

POPULATION DATA FOR THE 21ST CENTURY: ADVANCES IN DATA COLLECTION METHODOLOGIES

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Discussion comments on Hard-to-reach population

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These are very exciting times in our field – exciting because we are seeing methodological innovations to improve the science of data collection and analyses in demographic estimation, particularly in areas where progress has been slow – adult mortality, and in particular as it relates to HIV mortality.

Improvements in methodological advances in estimation of child mortality have progressed much more steadily, but much less so in the area of adult mortality.

Over the years attempts to improve on estimation of adult mortality have focused on using existing or traditional data sources, and using models, to estimate adult mortality, rather than attempts to develop new ways of collecting data, that might advance estimation and improve the accuracy of estimates.

These two papers attempt to do just that – introduce innovation in the way new data can be collected to measure adult mortality.

Both papers build off their innovation from the classic sibling history method that asks siblings about their relatives who have died, including at what age they died.

Feehan and colleagues draw on the general principle of the sibling history method but rather than interviewing siblings, identify community networks and then interview members of those networks about members of their network who have died.

On the other hand, Helleringer and colleagues extend the sibling survival method by adding questions on HIV to the maternal mortality schedule often employed by the DHS to test the feasibility of collecting HIV data.

Both papers draw on randomized trials framework to test various ways of collecting their data and to determine the most efficient and scientifically plausible ways to collect and analyze the data.

At the broader level, both papers aim to improve on estimates of adult mortality which are generally poorly understood in large parts of the developing world, particularly in SSA.

Feehan et al. paper

This paper raised two methodological challenges associated with the sibling history method.

1. Large sample variations across different surveys and settings
2. Challenge of independence between the death of siblings and reporting – non surviving sibling not available to report on survival status of their siblings

On the basis of these, they proposed and develop the network survival method, a new estimation method which relies on data collected from a networks of individuals in the community – family networks, friends networks, job networks, religious networks, etc., to report on deaths known to members of these.

This is quite innovative, and potentially a much more improved way of estimating adult mortality in data deficient settings.

Two things to note about this paper. First, is the empirical framework developed, and second, extension of the mode of collecting adult mortality data beyond sibling histories?

There are however, a few questions that I have that you might want to think as you embark on further refinements of the model.

1. First, it would seem that accurate reporting of ages may be problematic under the network survival method. Unlike siblings who report on the survival status of close relatives, network members may not necessarily be close relatives and thus may not be in a position to accurately report ages of their deceased network members
2. Second, it is possible for two different people from different networks to report about the death of the same person but their reports may differ. How do you reconcile the two reports and which of them will you choose as the most plausible one?
3. Finally, it appears that performance of the method depends on the “network tie” type. This is because results from two different network tie types could yield different results.

Having said that, it must be noted that this method is appealing because that it involves all adults, thus allowing for estimation of mortality beyond the conventional ages of between 15 and 60 years.

Secondly, the framework for the sensitivity analysis is quite appealing and reassuring.

Helleringer et al paper

This paper sought to assess whether data on HIV-related mortality data could be accurately collected through routine household surveys. They hypothesized that:

1. Adding HIV questions could be collected and would yield accurate data on HIV status of deceased individuals
2. That the use of confidential interviewing techniques would increase the accuracy of these data

They concluded that adding 3 HIV related questions yielded near complete data on HIV related mortality. However, their second hypothesis could not be confirmed.

Like the first paper, this work is quite appealing because for a very long time we have always believed that it is not possible to collect these kinds of questions in surveys because they are sensitive.

Yet, this work shows that it is possible and at no additional or very minimal cost. These results are definitely inspiring.

The question is, do these completely deal with some of the problems that we as demographers have been grappling with for years?

1. Do you think reports from relatives about the HIV status of their relatives will not be prone to inaccuracies or misreporting? For example, classifying reports such as “Likely” and “Highly likely” as accurate is too far-fetched.
2. Does inclusion of these questions necessarily do away with the problems of under reporting associated with siblings who are not available to report on the survival status of their siblings?
3. The use of the Audio computer assisted interviewing is likely to be problematic in settings where illiteracy is very high and am I am not surprise that this did not yield the expected results.

But, overall these innovations bring a lot on the table in our attempt to improve data collection and analysis to improve on data for policy.