

AUSTRALIAN METROPOLITAN LIFE
ASSURANCE COMPANY LTD.

HUNTER AND BLIGH STREETS,
SYDNEY, 14th December 1954.

The Editor,
T.F.A.

Dear Sir,

Life assurance underwriting, by A. Fergus Hewat, M.D., F.R.C.P.Ed.,
and Colin S. Penn, M.C., F.F.A., F.I.A.

I regret that in the Note which appears in my name in the discussion of the above paper in Volume 22, Part 4 of the *Transactions*, there are several errors, and I shall be obliged if you will note the following :—

- (1) Although my information was supplied to me by the Statistical Department of the Metropolitan Life Insurance Company (of New York), the formulae I quoted were supplied in a letter and did not appear in that Company's Statistical Bulletin. The first formula quoted—

$$\frac{(\text{Ankle girth})^2 \times \text{height (inches)}}{K} \text{ lbs.}$$

where K is 31.88 for males and 34.67 for females, was stated to have appeared in a paper by David P. Willoughby entitled "Anthropometric Method for Arriving at the Optimal Proportions of the Body in Any Adult Individual," published in the *Research Quarterly* of the American Physical Education Association, 1932, Vol. 3 page 48. I was advised, if this journal was not available, to see a paper by E. Kost Shelton on "Optimal Weight Estimation" in *Endocrinology*, 1932, Vol. 16, page 492. I was able to secure a copy of this paper, which gives all the credit to Mr. David P. Willoughby "medical artist and anthropometrist" who "without benefit of training in medical sciences has through constant study familiarized himself with the bony framework and musculature of the body far more than the average physician." The paper by E. Kost Shelton includes tables giving "proportionate ankle girth from other skeletal dimensions" and "optimum proportions of the body in relation to the 'correct ankle girth.'"

(2) The second formula—

$$\frac{\left(\frac{\text{Chest girth}}{4}\right)^2 \times \text{height}}{27} \text{ lbs.}$$

was quoted in my letter from the Metropolitan Life Insurance Co. (New York) as having appeared in "the New York papers" in September 1943 from a study made at the University of Illinois. I am inclined to think that at some point along the line of quotation the denominator was wrongly copied and it may originally have been 37.

(3) In my remarks, as published, the second formula appears as

$$\frac{\left(\frac{\text{Chest girth}}{4}\right)^2 \times \text{height}}{27} \text{ lbs.}$$

The chest girth should be divided by 4 before squaring. I regret that my contribution was marred by these errors.

Yours faithfully,

W. J. COOKSEY.