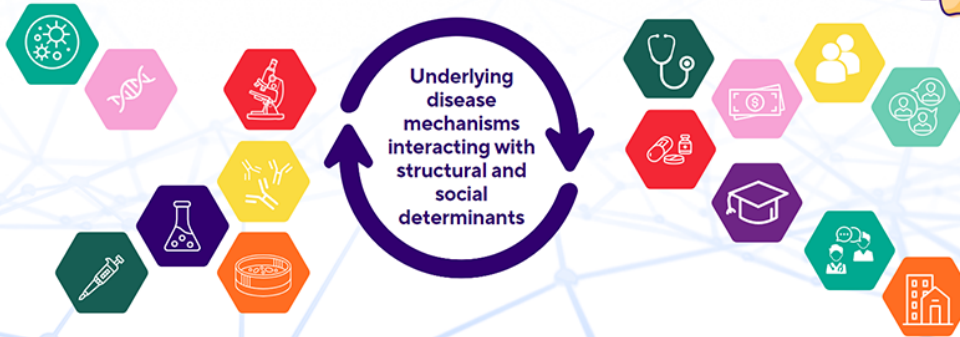




19TH ANNUAL CHILD HEALTH RESEARCH DAYS  
**Outcomes in Child Health**



October 25 + 26, 2023 | RBC Convention Centre, Winnipeg, Manitoba

Abstract Submission Form

## CHRD 2023: Abstract Submission Form

### Submitter Name

Omaymah Abulannaz

### Presenter Name

Omaymah Abulannaz

### Presenter Status

PhD Student

### Research Category

Clinical

### Role in the project

Design  
Perform Experiments  
Analyze Data  
Write Abstract

### Title

Neurodevelopmental outcomes among children exposed to opioids during pregnancy in Manitoba, Canada

### Background

Prescription opioid use has increased among pregnant women. However, there is inconsistent evidence on the long-term neurodevelopmental outcomes of children following opioid exposure during pregnancy.

### Objective

The aim of this study is to examine the association between Prenatal Opioid Exposure (POE) and developmental vulnerability using Early Development Instrument (EDI) data.

### Methods

A cohort of mother-child dyads with children born in Manitoba, Canada between 2005 and 2011 was identified. Exposure group includes mothers who have filled at least two outpatient prescriptions for an opioid at any time during pregnancy. Each child in the exposure group was matched to up to 4 controls based on maternal age, gestational age, sex, kindergarten year, and income quintile. EDI is a questionnaire completed by kindergarten teachers, that encompasses five developmental domains. A logistic regression model was used to assess the association between POE and vulnerability in the EDI.

### Results

Of 67303 eligible children, 4787 were included, of whom 973 were in the exposed group and 3814 were in the control group. 34 % of the exposed group were developmentally vulnerable in 2 or more domains compared with 18 % of the control group (Adjusted Odds Ratio(AOR)= 1.34; 95% CI 1.12-1.60). Children

in the exposed group had a significant higher likelihood of being vulnerable in physical health and well-being domain (AOR= 1.25; 95% CI 1.03-1.51), communication skills and general knowledge (AOR= 1.42; 95% CI 1.16-1.74), language and cognitive development (AOR= 1.45; 95% CI 1.19-1.76) and social competence (AOR= 1.54; 95% CI 1.27-1.87). However, opioid exposure was not significantly associated with vulnerability in emotional maturity domain (AOR= 1.21; 95% CI (0.98-1.49).

### Conclusion

Prenatal opioid exposure was associated with an increased risk of developmental vulnerability in this matched cohort study. This suggests that children with prenatal opioid exposures and their families should be offered early and long-term developmental screening and family-centred supports.

### Table/Figure File

CHRD\_figure.pdf

## Authors

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Figure 2. EDI Vulnerability results: Exposed vs Matched Control group AOR 95%CI

