

## **The Effect of Drinking during Pregnancy on Child Behavioural Health Outcomes and Associated Costs**

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**Introduction** Behavioural problems in children, may be linked to alcohol consumption during pregnancy. The medical costs have not previously been analysed. This study first estimates the causal effect of such consumption on child behavioural health outcomes, and secondly estimates the associated government Medicare services costs.

**Method:** Using data from the nationally representative Longitudinal Study of Australian Children, linked to Medical Benefits Schedule (MBS), the study follows 3,300 infants every two years, up to age 10/11. A statistical method called instrumental variables is used to mitigate potential selection bias from unobservables. Behavioural outcomes are measured from the Strengths and Difficulties Questionnaire. Confounding factors include mental and physical health, maternal health conditions at birth, complications at birth, parental education, income and parenting style.

### **Key Findings:**

One in four women report drinking during pregnancy. Mother's drinking causes a 11.6% increase in the probability of behavioural symptoms. Overall, Medicare services costs are higher among boys, up to a maximum of \$5,593 in a year. Behavioural symptoms are associated with a 44% increase in the costs, compared to those with no symptoms. Children in the families with lowest earnings, use an extra \$218 of Medicare benefits over a 2-year period compared to the highest, indicating socio-economic status as a key factor.

### **Discussions and Conclusions:**

Interventions may be required to help lower the health care costs, among children with behavioral symptoms from mothers who drink during pregnancy, across all income groups.

### **Implications for Practice or Policy:**

The current alcohol guidelines are not adhered to during pregnancy across the population. This study highlights the associated adverse health outcomes and healthcare costs for children as they grow.

### **Disclosure of Interest Statement:**

*No pharmaceutical grants were received in the development of this study. The study was conducted by Professor Gannon and team, within their own research time under UQ employment.*