At baseline, BMI was inversely associated with physical and mental SF-12 summary scores (β [95% CI]=−0.3 [−0.4 to −0.2], and −0.1 [−0.1 to 0.0]). An increase in BMI of 1 kg/m² within 12 months was associated with a significant decrease in physical but not mental SF-12 scores (0.3 [−0.4 to −0.1]). Due to an interaction with gender, the association between change in BMI and physical SF-12 scores was only prevalent in women (β=−0.5 [−0.7 to −0.2], p<0.001) but not in men (p=0.32).

**Conclusion** BMI is inversely associated with quality of life in high-risk cardiovascular patients. Increases in BMI may lead to a decrease in physical quality of life in women but not in men.

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**P2-205 HETEROGENEITY IN FUNCTIONAL RECOVERY AFTER STROKE: AN EXPLORATORY STUDY USING LONGITUDINAL LATENT CLASS ANALYSIS**

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**Introduction** Prediction models for functional recovery after stroke can be improved by adjusting for the heterogeneity in functional recovery patterns. This study explored the heterogeneity in functional recovery after stroke using longitudinal latent class analysis and characterised the patients in the different latent classes.

**Methods** The analyses were performed on a data set from a cohort of 448 stroke survivors participating in a study of outcomes at 1 year. Heterogeneity in functional recovery after stroke was investigated using Longitudinal Latent class analysis of total Barthel scores measured at 1, 6 and 12 months after stroke. Identification of the optimal number of classes was based on BIC, AIC, and Lo-Mendell-Rubin Adjusted Likelihood ratio test. The second analysis characterised the latent classes.

**Results** A four latent class structure was preferred. All the four latent classes showed a non linear pattern of recovery over time. Persons in the very poor functional recovery group had the largest median length of initial hospital stay 99 (13–257 days), mean age 75±9.27 years and greatest probability of being urinary and bladder incontinence. The group with best functional recovery had the least initial hospital stay 14 (2–147 days), least proportion of people with previous stroke, least proportion of people with urinary and bladder incontinence, the mean age at admission was 68.76±11.72 years.

**Conclusion** The study showed that there is heterogeneity in functional recovery patterns after stroke. Latent class analysis is a useful method for identifying subgroups of functional recovery after stroke.

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**P2-207 EPIDEMIOLOGY OF NON-COMMUNICABLE DISEASES AND THEIR RISK FACTORS IN RURAL UGANDA**

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**Introduction** Non-communicable diseases (NCDs) are rapidly becoming leading causes of morbidity and death in low- and middle-income countries, including those in sub-Saharan Africa. Yet, the magnitude and distribution of established and emerging risk factors for NCDs have not been fully studied in sub-Saharan African countries in a large scale epidemiological context.

**Methods** We will carry out a cross-sectional population-based survey of cardiometabolic risk factors and disease of approximately 8000 participants aged 15 years and older, in a rural population in Uganda. Trained field staff will conduct a questionnaire based upon the WHO STEPSwise approach to Surveillance questionnaire; perform biophysical measurement, including anthropometry and blood pressure readings; and collect blood samples for biochemical analysis for cardiometabolic risk factors and infection.

**Results** By August 2011, data on approximately 6000 participants will have been collected. We will report initial findings, including the prevalence and distribution of lifestyle risk factors, physical measurements and biochemical measurements. Lifestyle risk factors will include tobacco use, alcohol consumption, diet and physical activity. Physical measurements will include blood pressure, body mass index and waist hip ratio, as indicators of hypertension and obesity, respectively. Biochemical measurements will include liver function tests, lipid levels and HbA1c as an indication of diabetes. Age and sex specific estimates will be reported.

**Conclusion** Population based epidemiological studies can provide reliable data on disease burden and their risk factors to help inform public health policy and programmes aimed at addressing the rise in NCDs in Uganda.