

**Author:** Juliana Mandha

**Co Author:** Joram Buza (Nelson Mandela African Institute of Science and Technology), Pammla Petrucka (University of Saskatchewan), Neema Kassimu (Nelson Mandela African Institute of Science and Technology)

**Topic:** Community health and nutrition programs

**Title:** Prevalence of Hypertension and Associated Risk Factors among Maasai Communities in Simanjiro, Tanzania

**Presentation Type:** Poster

**Introduction:** Non-communicable diseases are rising in low income countries. Information on the risk factors at the community level is of paramount importance to enable strategic preventive programs. This study was conducted within a rural pastoral community of Maasai in Simanjiro District of Tanzania to determine prevalence of hypertension and its determinants.

**Methods:** This population based cross-sectional study included 561 Maasai participants. Consenting adults ( $\geq 25$  years) were interviewed using the World Health Organization STEPWISE survey instrument.

**Results:** The average age (years) of the participants was  $39 \pm 13.9$ . The prevalence for hypertension was 21.3%, 95% CI [18,25] and awareness rate 17.5%. Systolic blood pressure was significantly ( $p < 0.05$ ) associated with diastolic blood pressure, heart rate, weight, height, body mass index, waist circumference, abdominal obesity, fruit servings per day, and vigorous work done. Majority (96.26%) of participants were physically active, with the 24-34 year age group having higher metabolic equivalents ( $10563.92 \pm 7552$ ) than the 65+ group ( $4852.09 \pm 5835.272$ ) ( $p < 0.0001$ ). Hypertensive participants showed lower metabolic equivalents ( $179.2 \pm 107.7$ ) than their non-hypertensive counterparts ( $297.6 \pm 53.1$ ). Body mass index differed according to age groupings ( $p = 0.0454$ ) and hypertensive status ( $p = 0.0063$ ). Hypertensive participants had significantly ( $p = 0.0136$ ) higher blood glucose levels. Fruits and vegetable intake was similar among hypertensive and non-hypertensive participants; however, there was a significant difference across age groups ( $p = 0.0085$ ).

**Conclusion:** Hypertension prevalence among the rural Maasai community was found to be high and awareness rate low. Therefore, government policies, community health and nutrition programs should aim at primary prevention and targeted treatment of hypertension.

