(aged 24-50) were then visited without prior warning and their height and weight measured. Their reported heights and weights were on average 0.5 in (12.7 mm) above and 6 lb (3.13 kg) below their actual measurements. As in Ashwell and Etchell’s paper, overweight was assessed using the Metropolitan Life Insurance Company tables. For 90% of the women the reported measurements indicated a lower degree of overweight than the actual measurements, the difference being roughly proportional to the degree of overweight.

As well as broadly classifying body size as “normal,” “overweight,” or “underweight” Ashwell and Etchell define categories of over- and underweight. In 1975, 30%, 20%, and 10% above ideal weight were classed as severely, moderately, and mildly overweight respectively, with corresponding groupings for underweight. Using these categories 15 of the 40 women in our study were classified in a lower category on reported than on actual measurements. Four of these changes were from the broad classification “overweight” to that of “suitable weight.”

Our data indicate that reported height and weight are overestimated with great caution, as there appears to be systematic underestimation of body size. It may well be that this underestimation of body size as assessed from reported data reflects awareness of overweight status. We would suggest that any further studies on perception of overweight should obtain information on reported as well as actual height and weight and also perceived weight status. —We are, etc.,

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1 Ashwell, M., and Etchell, L., British Journal of Preventive and Social Medicine, 1974, 28, 127.

Trafarcher
Sir,-I was most interested in Dr. F. M. J. Korous-Abual’s Personal View of the Ghanaian word ‘trafarcher’ (8 February, p. 329). Though English has no direct equivalent the sentiment has not, at least in the past, been foreign to us, as is witnessed by the expression of an Irish woman describing the death of her daughter’s child to my father some years ago: “... and then, saving your presence, his little bowels gave way.” —I am, etc.,

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* * * We have received several letters drawing attention to similar expressions in use in a variety of languages and cultures.—Ed., B.M.J.

Comparison between Free Thyroxine Index and Effective Thyroxine Ratio
Sir,—We read with great interest the paper by Dr. E. G. M. D’Haene and others (21 September, p. 708) on the comparison of the Mallinckrodt effective thyroxine ratio (E.T.R.) with the serum free thyroxine index (F.T.I.) Using Spearman’s rank correlation analysis, the authors found a highly significant relationship between the E.T.R. and the F.T.I., with a correlation coefficient of 0.68. The correlation coefficient was considerably less than that found by us—namely, 0.95—when we used the Pearson product-moment correlation coefficient in a study of the thyroid hormone data for patients classified as hypothyroid, euthyroid, and hyperthyroid.1 A similar correlation coefficient (0.93) was found between the E.T.R. and the free thyroxine concentration (F.T.C.). We found it necessary to select patients and subjects in order to yield diagnostic groups of approximately equal numbers. This leads to a much more sensitive correlation analysis because of the wider range of data.

Dr. D’Haene and his colleagues, however, consider that if a given variable has a normal distribution in the population it is necessary, in assessing the variable, to select test subjects (for specimens) by random sampling and hence are critical of our statistical handling of our data. However, we submit that their approach, which studies a randomly selected group of subjects, has no application in the regression model used by us. The essential point in the design is the random distribution of assay errors and not of the population from which the specimens were collected.

It seems that these authors have confused regression with correlation analysis. As pointed out by Hays,2 each is appropriate to a particular kind of research enterprise. Correlation analysis applies especially to problems of prediction and causation, whereas regression analysis on the other hand determines the relationship between a set of variables—for example, does the E.T.R. increase as the F.T.I. increases and, if so, in a mathematical rule which describes the relationship? Dr. D’Haene and his colleagues have found a poorer correlation between E.T.R. and F.T.I. because 70-75% of their specimen had normal values and because the E.T.R. has a very low coefficient of variation (C.V.) (3.7% in our hands) in euthyroid subjects. Furthermore, they would have encountered a substantial number of multiple tied values, which would lead them from the degree of correlation found, and there is no indication in their paper that they have corrected for ties.

When we submitted our correlations from the laboratory3 have indicated that the E.T.R. is a good screening technique, as in euthyroid patients with low activity of thyroxine-binding proteins the diagnostic accuracy of the E.T.R. is 90-95%, superior to that of F.T.I. (62.5%) and F.T.C. (67%). In euthyroid patients with elevated thyroxine-binding protein the diagnostic accuracy of E.T.R. is 93%, compared with 83% for F.T.I. and 91% for F.T.C.

Though the conclusion of Dr. D’Haene and his colleagues that the E.T.R. is not a satisfactory substitute for the F.T.I. is probably incorrect in the light of our studies, we do agree that there are some limitations in the E.T.R., as continuing studies in our laboratory have demonstrated. It is not a good parameter to use in patients undergoing thyroid hormone (T.R.) suppression, nor is it a good assay in either thyroid-stimulating hormone (T.S.H.) or thyroxine-releasing hormone stimulation tests. Furthermore, the very low C.V. of the E.T.R. may indicate relative insensitivity rather than a high degree of precision. This leads to a marked overlap in values in clinically hypothyroid patients and normal subjects, particularly where treatment has been given for thyroid disorders. In hypothyroid patients such as those following radiiodine treatment, it is mandatory to use serum assays such as T.S.H. and T-3 concentration to supplement the E.T.R. test.—We are, etc.,

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Venous Gangrene in Multiple Myeloma
Sir,—The incidence of thromboembolism in myelomatosis based on a preliminary estimate of 376 patients admitted to the Medical Research Council’s myelomatosis trial up to March 1970 was reported to be about 10%, but the neuropathy and myelomatosis involving the feet as a presenting feature is uncommon. Czatykovski et al.4 reported 14 cases of myelomatosis associated with major