, eg coronary heart disease, diabetes, hypertension, stroke and some cancers such as breast cancer. These are the leading causes of sickness and death among Singaporeans today.

Normalising body weight in the Singapore population is an important objective in Singapore's National Healthy Lifestyle Programme. The Ministry of Health's National Health Survey 1992 showed that 26% of Singaporeans were either overweight or obese.

Weight for height measurements are frequently used to define an individual's weight status and to define obesity. We know that there are gender differences in body frames. Singapore's multi-ethnic population has in addition, ethnic differences in body frames. The Weight-for-Height reference charts of mainly Western populations have been used by many health professionals in Singapore and by many Singaporeans themselves, for assessing their weight status. Various degrees of discounting have been applied for the different ethnic groups when referring to these standards. For an important risk factor like obesity and given the relative ease of measuring height and weight, this lacks precision and does not seem appropriate.

METHODOLOGY

During the National Health Survey 1992 carried out by the Epidemiology and Disease Control Department of the Ministry of Health, obesity was an important risk factor measured. The heights and weights of the nationally representative survey sample of 3,568 Singaporeans were scientifically measured, using established international guidelines for measuring height and weight. An important application of the use of the height and weight measurements was the drawing up of weight-for-

height reference charts for males and females of each of the 3 main ethnic groups. The additional height and weight observations required were obtained by measuring the heights and weights of an additional 16,000 Singaporeans presenting themselves at the national exercise for the renewal of National Registration Identity Cards, carried out by the National Registration Department at the various Community Centres in Singapore. These measurements were carried out over several months in 1993.

Additional height and weight readings for the minority group of Indians were obtained by stationing the survey team in the premises of a few large Indian temples. Similarly, weight and height readings for those in the twenties age group were obtained by stationing the team at the National University of Singapore, to measure weight and height readings of Singaporeans of the three ethnic groups in the 18 to 29 years age group. These were to provide more precise weight-for-height charts as reference guides for those aiming to keep within the healthy weight range. This is because it has been documented that weight gain after the age of thirty years is linked to fat gain.

Booklets containing the ethnic and gender specific weight for height reference charts were prepared and distributed to all health professionals and health assessors in Singapore. These included tables with the average weight-for-height by age group for each ethnic group and gender, to meet the expanded specialised data requirement of selected healthcare providers and health assessors.

For individual Singaporeans, large individual weight-for-height charts for each ethnic group and gender were produced. Every Singapore family could then have its own relevant weight-for-height reference chart, to motivate them to normalise their body weight and so help them in their efforts to be healthy.

Ministry of Health
16 College Road
College of Medicine Building
Singapore 169854

S C Emmanuel
MBBS, MSc (Public Health)
FAMS
Director, Epidemiology and
Disease Control