MLSFH Project Description

The Malawi Longitudinal Study of Families and Health (MLSFH) is one of very few long-standing publicly-available longitudinal cohort studies in sub-Saharan Africa (SSA). With data collection rounds for up to 4,000 individuals in 1998, 2001, 2004, 2006, 2008, 2010, 2012+13, and forthcoming until 2020, it is establishing a rare record of more than two decades of demographic, socioeconomic and health conditions in one of the world’s poorest countries. The MLSFH has been the basis of more than 250 publications on topics ranging from sexual behaviors and HIV risks to marriage, migration, intergenerational transfers, non-communicable diseases and aging. The MLSFH public-use data can be requested on the project website http://www.malawi.pop.upenn.edu. A MLSFH Cohort Profile in the International Journal of Epidemiology provides detailed project information and a review of MLSFH research.

Mature Adults & Aging Research

Mature adults (= individuals adults aged 45+), represent an increasingly important subset of societies in SSA. The population of mature adults will grow more rapidly in many SSA countries than any younger 10-year age group in the next decades. In the next 50 years, 80% of the additional persons-years lived among adults as a result of increasing life expectancies in SSA low-income countries such as Malawi will occur among individuals aged 45+. This growth of the mature adult population will contribute to a rising importance of non-communicable diseases (NCDs).

While there is increasing recognition of addressing the challenges of individual and population aging in SSA, a dearth of population-based data on older individuals severely limits policy-relevant research on health and aging in SSA.

The MLSFH is an exception: it provides a unique opportunity to study older individuals, aging and NCDs among mature adults, all within a cohort perspective. For example, innovative longitudinal measures included in the MLSFH 2012–20 are well-being, physical/mental health, cognitive abilities, NCDs, work efforts, life histories, intergenerational transfers & social support, and family/social contexts of mature adults. Current key findings include:

- Mature and old adults have high levels of economic activity, both women and men, and they make significant financial and non-pecuniary contributions to families and society at large.
- Despite their growing demographic and socioeconomic importance, however, the well-being and productivity of mature adults is often low.
- Depression and anxiety are widespread among mature adults, and contrary to patterns observed in higher-income contexts, mental health declines markedly with age. Depression and anxiety are more frequent among women than men, and individuals are often affected by both. They are associated with adverse outcomes, such as less nutrition intake and reduced work efforts. Mature adults spend a substantial fraction of their lifetime—for instance, 52% for a 55 year old woman—affected by depression and/or anxiety.

PHQ-9 Depression score among MLSFH mature adults (women: blue; men: red)
Physical health declines rapidly with age in rural Malawi. At older ages, chronic and disabling conditions are common, leading to significant functional limitations in day-to-day activities, and a substantial gap between potential and actual productivity. 45-year old women can expect to spend 58% of their remaining 28 years of life with functional limitations, while 45-year old men can expect to live 41% of their remaining 25.4 years subject to such limitations. This prevalence of disabilities increases strongly with age.

Despite the absence of conventional risk factors such as obesity among MLSFH mature adults (only 13% have a BMI above 25), high blood pressure is highly prevalent: 68% of MLSFH mature adults aged 45+ have pre-hypertension (systolic blood pressure ≥ 120 mmHg) or hypertension, increasing to 78% above age 60, indicating significant cardiovascular risk among mature adults.

Systolic blood pressure by age, MLSFH mature adults (mmHg, average of 3 measurements)

MLSFH mature adults have significantly weaker grip strength than U.S. adults, even when compared to U.S. adults who are 10 years older, indicating high levels of ADL limitations and elevated morbidity/mortality. Weak grip strength predicts poor mental health and cognitive decline.

Grip strength in kg, MLSFH mature adults compared to U.S. HRS respondents 10 years older

Narratives about older age, and HIV at older ages are both centred on the importance of having bodily, moral and social power to perform broadly-defined “work.” Those who could not work were often excluded from the social world, highlighting the importance of mental and physical health for successful aging.

MLSFH research on mature adults is important as it helps inform the health policies and health sector strategies required for preparing for the growing population of mature adults and elderly individuals. The growth rate of the population aged 60+ in SSA is projected to increase from 2% p.a. to over 4% during the next 45 years—4-times the growth rate in developed countries. Health systems remain poorly-equipped to manage and treat poor mental health and other non-communicable diseases, especially in light of these demographic changes, and MLSFH research documents an aging trajectory in Malawi that is distinctly different from that observed in high-income countries. Context-specific research on aging and older individuals is thus urgently needed.

MLSFH Project Website

http://www.malawi.pop.upenn.edu

Acknowledgments

The MLSFH gratefully acknowledges the generous support provided by the National Institute for Child Health and Human Development (NICHD, grant numbers R03 HD058976, R21 HD050652, R21 HD071471, R01 HD044228, R01 HD053781, R24 HD-04964), and the National Institute on Aging (NIA, grant number P30 AG12836). The MLSFH has also received funding through the Penn Center for AIDS Research (NIAID AI045008), the Penn Institute on Aging, the Leonard Davis Institute of Health Economics, the Malawi National AIDS Commission, the Swiss Programme for Research on Global Issues for Development (R4d), and other agencies.

Contact Information

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July 27, 2016