discussing

Methodological Innovations in Mortality

Ilya Kashnitsky

2023-04-14, PAA New Orleans

3 Papers – not just c19

- Patrick Heuveline etal – child mortality, before c19
- Dennis Feehan etal – data collection, c19 relevant
- Aashish Gupta etal – c19, data-sparse setting

All three papers develop methods for LMIC

1 – Patrick Heuveline etal

- Infant mortality
- Micro data / Individual risks
- Statistical significance of the decomposed parts

- Risks are declining for the whole distribution and are not primarily driven by the shifting composition of the parents – novel results

1 – Patrick Heuveline etal

- Country/region differences in the main drivers – African countries see no/little compositional change
- Public health interventions have limit – what will happen next in this societies?
- Results are contradicting the literature, discuss this in more details. Why did previous studies come to different conclusions? Is this the bonus of incorporating individual data?

1 – Patrick Heuveline etal

- > We interpret our findings as suggesting that most of the **decline over time in infant mortality** was due to technical progress and public health interventions in the form of public goods. The relative importance of the variables not included in the model suggests that general improvements in health in the form of public goods have increased the survival rates for many births.
- > On the other hand, that fact that births that were born under the same conditions experience lower mortality suggest technical progress. Parents living in the same location and with the same characteristics are now able to better take care of their offspring, perhaps because they are more knowledgeable about health and health care.
- **So maybe our way of measuring things just becomes less relevant? And there is a compositional change that we don't capture.**

1 – Patrick Heuveline etal

- > If our interpretation is correct, the global health community committed to the mortality reductions for the SDG should direct their efforts toward policies that can benefit large groups of births, for example, family planning, educational initiatives, and vaccination campaigns. This has the added benefit of potentially leading to spillover effects over multiple communities. New medical technologies should be introduced as public goods. Moreover, empowering parents with knowledge and information can potentially further reduce mortality. That said, and given the between country heterogeneity, countries should rank their priorities according to their local conditions.
- **Most of the improvement is due to the technological progress but it's not guaranteed in future, equally and fairly. What to do?**

2 – Dennis Feehan etal

- Adult mortality
- Who reports about the events around matters
- Very diverse and complex: Different ties have different average knowledge about their network – looking at multiple type of relationships may offer rich information via trade-off optimization
- Q: relevance of kinship research using registers?

3 – Aashish Gupta etal

- Overall population mortality
- Data-sparse setting, underregistration of deaths
- Phone survey, households
- Excess c19 overall mortality, known to be ~x2 in the LIMCs
- Sub-regional estimates

3 – Aashish Gupta etal

- Dip in 2020 mortality estimate?
- Does quality of the data reduce with time in past? Can this explain consistency of excess deaths in late 2021?
- Difficulty of estimating baseline as we go further into c19 affected years

3 Papers – joint strengths

- Utilize and improve survey data to understand mortality dynamics is LMICs
- Unleash the power of individual level data

thank you

Ilya Kashnitsky

ilya.kashnitsky@gmail.com / @ikashnitsky

PAA2023 1205 - Methodological Innovations in Mortality

2023-04-14, New Orleans

CPop