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# Usage patterns and quality in Australian early childhood education and care programs

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E4Kids research team



# Research Collaboration

**E4**  
kids



Department of Education and  
Early Childhood Development



**Australian Government**

**Australian Research Council**



**Queensland  
Government**



UNIVERSITY OF  
**TORONTO**



Leading education  
and social research  
Institute of Education  
University of London

The **Royal Children's**  
**Hospital** Melbourne



# Presentation Overview



1. *Some policy interests*
2. *E4Kids study overview*
3. *Family demographics and the use of ECEC programs (LDC, K, FDC), and non-formal care (grandparent, friend...) 2 years before school*
4. *ECEC program quality 2 years before school*
5. *Some ideas and further questions*

# Some policy interests

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- 1. Changing education trajectories before school – the promise and potential of ECEC*
- 2. Access and quality: kindergarten and child care*
- 3. Supporting children in families having greater risk factors*

# E4Kids – Study Overview



## Research design:

- 5 year longitudinal study of 2,653 children (3-4 years old), their families, educators/ teachers, directors/ principals



## Questions for this presentation

- When children were 2 years before school , what were the family characteristics, and the likelihood of children being in different kinds of ECEC?
- What was the relative process quality of these ECEC programs?
- What insights can be gained and what further analysis are in process?

# E4Kids Sample and Location



## Remote: Mount Isa

E4Kids n = 167 +

NPC n = 10

## Greater Metro: Brisbane

E4Kids n = 961 +

NPC n = 62

## Regional: Shepparton

E4Kids n = 336 +

NPC n = 16

## Greater Metro: Melbourne

E4Kids n = 1028 +

NPC n = 71



# Measures in E4Kids



## ◆ CHILD ASSESSMENT

Height, weight, waist

Cognition & Achievement: WJ-III

Friendships/social inclusion: Bus story

## ◆ PROGRAM ASSESSMENT

Pedagogy: CLASS

Other characteristics: ECERS-R,  
3 subscales

## ◆ QUESTIONNAIRE

**Parent:** ECEC program history/ access;  
child behaviour, social skills;  
parenting style; home learning  
environment

## ◆ QUESTIONNAIRE

**Director/Principal:** structural aspects

**Educator/Teacher:** child behaviour,  
structural aspects

## ◆ DATA LINKAGE

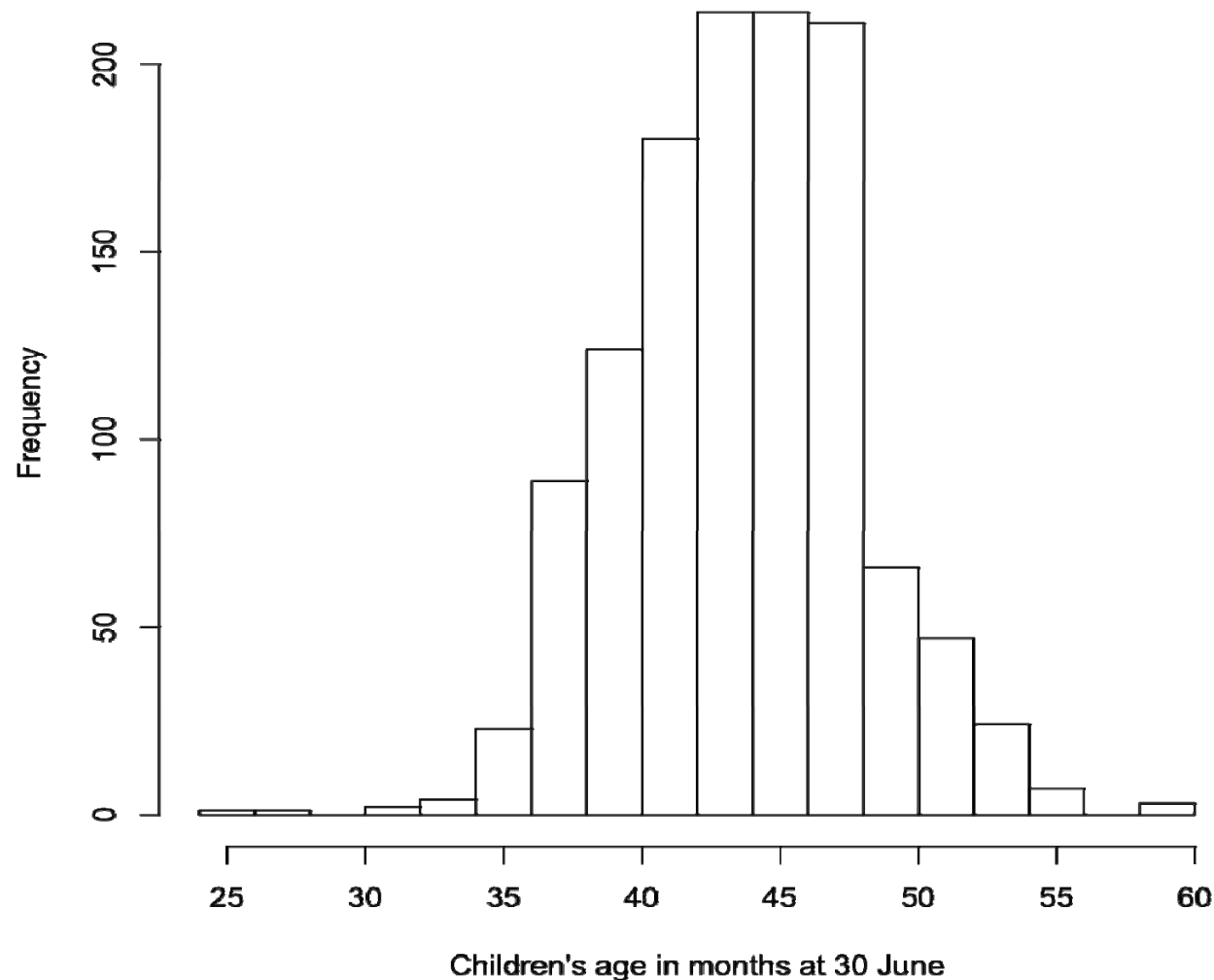
NAPLAN

# Patterns of care and education 2 years before school





# How old were children 2 years before school?



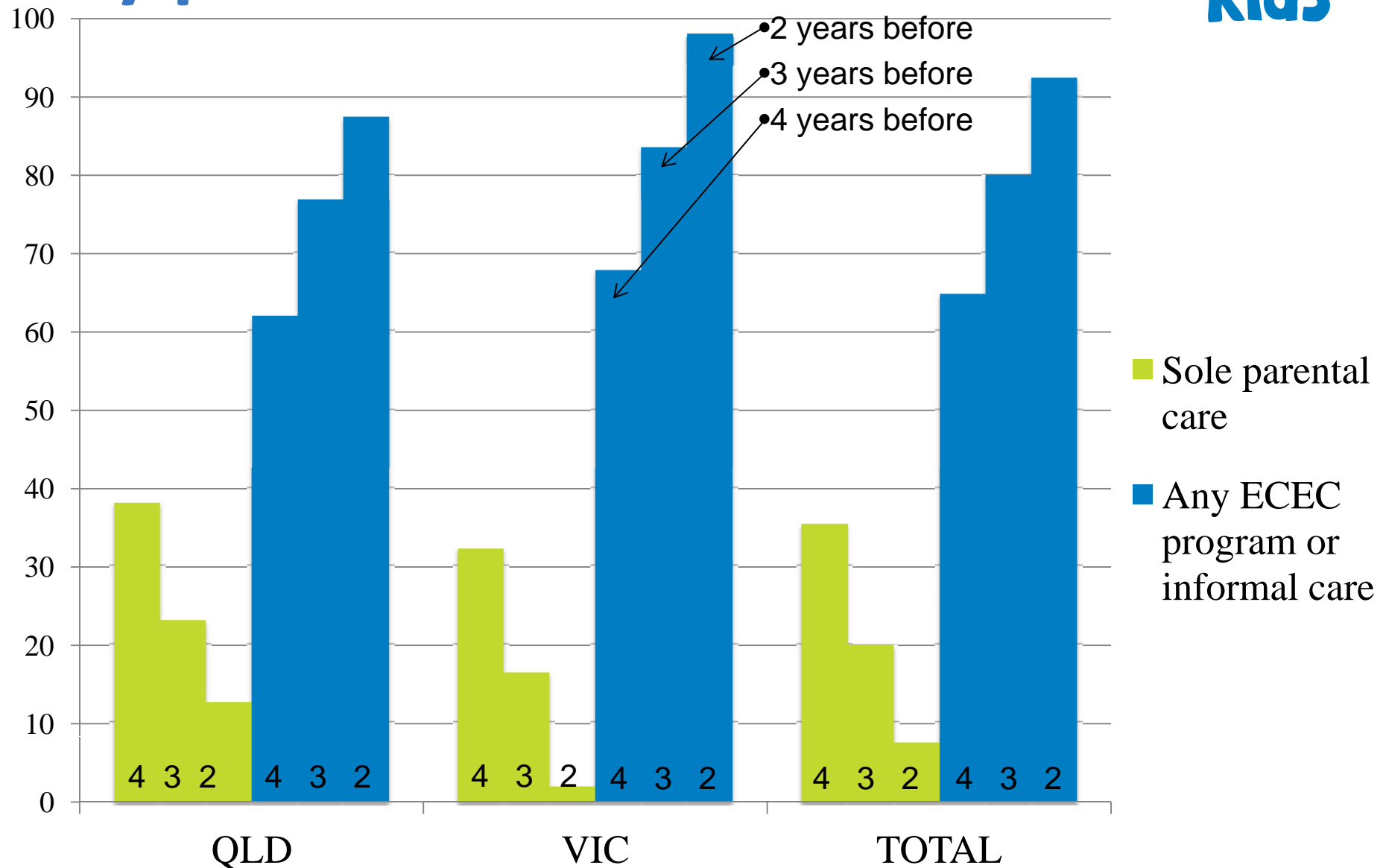
# Family demographics 2 years before school

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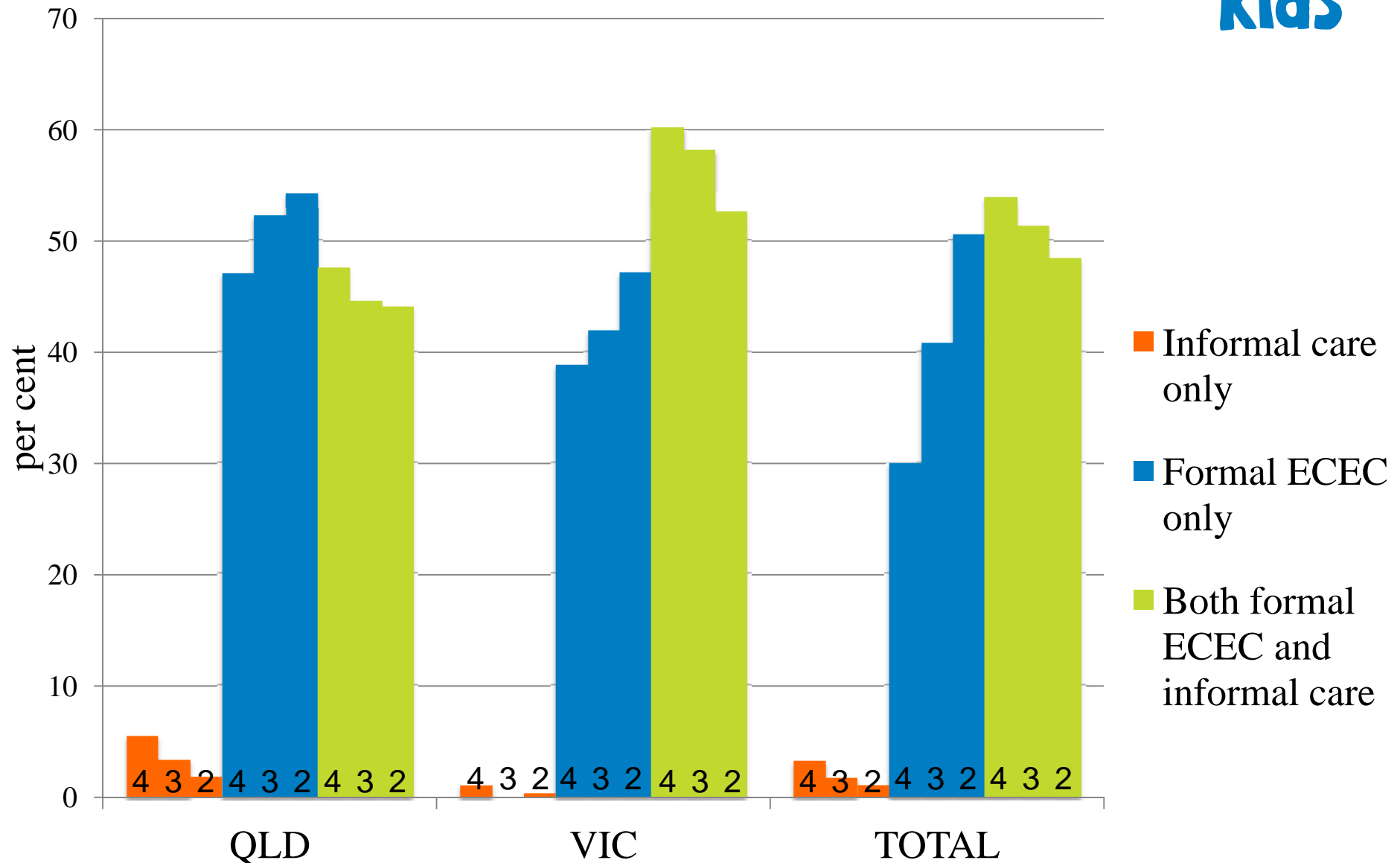


- Main caregivers:
  - 35.94 years (SD = 5.21 years)
  - 91% female
  - 62% in labour force
  - 79% born in Australia
- Families
  - 90% two-parent
  - 50% between \$50 000 and \$124 999

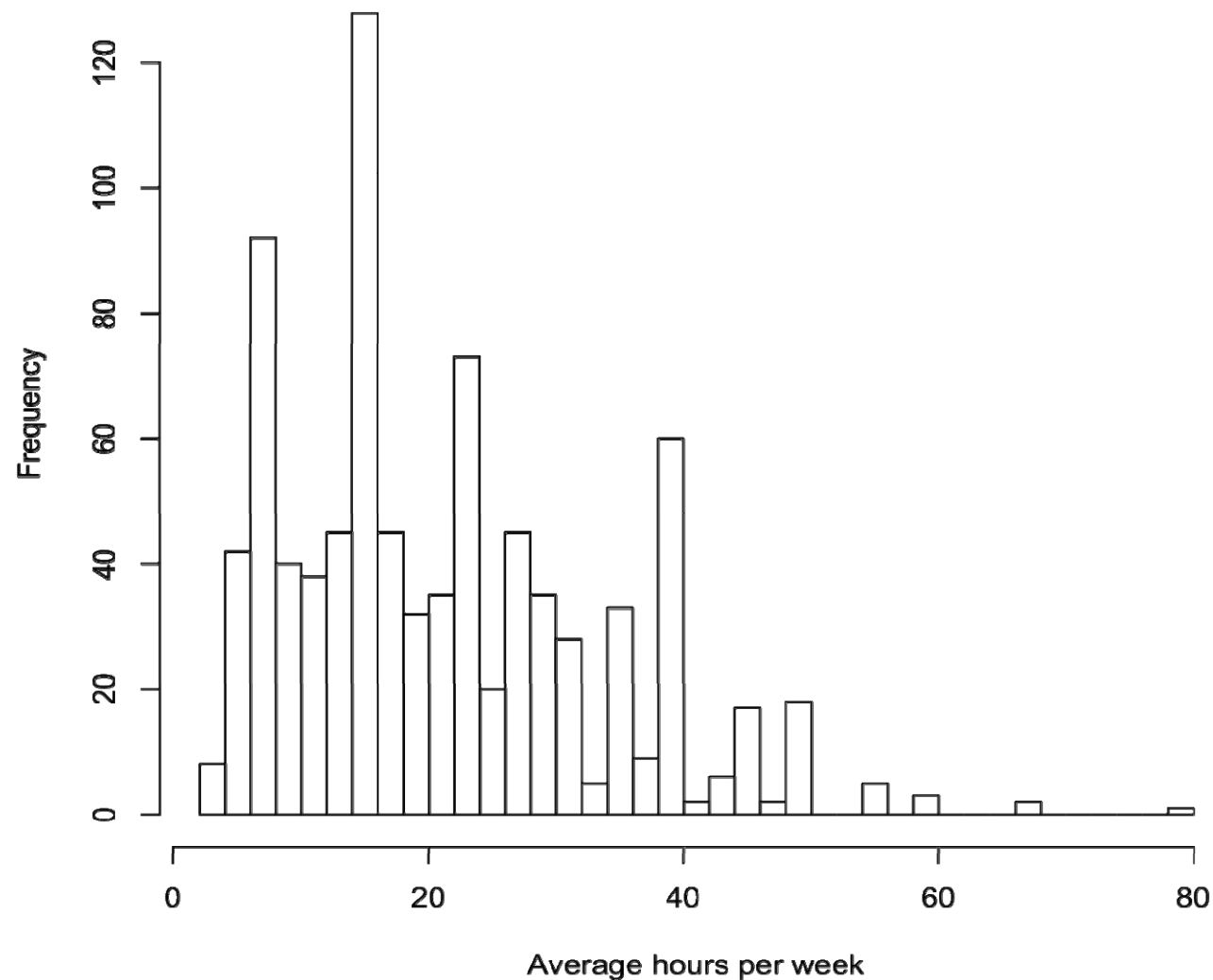
# Formal ECEC and informal care or only parental care?



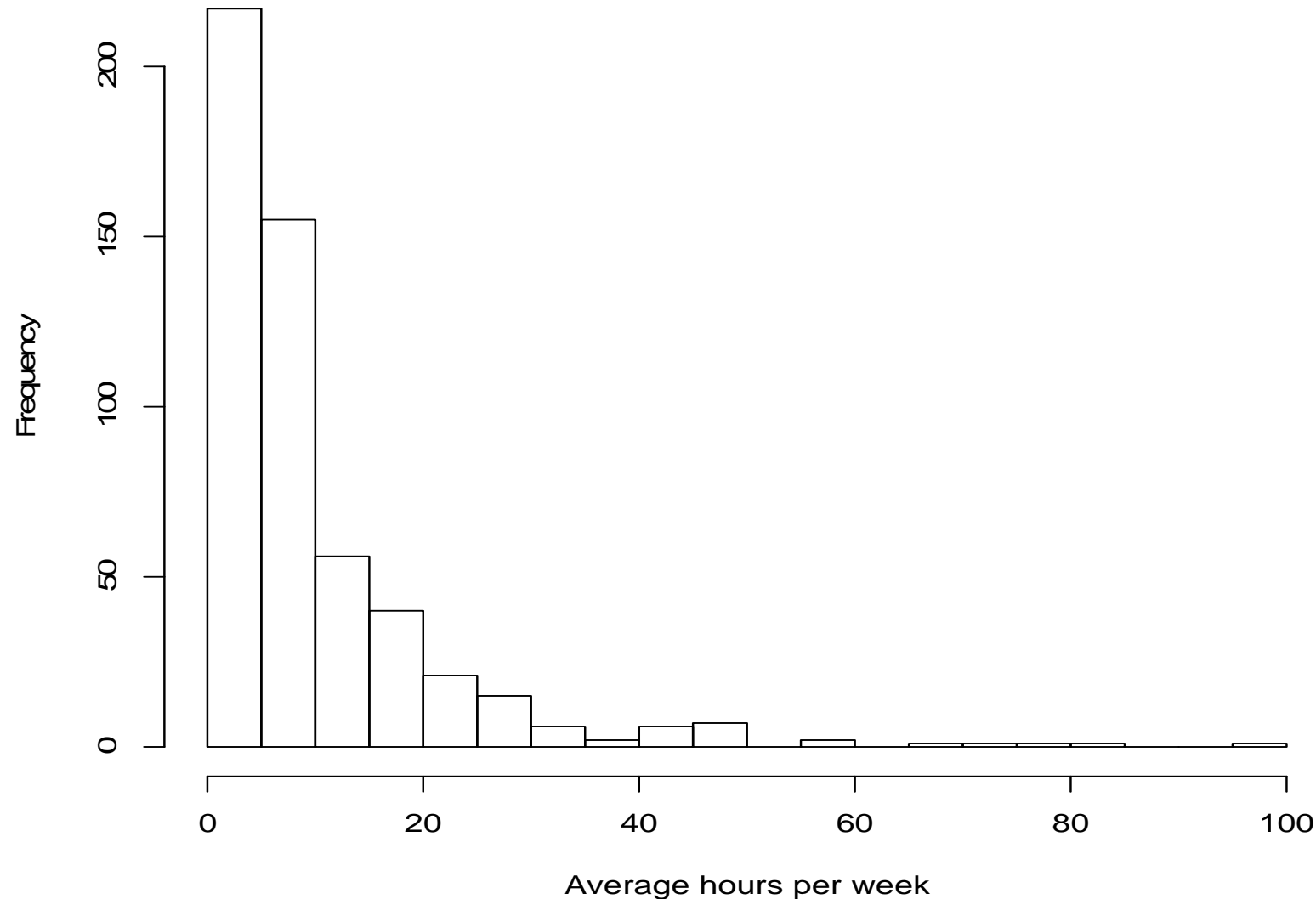
# Mix of education and care before school



# Hours in long day care 2 years before school

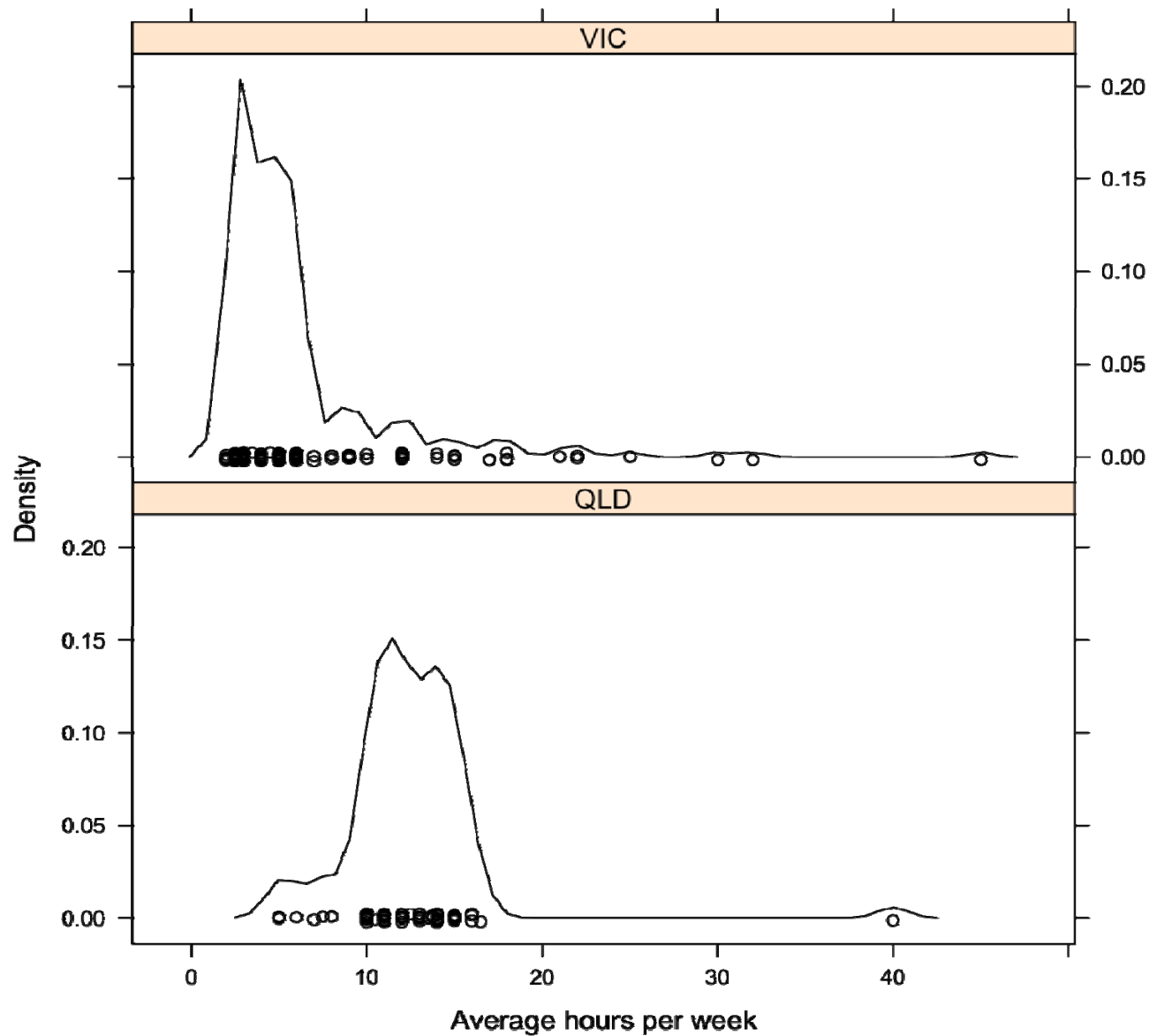


# Hours of Informal Care 2 years before school





# Hours in stand-alone Kinder



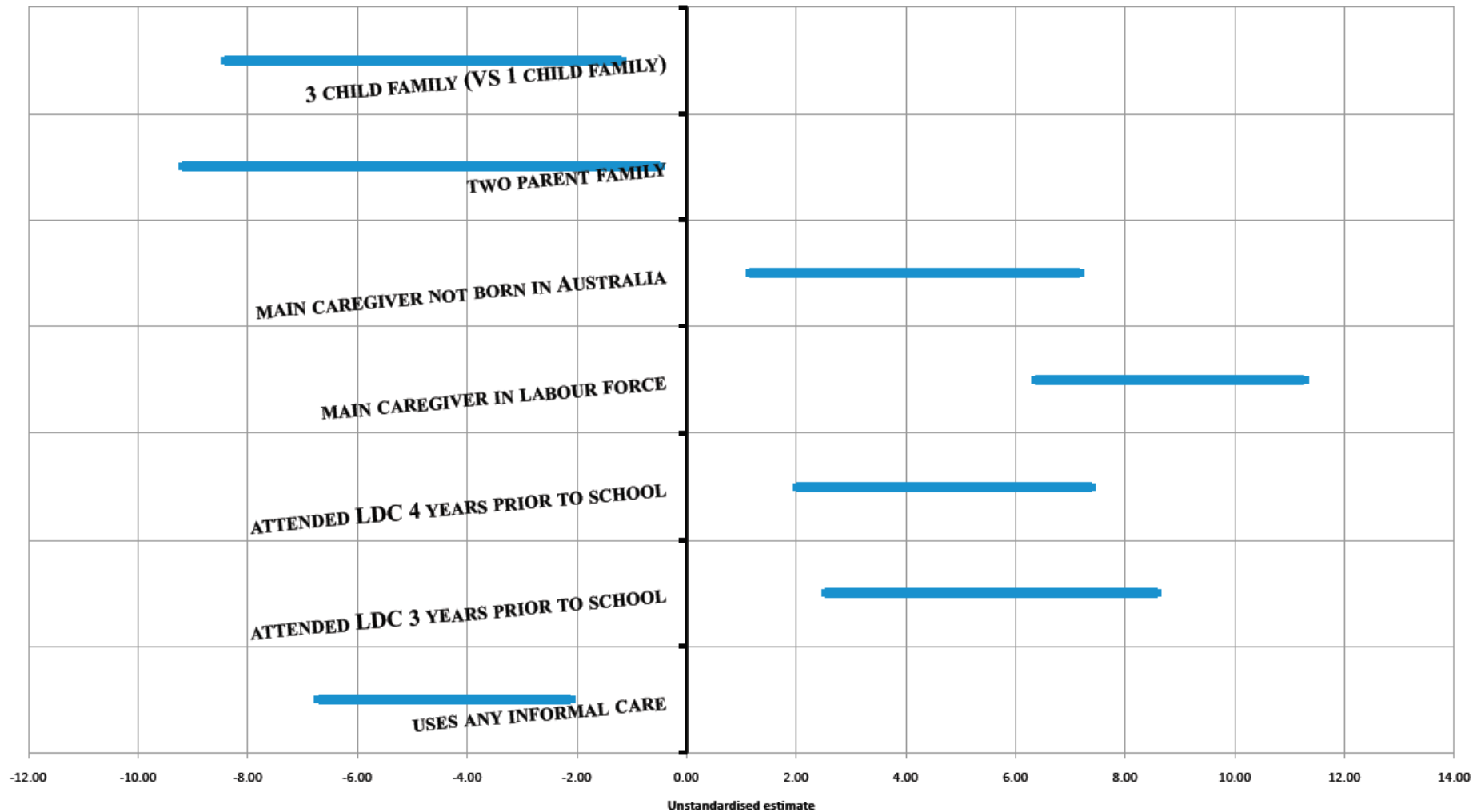
# Statistical Analysis



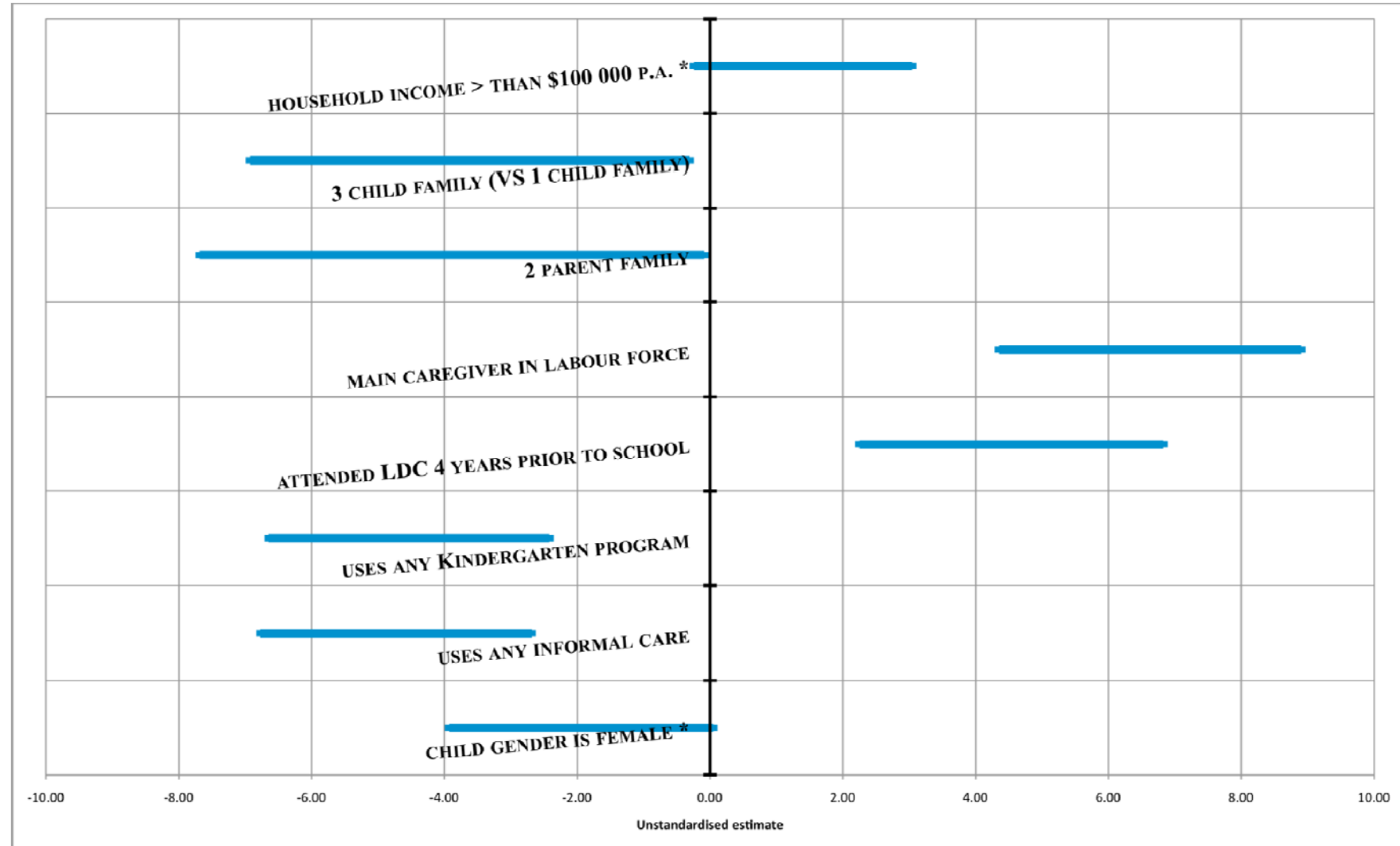
What child and family characteristics are associated with formal ECEC use 2 years prior to school when we control for the effects of the others?

- We fit 3 models
  - Model 1 predicts total hours of formal ECEC in typical week
  - Model 2 predicts total hours of Child Care
  - Model 3 predicts the use of one formal type versus more than one formal type

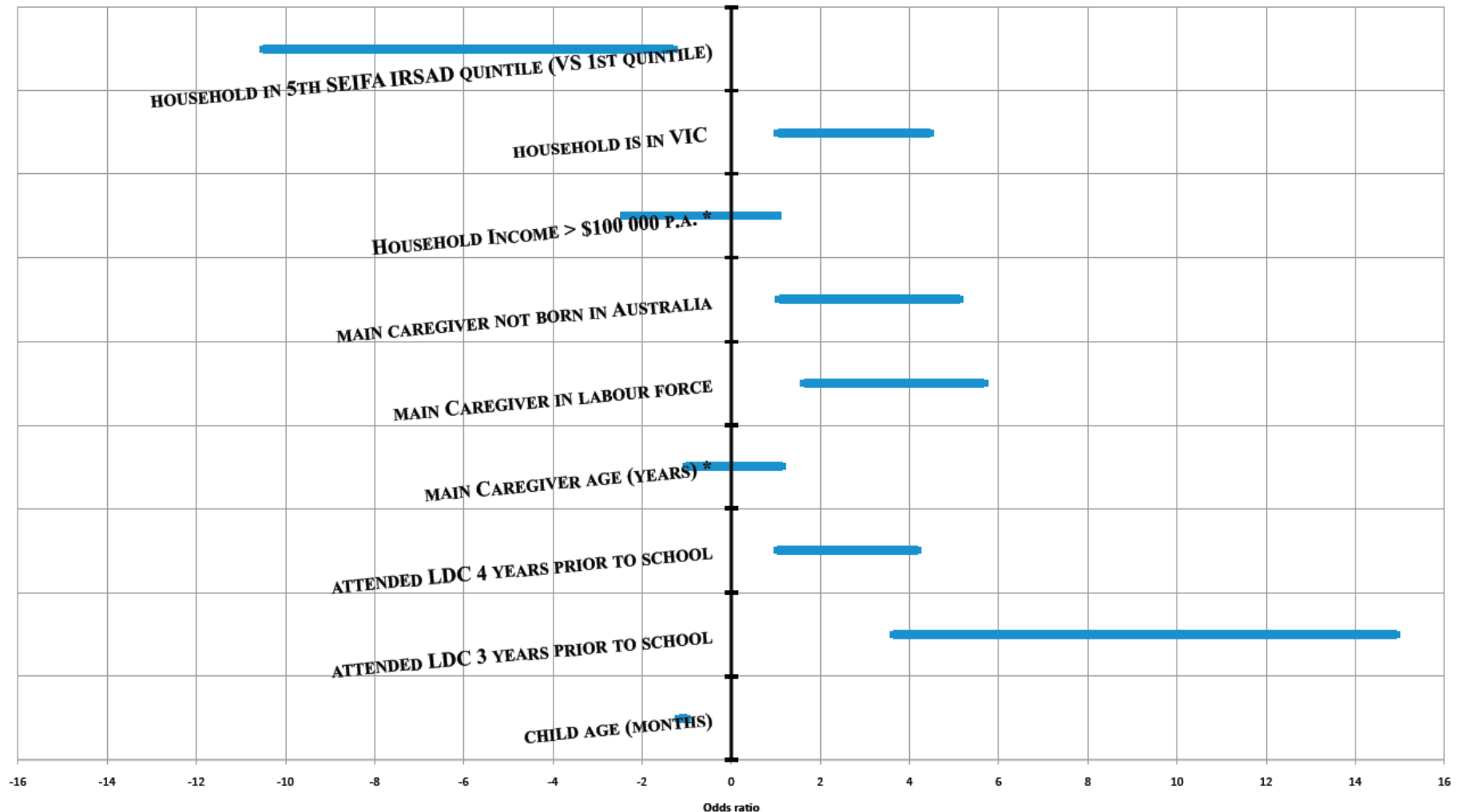
# All Formal ECEC: total hours of use



# Long day care: hours of use



# Odds of using more than 1 formal program



# Key findings from analysis

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- Relative importance of family circumstance over child characteristics
- Consistent findings
  - Labour force participation
  - History of child care use
  - Family composition and number of children
  - Main caregiver born overseas



So, what about  
the process  
quality of  
programs used by  
children?



# Process quality measured by CLASS



## Emotional Support

- Positive Climate
- Negative Climate
- Teacher Sensitivity
- Regard for Child Perspectives

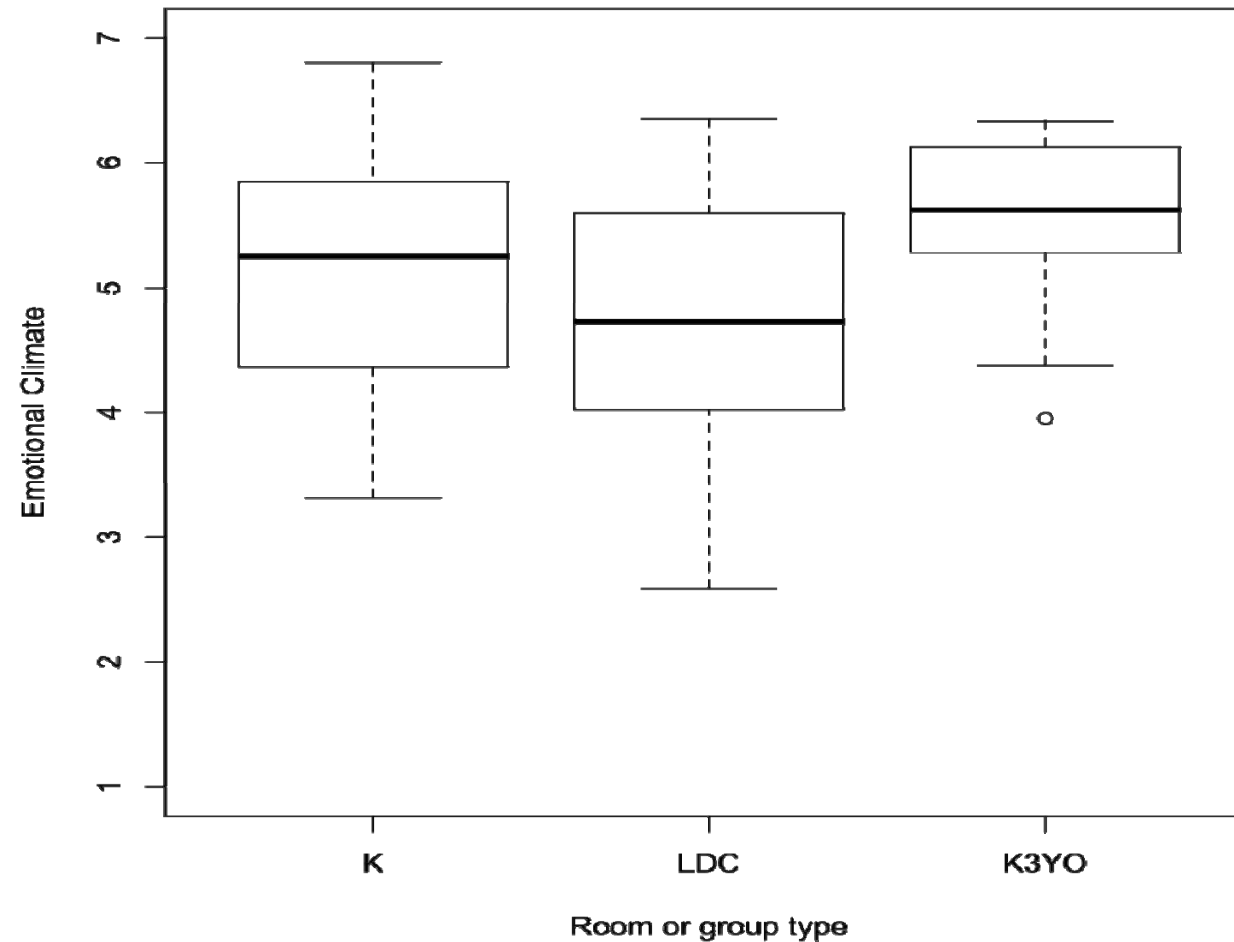
## Class Organization

- Behavior Management
- Productivity
- Instructional Learning Formats

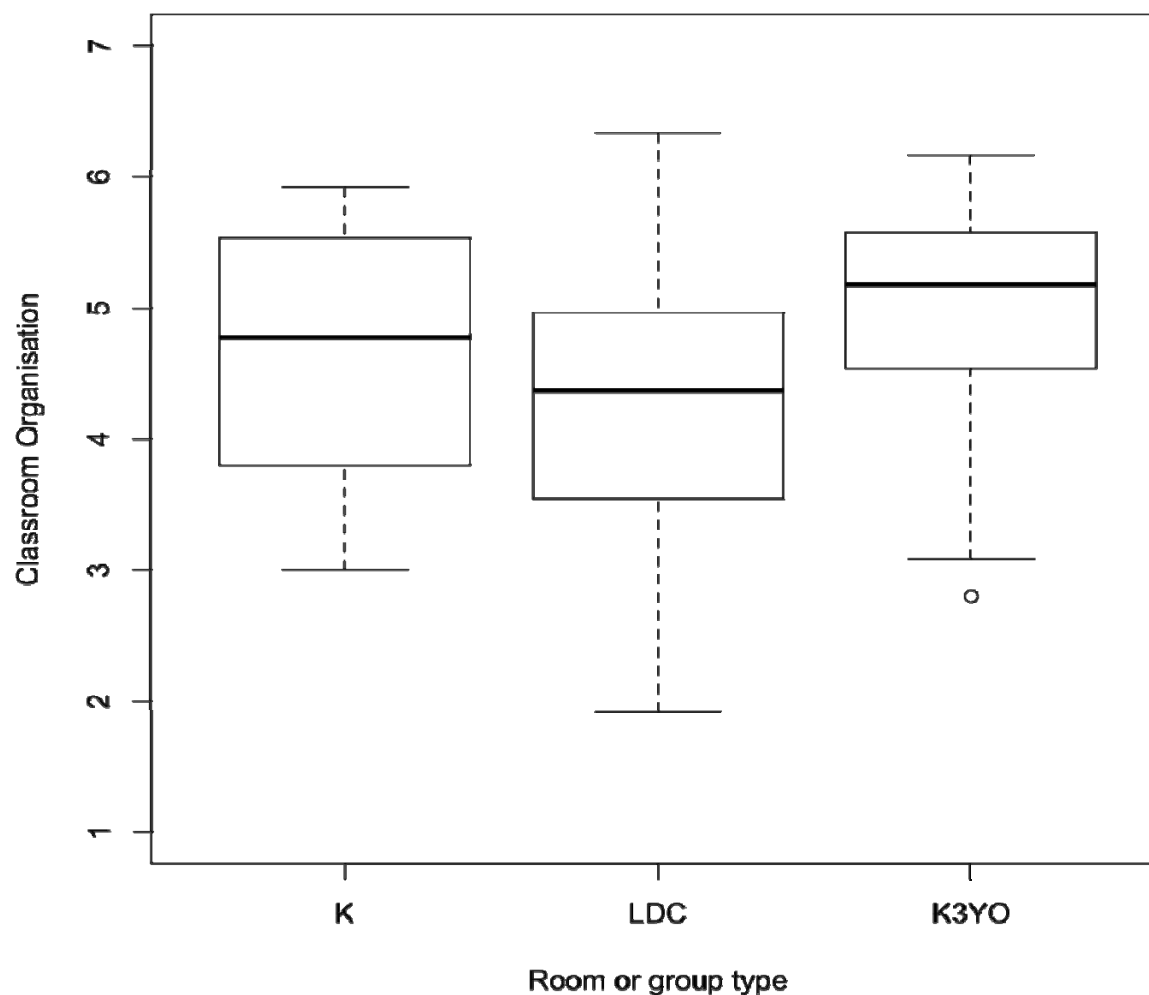
## Instructional Support

- Concept Development
- Quality of Feedback
- Language Modeling
- Literacy focus

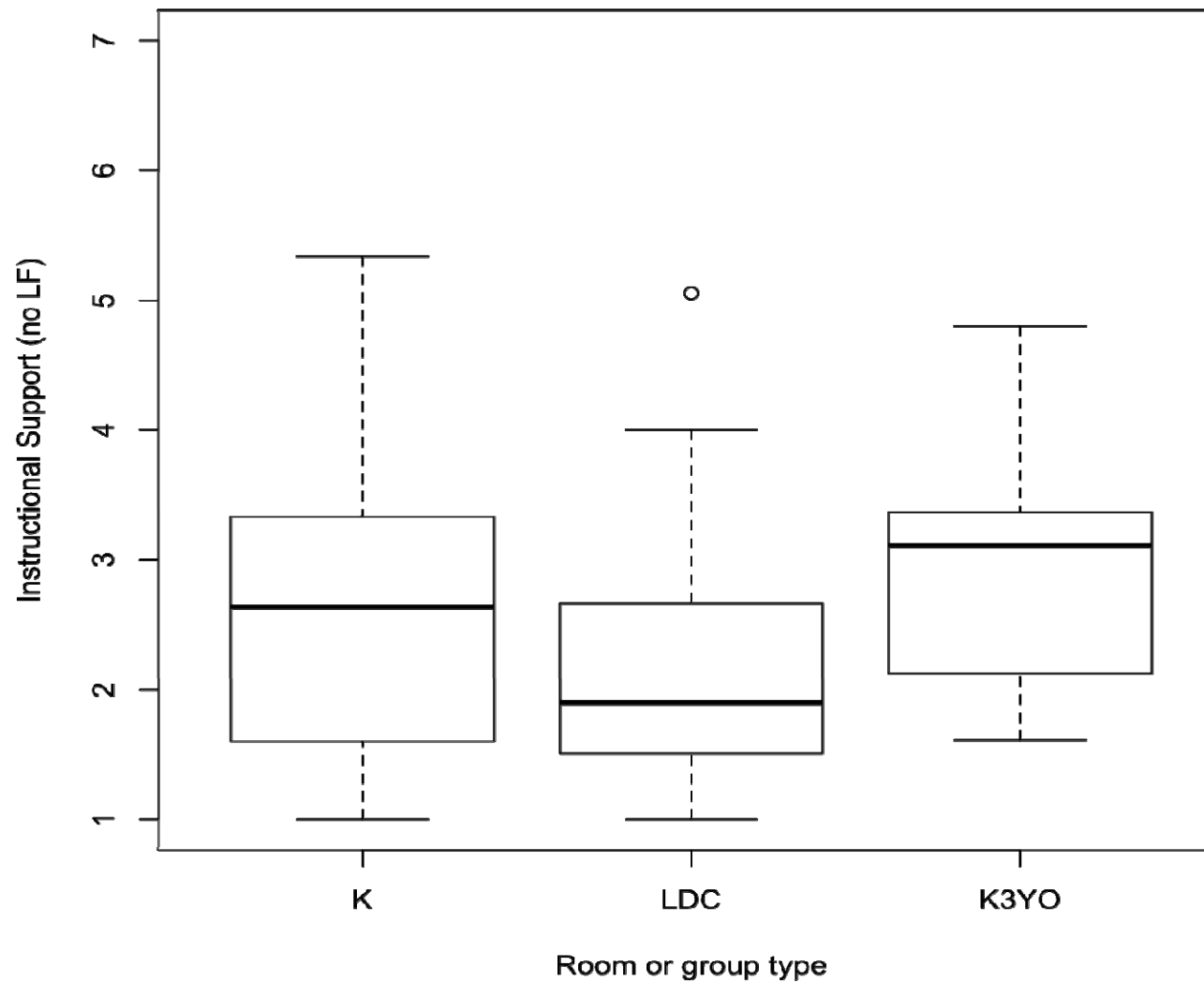
# Emotional Climate



# Classroom Organisation



# Instructional Support (no LF)



Early Childhood  
Development Steering  
Committee

**National Quality  
Standard for Early  
Childhood Education  
and Care and School  
Age Care**

Council of Australian Governments  
December 2009



**CLASS**

- Emotional
- Organisational
- Instructional

- 1. Educational program and practice**
- 2. Relationships with children**



# Summary comments



- *E4Kids provides a very rich data source for progressing our understanding of the impact of participation in ECEC services on children's learning and development that will be available to help guide future public investment.*
- *We face major challenges in providing all our children with access to high quality programs and the equally pressing problem of ensuring that our most vulnerable children receive this support.*

# E4Kids Research Network



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□ **Ray Adams**

The University of Melbourne

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□ **Gordon Cleveland**

University of Toronto

□ **Iram Siraj-Blatchford**

University of London (IEd)

□ **Frank Oberklaid**

The Royal Children's Hospital Melbourne

□ **Ann Sanson**

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