Intergenerational effects of internal migration on health outcomes in Indonesia

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Objective

- ✓ We aim to explore how rural-urban migration influences health outcomes that are observed at younger ages and how these results might affect health at older ages.
- ✓ Our proposal aims to investigate how later life health trajectories may be associated with early life experiences, as well as with economic and demographic changes.
- ✓ Obesity and diabetes at older ages —and their relationship with later life chronic diseases and cognitive health— might be influenced by intergenerational transmission of habits and diseases.

Internal migration

- ✓ Within the major changes that might influence life history is the transition from agricultural to urban societies.
- ✓ These flows bring up the importance of internal migration to understanding long-term intergenerational health outcomes.
- ✓ Several studies emphasize the association between rural-urban migration with economic development and growth.

Health

- ✓ Development has a significant influence on non-communicable diseases (NCD) and can be transmitted across generations.
- ✓ An intergenerational approach with a focus on early lifestyle interventions is necessary to understand long-term effects of economic and demographic transitions on NCDs.
- ✓ In developing countries, changes towards Western diet habits and sedentary activities are linked to an increase in obesity.

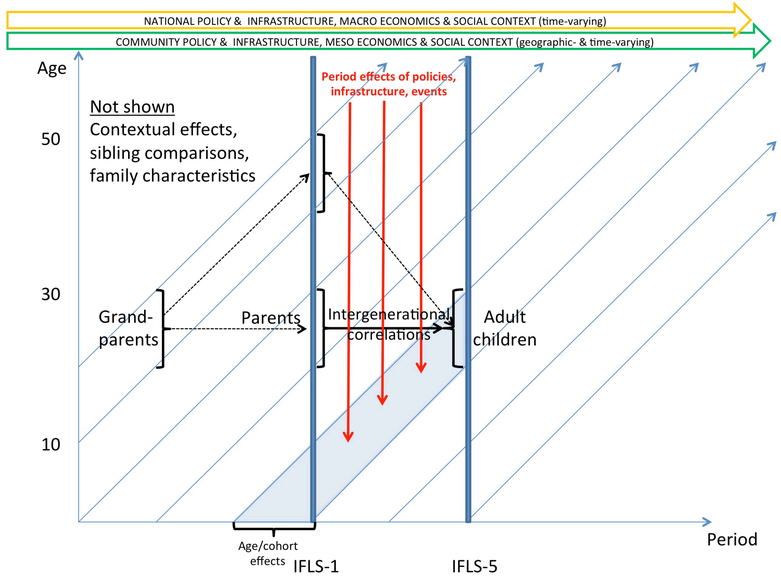
Internal migration and health

- ✓ Internal migration has significant short-term effects on health behavior, educational outcomes, and labor market outcomes.
- ✓ We know little about the long-term health effects of migration and urbanization in later life.
- ✓ Immigrant populations from low-income to high-income countries are experiencing higher rates of obesity than non-migrants.
- ✓ Stronger effects are estimated among the second generation of migrants.

Data

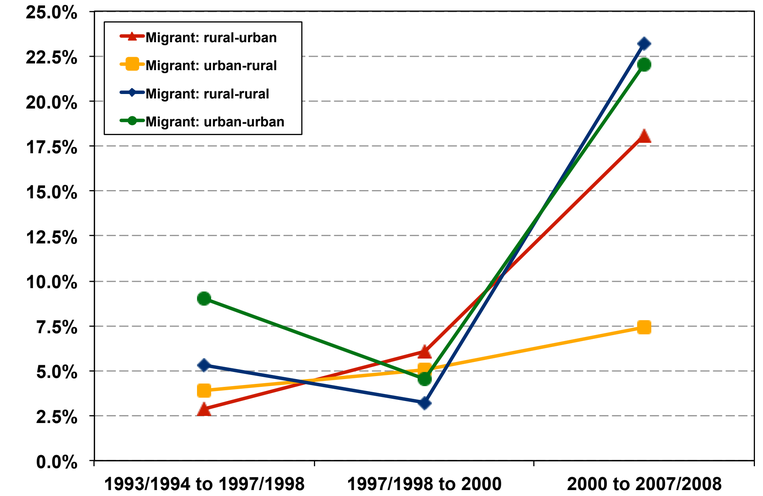
- ✓ Analyses about long-term intergenerational effects of migration are rare, particularly in developing countries.
- ✓ Data sets capable of addressing this question are scarce.
- ✓ We overcome this obstacle by taking advantage of waves of the IFLS (1993/1994, 1997/1998, 2000, 2007/2008, and 2015/2016).
- ✓ This longitudinal dataset represents 83% of the Indonesian population, with a sample size of over 30,000 individuals and data related to 13 of the 27 provinces in the country.
- ✓ IFLS is one of the few existing nationally representative datasets in the developing world with both large sample sizes and a long-term follow-up of individuals across generations.
- ✓ Despite these strengths, the IFLS has not been widely used to study long-term or intergenerational demographic effects, due to difficulties in linking individuals and households across waves.

Lexis diagram



Source: Diagram elaborated by Narayan Sastry (University of Michigan & RAND Corporation).

Migration rates for respondents with detailed information in IFLS



Source: Indonesian Family Life Survey (IFLS).

Migration and non-migration rates

Population flow	1993/1994 to 1997/1998	1997/1998 to 2000	2000 to 2007/2008
Migrant: rural-urban	0.0286	0.0609	0.1811
Migrant: urban-rural	0.0389	0.0507	0.0739
Migrant: rural-rural	0.0530	0.0323	0.2322
Migrant: urban-urban	0.0901	0.0454	0.2205
Non-migrant: rural	0.9184	0.9068	0.5868
Non-migrant: urban	0.8710	0.9039	0.7056

Source: Indonesian Family Life Survey (IFLS).

Outcomes and hypothesis

- ✓ We are concerned with how migration flows influence health outcomes across generations, in relation to the incidence of NCDs, body mass index, height for age, weight for height, and birth weight.
- ✓ The proposed hypothesis is that migration flows will have negative effects on intergenerational health outcomes.