



**NEW ZEALAND POLICY  
RESEARCH INSTITUTE**  
TE KĀHUI RANGAHAU MANA TAURITE



## **Intergenerational transmission of human capital in New Zealand: what makes and breaks the cycle of advantage and disadvantage?**

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## Acknowledgement and disclaimer

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This study was made possible with funding from the Ministry of Social Development using Growing Up in New Zealand (GUINZ) data collected by the University of Auckland. The data has been accessed and used according to the GUINZ Data Access Protocol.

The views and interpretations in this presentation are those of the researchers and not the Ministry of Social Development.



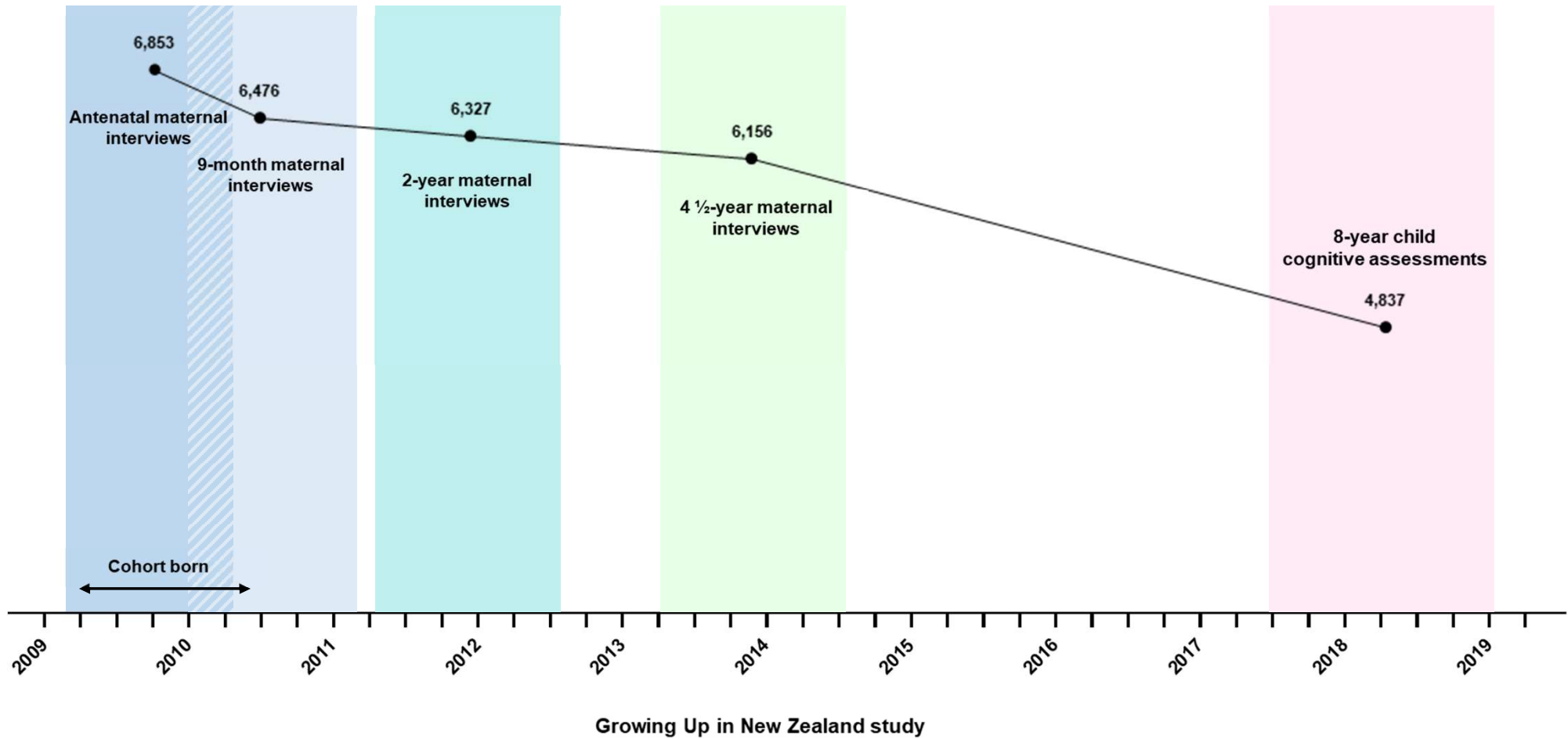
## Research aims

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- What makes and breaks the intergenerational transmission of human capital?
- ‘Human capital’ = knowledge and skills, proxied by parental educational attainment and children’s cognitive skills
- Cognitive skills determined by interaction of genetic and environmental factors, but we focus on several parenting behaviours/investments
- We focus on mothers (for theoretical and data-related reasons)
- RQ1: *How are children’s cognitive skills at age 8 years related to mothers’ educational attainment, and through what mechanisms?*
- RQ2: *What distinguishes children who have strong cognitive skills despite having a lower-educated mother? (who ‘breaks the intergenerational mould’?)*

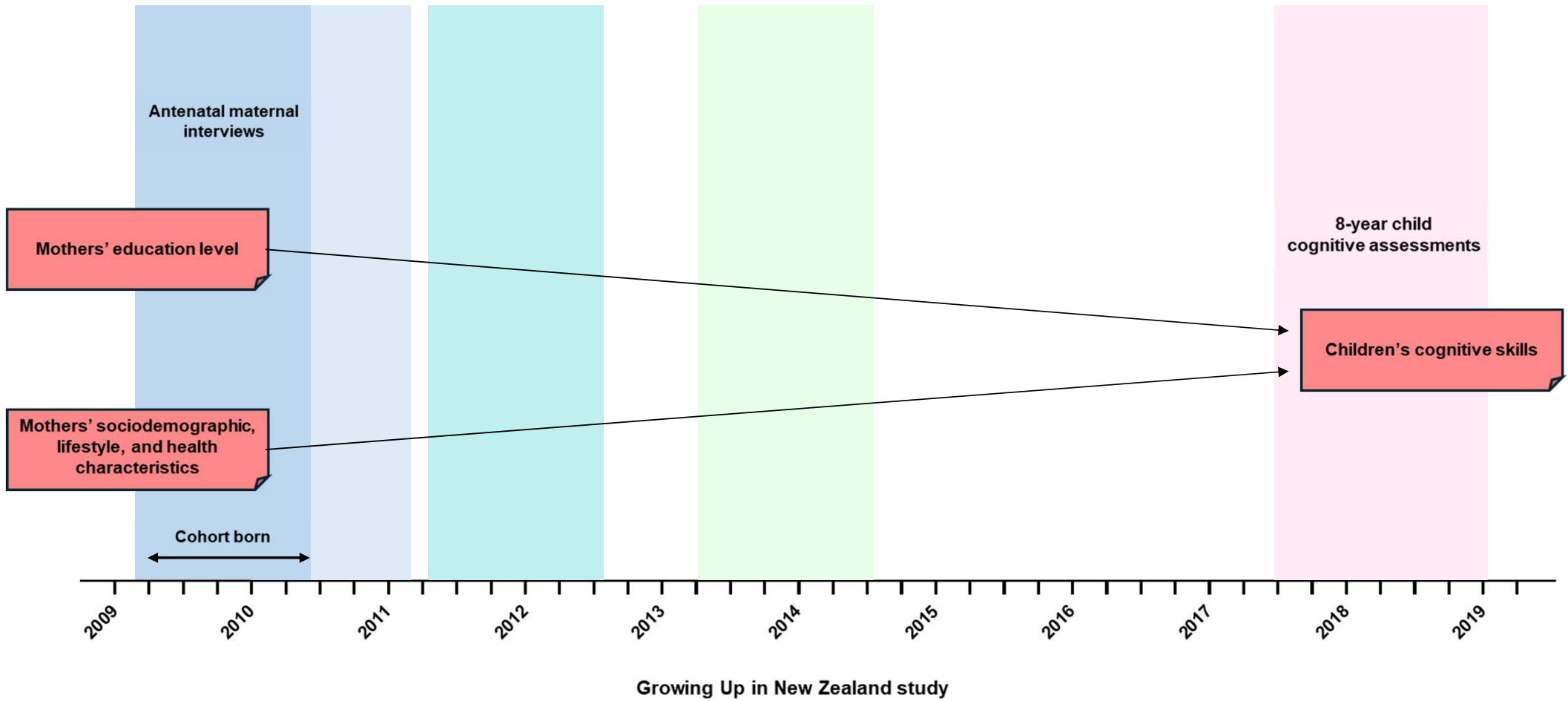


## Data source – Growing Up in New Zealand study



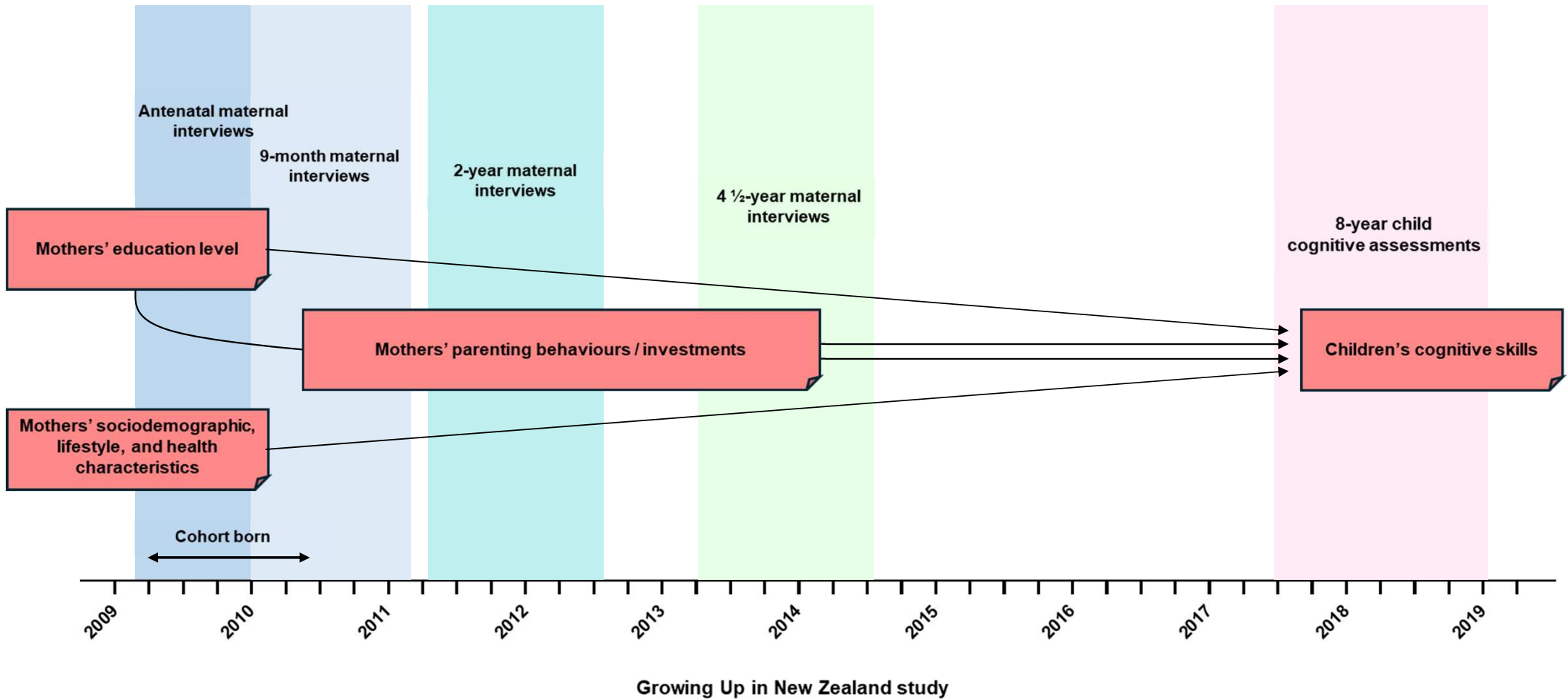


# Research Question 1



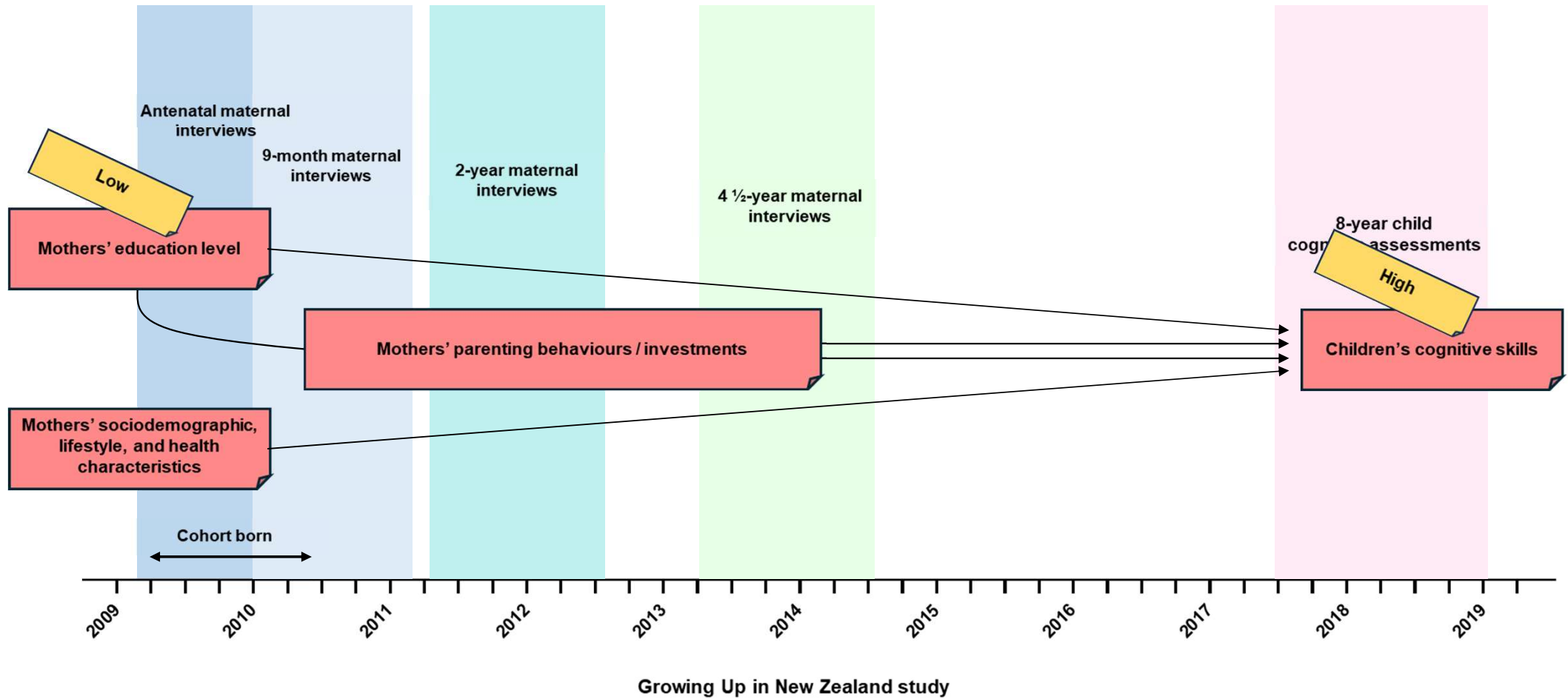


# Research Question 1



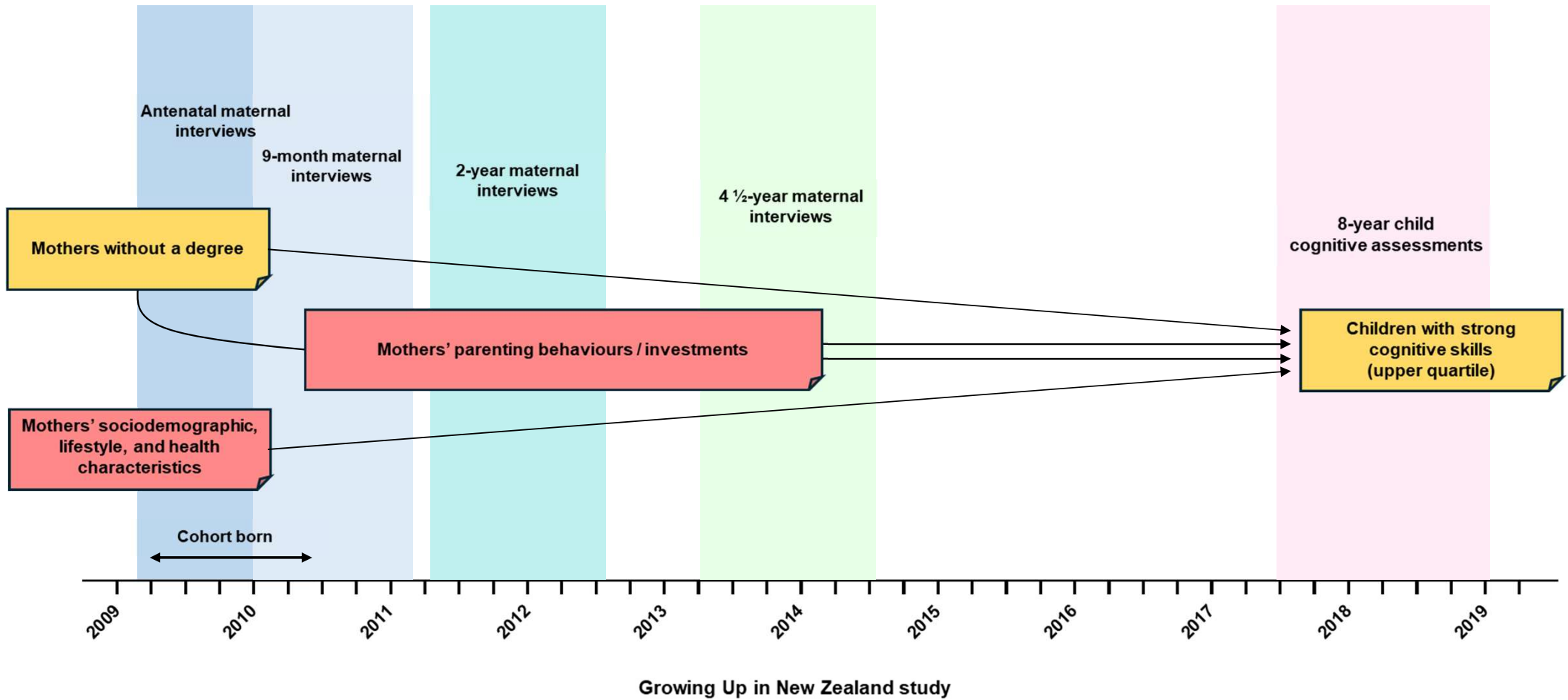


## Research Question 2





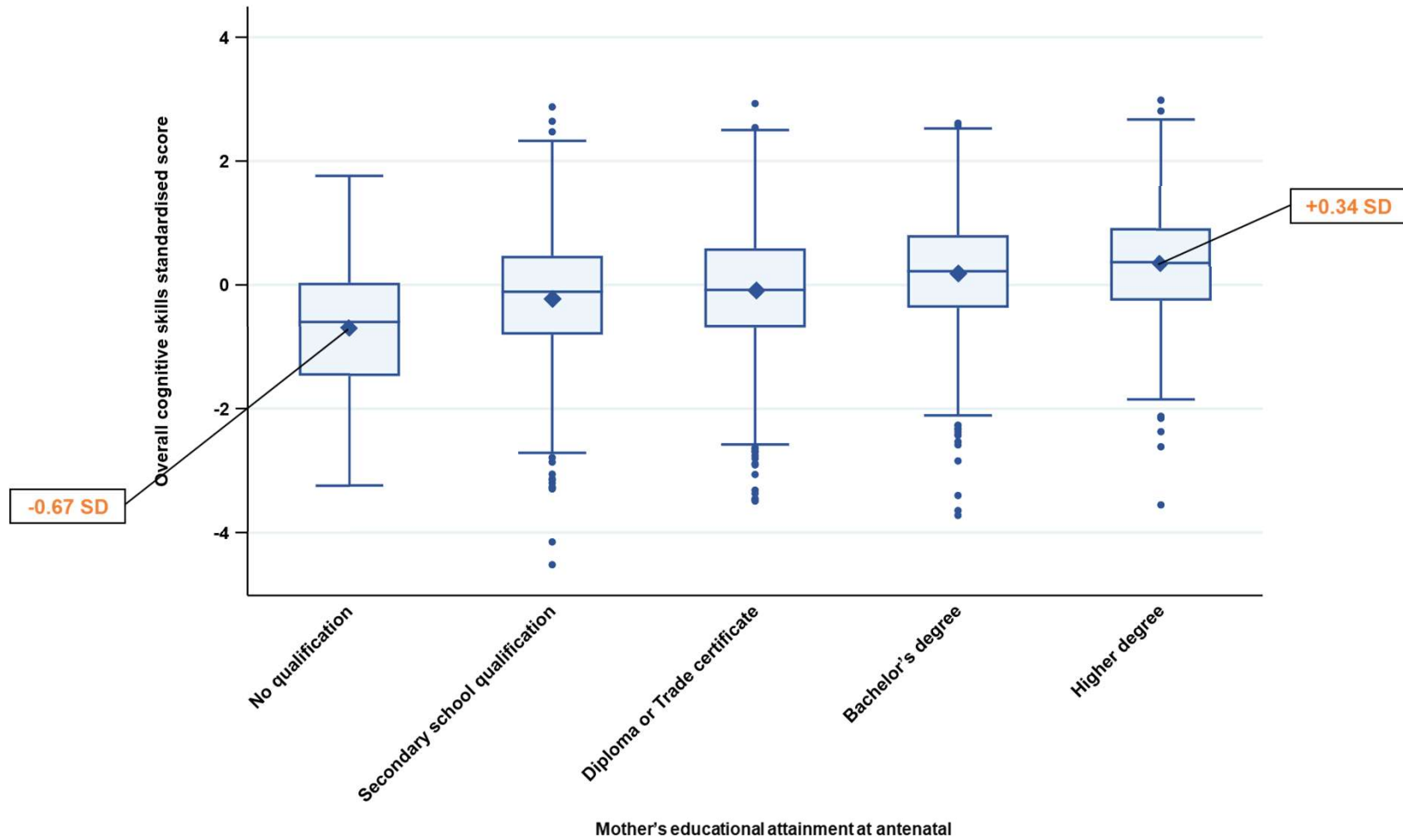
## Research Question 2





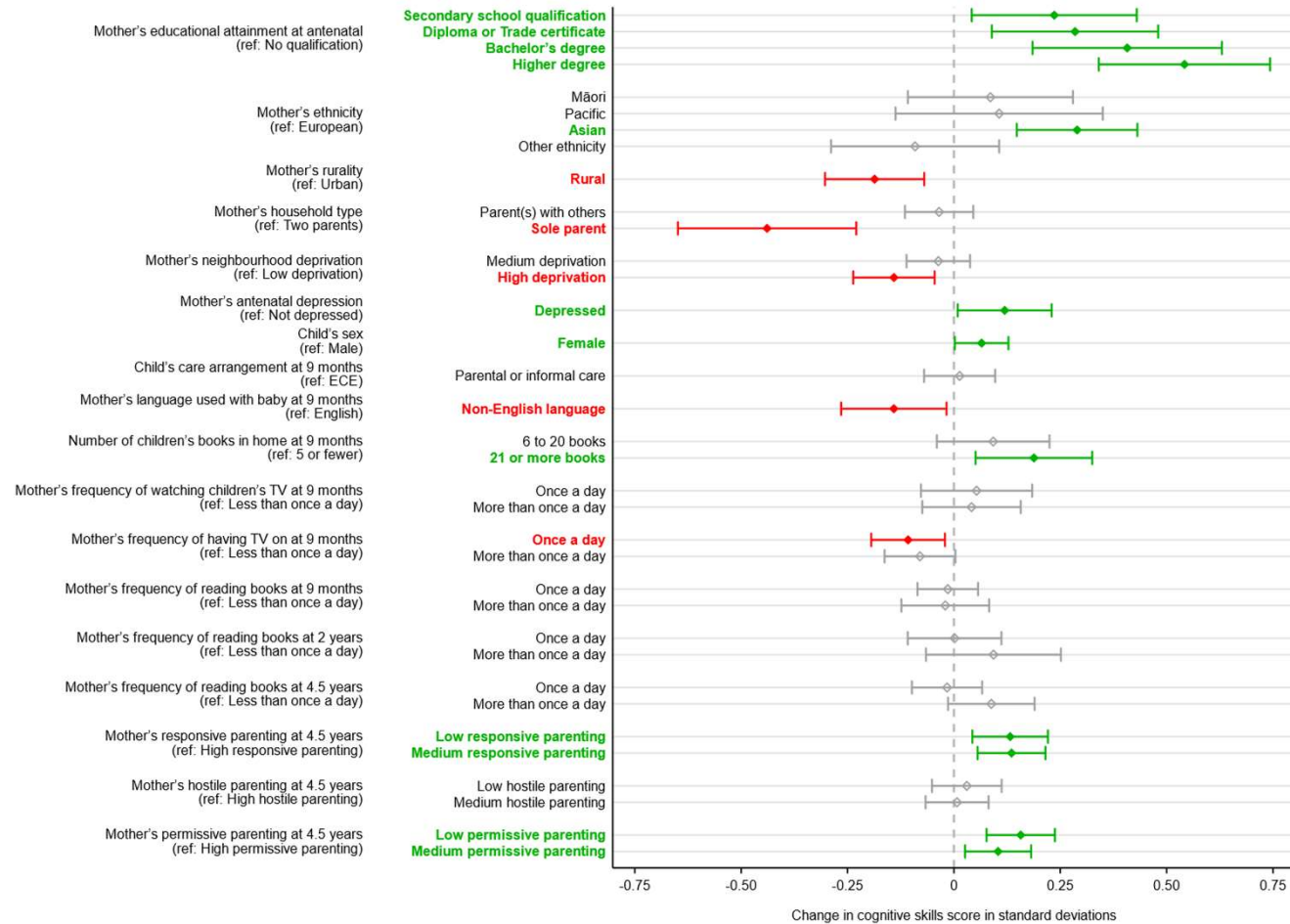


## RQ1 results – what's the raw relationship?



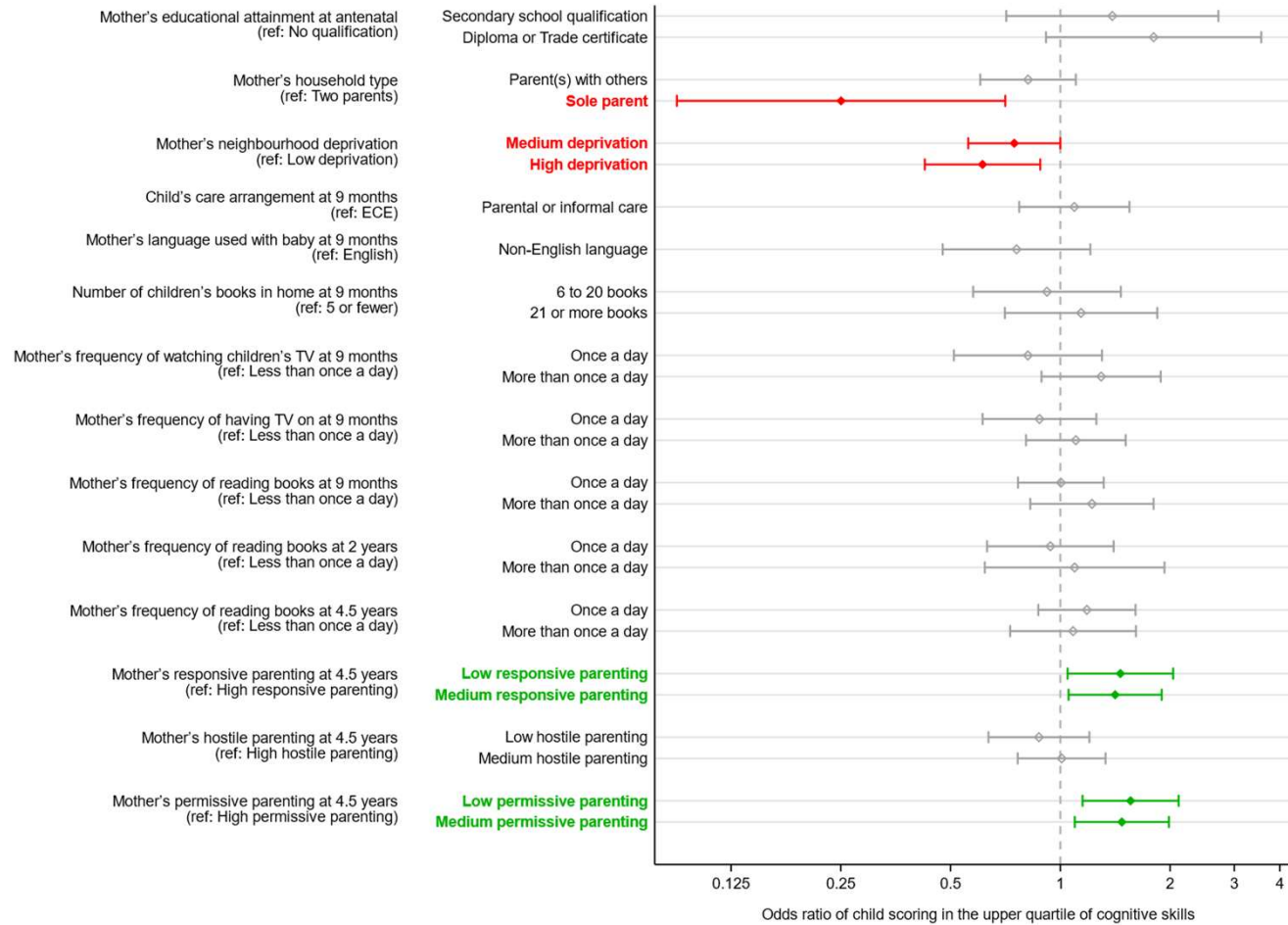


# RQ1 regression results – with confounders and mediators





# RQ2 regression results – what breaks intergenerational transmission?





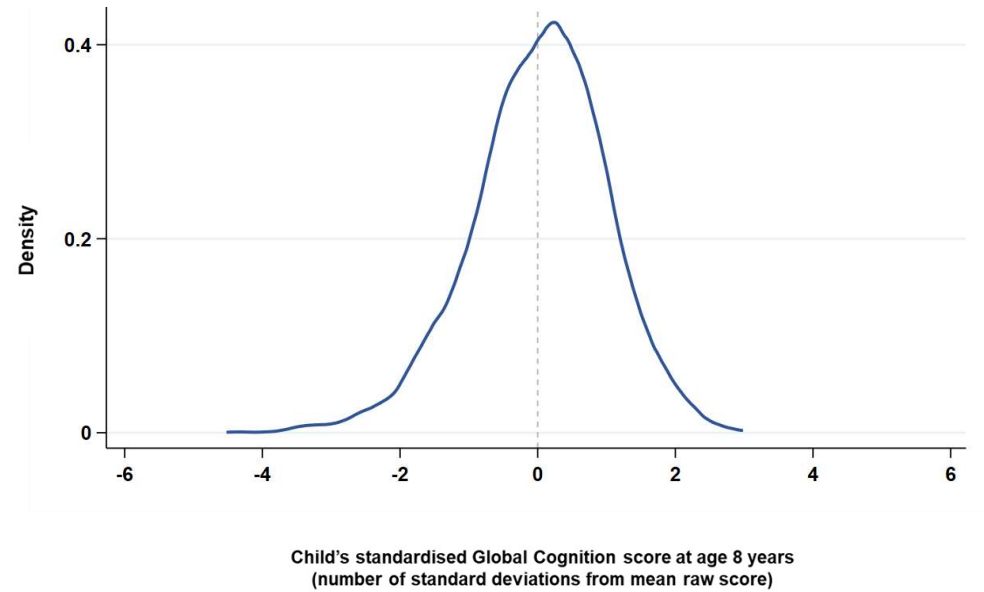
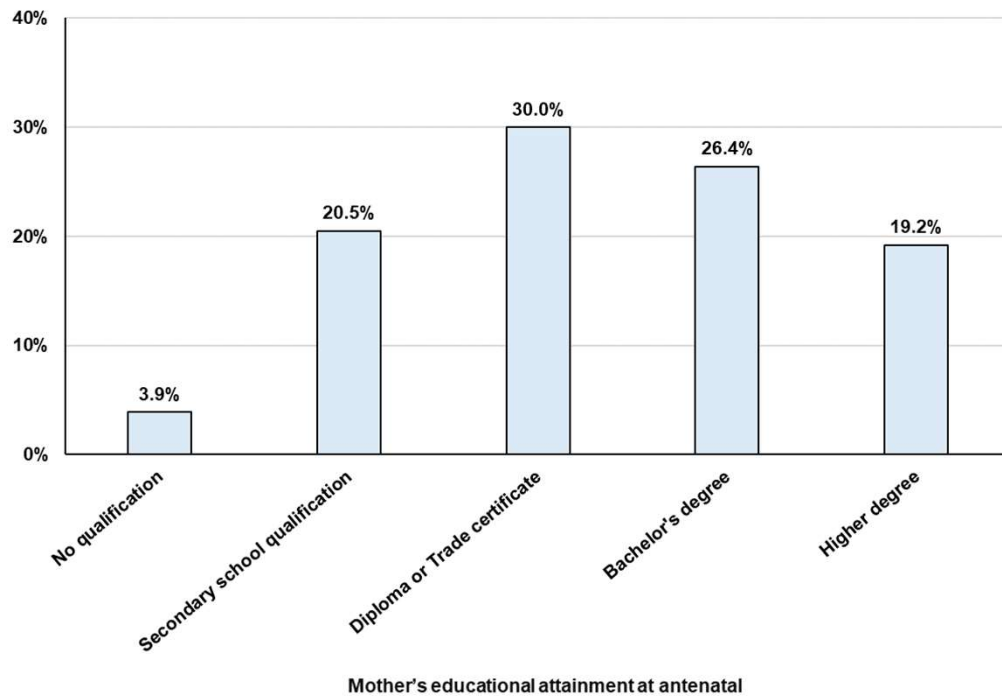
## Conclusions and policy implications

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- Maternal education is strongly positively related to children's cognitive skills
- Partly because mothers with more education tend to have more books in the home and adopt a parenting style that is not overly responsive or overly permissive
- Children's chances of breaking the transmission of human capital disadvantage are enhanced if born into a two-parent family in an affluent neighbourhood to parents who don't 'over-parent' or 'under-parent'
- Policy should focus on prevention and early intervention targeted at current and future parents (via maternity services, antenatal classes), especially sole parents in deprived areas
- Policy should promote the value of books and parent-child book reading, encourage parenting with consistent rules, and warn of risks of over-protective 'helicopter parenting'
- Further research needed into children who 'defy the odds'

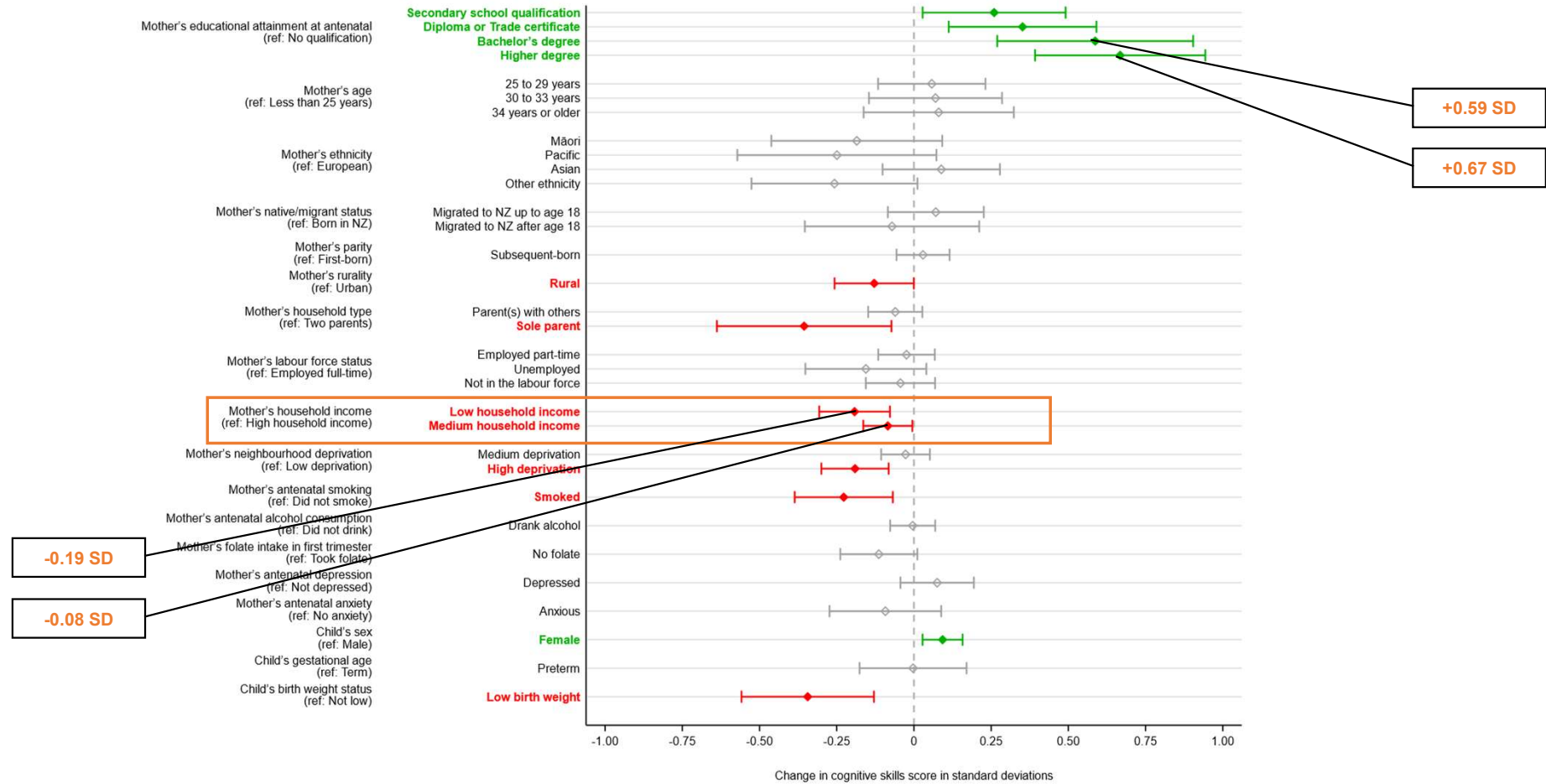


# Descriptives



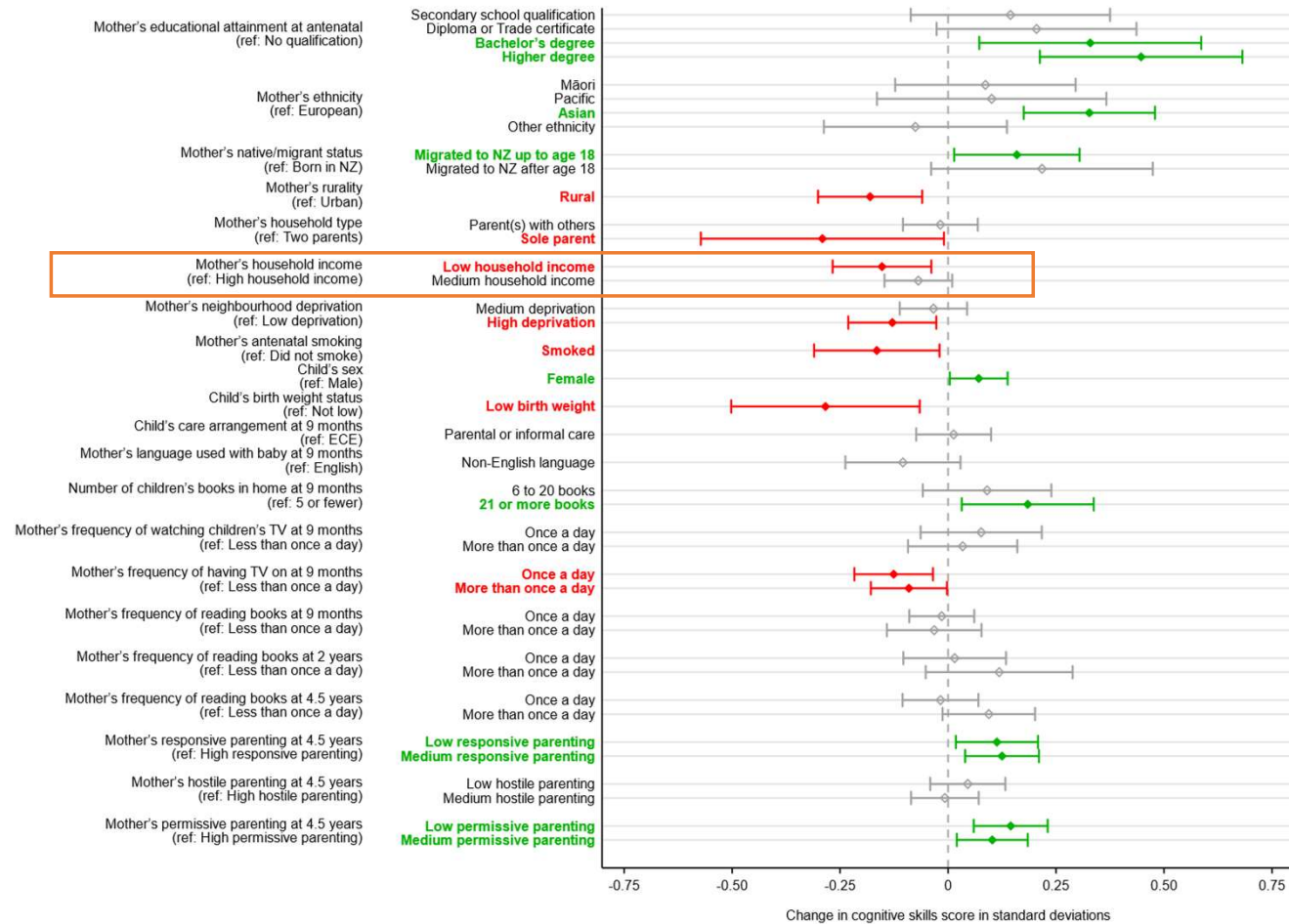


# RQ1 sensitivity analysis – including household income



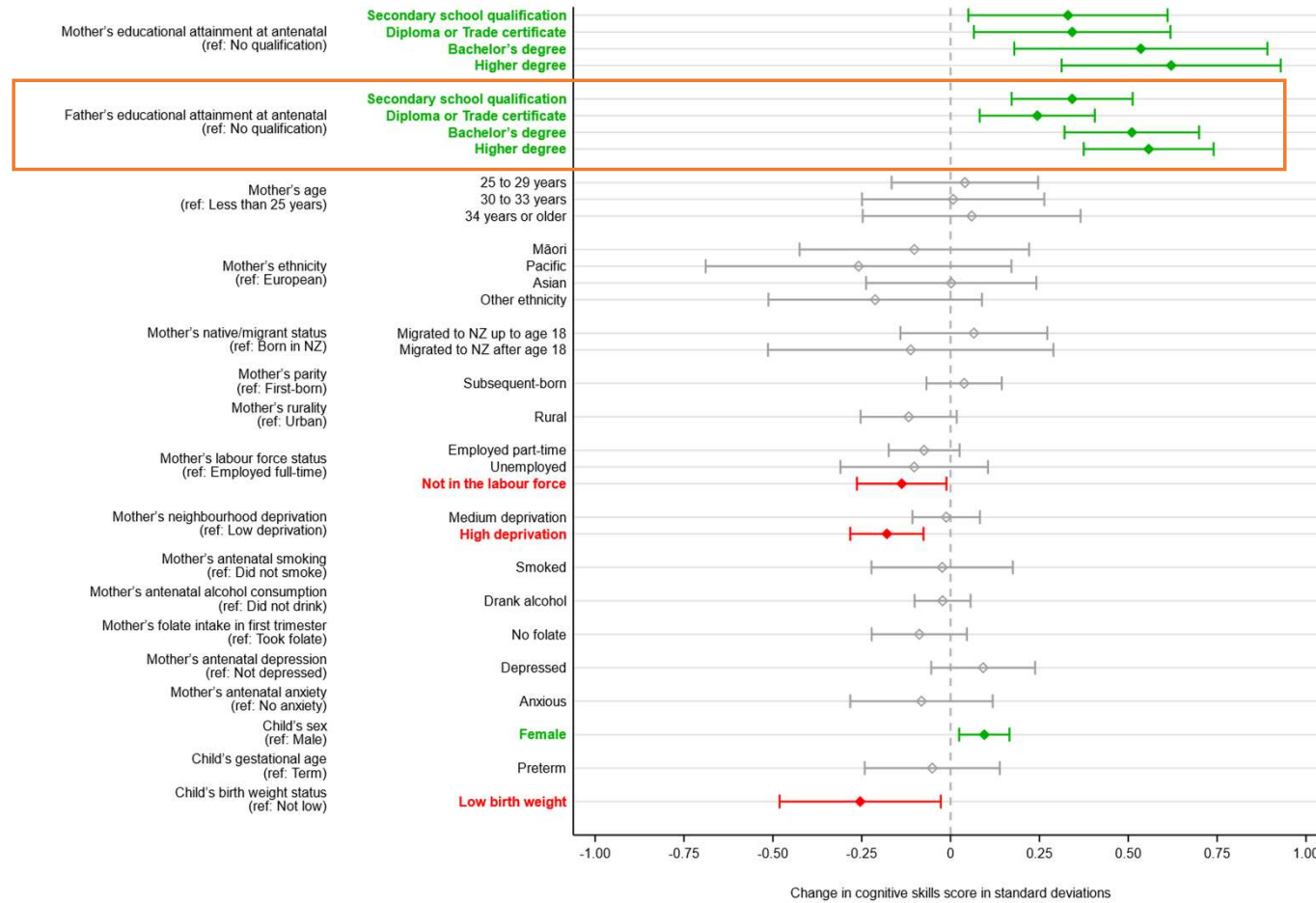


# RQ1 sensitivity analysis – including household income





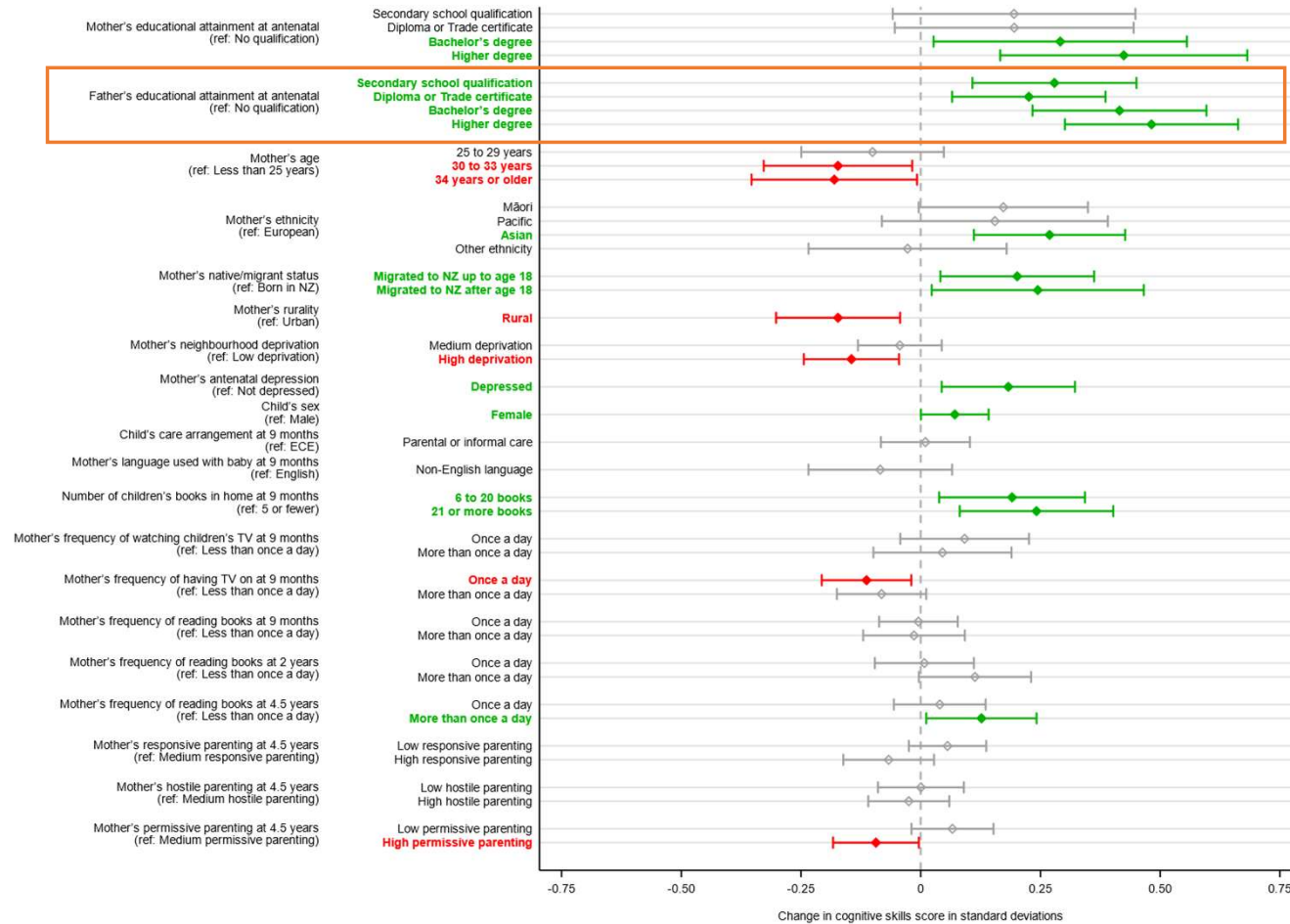
# RQ1 sensitivity analysis – including fathers' educational attainment





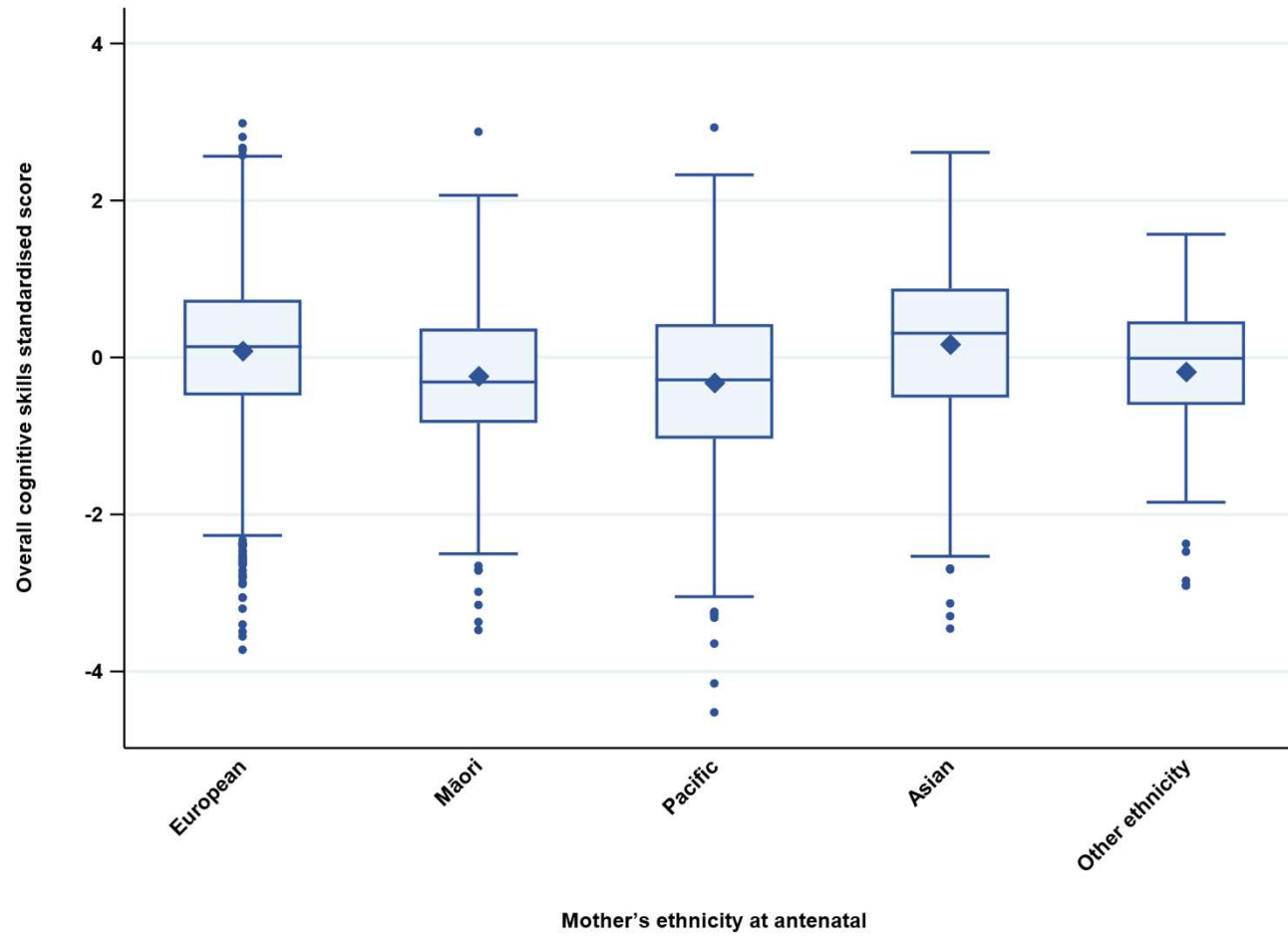


# RQ1 sensitivity analysis – including fathers' educational attainment





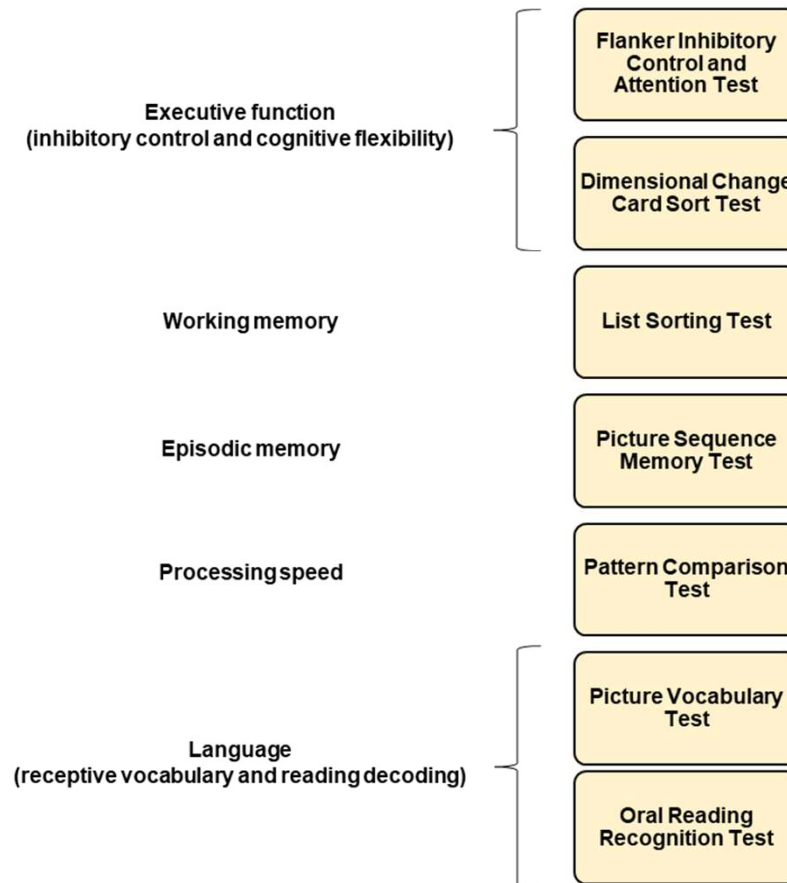
## What's the raw relationship with mothers' ethnicity?



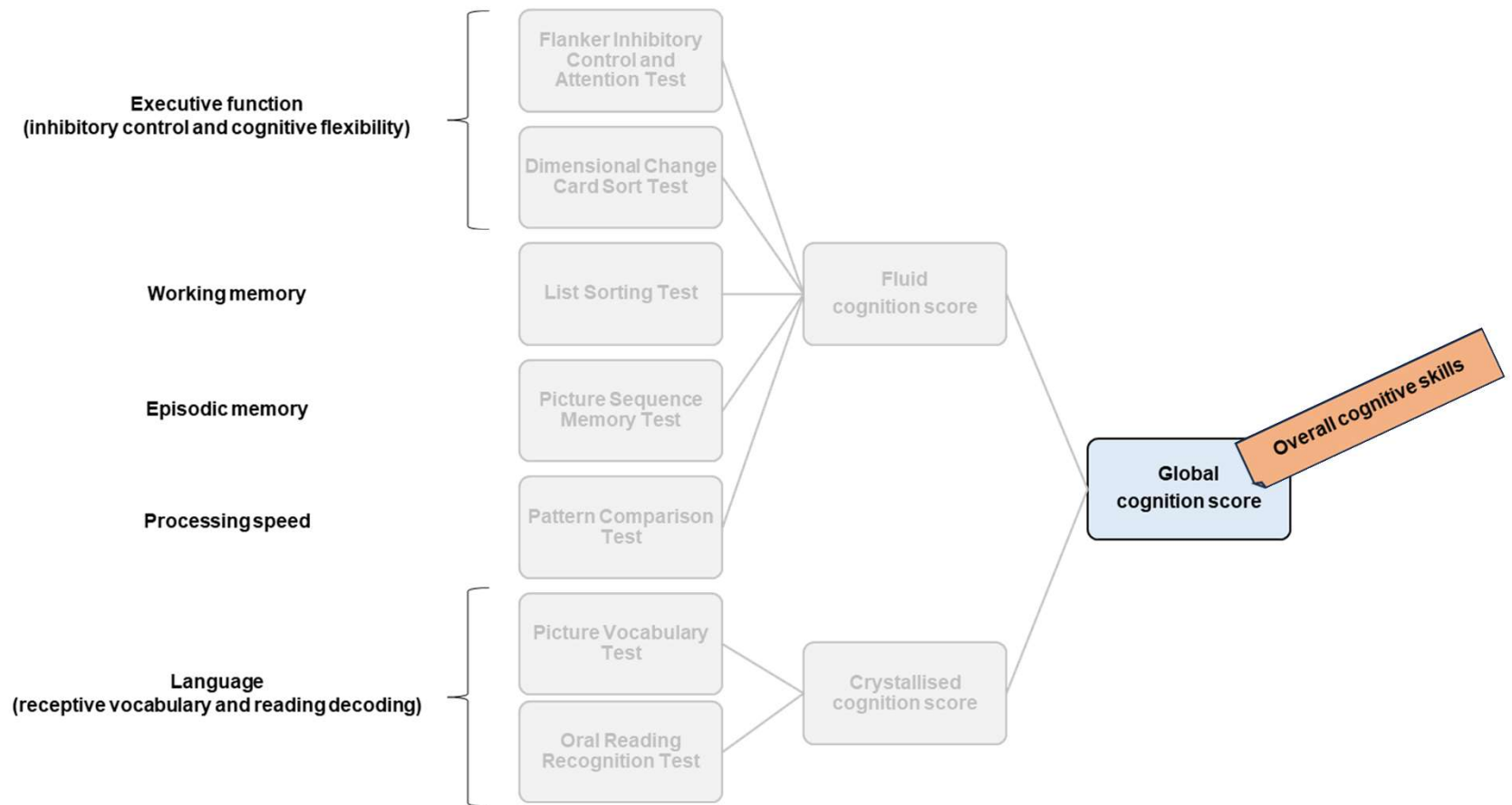


# NIH Toolbox Cognition Battery

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# NIH Toolbox Cognition Battery



# Variables



Type of variable	Category	Variable	DCW	Coding
Outcome	Child's overall cognitive skills	Global cognition score	8-year child	Continuous score, age-adjusted and standardised
Predictor	Mother's educational attainment	Highest educational qualification	Antenatal	1 = No secondary school qualification 2 = Secondary school qualification/NCEA level 1 to 4 3 = Diploma or Trade certificate/NCEA level 5 to 6 4 = Bachelor's degree 5 = Higher degree