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| **Title:** Indexing of left ventricular (LV) mass to account for body habitus in an Aotearoa population |
| **Aim:** To compare indexation approaches for LV mass in a community study to understand the effect on detection of LV hypertrophy (LVH).**Method:** LV mass was calculated from echocardiographic measurements for 694 participants (female n=381) from the Hauora Manawa Community Heart Study. The three study groups (Rural Māori, Urban Māori and NZ European) were separated by sex and compared using one-way ANOVA and unpaired t tests, when LV mass was unindexed and indexed for body surface area (BSA), height and fat free mass (FFM). **Results:** When unindexed, LV mass was significantly higher in both Māori groups when compared to the NZ European for both males (R v E and U v E p<0.0001); and females (R v E p< 0.001; U v E p=0.02). In females, the Rural Māori group also had higher LV mass than the Urban Māori group (p=0.0011). However, there was no difference found between the male Rural and Urban Māori groups (p=0.08). This pattern remained when LV mass was indexed for BSA, height or FFM. However, the relationship of each of the group and the associated reference ranges varied, resulting in different observed rates of LVH with the different indexing approaches (fig 1). **Conclusion:** In this cohort, Māori have higher LV mass although the indexing approach alters the observed prevalence of LVH. The clinical significance of this change is unclear.   |