

Kidsafe WA

Kidsafe WA is the leading independent not-for-profit organisation dedicated to promoting safety and preventing childhood injuries and accidents in Western Australia. Injuries are the leading cause of death among Australian children and young people aged zero to seventeen, and many of these deaths and injuries can be prevented. Kidsafe WA works to educate and inform parents and children on staying safe at home, at play and on the road.

Perth Children's Hospital Injury Surveillance System

Perth Children's Hospital (PCH) is the only paediatric hospital in Western Australia and is the referral centre for paediatric illness and injury within the state. Each year approximately 64,000 children present to the PCH Emergency Department (ED). The PCH ED Injury Surveillance System is designed to capture data related to all children who present with an injury. This bulletin provides a summary of poisoning injuries occurring across the five-year period between July 2019 and June 2024.

Poisoning

A snapshot of poisoning injuries

- Between June 2019 and June 2024, a total of **2,595** children between the age 0 to 15 presented to PCH ED due to a poisoning.
- Children **under 5** years of age accounted for 33.7% (n=876) of poisoning presentations.
- Children aged between **12 and 15** years accounted for 56.1% (n=1,455) of poisoning presentations.
- **Females** between **12 and 15** years accounted for 77.9% (n=1,134) of poisoning presentations in this age group.
- 41.9% (n=1,086) of poisoning presentations were deemed **intentional**.
- Of the known locations, 55.4% (n=211) of poisonings occurred in the **home**.
- 31.8% (n=825) of children presenting with a poisoning injury **required admission to hospital** for further treatment.
- 57.6% (n=849) of unintentional poisonings were associated with a **non-pharmaceutical substance** such as cleaning products and cosmetics.
- 94.3% (n=1,024) of intentional poisonings were associated with a **pharmaceutical substance** such as paracetamol and ibuprofen.



Partner:



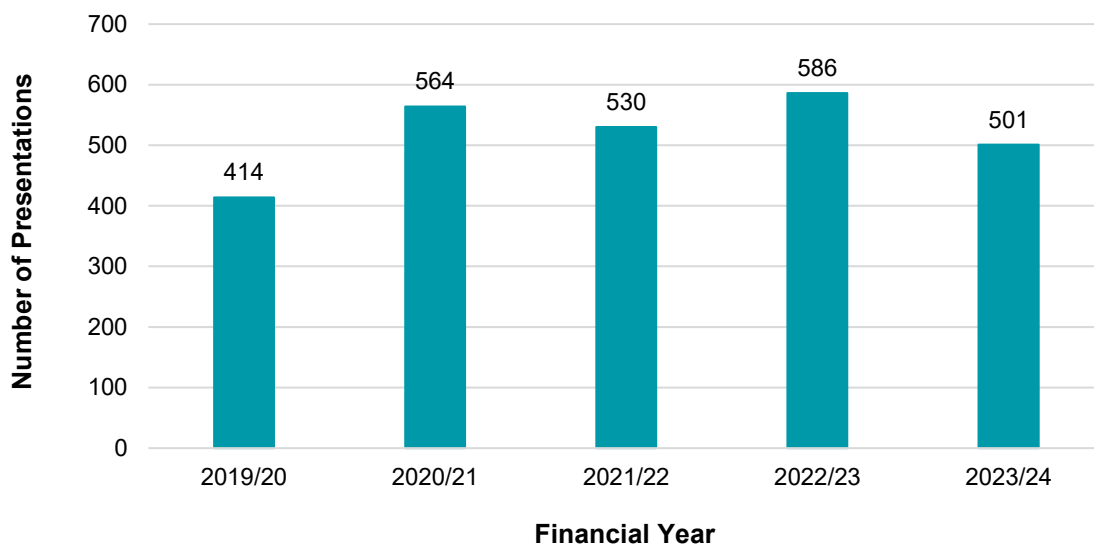
Government of **Western Australia**
Department of **Health**

Introduction

Poisoning remains a leading cause of injury-related hospitalisation amongst children in Australia, with an estimated 10 children admitted each day due to poisoning¹. Children under five years of age are particularly vulnerable as they become more mobile, increasing their risk of accidentally ingesting poisons in and around the home environment¹. Leading causes of poisoning in this age group include pharmaceutical substances such as painkillers, along with household cleaning products². The risk of intentional poisoning increases in older children, particularly adolescents aged 13 to 19, with pharmaceuticals being a common product involved in these hospitalisations^{1,2}.

Between July 2019 and June 2024, 2,595 children aged between 0 and 15 years presented to Perth Children's Hospital Emergency Department with a poisoning injury, accounting for 2.6 percent of all injury-related presentations during the five-year period. The number of poisoning presentations has slightly fluctuated over the five-year period, with the highest number of cases seen in 2022/23 (Figure 1).

Figure 1: Poisoning Injuries by Financial Year

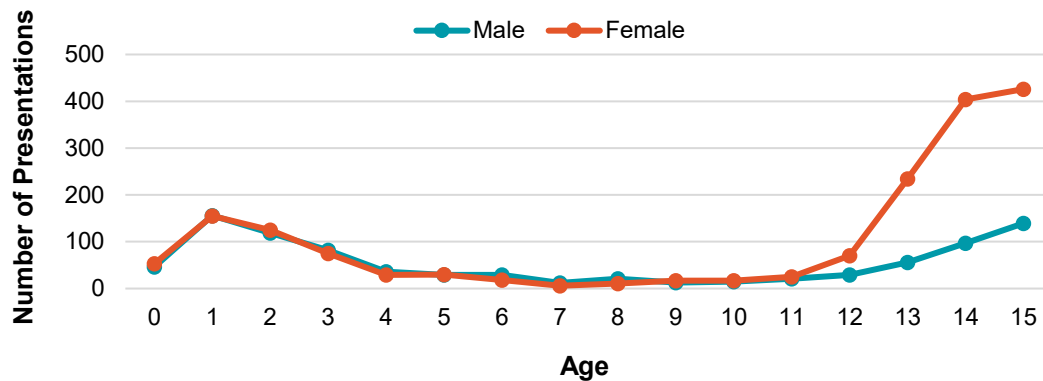


Demographics

Children under 5 years of age accounted for 33.7 percent (n=876) of poisoning presentations to PCH ED. The majority of these cases were deemed unintentional with minimal variation seen between males and females in this age group. The highest number of presentations was seen in children between 12 and 15 years, accounting for 56.1 percent (n=1,455) of cases. In this age group, there was a significant difference between males and females, with females accounting for 77.9 percent (n=1,134) of cases, compared to 22.1 percent for males (n=321) (Figure 2). The nature of poisonings in children between 12 and 15 varies compared to younger children, with 71.9 percent (n=1,046) deemed as intentional poisoning incidents.

Children who identify as Aboriginal and/or Torres Strait Islander accounted for 6.8 percent of all presentations (n=177). While this is a small proportion of all cases, this is a slightly higher representation with Aboriginal and Torres Strait Islander children typically accounting for 4 to 5 percent of injury-related presentation to PCH ED. The majority of children presenting to PCH ED for poisoning resided in the Perth Metropolitan area (92%, n=2,393), with 3.5 percent (n=90) residing in regional locations, and the remaining presentation locations unknown.

Figure 2: Poisoning Injuries by Age and Sex

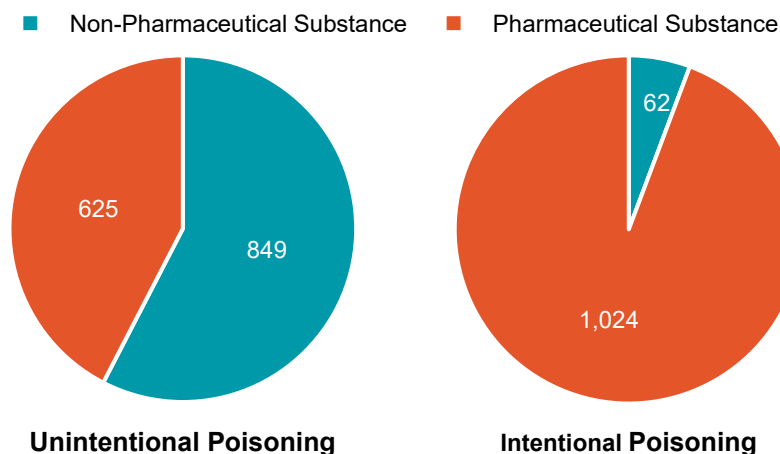


Injury

Across all ages, 56.8 percent (n=1,474) of poisoning presentations were deemed as unintentional. This is significantly lower than the 96.3 percent of unintentional injuries presenting to PCH ED over the same five-year period. The remaining poisoning presentations were deemed as intentional (41.9%, n=1,086) or undetermined (1.3%, n=35). Of all poisoning presentations that were deemed intentional, 99.6 percent (n=1,082) were due to self-harm, with the remaining 0.4 percent (n=4) due to assault.

When looking at the injury factor associated with poisoning presentations, variations are seen between intentional and unintentional cases (Figure 3). For unintentional poisoning cases, 42.4 percent (n=625) were associated with a pharmaceutical substance, with the remaining 57.6 percent (n=849) associated with a non-pharmaceutical substance. For poisoning injuries that were deemed intentional, 94.3 percent (n=1,024) of cases were associated with a pharmaceutical substance. Common pharmaceutical substances associated with poisoning included prescription and over-the-counter medications such as paracetamol, ibuprofen, antihistamines and anti-depressants. Common non-pharmaceutical substances included household cleaning products, cosmetics, gardening products and alcohol.

Figure 3: Poisoning Injuries by Intent and Injury Factor



For the majority of poisoning presentations at PCH ED, the location of the incident was unknown (85.3%, n=2,214). Of the known incident locations, the home accounted for 55.4 percent (n=211) of presentations. Each child who attends PCH ED is allocated a triage category based on the urgency of the required medical attention. Most poisoning presentations were triaged as 3 - Urgent (45.4%, n=1,179) or 2 - Emergency (45.3%, n=1,175). The remaining presentations were triaged as 1 - Resuscitation (2.6%, n=67), 4 - Semi-urgent (6.8%, n=172) or 5 Non-urgent (0.1%, n=2) (Figure 4). Of all poisoning presentations, 31.8 percent (n=825) of children required admission for further treatment, 66.4 percent (n=1,722) were discharged, and 1.8 percent (n=48) were unknown or left at their own risk. The proportion of children admitted for further treatment was higher than the 12.1 percent of admissions seen across all injury-related presentations over the same five-year period.

Prevention

Preventing childhood poisoning injuries requires a range of strategies to address the varying risk factors across different ages and stages of development. Younger children are most at risk of unintentional poisoning due to their natural curiosity and limited awareness of hazardous products, while older children are more vulnerable to intentional poisoning, often related to self-harm. It is important for parent and carers to understand the poisoning risks relevant to their child's age and take the following steps to reduce the risk of injury in their environment:

- Be aware of potential poisons in your home, including medications and cleaning products.
- Store all poisons in their original containers, preferably in a locked cupboard or behind child-resistant locks, at least 1.5m above the ground.
- Avoid storing poisons near food or drinks. If medicines need to be kept in the fridge, place them in a small lockable container.
- Remember that child-resistant does not mean child-proof as many young children can still open these containers.
- Keep handbags out of reach as they may contain medicines or other poisonous items.
- Avoid calling medications 'lollies' and always read the label carefully before giving any medication to a child.
- View the *Kidsafe WA Poisonous Plants Fact Sheet* to identify poisonous plants in your garden.
- Keep the Poisons Information Centre number (13 11 26) visible and easily accessible in an emergency.
- Dispose of any unused or expired medications and other poisons to reduce unnecessary risk.

To reduce the risk of intentional poisoning, parents and carers can focus on improving the mental health and wellbeing of children. This can be addressed through a number of support strategies including prevention, early intervention, treatment and recovery services. For more information on intentional poisoning, contact [Kidsafe WA](https://www.kidsafewa.com.au) to access the *Intentional Poisoning Bulletin*. Due to the nature of this report, it is not publicly available on the Kidsafe WA website.

First aid for poisoning

If you suspect a child has ingested a poison, **do not try to make them vomit**.
Take the child and the poisons container and ring the **Poisons Information Centre** on:

13 11 26

(Australia-wide, 24 hours a day, 7 days a week)

References:

1. Australian Institute of Health and Welfare. (2024). *Injuries in children and adolescents 2021–22*. Retrieved from www.aihw.gov.au/reports/injury/injuries-in-children-and-adolescents-2021-22
2. Arbaeen, A., Moreschi, F., Wheate, N. J., & Cairns, R. (2023). *Hospitalised poisonings in Australian children: a 10-year retrospective study*. *Clinical Toxicology*, 61(3), 153–161. <https://doi.org/10.1080/15563650.2022.2147538>

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For further information please contact Kidsafe WA