

Growing up healthy in families across the globe: the challenge of harmonising five longitudinal child cohort studies

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Outline

- Introduce the *Growing up Healthy* study
- Overview of the five surveys seeking to harmonise
- Similarities and differences across studies
- Outline of harmonisation strategy
- Next steps



Aims: Growing up healthy in families across the globe

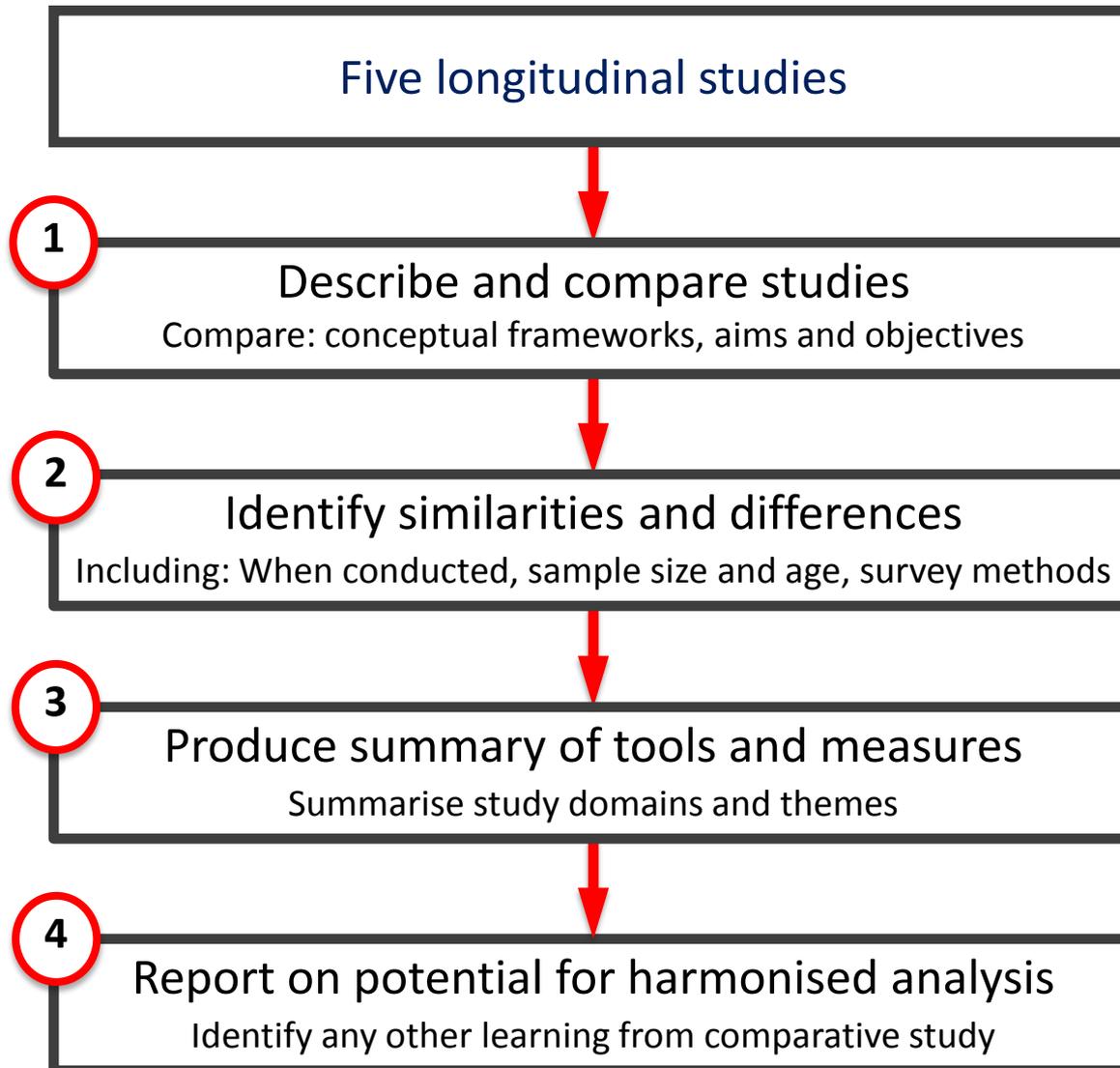
1) Project:

To investigate the potential for harmonised analysis across five longitudinal studies

2) Harmonisation:

To increase understanding of how families change over time and to determine how and why environments change, which environments are supportive and which are not.

Approach



Funding

- New Zealand Ministry of Business, Innovation and Employment (MBIE) Catalyst Fund.
- Designed to support, develop and foster international collaborations.
- Draw on the experience and competence of the Irish and Scottish collaborators to improve the scientific longitudinal analysis of the NZ studies.

MBIE Catalyst Fund detail: <http://www.mbie.govt.nz/info-services/science-innovation/investment-funding/current-funding/catalyst-fund>

The five studies

Te hoe nuku roa
Best outcomes for Māori



PACIFIC ISLANDS
FAMILIES STUDY

 **Growing Up**
in New Zealand





Te Hoe Nuku Roa (THNR): Best Outcomes for Māori

When: 1995 – 2014

Who: 839 households and 2,547 individuals by wave 4 (all of Māori ancestry)

What age: ~45% children at each wave (0-14yrs)

How long: 5 waves



Pacific Island Families Study (PIFS)

When: 2000 - ongoing

Who: Birth cohort of Pacific children born at Middlemore Hospital, South Auckland n=1,398

What age: 6wks, 1, 2, 4, 6, 9, 11, 14, 16yrs



Growing up in New Zealand (GUiNZ)

When: 2009 - ongoing

Who: Birth cohort of 6,846 children from three regions of the North Island

What age: Pregnancy, 9mth, 2, 4, 6yrs

Growing up in Scotland (GUS)

When: 2005 - ongoing

Who: Three cohorts –

- Child cohort: 2,859 children (born 2002/03)
- Birth cohort 1: 5,217 children (born 2004/05)
- Birth cohort 2: 6,127 children (born 2010/11)

What age:

- CC: 3, 4, 5, 6yrs
- BC1: 10mth, 1, 2, 3, 4, 5, 6, 7, 8, 10, 12yrs
- BC2: 10mth, 3, 5yrs



Growing up in Ireland (GUI)

When: 2008 - ongoing

Who: Two cohorts –

- Infant cohort (IC): 11,134
- Child cohort (CC): 8,568

What age:

- IC: 9mth, 3, 5, 7/8, 9yrs
- CC: 9, 13, 17/18, 20yrs



Aims and Objectives

improve Scotland
across families health
children influence negative
factors development
Māori social Irish Pacific
outcomes New Zealand
identify pathways better

Context

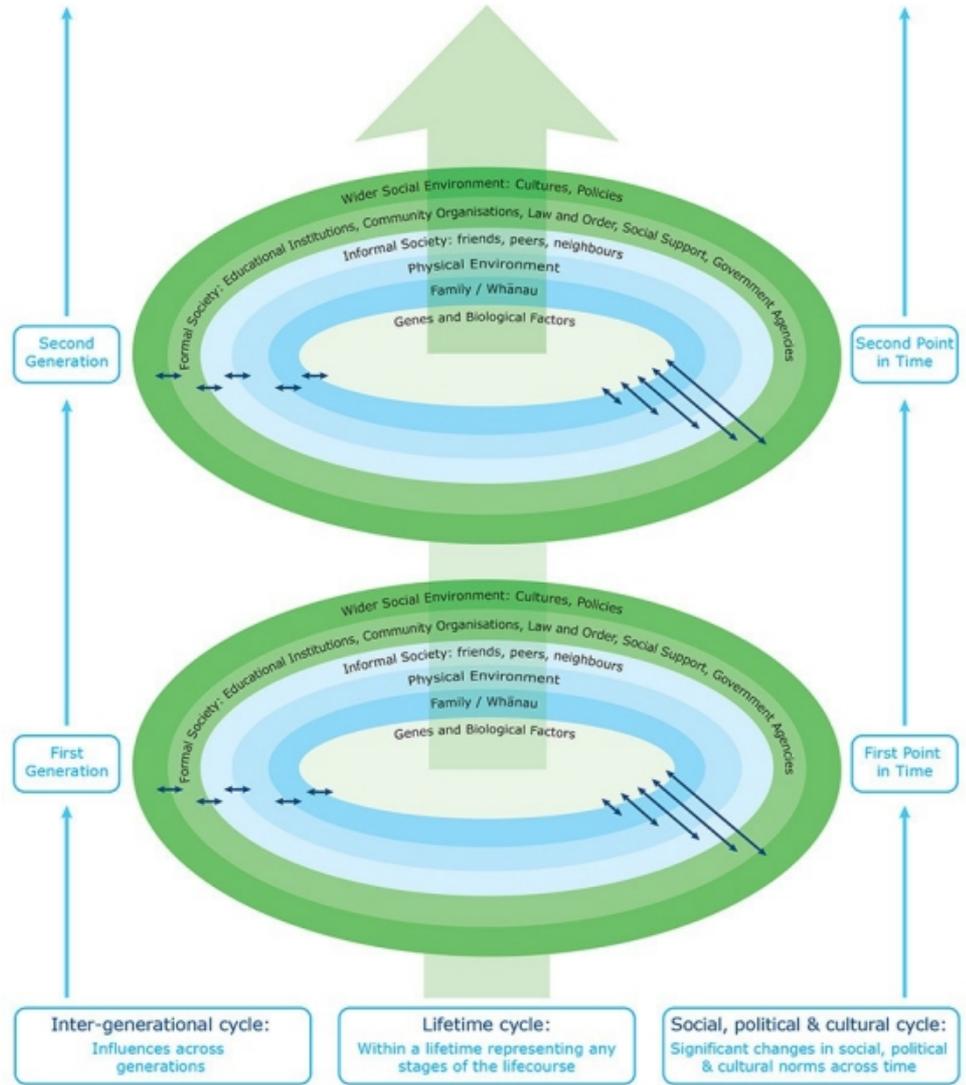
- The five surveys have similar general aims and desired outcomes.
- In general they aim to investigate outcomes across multiple domains to gain greater understanding of positive and negative influences on the lives of children.
- All studies desire that the data will be able to used to influence policy and practice.
- Te Hoe Nuku Roa differs to the other studies as it is a household survey as opposed to a child cohort survey.

Conceptual Frameworks

Growing Up in Ireland's Conceptual Framework draws on five interconnected cross-discipline insights:

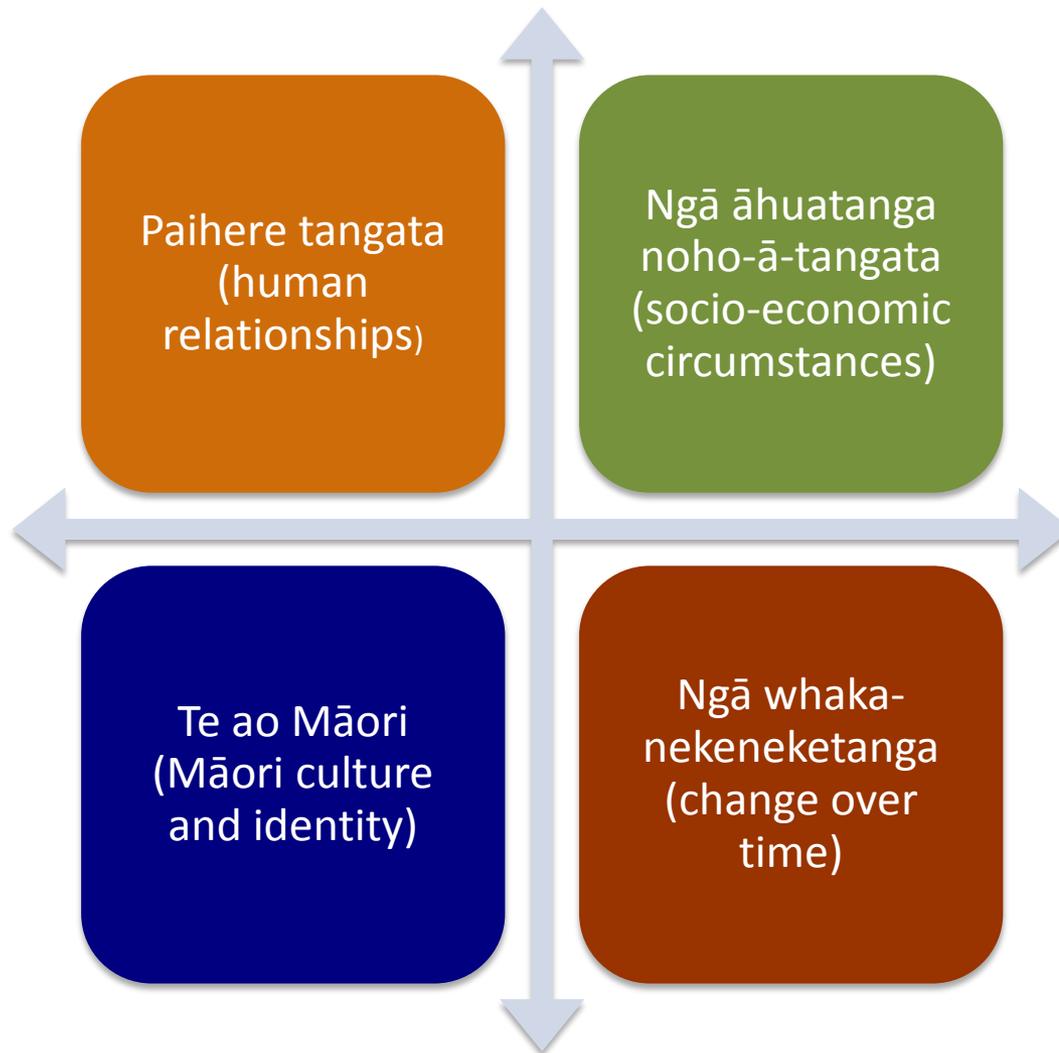
- **Ecology** refers to the various social, environmental and political spheres in which the child grows and develops.
- **Dynamic connectedness** highlights the changes resulting from interactions between and within the ecological layers.
- **Probabilism** acknowledges the heterogeneity of children and their probable life course.
- **Period effects** reflect the insight that timing matters .
- **Agency** refers to the role that the child plays in their own life and future.

Conceptual Frameworks



Growing Up in New Zealand:
Conceptual Framework
(Morton, 2013)

A Māori Framework



See: Te Hoe Nuku Roa: A
framework for Māori
(Durie, 1995)

Similarities and Differences

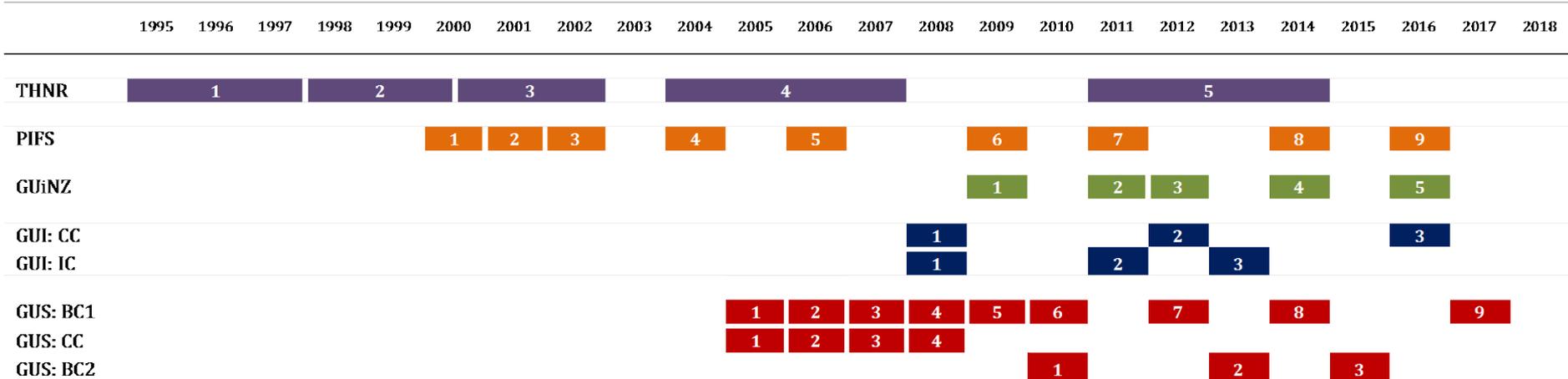
- When the study was conducted
- Who were the participants
- How long the study ran
- What was the sampling strategy, sample numbers
- What was the response rate, attrition
- Mode of data collection, survey methods



Years and Waves

- The surveys were compared by years of waves.
- Although children of the same age were surveyed across the studies, they have different years of birth so it is not a direct comparison.

Years and waves of data collection



Informants

- Various linked data from health records, or child observations was also collected at these time points.
- Various data was also collected in between ages listed, such as telephone interviews (mainly used to facilitate continued engagement in the study).

Informants by age of children, all studies

	9-12mth	2	3	4	5	6
THNR	Primary Caregiver					
PIFS	Maternal Interview Paternal Interview	Maternal Interview Paternal Interview		Maternal Interview		Maternal Interview Paternal Interview
GUiNZ	CAPI: Mother CAPI: Father	CAPI: Mother CAPI: Father		CAPI: Mother		WeBI: Mother
GUI: IC	CAPI/CASI: PC CAPI/CASI: Partner		CAPI/CASI: PC CAPI/CASI: Partner		CAPI/CASI: PC CAPI/CASI: Partner	
GUS: BC1	CAPI: Main Carer	CAPI: Main Carer CAPI: Partner	CAPI: Main Carer	CAPI: Main Carer	CAPI: Main Carer	CAPI: Main Carer

Comparative Data

Potential groupings of comparative data

	9-12mth	2	3	4	5	6
THNR	Primary Caregiver					
PIFS	Maternal Interview	Maternal Interview		Maternal Interview		Maternal Interview
	Paternal Interview	Paternal Interview				Paternal Interview
GUINZ	CAPI: Mother	CAPI: Mother		CAPI: Mother		WeBI: Mother
	CAPI: Father	CAPI: Father				
GUI: IC	CAPI/CASI: PC		CAPI/CASI: PC		CAPI/CASI: PC	
	CAPI/CASI: Partner		CAPI/CASI: Partner		CAPI/CASI: Partner	
GUS: BC1	CAPI: Main Carer					
		CAPI: Partner				

Harmonisation Strategy

- Focusing on survey data collected from primary caregiver (in most cases the mother)
- Using data from the Infant Cohort (IC) from GUI and the Birth Cohort 1 (BC1) from GUS
- Potentially three time points:
 1. 9 to 12 months
 2. Preschool: 3 to 4 years
 3. Early school: 5 to 6 years

Next Steps

- Create a matrix setting themes generated from the *Growing up Healthy* project against the survey measures from the five studies.
- Measures will be taken directly from the study questionnaires.
- The framework will facilitate the identification of areas of overlapping data.



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