

... towards a mobilities perspective

Fran Darlington-Pollock

<u>f.darlington-pollock@Liverpool.ac.uk</u> | @F\_Darlington
University of Liverpool

BSPS Annual Conference: Early Career Plenary, Cardiff 2019

### Context

• Persisting social and spatial inequalities in health: males born in the least deprived areas in 2015-17 expect to live almost a decade more than those born in most deprived areas (ONS, 2019)

 Compounded by differences in healthy life expectancy and significant increases in socioeconomic inequalities in life expectancy at birth

"one of the most reliable findings in public health research"

(Kröger et al., 2015: 1)



# Explaining *changing* health gradients?

 The Black Report (Department of Health and Social Security, 1980): artefact, social selection, culture/behaviour, <u>material/structural</u> conditions

But, change over time?

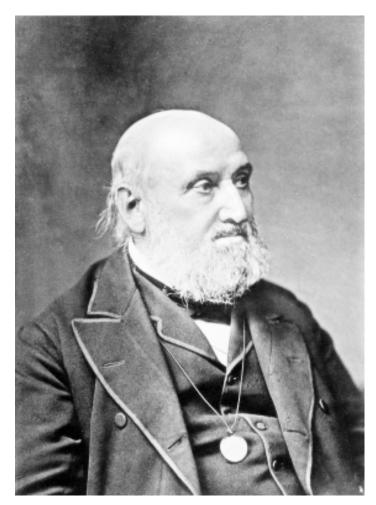
• Over time, *changing* health gradients due to a process of selective sorting between area types (and / or social classes)



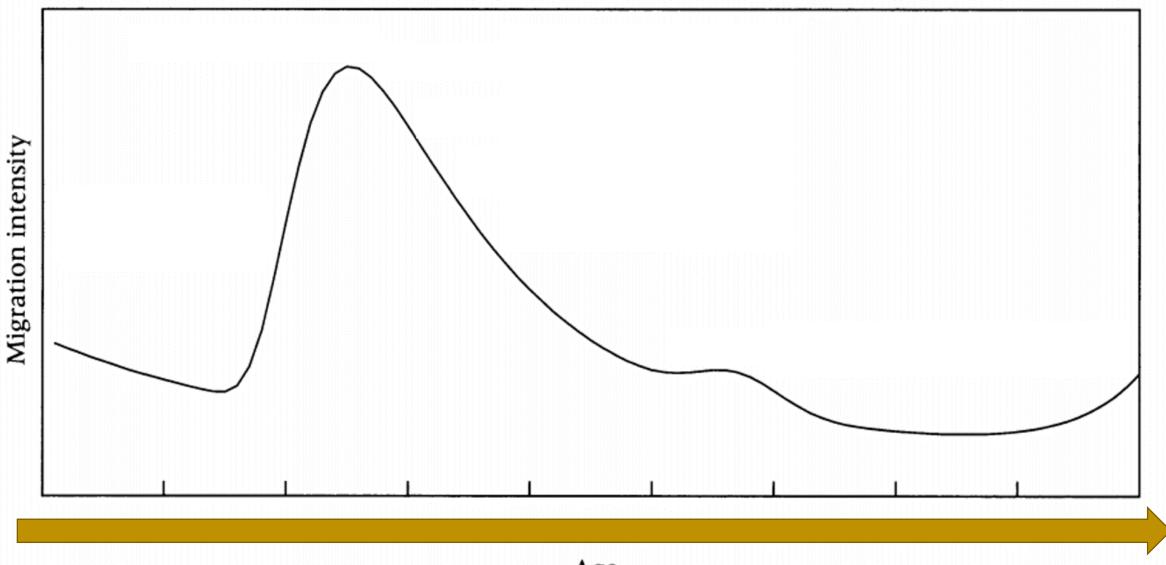
## Migration and Local Health Rates

Far (1864) and Welton (1872)

- Age dimensions, life course
- Area types
- Movements affecting both origins and destinations



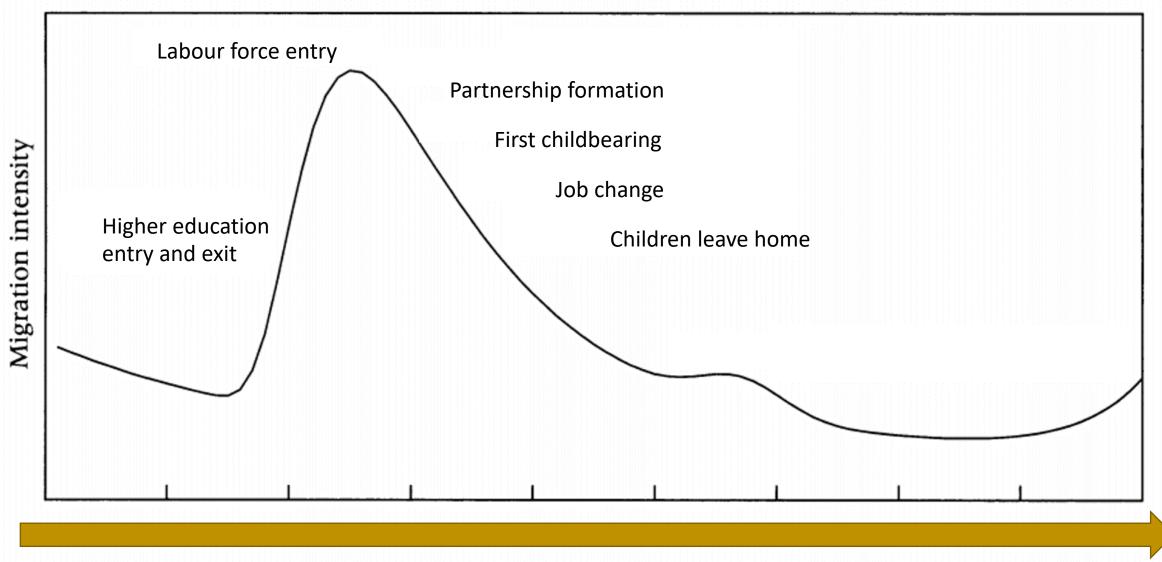




Selective because...?

Age

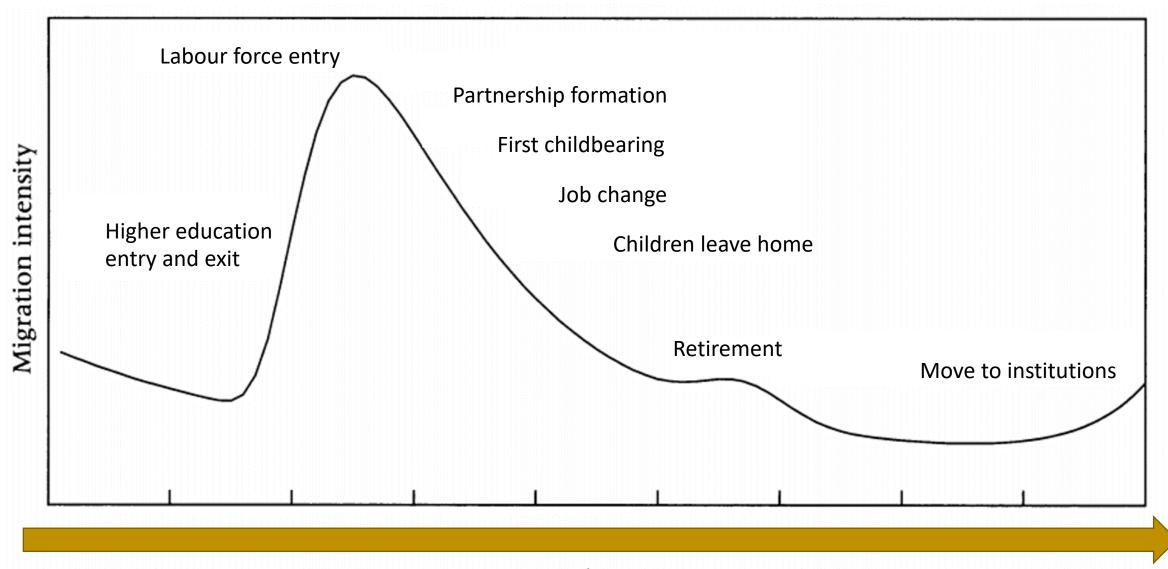




Selective because...?

Age





Selective because...?

Age



# Conceptual Framework: the health-deprivation nexus

- Majority of migrants are young & relatively healthy
- Some people may / may not move because of their health
- A migrant's health may be affected by the process
- Migrants may spread disease

**MIGRATION** 



- Gradient of health status along deprivation gradient
- Healthy people live in less deprived locations & vice versa



- More advantaged people tend to migrate to or between less deprived, more attractive locations
- Less advantaged people tend to drift into (or be trapped in) more deprived locations



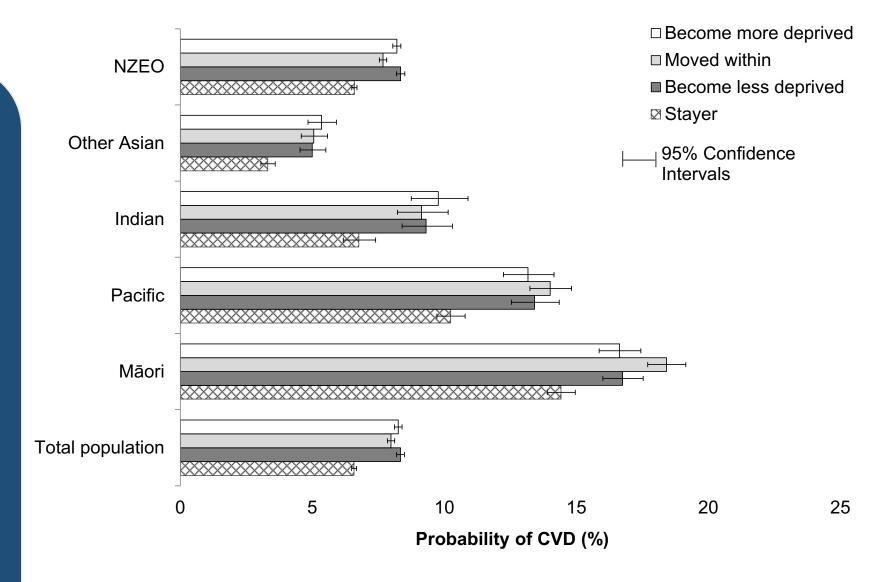
#### Model associations

- Controlling for socioeconomic variables explains away health differences (Verheij et al., 1998)
- Odds of poor health elevated for movers (Tunstall et al., 2014)
- Movers healthier than stayers... effect larger for those moving away from declining regions than into declining regions (Dijkstra et al., 2015)



#### Model associations

- Controlling for socioeconomic variables explains away health differences (Verheij et al., 1998)
- Odds of poor health elevated for movers (Tunstall et al., 2014)
- Movers healthier than stayers... effect larger for those moving away from declining regions than into declining regions (Dijkstra et al., 2015)



Source: Darlington-Pollock et al., 2016: 135





#### Model associations

- Controlling for socioeconomic variables explains away health differences (Verheij et al., 1998)
- Odds of poor health elevated for movers (Tunstall et al., 2014)
- Movers healthier than stayers... effect larger for those moving away from declining regions than into declining regions (Dijkstra et al., 2015)

#### **Compare Gradients**

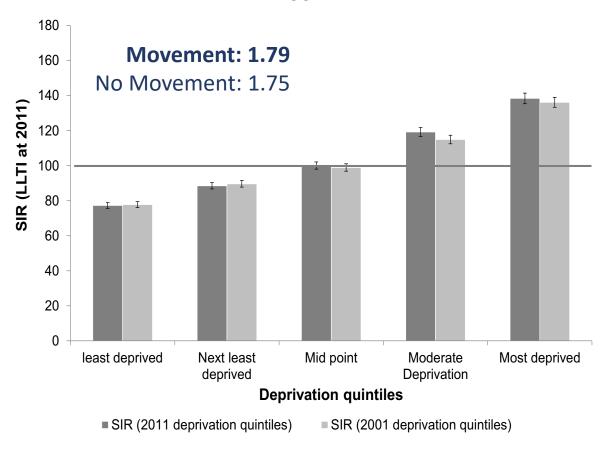
- Counterfactual approach, essentially 'putting people back' to where they started... and exploring aggregate influence on health outcomes (e.g.
  Brimblecombe et al., 1999; 2000; Norman et al., 2005)
- Is the health gradient steeper at destination than origin?



#### **Compare Gradients**

- Counterfactual approach, essentially 'putting people back' to where they started... and exploring aggregate influence on health outcomes (e.g.
  Brimblecombe et al., 1999; 2000; Norman et al., 2005)
- Is the health gradient steeper at destination than origin?

2011 SIRs by deprivation quintile at 2011 and 2001



Source: Darlington-Pollock and Norman (under review)



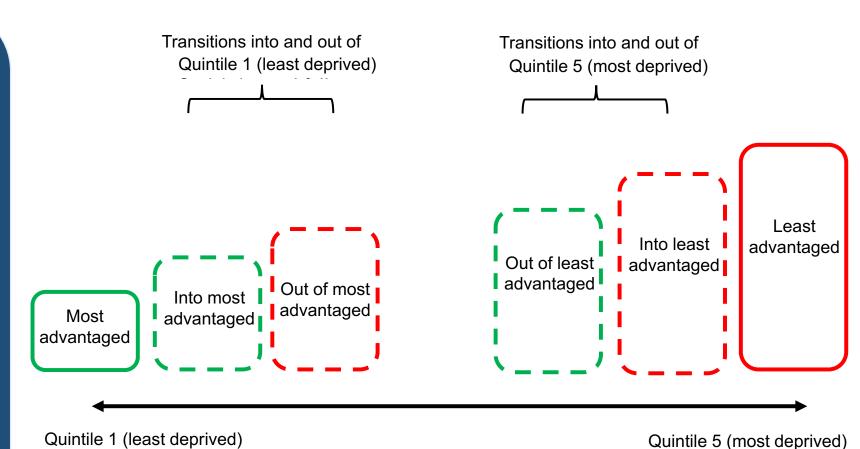
- Controlling for socioeconomic variables explains away health differences (Verheij et al., 1998)
- Odds of poor health elevated for movers (Tunstall et al., 2014)
- Movers healthier than stayers... effect larger for those moving away from declining regions than into declining regions (Dijkstra et al., 2015)

- Counterfactual approach, essentially 'putting people back' to where they started... and exploring aggregate influence on health outcomes (e.g.
  Brimblecombe et al., 1999; 2000; Norman et al., 2005)
- Is the health gradient steeper at destination than origin?

 To what extent does the health status of those entering the most and least advantaged areas, or highest and lowest social classes differ from those leaving these areas or classes?

#### **Transitions**

 To what extent does the health status of those entering the most and least advantaged areas, or highest and lowest social classes differ from those leaving these areas or classes?

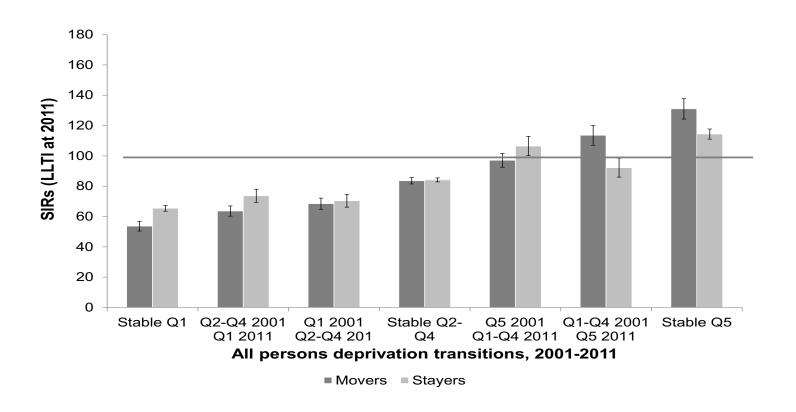




#### **Transitions**

 To what extent does the health status of those entering the most and least advantaged areas, or highest and lowest social classes differ from those leaving these areas or classes?

### SIRs for movers and stayers by deprivation transition, 01-11



Source: Darlington-Pollock and Norman (under review)



# Timings and Trajectories?

- Ordering of events matters
- Differences in trajectories through deprivation > more nuanced than 'more' or 'less' deprived

Table 2 Hazard ratios for residential mobility status and mover type by ethnic group, New Zealand (VIEW study, 2006–2014, New Zealand)

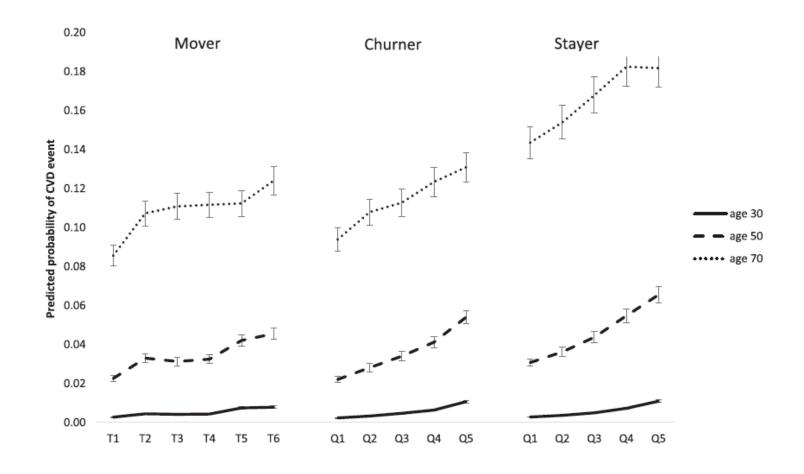
	All-persons (baseline models) $n = 2,068,360$	Māori $n = 177,158$	Pacific $n = 110,777$	Indian $n = 54,463$	Other Asian $n = 128,597$	NZEO $n = 1$ 597,365
Model 1: mover status						
Stayer	1.00	1.00	1.00	1.00	1.00	1.00
Mover	0.64 (0.63–0.64)	0.59 (0.58-0.61)	0.66 (0.63-0.69)	0.65 (0.61-0.70)	0.63 (0.60-0.68)	0.64 (0.63-0.65)
Model 2: mover type by number of moves						
Stayer	1.00	1.00	1.00	1.00	1.00	1.00
Moves 1-3 times	0.66 (0.66–0.67)	0.65 (0.62-0.67)	0.71 (0.67-0.74)	0.67 (0.62-0.73)	0.67 (0.63-0.72)	0.66 (0.65-0.67)
Moves 4+ times	0.47 (0.46-0.49)	0.43 (0.41-0.46)	0.44 (0.40-0.49)	0.50 (0.41-0.60)	0.43 (0.36-0.51)	0.41 (0.48-0.51)
Model 3: mover type by deprivation change						
Stayer	1.00	1.00	1.00	1.00	1.00	1.00
To less deprived quintile	0.64 (0.63–0.65)	0.59 (0.56-0.63)	0.68 (0.63-0.73)	0.64 (0.59-0.72)	0.64 (0.58-0.71)	0.64 (0.63-0.66)
Churns in same quintile	0.63 (0.62-0.64)	0.60 (0.58-0.63)	0.64 (0.60-0.68)	0.67 (0.60-0.75)	0.63 (0.57-0.69)	0.64 (0.63-0.65)
To more deprived quintile	0.63 (0.62–0.64)	0.58 (0.55-0.61)	0.69 (0.64–0.75)	0.63 (0.56-0.71)	0.65 (0.59–0.72)	0.63 (0.62–0.65)

Source: Darlington-Pollock et al., 2017



# Timings and Trajectories?

- Ordering of events matters
- Differences in trajectories through deprivation > more nuanced than 'more' or 'less' deprived



Source: Shackleton et al., 2018



### Shoring up a developing theoretical framework Article

### Re-thinking res Linking lives thr

Article

### Residential mobility: Towards progress in mobility health research

Progress in Human Geography 2018, Vol. 42(1) 112-133 © The Author(s) 2016 Reprints and permission: sagepub.co.uk/journalsPermissions.nav DOI: 10.1177/0309132516649454 journals.sagepub.com/home/phg





POPULATION, SPACE AND PLACE Popul. Space Place 21, 390-402 (2015) Published online in Wiley Online Library (wileyonlinelibrary.com) DOI: 10.1002/psp.1956

### New Mobilities Across the Life Framework for Analysing Der Linked Drivers of Migration

Allan Findlay<sup>1,\*</sup>, David McCollum<sup>1</sup>, Rory Coulter<sup>2</sup> and Vernon Gay <sup>1</sup>Department of Geography and Sustainable Development, University of <sup>2</sup>Department of Sociology, University of Cambridge, Cambridge, UK <sup>3</sup>School of Social and Political Science, University of Edinburgh, Edini serves ?

#### ABSTRACT

Taking the life course as the central concern, the authors set out a conceptual framework and define some key research questions for a programme of research that explores how the linked lives of mobile people are situated in time-space within the economic, social, and cultural structures of contemporary society. Drawing on methodologically innovative techniques, these perspectives can offer new insiable into the shearing school and meanings

### Rory Coulter

University of Cambridge, UK

### Maarten van Ham

Delft University of Technology, The Net

### Allan M. Findlay

University of St Andrews, UK

#### Abstract

Populat

While researchers are increasingly re-concept devoted to re-thinking short-distance residentia course approach to propose a new conceptual fra residential mobility and immobility should be re-c vations that have taken p

over the last 5 years. The research framework that is propothis paper is important for two reasons. Firstly, it is noticeable that recent theorisations of how changing social relations have impacted on demography, such as the concept of a Second Demanus lisa Transition Ison da Van 1004) adamb

#### Tim Morris

University of Bristol, UK

University of Bristol, UK and OTB, Delft University of Technology, The Netherlands

#### Clive E. Sabel

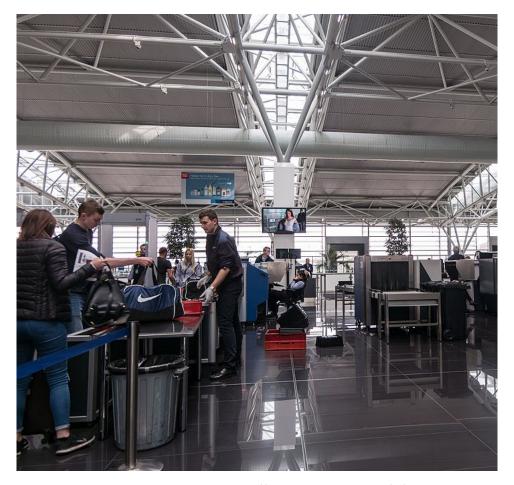
University of Bristol, UK

Research into health disparities has long recognized the importance of residential mobility as a crucial factor in determining health outcomes. However, a lack of connectivity between the health and mobility literatures that link lives through



# The 'mobilities' paradigm

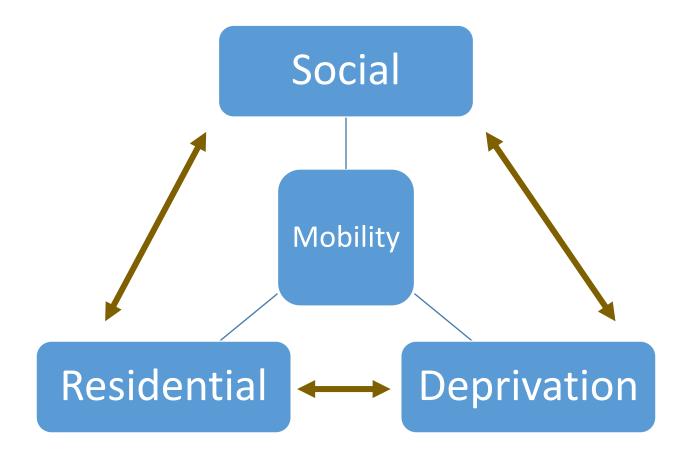
- Coined by Sheller and Urry in 2006 (The New Mobilities Paradigm, EPA)
- Seeks to ask 'in what ways is the world mobile?' BUT, crucially, advances some studies in migration or transport by asking 'how is the world mobile'.
- In other words, what are the drivers, experiences and politics that underscore movement. What happens between A and B? Movement never just happens. A mobilities perspective adds depth to the movements we see in mapped or aggregate form.
- Could health-selective migration research be progressed in future by mobilising the mobilities paradigm?



By Ralf Roletschek - Own work, GFDL 1.2, https://commons.wikimedia.org/w/index.php?curid=48538782



# Inter-dependencies: and the space in between?





### Conceptually...

- Objective versus cognitive approaches (White, 1980) / Macro versus Micro approaches (Cadwallader, 1989)
- Alternative conceptualisation of migration... migration not just "a discrete contemplative act" (Halfacree & Boyle, 1993: 337)
- Critically examine mobility, not as a "single thing" but "breaking mobility down into... its constituent parts" (Cresswell, 2010: 17)
- Apply Cresswell's 'politics of mobility' to health-selective migration?

### Politics of mobility framework

- Force (agency)
- Experience
- Friction
- Speed
- Routes
- Rhythms



## Analytically...

- Mobility versus immobility
  - Passive immobile stayers...
  - ... or, non-migrations as 'critical and resistant' (e.g. Halfacree, 2018), deliberate and intended
- Operational decisions
  - Beyond the individual
  - Macro-events in longitudinal analysis (e.g. Falkingham et al., 2016)
  - Stages / events rather than ages



# Methodologically

- Exploit big data and technological advances, embrace a mobilities informed conceptual and analytical framework
- Methods 'mash-up' (Peters, 2017):
  - More than triangulation → integration
  - Complementary data sources clarify results (Green et al., 1989)
  - Correlate aggregate data with coded personalised data → 'layering' of data
  - Situate idiographic analyses within understandings of larger scale, population wide patterns
  - Off-set data limitations

- Disciplinary team 'mash-ups'
- Layering of data
- Mobile methodologies



### Concluding thoughts

- Mobilities thinking can enrich research into health-selective migration, enhancing understanding of the drivers, experiences, and politics of such migration
- Quantitative work can enrich the specificity of much of mobilities work – the 'bigger picture'
- Begin research *attuned* to the *politics* of movement, what new insights will this yield?
- Appropriate conceptual, analytical, and methodological frameworks... but not necessarily all at once!



# Thank you for listening

The permission of the Office for National Statistics to use the Longitudinal Study is gratefully acknowledged, as is the help provided by staff of the Centre for Longitudinal Study Information & User Support (CeLSIUS). CeLSIUS is supported by the ESRC Census of Population Programme (Award Ref: ES/K000365/1). The authors alone are responsible for the interpretation of the data.

All statistical results remain Crown Copyright.

This presentation is based on a paper in development with **Dr Kim Peters**, University of Liverpool, and draws heavily on various papers completed with **Dr Paul Norman** (University of Leeds). Special thanks to key co-authors on other papers including **Dr Dan Exeter** (University of Auckland), **Dr Nichola Shackleton** (University of Auckland).



Brimblecombe, N., Dorling, D. and Shaw, M. (2000) 'Migration and geographical inequalities in health in Britain', *Social Science and Medicine*, 50(6), pp. 861–878. doi: 10.1016/S0277-9536(99)00371-8.

Caldwallader, M. (1989) A synthesis of macro and micro approaches to explaining migration: evidence from inter-state migration in the United States. *Geografiska Annaler, Series B, Human Geography,* 72 (1): 85-94.

Coulter, R., Ham, M. V., & Findlay, A. M. (2016). Re-thinking residential mobility: Linking lives through time and space. *Progress in Human Geography*, 40(3), 352-374.

Cresswell, T. (2010). Towards a politics of mobility. *Environment and planning D: Society and Space*, 28(1), 17-31.

Darlington-Pollock, F. and Norman, P. (under review) Establishing a framework for the analysis of selective sorting and changing health gradients.

Darlington-Pollock, F. et al. (2016) 'To move or not to move? Exploring the relationship between residential mobility, risk of cardiovascular disease and ethnicity in New Zealand', Social Science & Medicine, 165, pp. 128–140. doi: 10.1016/j.socscimed.2016.07.041.

Darlington-Pollock, F., Shackleton, N., Norman, P., Lee, A.C., Exeter, D. (2017) Differences in the risk of cardiovascular disease for movers and stayers in New Zealand: a survival analysis. *International Journal of Public Health*, doi:10.1007/s00038-017-1011-4.

Department of Health and Social Security (1980) *Inequalities in Health: Report of a Working Group Chaired by Sir Douglas Black*. London: DHSS.

Dijkstra, A. et al. (2015) 'Can selective migration explain why health is worse in regions with population decline?: A study on migration and self-rated health in the Netherlands', European Journal of Public Health, 25(6), pp. 944–950. doi: 10.1093/eurpub/ckv192.

Falkingham, J., Sage, J., Stone, J., Vlachantoni, A. (2016) Residential mobility across the life course: Continuity and change across three cohorts in Britain. *Advances in Life Course Research*, 30: 111-123.

Farr, W. (1864) Supplement to the 25<sup>th</sup> Annual Report on the Registrar General. London: HMSO.

Findlay, A., McCollum, D., Coulter, R. and Gayle, V. (2015) New Mobilities Across the Lifecourse: A Framework for Analysing Demographically Linked Drivers of Migration. *Population, Space and Place*, 21: 390-402.

Halfacree, K., and Boyle, P (1993) The challenge facing migration research: the case for a biographical approach. *Progress in Human Geography*, 17 (3): 333-348.

Kröger, H., Pakpahan, E. and Hoffman, R. (2015) What causes health inequality? A systematic review on the relative importance of social causation and health selection. *European Journal of Public Health*, doi:10.1093/eurpub/ckv111

Morris, T., Manley, D., & Sabel, C. E. (2018). Residential mobility: Towards progress in mobility health research. Progress in Human Geography, 42(1), 112-133.

Norman, P., Boyle, P. and Rees, P. (2005) 'Selective migration, health and deprivation: A longitudinal analysis', *Social Science and Medicine*, 60(12), pp. 2755–2771. doi: 10.1016/j.socscimed.2004.11.008.

ONS (2019) 'Health state life expectancy by national deprivation declines, England and Wales: 2015 to 2017, Office for National Statistics'. Available at:

https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/healthinequalities/bulletins/healthstatelifeexpectanciesbyind exofmultipledeprivationimd/2015to2017#main-points.

Peters, K. (2017). Your Human Geography Dissertation: Designing, Doing, Delivering. SAGE: London.

Shackleton, N., Darlington-Pollock, F., Norman, P., Jackson, R., Exeter, D. (2018) Longitudinal deprivation trajectories and risk of cardiovascular disease in New Zealand, 53: 34-42.

Tunstall, H. et al. (2014) 'The general and mental health of movers to more- and less-disadvantaged socio-economic and physical environments within the UK', Social Science and Medicine. Elsevier Ltd, 118(C), pp. 97–107. doi: 10.1016/j.socscimed.2014.07.038.

Verheij, R. A. et al. (1998) 'Urban-rural variations in health in the Netherlands: does selective migration play a part?', pp. 487–493.

Welton, T. (1872) 'On the effects of migrations in disturbing local rates of mortality, as exemplified in the statistics of London and the surrounding country, for the years 1851-1860. *Journal of the Institute of Actuaries*, 16: 153-186.

White, S. (1980) A philosophical dichotomy in migration research. The Professional Geographer, 31 (1): 6-13.

