PURE: Contrasting associations between risk factor burden, CVD incidence and mortality in high, middle and low income countries

**Background**: Over the past recent decades, prevalence of noncommunicable diseases such as obesity, diabetes, and CVD have increased in countries around the world.

**Questions to answer**: What associations exists between societal factors and CVD risk factors, event rates and mortality?

**Trial Design**
- A large-scale epidemiological study
- 155,245 participants in more than 600 communities in 17 countries of low, middle and high income
- Data includes medical history, lifestyle factors such as physical activity and diet, blood collection, electrocardiogram, and anthropometric measures
- Mean follow-up 3.9 years

**Primary Endpoint**
Impact of cardiovascular risk factors: measuring CV disease and mortality

**Trial Results**
- Highest risk factors for CVD: high income countries \( p=0.001 \)
- Major CVD per 1000 person years: 4.3 high, 5.1 middle, 6.4 low income.
- Non-major CVD per 1000 person years: 4.3 high, 5.1 middle, 6.4 low income. \( p<0.001 \)

**Take Away**: High income countries have the highest risk factors for CVD, but less fatal and other major CVD than low income countries. Health care plays a role in risk factor control. Approaches for middle and low income countries will be important.