Stream Session 2.3

Using longitudinal data to explore pathways

With
Professor Mark Western
Cate Taylor
Francis Mitrou

Facilitated by
Dr Serryn Eagleson

27 - 28 March 2018, QT Hotel Canberra
Breaking Data Silos to Improve Lives: The ARC Centre of Excellence for Children and Families Over the Life Course

Mark Western, Chief Investigator, ARC Centre of Excellence for Children and Families Over the Life Course & Director, Institute for Social Science Research, The University of Queensland

27 - 28 March 2018, QT Hotel Canberra
ARC Centre of Excellence for Children and Families Over the Life Course

• Australian Research Council Centre of Excellence funded 2014 to 2020 to address “deep and persistent disadvantage”

• 4 Australian universities (UQ, UWA, Sydney, Melbourne), 8 Australian govt & NGO partners, including AIHW, 10 international university partners

• 3 major work programs – Disadvantage Systems, Human Capabilities, Social Transformation
What are we doing in the data silos space?

• Data for Policy Group – working with Commonwealth human services depts & statistical agencies to break down Commonwealth data siloes and use administrative data – convened national workshops and developed demonstration projects

• Identified key policy and knowledge gaps that can only be answered by Departments sharing their data and/or linking their administrative data for research purposes

• Developed research collaborations between LCC researchers and Commonwealth agencies that make use of administrative data resources to inform policy and extend knowledge of disadvantaged populations

• Worked with DSS & ABS to pilot trusted user arrangements for sensitive Commonwealth data (includes exploring secure data environments, in-posting researchers to agencies, having departmental analysts on research teams)
What are we doing (2)?

• Undertaking specific projects using linked state and Federal data to undertake basic research & evaluate major policy and program interventions

• Co-hosted an international workshop at Stanford University, for researchers, policy-makers, representatives of statistical agencies on frameworks, arrangements and case studies of administrative data use

• Developing new statistical models & applying machine learning methods for big social science data

• Working with government partners to promote the use of government data for policy relevant research – examples working with National Centre for Longitudinal Data to support their conference, helping ABS launch 2016 Census data release in Queensland.
Example Projects

• Using machine learning to map disadvantage pathways
• NEETS in Australia
• The Every Family Population Trial
• Tassie Kids
• Relationship breakdown and welfare dependence
Thank you!
More information:

Research conducted by the Australian Research Council Centre of Excellence for Children and Families Over the Life Course (CE140100027) and funded by the Australian Government
Tassie Kids
Pathways to better health and education outcomes for Tasmania’s children

Professor Cate Taylor
Senior Principal Research Fellow
Telethon Kids Institute & The University of Western Australia

27 - 28 March 2018, QT Hotel Canberra
Early childhood interventions – core beliefs

• We can change children’s developmental trajectories for the better:
  – Where they start their growth relative to typical children
  – Their rate of growth relative to typical children

• Evidence supports this but the effect sizes are small
  – 0.21 for interventions designed by researchers
  – 0.18 for interventions designed by non-researchers

(Duncan & Magnuson, 2013)
Early childhood - core beliefs

“Child is the father of the man”

William Wordsworth
England’s Poet Laureate
Early childhood - core beliefs

“The earlier the investment the greater the return”

James Heckman
Nobel Laureate in Economics
Early Years Investment - WA

• “Despite enormous investment by the State, lots of institutions and the like, there’s still disadvantage out there, in particular based upon young children not getting a good start in life”

• “We want to make sure that we work out how to design services, the best opportunities for young people at an early age to make sure they have happy and fulfilling lives.”

Premier Mark McGowan 13 March 2018

Minderoo Foundation and the Telethon Kids Institute are proud to partner with the Western Australian Government on an unprecedented $49.3 million commitment to child development.
Early Years Investment - TAS

- 6 Early Learning Hubs - “one-stop shops” incorporating all services provided at Child and Family Centres as well as early childhood education and care, and birth to grade 2 education facilities

Premier Will Hodgman 14 Feb 2018

Early childhood education is a major focus of the Liberals’ education policy, as part of a projected six-year $324 million spend.
The Tasmania Report 2017

- Compared to other Tasmanians remain the nation’s oldest, poorest, unhealthiest, worst educated, most underemployed and most welfare-dependent.
• NHMRC Partnership Grant (2016-2019)
  – Stephen Zubrick, Alison Venn, David Preen, Emily Hansen, Joel Stafford, Kim Jose, Rachael Jones
  – Department of Education
  – Department of Health and Human Services
  – Department of Premier and Cabinet
Our brief from the Tasmanian Government

• Provide an evidence-base that provides clear direction for developing early childhood policies and service models

• Scope limited to:
  – Universal, proportionate universal and place-based services provided by the Departments of Health and Human Services and Education:
  – Child Health and Parenting Service (universal)
  – Launching into Learning (proportionate universal)
  – Child and Family Centres (place-based)
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<th>Age Group</th>
<th>CHaPS</th>
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<th>CFC</th>
<th>Kindergarten</th>
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**Child Health & Parenting Service (CHaPS)**
- Physical health & wellbeing
- Social competence
- Emotional maturity

**Launching into Learning (LiL)**
- Language & cognitive skills
- Communication skills & general knowledge

**Child & Family Centres (CFC)**
- Preschool

**Kindergarten**
- Prep
Low uptake of CHaPS (39%)
Low uptake of LiL (32%)
Child Health & Parenting Service (CHaPS)

Launching into Learning (LiL)

Child & Family Centres (CFC)

Kindergarten

Preschool

Prep

• Low uptake of CHaPS (39%)
• Low uptake of LiL (32%)

• Are these the same families?

Tasmanian Government Early Childhood Services (Health & Education)

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- Physical health & wellbeing
- Social competence
- Emotional maturity
- Language & cognitive skills
- Communication skills & general knowledge
Our approach

- Longitudinal prospective lifecourse approach
- Systems approach to early childhood services – linked administrative data (health & education)
- Longitudinal ethnographic approach - experiences and insights of service users & service providers
Cohort selection

• Born in Tasmania 2008 – 2011
• 2015 AEDC record
  – Birth Registry
  – Perinatal Data Collection
• Born in 2008 – 2011 with any one of these records:
  – Child Health & Parenting Service
  – Early Childhood Education and Care
  – Launching into Learning
  – Child and Family Centre
  – Tasmanian School Enrolment
Datasets

- Birth Registry
- Perinatal Collection – Baby
- Perinatal Collection – Mother
- Child Health and Parenting Service (CHaPS)
- Government School Enrolment
- Launching into Learning (LiL)
- Early Childhood Education and Care (ECEC)
- Child and Family Centres (CFC)
Tasmanian Government Early Childhood Services (Health & Education)

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Data linkage

- Patterns of service use
- Service gaps
- Barriers to service use
- Relationships between service use and children’s outcomes

919 children with an interstate AEDC records & at least 1 record in another dataset
Tasmanian Government Early Childhood Services (Health & Education)

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- Child Health & Parenting Service (CHaPS)
- Launching into Learning (LiL)
- Child & Family Centres (CFC)
- Kindergarten (ECEC)
- Preschool
- Prep

Ethnography

- Why children and families do and do not engage with services?
- How the services work with families and with each other?

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- 919 children with an interstate AEDC records & at least 1 record in another dataset

Information will be used to improve the uptake, coverage and outcomes of early childhood services.
Linked administrative records for use within government agencies attain their greatest value when they are:

- Linked on a continuous basis to represent individuals pathways through services

- Describe the relationships between individuals, places, and services over time

- Available to inform ‘what-if’ simulation for policy development

- Enriched by the experiences and insights of service users and service providers