The epidemiology of cardiometabolic diseases in low- and middle-income countries: international population-based analyses

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In collaboration with Harvard University and the University of Göttingen, the Heidelberg Institute of Public Health has assembled and cleaned a large international dataset of nationally representative household surveys with a biomarker-defined cardiometabolic disease (diabetes, hypertension, hyperlipidemia, and obesity). The dataset currently includes 36 countries and over one million participants. This PhD project would be for leading analyses using these exciting large-scale data. Initial analyses from this work have been accepted by high-impact journals, including JAMA Internal Medicine and PLOS Medicine.

The precise research question(s) would be discussed with the research team and there is ample opportunity for the student to formulate their own questions for investigation. Types of analyses that are possible with this data include i) prevalence of a cardiometabolic disease and its variation across countries and socio-demographic groups (e.g., gender or education) within countries, ii) health system performance (e.g., percent who has been diagnosed or is on treatment) for certain cardiometabolic diseases, iii) macro-level predictors (e.g., socio-economic development) of cardiometabolic disease, iv) clustering of cardiometabolic diseases within social (e.g., families or households) and/or geographic (e.g., villages) units, and v) the co-occurrence of cardiometabolic diseases. All analyses aim to inform policy makers and clinicians in developing countries on the design of new interventions and appropriate target groups for existing interventions.

Cooperating partners: Heidelberg Institute of Public Health, Harvard University, University of Göttingen