

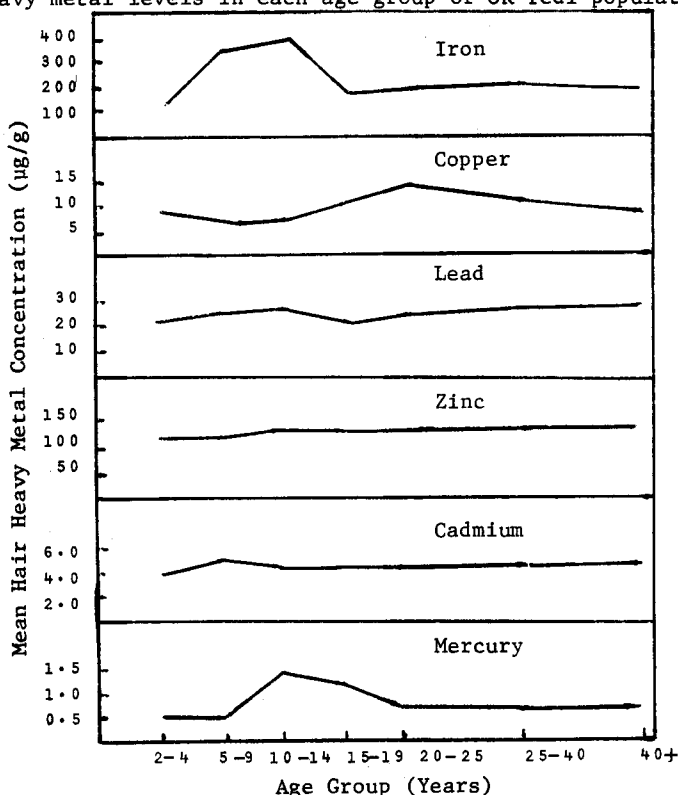
BASELINE HAIR TRACE METAL LEVELS OF INHABITANTS OF THE OK TEDI REGION  
OF PAPUA NEW GUINEA - ANALYSIS BY SEX AND AGE

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In recent years many authors have stressed the need to monitor age and sex variation in populations where hair heavy metal levels are being studied as an adjunct to nutritional/environmental surveys (Klevay 1978). The apparent lack of consensus on the issue of sex and age effects on hair heavy metal levels probably reflects in part the low sample size and large variation seen in many published surveys but may also reflect peculiarities of each population studied (Reilly 1983).

In the OK Tedi population the only significant sex correlation was a higher hair iron level in males (♂ Mean [Fe] 278  $\mu\text{g/g}$  (N=175); ♀ Mean [Fe] 164  $\mu\text{g/g}$  (N=124)). The age correlations are summarized in the following figure:

Hair heavy metal levels in each age group of OK Tedi population



Clearly the highest iron levels occur in the prepubertal (5-9 y) and pubertal (10-14 y) age groups whereas the highest hair copper levels occur in the young adult (20-25 y) group. Lead, zinc and cadmium levels appear not to be age dependant. The peak values for hair mercury are seen in the pubertal (10-14 y) and adolescent (15-19 y) age groups.

KLEVAY, L.M. (1978). Arch. Intern. Med. 138:1127.

REILLY, C. (1983). Proc. Nutr. Soc. Aust. 8:210.

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