The Role of Education in Adult Disability in a Lowest-Income Context

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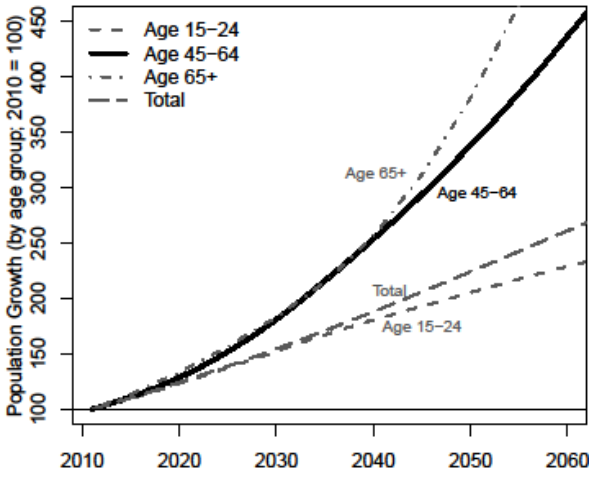
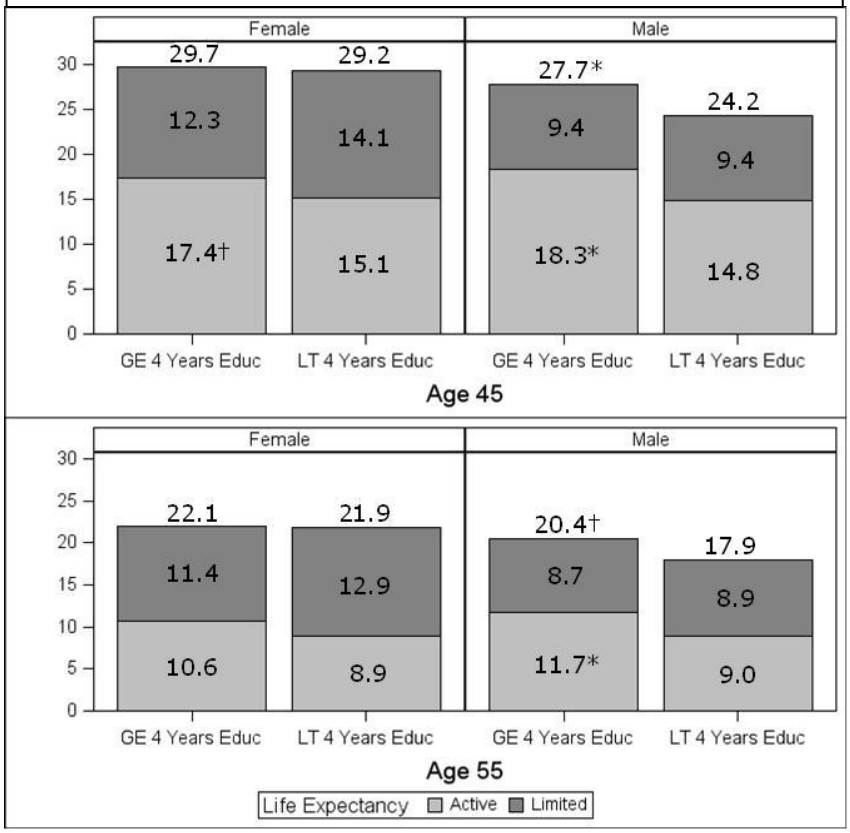
Introduction. A substantial body of contemporary research has found a strong relationship between formal education and adult health and mortality in the developed world. However, the form of the education-health relationship is less well known in developing settings, particularly in sub-Saharan Africa (SSA). Though the current age structure is quite young, the aging population in SSA will grow proportionately more rapidly than any other segment of the population (Fig. 1), and by 2060, persons aged 45+ will be about 25% of the total SSA population. By 2030, chronic non-communicable diseases are expected to cause 47% of deaths in Africa, compared with only 27% in 2008 (WHO 2008). Understanding the correlates of health among this growing population may provide useful information in predicting trends in health and the planning of health care provisions, particularly as the current health infrastructure in SSA is focused mainly on communicable disease and the younger population (Beard et al. 2012).

Fig 1. Population growth by age group in SSA 2010–2060 (2010 = 100)



Methodology. I use data from three waves of the Malawi Survey of Families and Households (MLSFH) to estimate annual probabilities of entering into physical disability and death by age, sex, and educational attainment. I then estimate the number of years that the average individual will live in active and disabled life by generating synthetic cohorts of individuals via microsimulation (Cai et al 2010), and analyzing the resulting disability trajectories. I test several exogenous factors that could confound the education-health relationship.

Fig 2. Average remaining life expectancy at ages 45 & 55, by sex and education



Results/Conclusions. I find that individuals in SSA experience substantial disability and that individuals with more education are less likely to transition to disability and death. However, education is not significantly associated with recovery from stays in disability. Males with 4 or more years of education live on average 3 years longer than males with less than 4 years of education, with all of these additional years lived in active life (Fig. 2). Females with more education do not live longer overall, but do live proportionately more of their lives without disabilities. My findings show that increasing educational attainment in SSA could contribute substantially to increasing life expectancy and reducing the disability burden in this society.

References

UN Population Division. (2010) World population prospects, the 2010 revision: Standard (median) forecasts. United Nations, Department of Economic and Social Affairs, Population Division.

WHO. (2005) Preventing Chronic Disease: A Vital Investment. (World Health Organization (WHO), Geneva, Swizerland). The estimates cited in the text reflect the 2008 online revision of the projections.

Beard, J, Biggs, S, Bloom, D, Fried, L, Hogan, P, Kalache, A, & Olshansky, J. (2012) Global population ageing: Peril or promise? PGDAWorking Paper No. 89 (Global Agenda Council on Ageing Society).

Cai L, Hayward MD, Saito Y, Lubitz J, Hagedorn A, Crimmins E. Estimation of multi-state life table functions and their variability from complex survey data using the SPACE Program. Demographic Research 2010 JAN 26;22:129-157