

# Challenges in conducting a 10-year cohort: Prediction for cardiovascular events, diabetes and hypertension from a Sarawak cohort (PreCEDES)

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## ABSTRACT

**Introduction:** PreCEDES is an extension study from LIFECourse Study in CARDiovascular disease Epidemiology (LIFECARE), a cohort study to identify biological, lifestyle and psychosocial factors associated with individual trajectories of cardiovascular risk factors and cardiovascular diseases. The primary objective was to describe the challenges of continuing a large cohort study in a developing country. **Methods:** PreCEDES is a 10-year-old cohort that recruited subjects from LIFECARE. At baseline, a total of 2541 subjects aged 18-50 years old from Southern Sarawak were recruited. During each visit, consent and anthropometric measurements were taken, along with a 12-lead ECG. Blood samples for blood sugar and cholesterol were obtained, and a survey questionnaire was completed. **Results:** In PreCEDES, of 2454 subjects contacted, a total of 1275 subjects were followed up with a retention rate of 51.96% as of June 2023. 13.41% of the subjects recruited have been referred for newly diagnosed high cholesterol, hypertension or diabetes. A total of 46.37% were lost to follow-up. Reasons for loss to follow-up were unable to contact the subjects (72.41%), subjects unable to commit to follow-up (4.57%), relocation (16.26%), decision to continue follow-up at primary care clinic (4.39%) and failure to attend the research clinic appointment (2.37%). To date, 42 subjects had died, and 41 subjects withdrew from the study, out of 2541 subjects from the baseline cohort. **Conclusion:** In this long-term investigator-initiated cohort study, the 10-year retention rate of 51.96% reflects the challenges but also the importance and relevance of PreCEDES, following LIFECARE. The main reason for the loss of follow-up was a failure to contact the subjects despite multiple efforts.