

ASSESSMENT OF BODY MASS INDEX IN INSTITUTIONALISED ELDERLY SUBJECTS

FLINT, D.M. (\*), WAHLQVIST, M.L. (\*), PARISH, A.E. (\*), SMITH, T. (\*\*)

(\* ) Section of Human Nutrition, Deakin University, Victoria, Australia.

(\*\*) Grace McKellar Hospital for the aged, Geelong, Victoria, Australia.

As part of a study to assess the nutritional status of all inhabitants of a long term geriatric institution, the anthropometric measurements of height, weight, mid-triceps and subscapular skinfold thickness, abdominal girth and hip length (HL=anterior superior iliac spine to knee joint space) were made. It is important to have an index of overweight. Body mass index (B.M.I.)  $Wt/Ht^2$  is the most widely used index as it has the best correlation to body fat (1). In this study a significant relationship between B.M.I., and  $Wt/HL^2$  was obtained ( $n=85$ ;  $r=0.81$ ;  $p<0.001$ ) and abdominal girth/ $HL^2$  ( $n=85$ ;  $r=0.55$ ;  $p<0.001$ ). A regression equation derived for the calculation of B.M.I., from these anthropometric measurements, indicated that there was a significant relationship between B.M.I., and abdominal girth, subscapular, thickness and hip length ( $n=85$ ;  $r=0.62$ ;  $p<0.001$ ). In this study we have shown that one can predict B.M.I., using these anthropometric measurements.

(1) Bray, George A. Syndromes of obesity; pathogenesis and treatment. Medicine Australia, March: 690, 1979.