

# Prenatal and early life maternal substance use prevalence in Australian children

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## Background

- Maternal substance use may harm child health and development through exposure during gestation and impacts on parenting, family functioning, and the home environment during early life.<sup>1-3</sup>
- To plan prevention responses for mothers and children, data on the burden of maternal substance use at the population-level are needed.

## Objective

- Quantify the prevalence of maternal substance use from conception to the child's second birthday (first 1000 days of life), using six linked mother and child data sources.
- Profile the socioeconomic and health profile of children with a record of maternal substance use, compared to those without.

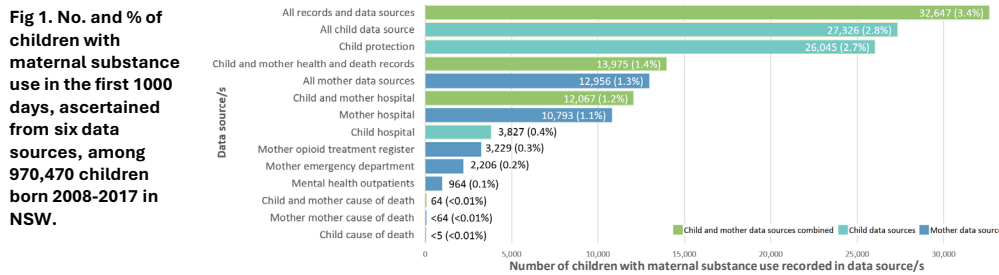
## Methods

- This study used birth registrations and the Perinatal Data Collection (PDC) to identify all children born in NSW 2008-2017. We analysed six population-level administrative data collections including hospital inpatient; opioid treatment register; cause of death; emergency department presentations; publicly funded mental health outpatients, and child protection (CP) data.<sup>a</sup>
- Outcome: Maternal substance use, including substance use related conditions and treatment recorded in ≥1 of the six data sources during the first 1000 days, prenatal period (conception to until 27 days of age), and early-life (28 days to 2 years of age).
- We calculated the number and percent of children with outcomes recorded in: each data source; any data source; any health/death data source (Fig 1); and the 34 most common data source combinations (Fig 2).

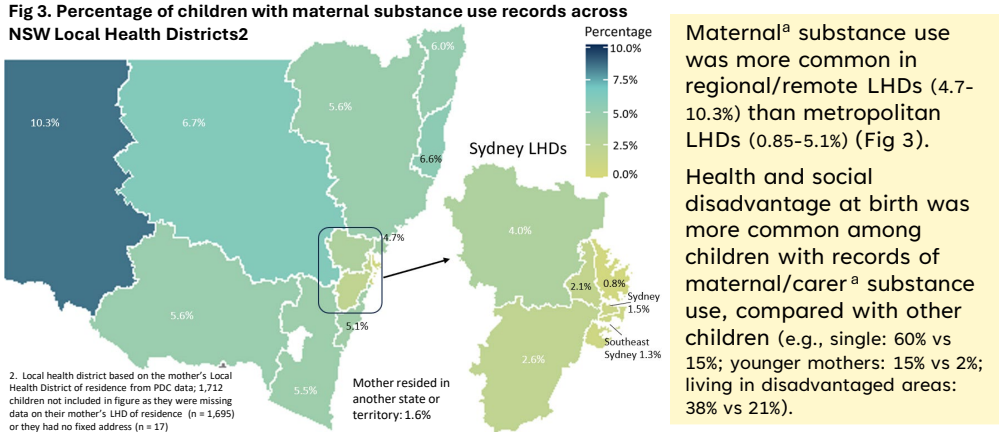
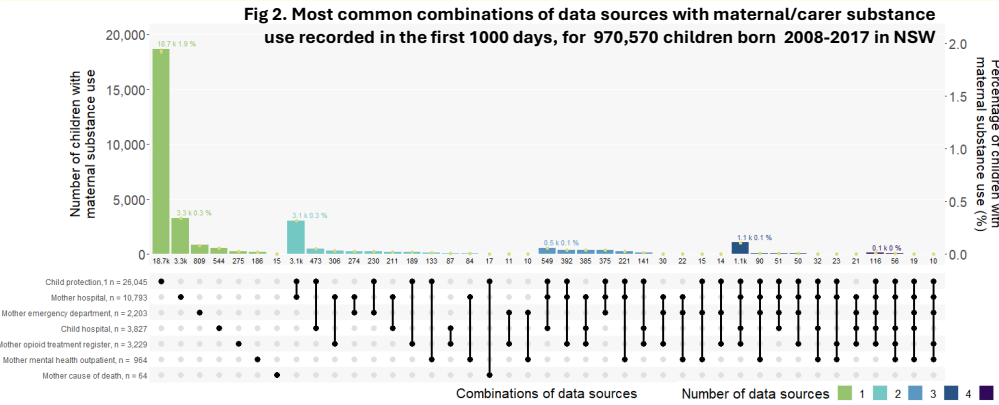
## Results

- More than 3 in 100 children had a maternal/carer<sup>a</sup> substance use record during their first 1000 days of life, in ≥1 data source (Fig 1). Including >1 in 100 children with a record of maternal/carer alcohol use and >2 in 100 other drug use.

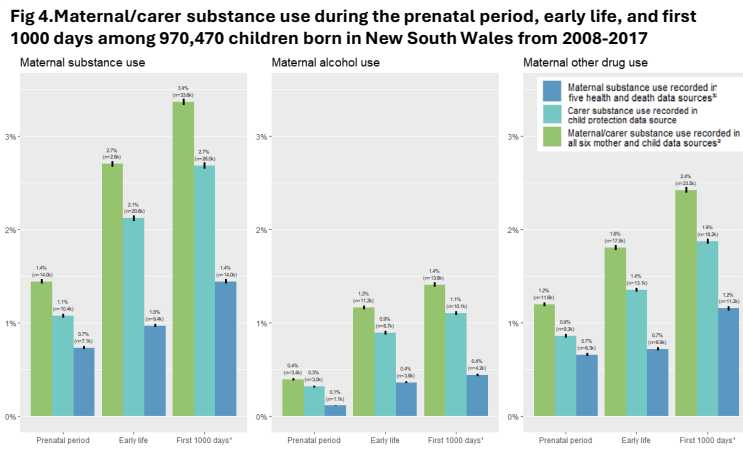
<sup>a</sup> Child reports and assessments of harm related to carer substance use in CP data do not differentiate between maternal and other carer substance use, so the term carer/maternal substance use is used when CP data is used to ascertain an outcome.  
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- 18,672 children had records of maternal/carer<sup>a</sup> substance use from child protection data alone (Fig 2). The next highest numbers of children with maternal substance use were ascertained from mother (3,283), then child hospital records (3,057).



- >1 in 100 children had a record of prenatal substance exposure and almost 3 in 100 children a record during early life (Fig 4).



## Conclusion & Impact

- By combining child protection records with health data more traditionally used for public health surveillance, we built a more comprehensive view of maternal/carer substance use at the population-level to inform prevention responses at the earliest opportunity in child development.
- As substance use was ascertained from tertiary health and child protection records, our estimate (3.4%) likely represents the minimum number of families that may need support for potentially harmful substance use.

## Disclosure/Acknowledgments

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