

# HOW DO CHILDREN DEVELOP OVER TIME WHEN THEY ARE BORN PRETERM?

Stephenson et al. (2023)

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## WHAT WE ALREADY KNOW

- **Preterm babies:** born before 37 weeks
  - **Early term babies:** born between 37 - <39 weeks
  - **Full term babies:** born between  $\geq 39$  - <41 weeks
- Babies born **preterm** have an **increased risk** of delayed development during childhood. There are **many** programs available to help these babies throughout childhood.
  - Evidence suggests that babies born **early term** may also be at risk of developmental delay during childhood. Despite this, there are **few** interventions for these babies.
  - There has been a **shift** in the **average gestational age** as more babies are being born at **39 weeks**, meaning more children are **potentially at-risk** of developmental delays.

## WHAT WE WANTED TO LEARN

We investigated the relationship between babies born after 34 weeks and before 41 weeks and their risk of developmental delay. We wanted to determine how this range of gestational ages affects child development.



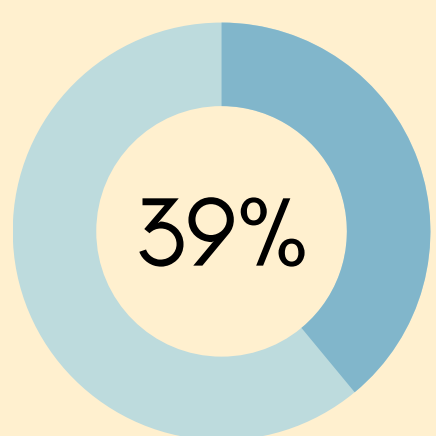
We investigated the following five areas of child development in children aged 0-5 years:



## METHODS

- Participants were part of the All Our Families study cohort who gave birth between 34 and 41 weeks of pregnancy in Calgary, AB, Canada (n = 2644).
- Mothers completed a series of questionnaires when their child was 1, 2, 3, and 5 years old to provide information about their child's development.

## WHAT WE LEARNED



of children experienced a delay in **one area** of development at **some point** over the first five years of age.

- By **5 years** of age, **11% of children** were found to be **at-risk** of a delay in **one or more** areas of development.
- Children who may benefit from **additional support** are those who experienced delays either...
  - In **more than two areas** of development
  - Over a number of **years**
- Babies who experienced delays were **most likely** to experience these in:
  - Fine motor control
  - Gross motor control
  - Problem-solving



Every **additional week** of pregnancy **decreased the risk** of developmental delay.

## WHY IS THIS IMPORTANT?

- Most intervention programs have gestational age cut-offs despite the range of babies at-risk of developmental delays.
- There should be increased follow-up and interventions for babies born before 39 weeks of pregnancy (full term) due to their risk of developmental delay.
- Resources and interventions may be most effective when they are available to children based on their developmental needs instead of their gestational age at birth.

