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Social context and tracing household wealth over time in rural Uganda 1994-2018

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John Santelli *et al.* [1] analysed the association of wealth with HIV incidence in 28 continuously followed communities in the Rakai Community Cohort Study (RCCS) from 1994-2018. HIV incidence was found to be similar by socio-economic status from 1994-1997. However, while all socio-economic groups showed a decline in HIV incidence in the years that followed, the greatest declines were among those who were better off.

Socio-economic status for each household was measured based on: modern materials used for the construction of roof, walls and floor of the dwelling; access to a latrine; access to electricity; owning or not owning a car, motorcycle, bicycle and radio. The authors acknowledge that using the same bundle of assets across the 24 years covered in the analysis does not account for changes in usage (e.g., motorcycles replacing bicycles), but wealth would be expected to give greater access to assets.

Although I have no issue with the approach to analysis nor, indeed, the finding that greater household wealth post-1997 served as a protective factor against HIV-infection, I do want to follow up on a statement in the final paragraphs of the paper that `trends in HIV incidence may also be influenced by complicated changes in social context including rising educational access […]. The influence of SES, in the face of these other changes, needs further exploration'. It does indeed.

When considering HIV prevention and care, place and historical time can matter in how HIV infection may spread and how prevention measures work. We have argued recently for consideration of these differences in the context of interpreting the findings of a large Universal Test and Treat trial in Zambia and South Africa [2]. We argue that HIV incidence is on a trajectory (independent of a prevention intervention) and by paying attention to the features of communities, we can be more responsive to differences in the way an intervention may work [3]. Yet, recognising who is poor is not straightforward; the `complicated changes in social context' do require consideration and exploration.

In 1994 there was an escalating crisis in neighbouring Rwanda [4] and people in the RCCS saw the aftermath of the genocide as bodies washed up on the shores of Lake Victoria [5]. Only eight years before, a bush war had ended with the taking of Kampala by Museveni and the National Resistance Army. The people in the RCCS had experienced prolonged periods of unrest and precarious livelihoods. In times of uncertainty people may not invest in property or openly display their wealth for fear of seizure by the military and other powers [5, 6]. These factors may have affected the accumulation of assets among the people in the RCCS, and the ways in which

wealth was displayed. As people have become more confident in stability, investments have sometimes been made in trading centres and in larger towns; not always improving the home where only part of a kin group may reside.

As antiretroviral therapy has become more widely available, and fewer people have died because of HIV-related causes, so the pressures on family resources have changed. Building material costs have increased considerably in recent years, particularly `modern' materials like cement and corrugated iron sheeting or tiles [7], making repairs or new building expensive. School costs have risen too. The purchase of new roofing material may be postponed to pay for the clinical care or the school fees of the children. Earnings from agricultural products may not have kept pace with rising costs as the weather and crop diseases affected yields [8]. High rates of unemployment and low wages, particularly for young people, affect the ability of migrant family members to send remittances.

Longitudinal analysis of incidence requires a traceable population since an `HIV incident case' is defined in relation to a prior negative result. Thus, people who had deteriorating health because of HIV-related illness, who may have returned to the homestead, and been included in the RCCS many years before when they had an HIV negative result, would not be an `incident case'. Such a person, as well as small children fostered in the home while parents work away or because they are orphaned, place a strain on household resources. Santelli *et al.* [1], do not provide information on household size; but richer families will usually be larger because they have the resources to share [9]. Resources may be depleted by caring for people in the home, but may also be used on people who may not be `household members'.

I agree with Santelli *et al.* [1] that the poor should be targeted for prevention and treatment. However, how `the poor' are assessed needs to take into account contextual influences, given poverty dynamics over time.

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Conflicts of interest

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