

# Malawi Longitudinal Study of Families and Health (MLSFH)

## Basic Overview

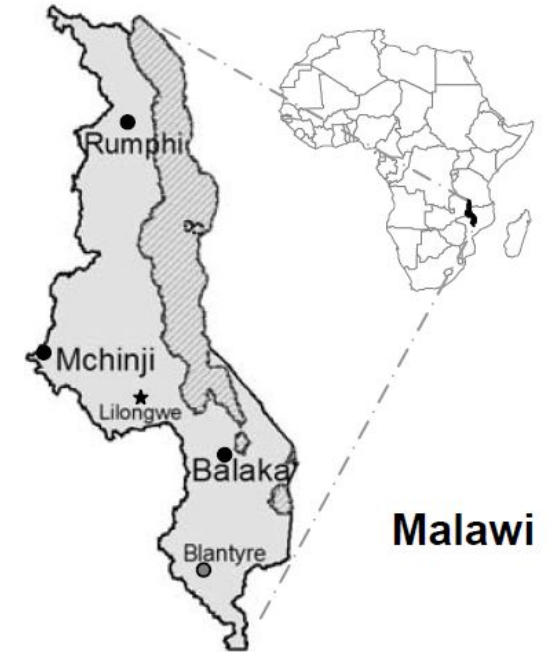
- Malawi
  - 3 regions: Rumphi, Mchinji, and Balaka, including migration follow-up
  - Rural, low-income context
- Longitudinal household survey established in 1998
- Family-focused, intergenerational, multidisciplinary, publicly available (restricted use for sensitive data)
- Population-based sample broadly representing rural Malawi

## Study Population

- $N > 6,000$
- Age ranges:
  - Mature adults 45+ ( $N \approx 3,500$ , focus of biosocial aging studies)
  - Adolescents and young adults ( $N \approx 2,000$ )
  - Adults below age 45:  $N \approx 1,500$
- Collection dates: 12 rounds 1998-2022
- Anticipate funding to continue collection in 2024 and 2027

Biomarker focus: Epigenetic aging measures

Key outcomes: Cognition, ADRD and accelerated aging measures



# MLSFH - Domains



## Study Design

- Survey mode
  - Face-to-face
  - Phone surveys between rounds
- Extensive longitudinal data on socioeconomic context, physical & mental health, cognitive function, intergenerational relations, NCD knowledge for ages 45+

## Biomarkers (anticipated)

- Dried blood spot (DBS) collection in 3,500 45+ sample, including 1,000 sibling pairs
- Assays: EPIC 850k array (N ≈ 3,500); WGS at 30x (N ≈ 300); WGS at 2-3x (N ≈ 3,500)
- Future potential: Extending genetic and epigenetic data collection to younger cohorts and newborns

## Additional info

- Construct existing epigenetic age acceleration measures and train new measures (first in a LIC context)
- HCAP-comparable assessment of cognition, including informant interviews (2024 and 2027)