

Publication

Metabolic syndrome in rural Peruvian adults living at high altitudes using different cookstoves

JournalArticle (Originalarbeit in einer wissenschaftlichen Zeitschrift)**ID** 4651827**Author(s)** Sanchez-Samaniego, G.; Mäusezahl, D.; Carcamo, C.; Probst-Hensch, N.; Verastegui, H.; Hartinger, S. M.**Author(s) at UniBasel** [Sanchez Samaniego, Giuliana](#) ; [Mäusezahl, Daniel](#) ; [Probst-Hensch, Nicole](#) ; [Hartinger, Stella](#) ;**Year** 2022**Title** Metabolic syndrome in rural Peruvian adults living at high altitudes using different cookstoves**Journal** PLoS One**Volume** 17**Number** 2**Pages / Article-Number** e0263415**Mesh terms** Adult; Air Pollution, Indoor, analysis; Altitude; Cooking, methods; Cooking and Eating Utensils, statistics & numerical data; Family Characteristics; Female; Fires; Household Products; Humans; Male; Metabolic Syndrome, etiology; Middle Aged; Particulate Matter, analysis; Peru; Rural Population, trends; Socioeconomic Factors; Surveys and Questionnaires

This study determined the prevalence of metabolic syndrome (MetS) in open fire stoves and improved cookstoves users (ICS) in the rural Peruvian Andes. Participants answered a socioeconomic questionnaire, one 24-hour food recall and underwent a physical examination. We analysed data from 385 participants, 190 (112 women and 78 men) were ICS users and 195 (123 women and 72 men) were open fire stove users. The prevalence of MetS was 21.3, 26.4% in women and 13.3% in men. We found no statistically significant association between the type of cookstove and MetS. Body mass index and altitude were important determinants of MetS. Research on cardiometabolic diseases and open fire stove use contributes to understanding the effect of household air pollution on health in high altitude populations.

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