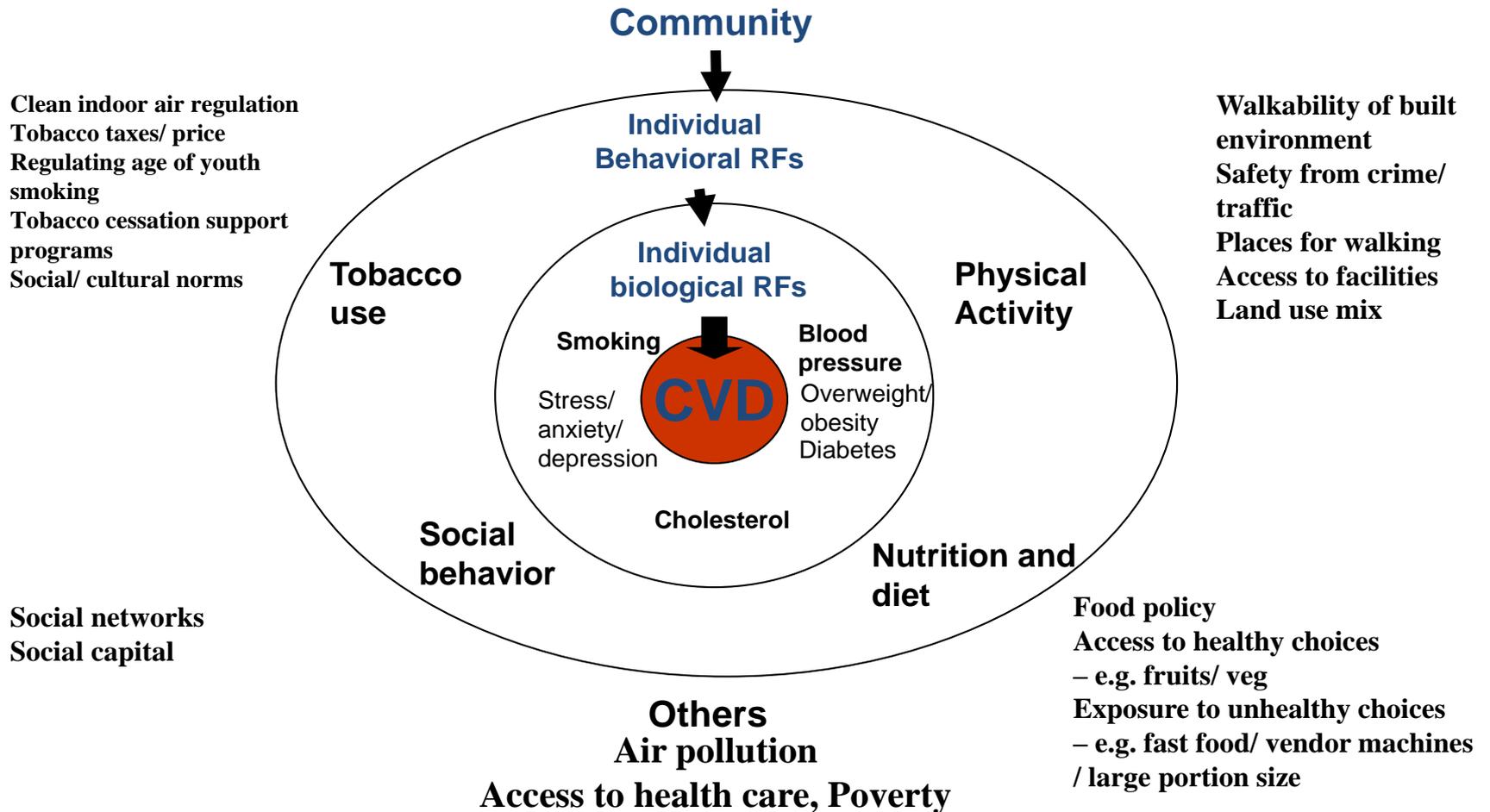




# Prospective Urban Rural Epidemiology (PURE) Study

## OVERVIEW

# Multilevel influences of health determinants, on risk factors and outcomes



# Aims of the PURE program

To study the associations between environmental (especially urbanization), societal and individual (health behavior, genetic) influences on risk factors for CVD and other NCDs globally in populations derived from 5 continents of the world.

To describe variations in health systems and their influences on access to care and health.

To develop a global , contemporary, and robust data base on mortality (by cause), burden of disease(e.g. hospitalizations by cause) and gaps in treatments and prevention .

Collectively the above information will provide high quality, prospective, standardized and unbiased information from populations in 26 countries located in 5 continents (many with sparse data) to inform global health strategies .

# Prospective Urban Rural Epidemiology (PURE) Study

**200,000** adults (>500,000 people) from **26 countries** (*LIC, MIC, HIC*)



**Urban and Rural >1000** communities



**Societal** level influences (Socioeconomic, tobacco & other health policies, relative food prices and availability, built environment, indoor/outdoor pollution)



Lifestyle **behaviours** X **genes**  
(& biomarkers)



Individual **risk factors**

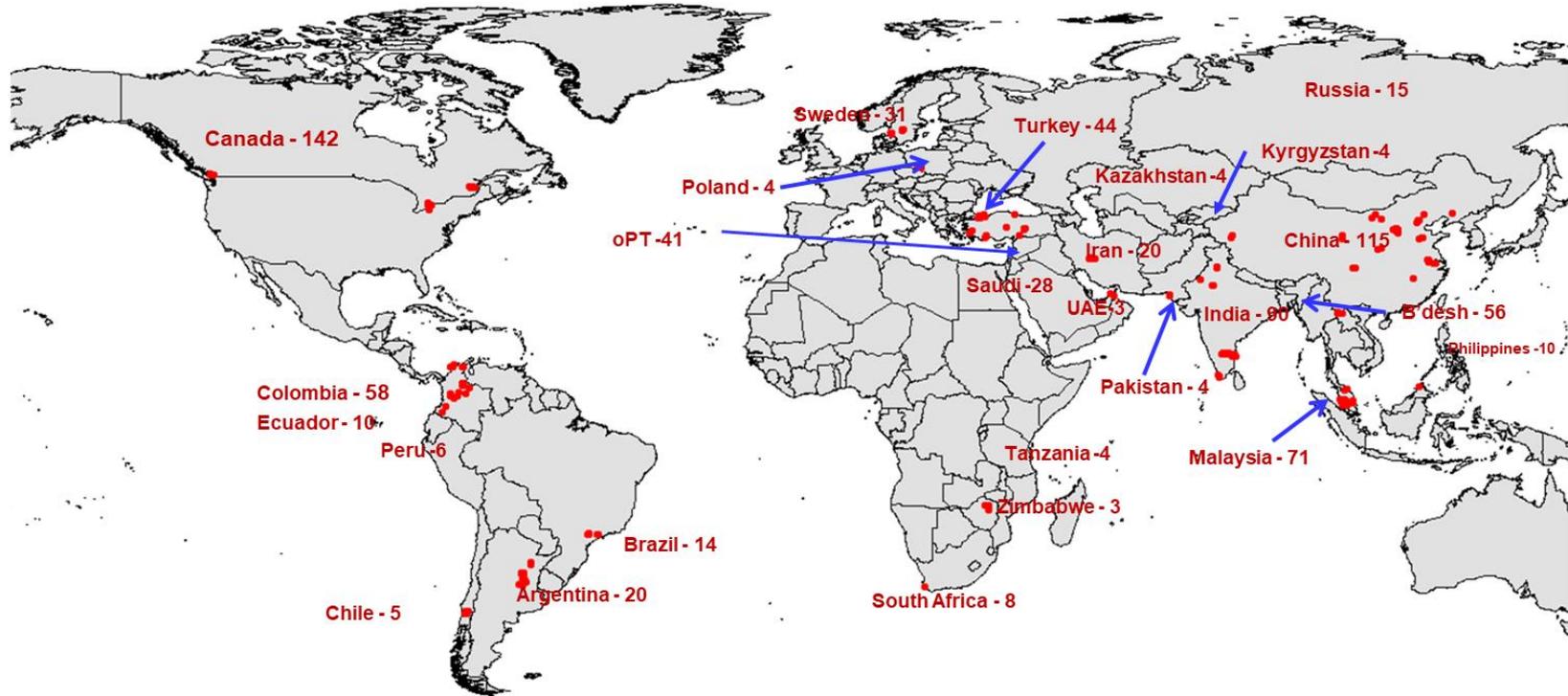


**CVD, DM, Obesity, Cancers, Lung Disease, Renal disease, GI disease, Injuries, Frailty & Dementia**

# Design of PURE

- Unbiased population sample from >1000 urban and rural communities in 26 countries involving >500,000 people (mortality surveillance cohort) of whom 200,000+ are >35 to 70 years (studied in depth with serial information on health behaviours, morbidity and mortality) initially enrolled in 2003-2018.
- Documentation of the characteristics of the community, the household and individual (lifestyles, health conditions, anthropometrics, BP, lipids, glucose and lung function, and drugs used) + stored bloods and urine.
- Long term follow-up ongoing (current mean of 10 years with >95% FU for mortality and >90% for morbidity).
- Plans to extend FU for another 10 years to study the conditions of aging (dementia, frailty, arthritis & disability) globally

# PURE: 200,000 from 1000 communities in 26 countries from 5 continents



# PURE Study Data Collection: Baseline

## Community

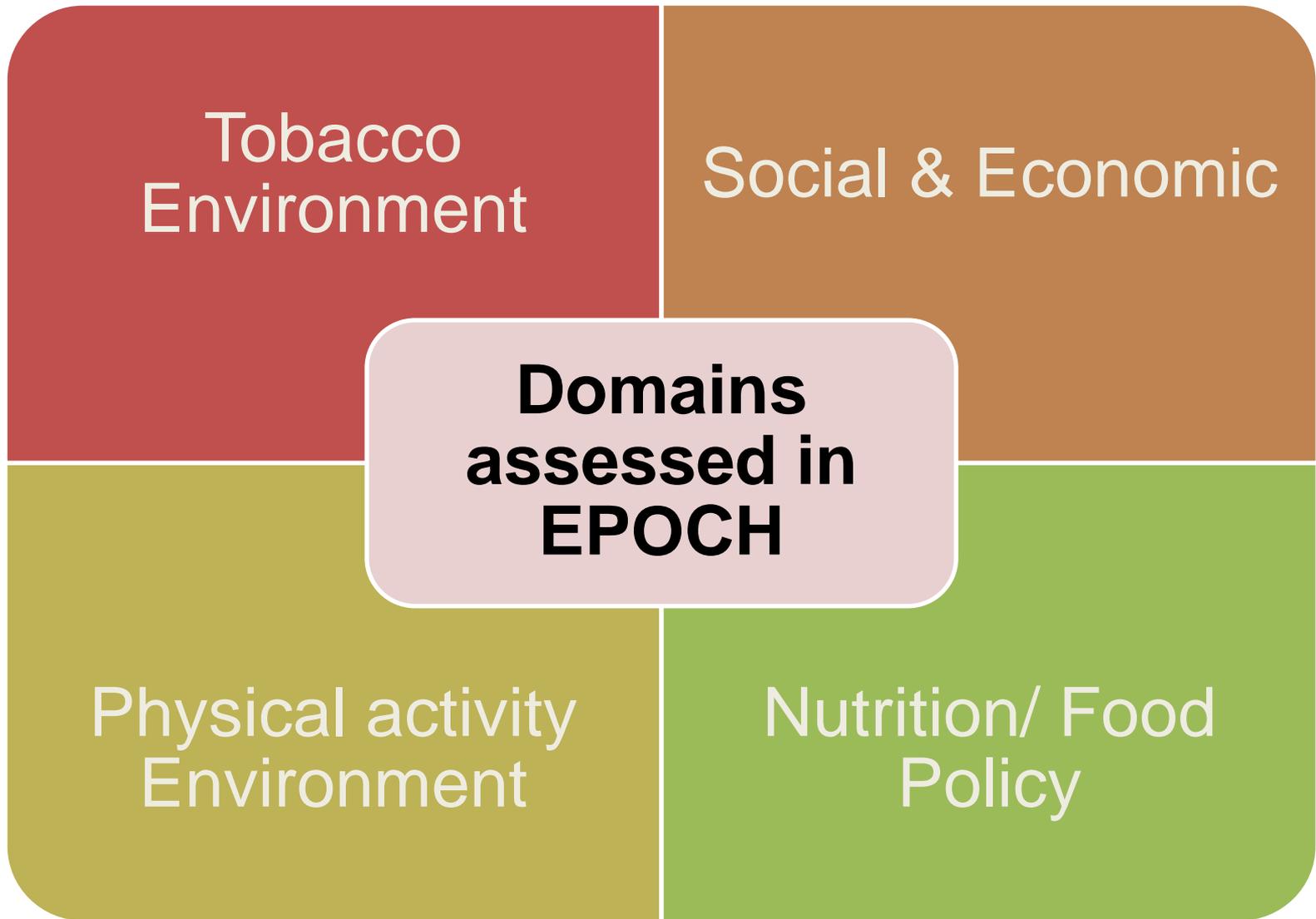
- EPOCH 1
- EPOCH 2

## Household

- Family Census
- Household
- NEWS  
Questionnaire

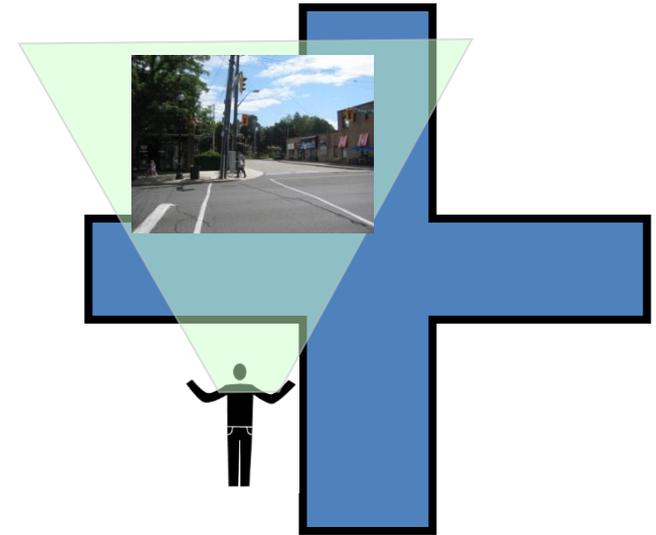
## Individual

- Adult Questionnaire
  - FFQ (Nutrition)
  - IPAQ (Physical  
Activity)
- PHYSICAL  
MEASURES
- Anthropometry
  - Lung Function
  - ECG
  - Blood and Urine  
sample



# EPOCH Data Collection

EPOCH 1: - Objective environmental audit tool



EPOCH 2: Survey of resident's perceptions of their community



# EPOCH Instrument Domains

## Sidewalk and Bicycle Lanes

- Sidewalk presence and quality
- Bicycle lane presence and quality

## Pedestrian Safety

- Presence of crosswalks
- Presence of traffic signals, pedestrian activated signals, stop/yield signs.

## Aesthetics

- Trees & landscaping
- Building design/architecture
- Street furniture

## Overall Appeal

- Satisfaction with neighbourhood

# PURE Study Data Collection: Follow-up

- Annual visits to document events
- Repeat clinic visits at 3, 6, 9, 12, and 15 years
  - Blood Pressure, Height Weight, WC, Hip, Lung Function, Hand Grip
  - ECG (Handheld Device)
  - Tobacco Alcohol
  - Diet, Physical Activity
- Health Systems
- Questions on: Frailty, Dementia, Osteoarthritis, GI
- Adjudication – Death, MI, Stroke, Heart Failure, Cancers
- Mortality follow-up in all non-participating household members (i.e. all ages) enumerated at baseline