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Health service use among young people hospitalised due to family and domestic violence

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Health service use among young people hospitalised due to family and domestic violence

2010–11 to 2020–21

Australian Institute of Health and Welfare
Canberra

Catalogue number FDV 13

The AIHW is a corporate Commonwealth entity producing authoritative and accessible information and statistics to inform and support better policy and service delivery decisions, leading to better health and wellbeing.

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Summary

The *National Plan to End Violence against Women and Children 2022–2032* highlights the importance of recognising children and young people as victim-survivors of violence in their own right and to establish supports and services that will meet their safety and recovery needs (DSS 2022). In light of this, the focus of this report is children and young people who have experienced family and domestic violence (FDV), and their health service interactions (both FDV- and non-FDV-related). This was achieved through the use of longitudinal, linked data from the National Health Data Hub (NHDH). The datasets analysed within the NHDH include emergency department and admitted patient care data, Medicare Benefits Schedule data, and the national death index. Understanding how children and young people who experience FDV interact with the health care system, as well as their outcomes, provides evidence for potential intervention and screening points.

The population studied in this report includes young people who had at least one FDV hospital stay (defined as an assault due to a family member or partner) from 2010–11 to 2020–21, while aged under 18 years (referred to as the FDV group). This report presents information on their demographic characteristics, such as age at first FDV hospital stay, sex and Indigenous status, and the identified relationship to the perpetrator of the assault. It also examines, where relevant, their emergency department presentations, the total number and types of diagnoses associated with all-cause (any diagnosis) hospital stays, use of Medicare-subsidised services, and causes of death.

To assist with the interpretation of the results, where relevant, analyses are presented for either the Australian population aged under 18 years, or a more specific comparison group consisting of individuals with at least one injury-related hospital stay, who did not have any FDV stays, while aged under 18 years over the same period. This comparison group was constructed using stratified random sampling, matching on age, sex, Indigenous status, year of first hospital stay and remoteness area, at a 1:4 ratio (for every one FDV case, there were 4 matching control cases selected).

From 2010–11 to 2020–21, 5,024 young people had at least one FDV-related hospital stay while aged under 18. This equates to one child per day having an FDV-related hospital stay.

Among the 5,024 who had an FDV-related hospital stay:

- just over half (54%) were female and the remainder were male (46%)
- around one-third (33%) were Aboriginal and Torres Strait Islander people
- over one-third (37%) had their first FDV hospital stay before the age of 5.

Males were typically younger than females, at first FDV hospital stay.

Most commonly, the first FDV hospital stay occurred as a baby (before age one) (18% of the FDV group). A further 19% of people in the FDV group had their first FDV hospital stay between the ages of 1 and 5.

Within the FDV group, males were more likely than females to have their first FDV hospital stay as a baby (before age one) (21% of males compared with 14% of females), while females were more likely to have their first FDV hospital stay as a teenager (while aged 13–17) (53% of females compared with 35% of males).

Parents were the most common perpetrator recorded.

Of all FDV hospital stays, 62% were due to a parent perpetrator (see box 5 for definitions) and 25% were due to another family member. Among the FDV group, males (99%) were more likely than females (83%) to have a family member (including a parent) as the perpetrator, while females (21%) were more likely than males (2%) to have a partner perpetrator. This pattern is consistent with age at FDV hospital stay patterns—with males being younger on average (and therefore less likely to be of an age to have a partner).

Pregnancy-related hospital stays were more common among the FDV group.

Two of the top 5 principal diagnoses for all-cause hospital stays among the FDV group were pregnancy-related. It is important to note that these are not necessarily pregnancies that occurred when aged under 18, due to the cohort selection method: for example, if a person experienced an FDV stay in 2010–11 while aged 17, they are included in the study, despite being an adult during the remainder of the measurement period (up to 2020-21).

There were no pregnancy-related diagnoses in the top 5 principal diagnoses for the comparison group.

1 in 18 people in the FDV group had two or more FDV hospital stays from 2010–11 to 2020–21.

Of the FDV group, 5.6% had 2 or more FDV hospital stays in the 11-year period. Of those with repeat FDV hospital stays, most were female (69%).

Young people in the FDV group had more ED presentations than the comparison group.

On average, young people in the FDV group had around 10 (10.5) emergency department (ED) presentations per person while the comparison group had just under 8 per person (7.9).

About one in 2 (52%) people in the FDV group who had multiple FDV hospital stays had 11 or more ED presentations.

The rate of, and age at, death were similar for the FDV group and the comparison groups, however the leading causes of death differed.

Just under 1% of both the FDV group and the comparison group had a death recorded in the measurement period (0.8% and 0.7%, respectively). Around 1 in 4 deaths occurred under age 2 years (24% and 25%, respectively). The leading cause of death among the FDV group was assault (27% of deaths) while the leading cause of death among the comparison group was suicide (19%). Suicide is the leading cause of death among young people nationally (AIHW 2024a).

1 Introduction

Family and domestic violence (FDV) is a major health and welfare issue that can have lifelong impacts for victim-survivors and perpetrators. FDV affects people of all ages and from all backgrounds, but mainly women and children, and often occurs in homes and family settings. For children and young people who experience FDV (either directly or indirectly), the harm caused can be serious and long-lasting, affecting their health, wellbeing, education, and social and emotional development (Boxall et al. 2021; Campo 2015; DSS 2022; Toivonen and Backhouse 2018).

In line with the [National Plan to End Violence against Women and Children 2022–2032](#), which highlights the importance of recognising children as victims in their own right, this report focuses on children and young people who had at least one FDV hospital stay from 2010–11 to 2020–21. For this group, this study examined FDV and other hospital stays, emergency department presentations, Medicare-subsidised health service use and deaths, using longitudinal, linked data from the National Health Data Hub (NHDH). A hospital stay was defined as a continuous episode of hospital care (which can include multiple hospital separations).

To gain a broader understanding of the impacts of FDV, this project also examined the differences between the study cohort (young people who had at least one FDV-related hospital stay) and either the Australian population, or a more specific comparison group of young people who had an injury-related hospital stay as a child, over the same period.

However, it is important to note that not all young people with injuries or conditions due to FDV are able to attend, or are taken by a caregiver to, hospital for treatment, and of those that do, relatively few are admitted from emergency departments to hospitals; 29% of *all-cause* emergency department presentations ended in an admission to hospital (AIHW 2023c). Of those that are admitted to hospital, not all are able to disclose the cause of the injury or condition, or the perpetrator's relationship to them. As a result, hospital admission data underestimates the true number of FDV-related injuries and conditions among young people.

Defining family and domestic violence

The term family and domestic violence is used in this study to describe violence that occurs in two types of relationships – partner relationships and family relationships. FDV may be physical, sexual or psychological in nature, and have lasting physical and mental impacts on the individual (Loxton et al. 2017). FDV typically occurs where a person exercises power and control over another person. It may be perpetrated by a parent, partner, sibling, or other person considered family, including extended family and kinship relationships, carers, foster carers and co-residents.

Definitions of FDV can vary across contexts (see <https://www.aihw.gov.au/family-domestic-and-sexual-violence/understanding-fdsv/what-is-fdsv>). In this report, the definitions of FDV are based on the AIHW's National Health Data Hub (NHDH) data. FDV is identified by looking at specific instances of assault and maltreatment (Box 1).

Box 1: Defining FDV in the NHDH

The NHDH contains longitudinal, de-identified, nationally linked data. For this report, the following datasets of the NHDH were analysed: admitted patient care services (public hospitals), emergency department (ED) services, Medicare Benefits Schedule data, and National Death Index data. Other data that are in the NHDH that were out-of-scope for this report are outpatient services in public hospitals, for participating states and territories, Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme data, and Residential Aged Care data

FDV in the NHDH

FDV cases in this study are identified from the admitted patient care data where there is at least one hospital stay with an external cause of morbidity coded as assault or maltreatment (X85–Y09), where the perpetrator (5th character code) is specified as:

- spouse or domestic partner (0) (including ex-partner and ex-spouse).
- parent (1) (including adoptive cohabiting/non-cohabiting), natural and step parents and a parents cohabiting partner, and excluding foster parents, and parents non-cohabiting partner).
- other family member (2) (including siblings, cousins, grandchildren, grandparents, nieces and nephews, sons and daughters, uncles, aunts).

Family and domestic violence includes sexual assault where the perpetrator is a spouse/domestic partner, parent or other family member.

The focus of this report is on young people, and data are included for both males and females. It is well recognised that in Australia, FDV adult victim-survivors are mainly women, however the presentation of data for both males and females among those aged under 18 at first FDV stay is particularly important. This is because 46% of young people with a hospital stay related to FDV were male. This is a higher proportion than is seen among other age groups with FDV-related hospital stays (AIHW 2021). For more information on how sex is defined in the NHDH see Appendix A – Data linkage – Sex.

How common is family and domestic violence among young people?

Currently, data on the prevalence of FDV among young people are limited. The main data source of information about childhood abuse is the Australian Bureau of Statistics (ABS) Personal Safety Survey (PSS) (Box 2).

Box 2: ABS PSS

The ABS PSS collects information from people aged 18 years and over about their experiences of violence and abuse. Data from the PSS are available to report on experiences of childhood abuse that occurred before the age of 15.

In the PSS, abuse before the age of 15 is used to describe physical and/or sexual abuse:

- **Physical abuse** is any deliberate injury (including bruises) inflicted upon a child (under the age of 15 years) by an adult. Physical abuse excludes discipline that accidentally resulted in injury, emotional abuse, and physical abuse perpetrated by someone under the age of 18.
- **Sexual abuse** refers to any act by an adult involving a child (under the age of 15 years) in sexual activity beyond their understanding or contrary to currently accepted community standards. Sexual abuse excludes emotional abuse and sexual abuse perpetrated by someone under the age of 18.

The PSS also collects information from people about whether they witnessed violence before the age of 15. Witnessing violence involves seeing or hearing violence being directed at one parent by a partner. Data about people witnessing violence is not included in the childhood abuse totals published by ABS and listed below (ABS 2023a).

Based on the 2021–22 ABS PSS, before the age of 15:

- 1 in 7 (14% or 2.7 million) people experienced abuse by an adult
- 1 in 10 (10%) people experienced abuse by a family member (ABS 2023a).

Among women, before age 15:

- 1 in 6 (18% or 1.7 million) experienced any form of abuse
- 1 in 9 (11%) experienced sexual abuse
- 1 in 10 (10%) experienced physical abuse.

Among men, before age 15:

- 1 in 9 (11% or 1 million) experienced any form of abuse
- 1 in 28 (3.6%) experienced sexual abuse
- 1 in 12 (8.3%) experienced physical abuse (ABS 2023a).

Among people who experienced childhood physical abuse, a family member perpetrated the first incident for 89% of women and 87% of men. Fathers and stepfathers were more commonly identified as the perpetrator for the first incident than mothers (ABS 2023a).

Similarly, among people who experienced childhood sexual abuse, a family member perpetrated the first incident for 47% of women and 32% of men. For women, the most commonly identified perpetrator was a non-immediate adult male relative, while for men, 2021–22 data are not sufficiently statistically reliable to report at that level of detail (ABS 2023a).

Data from the ABS PSS are also available to report on indirect forms of FDV, such as exposure to violence directed at people around them.

Based on the 2021–22 ABS PSS, witnessing violence before the age of 15 occurred for:

- 1 in 4 (13% or 2.6 million) people
- 1 in 6 (16% or 1.6 million) women
- 1 in 9 (11% or 1.0 million) men (ABS 2023a).

Another source of information on the experiences of maltreatment as a child is the Australian Child Maltreatment study (ACMS) (Box 3).

Box 3: The ACMS

The ACMS was a cross-sectional survey of just over 8,500 participants aged 16 years and over conducted between 9 April and 11 October 2021. People were eligible for participation if they were aged 16 years or more, in an age group for which participants were required when contacted and had sufficient English language proficiency for participation. The final response rate was 4.0% when based on the estimated number of eligible participants (about 210,370 people) and 14% when based on eligible participants contacted (about 60,800 people) (Haslam et al. 2023).

The ACMS defines a child as a person aged under 18 years (Haslam et al. 2023). The ACMS measured five types of child maltreatment with the following definitions:

Physical abuse – experiences of physical force used by an adult against a child that result, or have a high likelihood of resulting, in injury, pain, or a breach of dignity.

Sexual abuse – any contact and non-contact sexual act, or attempted act, inflicted on a child by a person where the child either lacks capacity to give consent, or has capacity but does not give full, free, and voluntary consent. Sexual harassment was excluded from estimates of sexual abuse.

Emotional abuse – non-physical interactions between a child and parent or caregiver that make the child feel worthless, flawed, unloved, unwanted, endangered or only of value in meeting another's needs. Emotional abuse was considered to have occurred if such experiences occurred over a period of weeks.

Neglect – involves the failure by a parent or caregiver to provide a child with the basic necessities of life. Neglect was considered to have occurred if such experiences occurred over a period of weeks. Neglect has several dimensions: medical, educational, supervisory, physical, nutritional, and environmental.

Exposure to domestic violence – occurs when a child sees or hears one parent/caregiver behave in certain ways towards their partner including: physical acts of violence; serious threats of harm; intimidating, controlling and isolating behaviours; and damage to property and pets during an argument (Mathews et al. 2023).

The 2021 ACMS indicated for the just over 8,500 people aged 16 years and over who responded to the survey, that:

- 3 in 10 (29%) had experienced sexual abuse from any person (37% of females and 19% of males) – about 1 in 12 (8.7%) people experienced forced sex (rape) in childhood
- 3 in 10 (31%) had experienced emotional abuse from a parent/caregiver (36% of females and 25% of males), with 80% reporting the abuse occurred over years
- 1 in 11 (8.9%) had experienced neglect from a parent/caregiver (11% of females and 7% of males), with 75% reporting the neglect occurred over years

- 2 in 5 (40%) had experienced exposure to domestic violence between a parent/caregiver and their partner (41% of females and 39% of males), with 32% reporting more than 50 incidents.

The child protection system

Child protection refers to preventing and responding to violence, exploitation, abuse, neglect, and harmful practices against children (UNICEF 2021). In Australia, relevant state and territory departments responsible for child protection support children who have been, or are at risk of being, abused, neglected or otherwise harmed, or whose parents are unable to provide adequate care or protection.

In 2021–22 in Australia, around 1 in 32 (178,000) children aged under 18 came into contact with the child protection system. Contact includes investigations (which may or may not lead to substantiated child maltreatment), care and protection order and/or out-of-home care placements. Of those with substantiated abuse or neglect, 51% were female, and 47% were male (the remainder were listed as sex not stated) (AIHW 2024a).

What are the impacts of family and domestic violence?

For children, experiences of FDV can be direct or indirect. Direct experiences include violence aimed at children while indirect experiences include witnessing or hearing family violence or being exposed to an atmosphere of control and fear (AIHW 2024b). Children exposed to FDV can also experience impaired parenting and are at increased risk of other stressors such as maltreatment or neglect (Kaspiew et al. 2017; Murphy 2010).

The consequences of maltreatment during childhood (FDV or other) are well known. Consequences include mental health disorders (Gardner et al. 2019), poor physical health (Norman et al. 2012), impaired neurocognitive function (Teicher and Samson 2016), compromised educational achievement (Fry et al. 2018), substance abuse (Kisely et al. 2020), and use of violence, self-harm and suicidality (Hughes et al. 2017).

Data from the 2021–22 ABS PSS show that 1.2 million people (43%) who experienced childhood abuse before the age of 15 also experienced violence or abuse by a partner as an adult (ABS 2023a).

FDV exposure may be associated with increased health services use. A population-based study in Western Australia found that children exposed to FDV had a 49% increased likelihood of having contact with mental health services than non-exposed children (Orr et al. 2022b). By age 18, these children had a 79% chance of having a mental health service contact, whereas children not exposed to FDV had a 16% chance. These children also had a higher likelihood of having a diagnosis in 8 of the 10 mental health subcategories used in the study. Other research shows that children whose mothers experience intimate partner violence have increased health service use for asthma and sleep problems (Gartland et al. 2021).

Hospital admissions may also be higher for children exposed to FDV. Children exposed to FDV between the prenatal period and age 5 in Western Australia were more likely to be hospitalised during their childhood than children who had not been exposed. In particular, children exposed during the prenatal period were 3 times as likely to be hospitalised for mental and behavioural disorders and for reasons related to their own subsequent pregnancy (Orr et al. 2020). A similar study found that children exposed to FDV had an increased risk of

childhood epilepsy and longer hospital stays for epilepsy-related admissions than those who were not exposed to FDV (Orr et al. 2022a).

Domestic homicides

Some incidents of FDV involving children and young people are fatal. The Australian Institute of Criminology (AIC) National Homicide Monitoring Program identified 274 victims aged under 18 who were killed by a parent or parent-equivalent between 2000–01 and 2011–12. In contrast to domestic homicide of people in Australia of any age, among those aged under 18, there were more male (56%) than female (44%) victims. A history of domestic violence between the offender and their intimate partner was a characteristic of almost 1 in 3 (30%) incidents where children were the victims of homicide by a parent (Brown et al. 2019).

Homicides of children and young people committed by other family members are less common, with 13 victims of intimate partner offenders, 6 victims of sibling offenders and 10 victims of other family member offenders between 2002–03 and 2011–12 (Cussen and Bryant 2015).

Health services are important intervention points

As health service usage is higher among victims of FDV, they are an important intervention point for responding to FDV (Hegarty et al. 2022). FDV tends to be ongoing over a long time-period and can escalate over time (Boxall and Lawler 2021), with intimate partner homicides often preceded by healthcare service contacts involving either the victim and/or perpetrator (Murphy et al. 2016). However, opportunities to identify and support victim-survivors of family violence can be missed. Through analysis of patient case notes, Ghafournia and Healey (2022) found that 17% of sexual assault and domestic violence cases presenting to the emergency department at a regional Australian hospital in 2018 had not been referred to a support service. However, this may be an underestimate as health professionals may not always record when a referral was offered if the patient refuses it.

What are the barriers to accessing help for FDV?

Children and young people may experience many barriers to accessing help that are shared with the general population including the fear of not being believed, restrictive cultural norms and previous negative experiences with the police and legal systems (AIFS 2015; Coumarelos et al. 2023; RCIRCSA 2017).

Barriers that are specific to children and young people, or may have a larger effect among them, include:

- fear of withdrawal of support by their caregiver
- perceived or actual reliance on the perpetrator of violence (for example, when abuse is perpetrated by a parent)
- a lack of understanding or recognition of the abuse or its seriousness
- being unable to express or communicate the abuse
- a lack of appropriate institutional (for example, schools) or child and young people-specific supports (AIFS 2015; Alaggia et al. 2019; Humphreys and Healey 2017; RCIRCSA 2017).

Children and young people may also be more affected by some systemic barriers relating to the characteristics of the health system, health services and service providers. Systemic barriers for young people aged 15 to 25 years include fears about confidentiality, perceived

stigma, negative attitudes towards health care workers, waiting times and costs to access services (Anderson and Lowen 2010). When seeking assistance from hospitals for FDV, the physical environment, location and organisational factors may also make it difficult for children to access healthcare independently. Children and young people may be accompanied by family members when accessing health services, which can make it harder to disclose abuse, particularly if the perpetrator is a family member. While there are challenges associated with a child disclosing FDV, there are designated types of known or suspected child maltreatment that are subject to mandatory reporting to state or territory child protection services (AIFS 2023). Hospital guidelines include recommendations around the types of injuries that are likely to be non-accidental and require further investigation for suspected abuse (RCH 2021).

This report

To better understand health service use among young people experiencing FDV, this project uses longitudinal, linked hospital, ED, Medicare Benefits Schedule and death data to examine the interactions for young people in Australia who had an FDV hospital stay while aged under 18, from 2010–11 to 2020–21. It is important to note that this study design means some analysis will relate to people when they are adults. For example, if a person experienced an FDV stay in 2010–11 while aged 17, they are included in the study, despite being an adult during the remainder of the measurement period (up to 2020–21). It is for this reason that the term young people is used in this report when referring to overall data patterns. When the report discusses analysis of age at first hospital stay, the term children is used, as it is a requirement of the study that young people were aged under 18 at first FDV hospital stay.

This report uses the term ‘hospital stay’ which refers to a continuous period of acute care hospitalisation and may be made up of one or more acute care ‘hospital separations’ (that is, a completed hospital admission episode) (see Figure 8 for more information).

This report looks at demographic characteristics of the cohort, such as age at first FDV hospital stay, sex, Indigenous status and:

- the total number of FDV hospital stays,
- types of diagnoses associated with FDV, and all-cause hospital stays
- types of injuries associated with FDV hospital stays
- relationship of perpetrator to young person hospitalised (perpetrator type)
- the total number of assaults (including those that have no perpetrator specified).

In addition, to gain a broader understanding of the impacts of FDV, this project also examines the differences between those who have had at least one FDV hospital stay and those who had at least one hospital stay due to injury that was not FDV-related (using an age, sex, year, Indigenous status and remoteness area matched comparison group). Specifically, for these 2 groups this project examines whether there are differences in:

- patterns of hospital stays (number of stays, principal diagnoses, number of assaults, types of injuries)
- number of ED presentations
- diagnoses associated with ED presentations
- GP attendances (overall, and after an injury)
- medical imaging scans

- number and causes of deaths.

Although FDV hospital data will relate to more severe (and mostly physical) experiences of FDV, it is the only national health service data that supports analysis of nationally consistent coded information on FDV assault. When these data are linked, information at the person level (de-identified) can be determined and reported, in addition to the commonly presented data on episodes of hospital care (for example, see AIHW 2024).

Additionally, given the serious nature of conditions that generally require a hospital stay, it is an important intervention point. Although intervention would best be served in the community prior to a person requiring hospital treatment and care, those who do have an FDV hospital stay can be at risk of further serious injury and death, as FDV can escalate over time (Boxall and Morgan 2020).

To assess the use of health services for First Nations children, the Indigenous status from the NHDH demographic file has been used as the source for the linked data in this report. Linking the Voluntary Indigenous Identifier file to the linked data sets in the NHDH in the future may allow for a better capture of First Nations children hospital stays, emergency department presentations admission and total Medicare use.

Strengths and limitations

This report enhances the evidence base and understanding of FDV in Australia for children and young people, and has specific relevance to providing evidence aligned with the *National Plan to End Violence against Women and Children 2022–2032* Outcome 5: Children and young people are safe in all settings and are effectively supported by systems and services.

This project also has broader benefits, that include:

- enhancing the understanding of how linked data can be used to examine both service use, and outcomes for people experiencing severe cases of FDV
- demonstrating the value of improving existing national health service data (for example, ED data, which does not contain the information on external causes of injury that is required for the identification of FDV)
- improving the understanding of the risk and causes of death associated with hospitalised instances of FDV
- contributing to understanding and methods for analysing linked data sets more broadly
- understanding the patterns of health service use for children and young people who have experienced FDV.

Some limitations of the analyses, which are described in further detail in Appendix A include:

- Hospital data for Western Australian and the Northern Territory are not included in the NHDH.
- The FDV group is identified from a hospitalised cohort and is not representative of all people who have experienced FDV assault.
- Emergency department data do not contain external cause information, which is required to identify FDV for ED presentations.

2 Hospital stays

Hospitals are an important site of potential detection, treatment and intervention for FDV. Hospital care is typically only required for more severe injuries, with a certain level of care and treatment required for admission to occur, typically following presentation at an emergency department. Once admitted, a person's injury or condition, as well as the perpetrator's relationship to the victim (if disclosed), is recorded in the hospital record. This information can be used to understand the number of young people who have hospital stays related to FDV, as well as their broader hospital interactions. However, not all young people with injuries or conditions due to FDV receive hospital treatment, and not all who receive treatment are able to disclose the cause or the perpetrator's relationship to them. As a result, hospital data underestimates the true number of serious FDV-related injuries and conditions among young people.

This section provides insight into FDV hospital stays by comparing young people with at least one FDV hospital stay between 2010–11 and 2020–21 (the FDV group), and a group of people with at least one injury hospital stay not known to be related to FDV, matched on age at first hospital stay, sex, Indigenous status, year of first hospital stay and remoteness area (the comparison group).

Key findings

From 2010–11 to 2020–21, 5,024 children had at least one FDV hospital stay. Among this group:

- the most common age at first FDV hospital stay was under 1 year (18%)
- males accounted for the majority of people whose first FDV hospital stay occurred before age 12 years (54%), while females accounted for the majority aged 12 years and over at first hospital stay (64%)
- First Nations young people were disproportionately represented among young people who had at least one FDV hospital stay (33% of those in the FDV group).

How many children had an FDV hospital stay?

From 2010–11 to 2020–21, 5,024 children had at least one hospital stay due to FDV (the FDV group). Among this group there were more females (54% or 2,727) than males (46% or 2,297) (Table S1). This aligns with Australian child protection data, which shows that 51% of children with a substantiated notification in 2021-22 were female, and 47% were male (the remainder were listed as sex not stated) (AIHW 2024a).

Of this group of young people, 1 in 18 had more than one FDV hospital stay from 2010–11 to 2020–21 (5.6% or 281 children). Having multiple FDV hospital stays was more likely among females than males, with 7% of females experiencing multiple FDV hospital stays compared with 4% of males (Table S2).

Children most commonly experienced their first FDV hospital stay as a baby

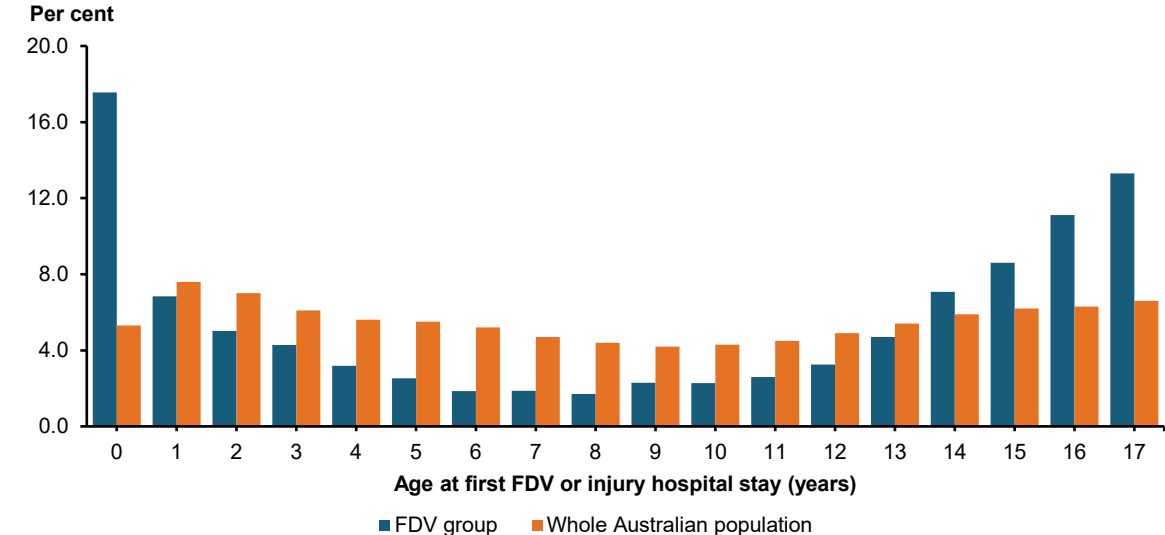
Around 1 in 6 (18% or 882) young people in the FDV group were babies (less than 1 year of age), and over 1 in 3 (37% or 1,852) were under age 5 (including those aged less than 1), when they had their first FDV hospital stay (Table S3). This highlights that the early years are an important time for intervention and support among those at risk of FDV. It is important to

note that some young people in the study cohort may have had their first FDV hospital stay prior to the beginning of the measurement period, and therefore the number of the FDV group who had their first ever FDV hospital stay as a baby is likely to be higher.

Few of the FDV group had their first FDV hospital stay during the primary school age years (5–12) (ranging between 1.7%–3.3% of the FDV group). After age 12, the percentage increased with age, from 5% of the FDV group having their first FDV hospital stay at age 13, to 13% at age 17 (Table S3, Figure 1).

This contrasts with the injury hospital stay pattern among the general Australian population aged under 18 years. Among young people in the Australian population with at least one injury hospital stay over the same period, 5.3% had their first injury hospital stay when they were babies, and from age 1 to 17, the proportion that had their first injury hospital stay at each age remained relatively consistent (ranging between 4.2% and 7.6%) (Table S4, Figure 1).

Figure 1: People who had at least one FDV hospital stay and the Australian population with at least one injury stay, by age at first FDV/injury hospital stay, 2010–11 to 2020–21 (%)



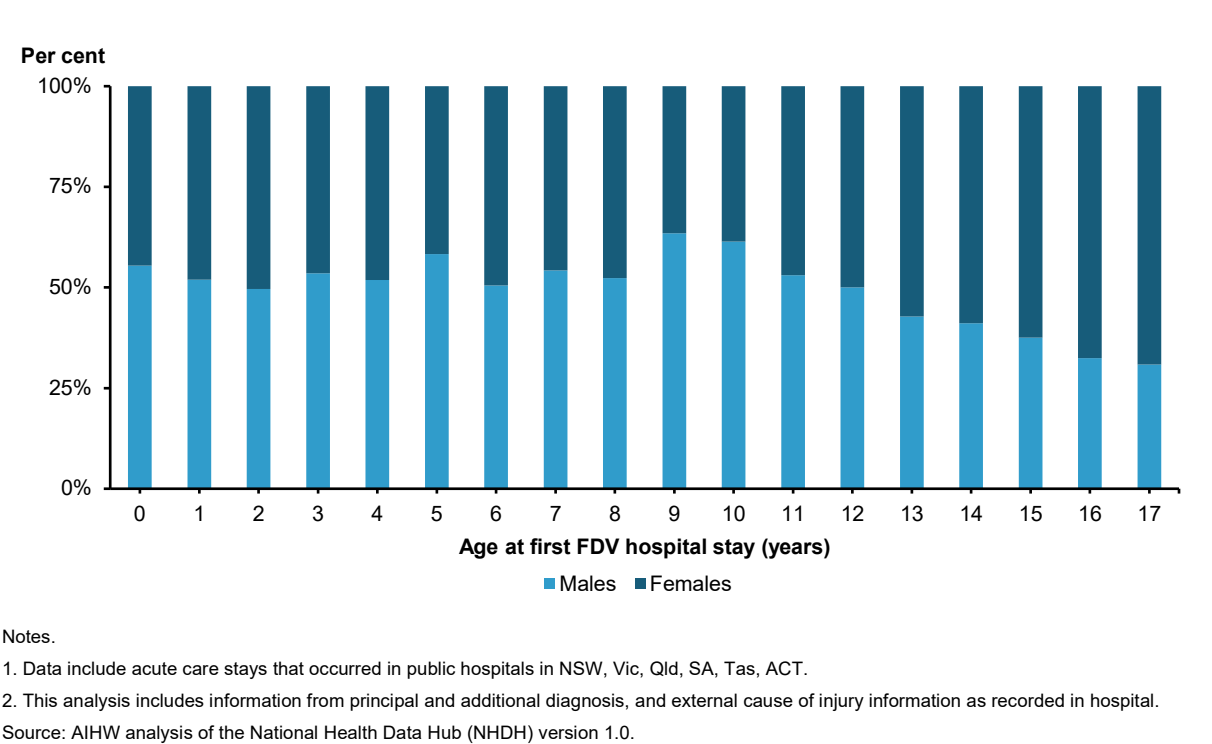
Notes
 1. Data include acute care stays that occurred in public hospitals in NSW, Vic, Qld, SA, Tas, ACT.
 2. This analysis includes information from principal and additional diagnosis, and external cause of injury information as recorded in hospital.
 3. First FDV hospital stay refers to the first stay detected within the measurement period (2010–11 to 2020–21) which may not be the first ever FDV hospital stay (which may have occurred before the period). As some people in the FDV group may have had FDV hospital stays at younger ages prior to the measurement period, the proportion that had their first FDV hospital stay at younger ages may be understated.
 Source: AIHW analysis of the National Health Data Hub (NHDH) version 1.0.

About half of children who had their first FDV hospital stay before age 12 were male (54%). From age 13 onwards, the proportion that were female steadily increased.

Males were more likely than females to have their first FDV hospital stay in their early years; 1 in 5 (21%) males had an initial FDV hospital stay as a baby, compared with 1 in 7 (14%) females. Conversely, females were more likely than males to have their first FDV hospital stay at age 17 (17% compared to 9.0%). Over half (53%) of females had their first FDV hospital stay as a teenager, compared with around one-third (35%) of males.

As a result of this difference, males accounted for the majority of young people who had their first FDV hospital stay as a child (before age 12) (54%). However, from the ages of 13 to 17, the proportion that were female steadily increased; ranging from 57% of those aged 13 at first FDV hospital stay, to 69% of those aged 17 (Table S5, Figure 2). This highlights that there are key differences between males' and females' experiences of FDV.

Figure 2: Proportion of people who had at least one FDV hospital stay that were female or male, by age at first FDV hospital stay, 2010–11 to 2020–21



Who were the most common perpetrators responsible for FDV hospital stays?

Parents were the most common perpetrator recorded in FDV hospital stays (62% of FDV hospital stays). One in four (25%) FDV hospital stays had 'Other family member' recorded as the perpetrator and just over 1 in 8 (13%) had a partner recorded as a perpetrator (Table S32).

Females were more likely than males to have a partner perpetrator (21% of females compared with 2.0% of males). However, males were more likely than females to have a family member as a perpetrator; 69% of males had a parent perpetrator and 30% had an other family member, while 59% of females had a parent perpetrator and 23% had an other family member (Table S33).

These data are consistent with perpetrator types by age – noting that males were more likely to be younger at first FDV hospital stay than females.

Of assault hospital stays among the FDV group that were not defined as FDV (344), the most common perpetrator type recorded was 'Unspecified' (71%), followed by 'Unknown/Multiple Unknown' (21%) (Table S34). Some of these assaults may be undetected FDV assaults.

FDV hospital stays over time

From 2010–11 to 2020–21, the number of young people who had their ‘first’ FDV hospital stay increased (up 51% or 182 people, from 355 people having their first stay in 2010–11 to 537 in 2020–21) (Tables S9, S10). The Australian population aged 0–18 increased by 11% over the same period (ABS 2018, 2023). As would be expected, having multiple FDV hospital stays was a factor of time; those with longer follow-up periods had more FDV stays recorded (8.2% of people with an initial stay in 2010–11 compared with 2.6% for those with initial stays in 2020–21, had multiple stays recorded) (Table S11). These findings are consistent with those reported previously for all ages (AIHW 2021).

The increase in FDV hospital stays over time may be due to an increase in the prevalence of these types of violence, improvements in reporting or a combination of the two. A potential explanation for the increases in FDV hospital stays over time is that there has been an increase in trauma-informed care (including FDV screening) and a reduction in stigma associated with seeking assistance for, and disclosing, FDV. It also may be in part due to an increased focus nationally on FDV, with government, non-government and community organisations raising awareness of FDV (DSS 2022).

All-cause hospital stays over time

Young people in the FDV group had an average of 4.7 hospital stays per person from 2010–11 to 2020–21, which is 1.2 times higher than the comparison group (3.7 hospital stays per person). This difference appears to be driven by a proportionally greater increase in number of stays over time for the FDV group.

Among the FDV group, the number of all-cause hospital stays (FDV and any other type of hospital stay) more than doubled over the period (up 152%, from 1,110 all-cause stays in 2010–11 to 2,800 in 2020–21) (Table S10). The increase in all-cause hospital stays among the comparison group was proportionally less (up 91%, from 4,571 to 8,716) (Table S12). The increase in the number of stays (for both groups) is more than the increase in the number of people entering the study over the period. It is important to note that due to the selection method, the comparison group was matched to the FDV group on year of entry, and by the end of the study period, both groups had increased by 51%. The greater increase among the FDV group may show that people who have at least one FDV hospital stay have more ongoing health conditions (which may or may not be related to FDV) than the comparison group. It is important to note that the all-cause stays in this analysis may have become either before or after the index stay (the index stay for the FDV group is their first FDV-related hospital stay, and the index stay for the comparison group is their first injury related hospital stay).

What are the main reasons for an FDV hospital stay?

Of the 5,389 FDV hospital stays:

- the majority (94%, or 5,064) involved treatment for at least one injury (either as a principal or an additional diagnosis)
- about 4 in 5 (79%, or 4,256) had an injury as the principal diagnosis (at the International Classification of Diseases (ICD) chapter level, *Injury, poisoning and certain other consequences of external causes*) (Tables S13, S14).

The principal diagnosis is usually the most serious condition requiring treatment and is considered the main reason for a patient to be in hospital care.

Additional diagnoses are any other conditions or complaints that are treated in hospital and either co-exist with a principal diagnosis or arise during the hospital stay.

Three of the top 4 most common principal diagnoses (at the 3-digit level) for FDV hospital stays involved the head: *Superficial injury of head* (12%), *Maltreatment syndromes* (such as neglect or abandonment, physical, sexual or psychological abuse) (12%), *Other and unspecified injuries of head* (7.6%), and *Intracranial injury* (6.2%) (Table S15).

Of FDV hospital stays, the most common first injury recorded was *Injuries to head* (43%) followed by *Other and unspecified effects of external causes* (19%) and injuries to the abdomen (6.9%) (Table S16).

The occurrence of injuries to the head was similar for males and females (44% and 42% of stays, respectively), while injuries to the abdomen were more common among females than males (8.0% compared with 5.6%) (Table S16).

Of hospital stays with at least one injury recorded, 47% had multiple injuries recorded (Table S14).

This is consistent with data relating to FDV hospital stays for people of all ages, which show that head injuries are the most common injury and that many people hospitalised for FDV have multiple injuries treated within a single hospital stay (AIHW 2021).

What are the most common other types of hospital stay?

The FDV group had more hospital stays related to pregnancy, than the comparison group despite being matched on age and sex. Two of the top 5 principal diagnoses among the FDV group were pregnancy-related while there were no pregnancy-related diagnoses in the top 5 among the comparison group. Single spontaneous delivery accounted for 3.7% of hospital stays for the FDV group, which is more than double the comparison group (1.4% of stays) (Tables S20, S21). The age of the FDV cohort in this study (children and young people) highlights the importance of screening and intervention services for young pregnant women.

The top 3 principal diagnoses (that were not FDV-related) among the FDV group were *Care involving dialysis* (approximately 7% of stays), *Type 1 diabetes* (4%), and *Single spontaneous delivery* (4%) (Tables S20, S21). It is important to consider that dialysis is the most common reason for hospitalisation in Australia and most people undergoing dialysis attend 3 sessions per week. As each dialysis treatment is counted as a separate hospitalisation, one person alone can contribute about 150 hospitalisations per year (AIHW 2023a).

Hospitalisations for diabetes are considered potentially preventable, which means they could be prevented through appropriate management in primary health care. The relatively high rate of hospital stays among the FDV group for Type 1 diabetes means there may be opportunities to improve access to services, and enhance support for young people experiencing FDV who have this condition.

In contrast, the top 3 principal diagnoses among the comparison group were *Fracture of forearm* (3%), *Other medical care* (2.7%) and *Care involving dialysis* (2.2%) (Tables S20, S21).

Table 1: Top 5 principal diagnoses for non-FDV hospital stays among the FDV and comparison groups, from 2010–11 to 2021–22

FDV group			Comparison group		
Principal diagnosis	Number	%	Principal diagnosis	Number	%
Care involving dialysis	<1500	<7.0	Fracture of forearm	2,393	3.3
Type 1 diabetes mellitus	686	3.8	Other medical care (Z51)	1,955	2.7
Single spontaneous delivery	667	3.7	Care involving dialysis	1,582	2.2
Abdominal and pelvic pain	558	3.1	Other and unspecified injuries of head	1,558	2.1
Other maternal diseases classifiable elsewhere in pregnancy, childbirth, and the puerperium	436	2.4	Abdominal and pelvic pain	1,557	2.1
Total diagnoses recorded	18,195	—	Total diagnoses recorded	73,569	—
Total non-FDV hospital stays	18,199	—	Total hospital stays	73,595	—

Notes

1. Data do not include any FDV stays for the FDV group.
 2. The counts for dialysis have been suppressed due to NHDH requirements.
- Source: Tables S20 and S21.

Pregnancy-related hospital stays

The FDV group was almost twice as likely as the comparison group to have a pregnancy-related hospital stay from 2010–11 to 2020–21 (11% and 5.8%, of hospital stays, respectively). The most common reasons for pregnancy-related hospital stays for both groups were *Single spontaneous delivery* (26% and 24%), *Other maternal diseases classifiable elsewhere in pregnancy, childbirth and the puerperium* (17% and 15%) and *Single delivery by caesarean section* (8.1% and 10%) (Tables S22, S23).

Fractures recorded in hospital stays

Fractures were more common among the comparison group than the FDV group, however, there was variation in the location of fractures between these groups.

Around 1 in 20 (5.3%) of all cause hospital stays for the FDV group had recorded at least one fracture (as either a principal or additional diagnosis), compared with almost 1 in 10 (9.3%) among the comparison group (Tables S44, S45).

However, among the FDV group, the most common fracture location was fracture of the skull and facial bones (28% of fractures) and this fracture location was more common among the FDV group, than the comparison group (28% compared with 10%). The most common fracture locations among the comparison group were to the forearm (38% of fractures), shoulder and upper arm (15%) and wrist and hand (14%), which are the most common location of fractures among children (Johns Hopkins Medicine 2024).

Because fractures to the skull and facial bones are relatively rare among the comparison group (and the population generally), it may mean that these types of fractures are indicative of instances of FDV.

How many young people had other types of assault hospital stays?

FDV hospital stays by definition are assault hospital stays. In addition to FDV assaults, other assaults include those that are perpetrated by officials, carers, acquaintances, or where the perpetrator is unspecified or unknown.

About 1 in 4 all-cause hospital stays among the FDV group related to assault (24%), with the majority of these involving FDV (94%) and the remainder due to unspecified (4.3%), unknown or other perpetrators (2.1%) (which may include un-identified FDV) (Tables S17, S18).

That means that in addition to the 5,389 hospital stays where an FDV assault was recorded, the FDV group (5,024 people) experienced an additional 344 other assault hospital stays (1.5% of all-cause hospital stays experienced by the FDV group) (Table S24). This is slightly higher than the proportion of all-cause hospital stays that were assault, experienced by the comparison group (1.0%) (Table S25).

Of the 344 other assault hospital stays experienced by the FDV group, 245 were due to an unspecified perpetrator (71%). Although the comparison group had very few assault hospital stays overall (1.0% of hospital stays), close to half (49%) of these were due to an unspecified perpetrator (Tables S24, S25, S34, S35).

Multiple assault hospital stays

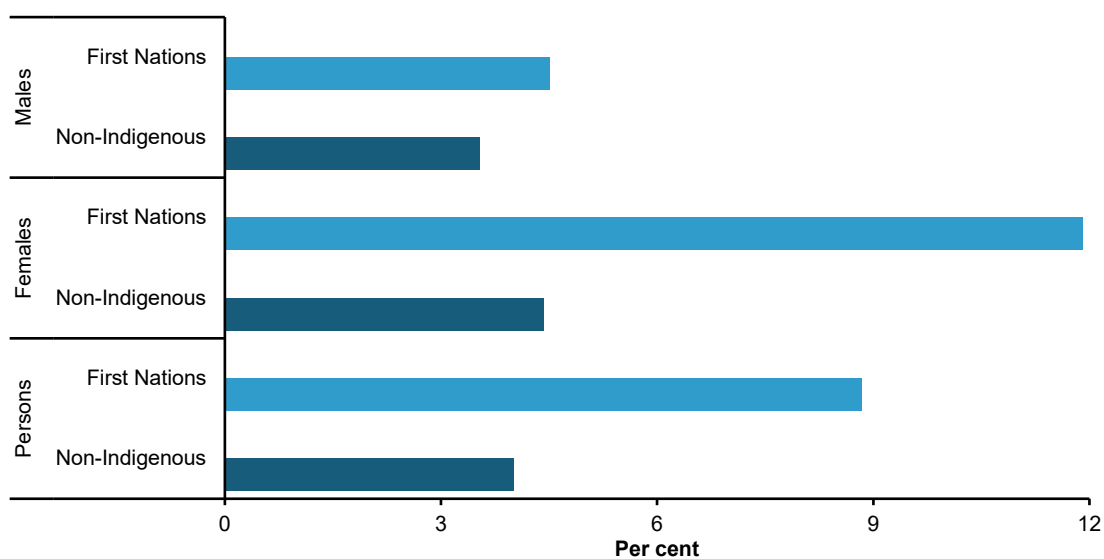
Around 1 in 10 (9.7%) young people in the FDV group experienced multiple assault hospital stays and around 1 in 20 (5.6%) experienced multiple FDV assault hospital stays. Of those with multiple assault hospital stays and multiple FDV hospital stays, the majority were female (64% and 69%, respectively) (Tables S2, S27). Of the comparison group, about 1 in 5 (18%) young people that had an assault hospital stay had multiple assault stays, also with a similarly high proportion of females (64%) (Table S28).

How many young people were First Nations people?

Around one-third of people in the FDV group were Aboriginal and Torres Strait Islander (First Nations) people (1,653 or 33%), and 3,371 were non-Indigenous (Table S1). For comparison, First Nations people aged under 18 make up about 3.1% of the population nationally (ABS 2018, 2019). Over half of First Nations people in the FDV group were female (58%) and the remainder were male (41%) (Table S1).

Among people in the FDV group, First Nations young people (8.8%) were twice as likely to have multiple FDV hospital stays as non-Indigenous people (4.0%), with the largest difference for First Nations females (12% compared with 4.4%) (Tables S7, S8, Figure 3).

Figure 3: Proportion of people in the FDV group that had multiple FDV hospital stays, by sex and Indigenous status, 2010–11 to 2020–21



Notes

1. Data include acute care stays that occurred in public hospitals in NSW, Vic, Qld, SA, Tas, ACT.
 2. This analysis includes information from principal and additional diagnosis, and external cause of injury information as recorded in hospital.
- Source: AIHW analysis of the National Health Data Hub (NHDH) version 1.0.

First Nations young people in the FDV group were also more than twice as likely as non-Indigenous people to have multiple assault (non-FDV and FDV combined) hospital stays (15% compared with 6.9%) (Table S27). First Nations young people had the same pattern in age at first FDV hospital stay as the whole FDV group (Table S6).

It is important to note that hospital data for Western Australia and the Northern Territory are not included in the data source (NHDH). Other sources of national hospital data show that in 2020–21, of all First Nations people aged under 15 hospitalised for FDV, over a third (36%) were in Western Australian and the Northern Territory (Productivity Commission 2024). Therefore, the true number of First Nations young people with an FDV hospital stay is likely to be higher than what is reported here (ABS 2022; AIHW 2024b).

3 Emergency department activity

Emergency departments (ED) are a critical point of contact for people who require urgent medical attention. In addition to providing immediate medical treatment, EDs can also be a gateway to additional services provided in hospitals (either as an admitted patient or outpatient) or referrals to other health services including general practitioners.

This section provides insight into the use of EDs among young people with at least one FDV hospital stay, and the matched comparison group (a group of people with at least one injury-related hospital stay, matched on age, sex, Indigenous status, year of first hospital contact and remoteness area).

This section includes information on presentations that ended with a discharge from ED, as well as those that ended with an admission to hospital.

Key findings

Between 2010–11 and 2020–21:

- about 1 in 2 (52%) people in the FDV group who had multiple FDV hospital stays had 11 or more ED presentations
- the most common principal diagnosis for ED presentations for the FDV group (29% of ED presentations) and the comparison group (36%) was *Injury, poisoning and certain other consequences of external causes*
- the number of ED presentations increased more for the FDV group (up 170%) than the comparison group (up 104%).

How many visits were there to EDs?

Almost all young people in the FDV group, and the comparison group, had an ED presentation (97% and 98%, respectively) (Table S36). This rate of ED contact is expected, as most hospital admissions are preceded by a presentation to ED. However, of those that had at least one ED presentation, the FDV group had more presentations per person, on average (10.5 compared with 7.9). About 3 in 10 (29%) people in the FDV group had 11 or more ED presentations, compared with 1 in 4 (24%) people in the comparison group (Tables S36, S37).

As might be expected, people who had multiple FDV hospital stays were more likely to have had a higher number of ED presentations than people with a single FDV hospital stay. About 1 in 2 (52%) people in the FDV group who had multiple FDV hospital stays had 11 or more ED presentations compared with about 3 in 10 (28%) of those with only one FDV hospital stay (Table S38).

The FDV group and the comparison group had a similar rate of admission to hospital from an ED presentation, with 27–28% of presentations having an admission within one day (Tables S36, S39, S40).

The number of ED presentations from 2010–11 compared to 2020–21 increased by more for the FDV group (up 170%) than the comparison group (up 104%), despite the number of people in these groups remaining matched by year of entry (Table S41). This highlights ED as an important service provision point for people experiencing FDV.

What are the main reasons for ED presentations?

Principal diagnosis information is available in ED data from 2013–14 onwards. As a result, the following analyses have been restricted to ED presentations where diagnosis data are available.

The most common principal diagnosis (ICD-10 Chapter) for ED presentations for the FDV group (29% of ED presentations) and the comparison group (36%) was *Injury, poisoning and certain other consequences of external causes* (Tables S42, S43). This is typical of ED presentations nationally, where 22% of presentations at EDs were for that reason in 2022–23 (AIHW 2023c). The second most common diagnosis for both groups was *Symptoms, signs and abnormal clinical findings not elsewhere classified* (21 and 22%, respectively). The third most common principal diagnosis differed between the groups, with *Mental and behavioural* for the FDV group (8.9%), and *Diseases of the respiratory system* for the comparison group (6.4%) (S42, S43).

Which diagnoses in ED presentations most often led to a hospital admission?

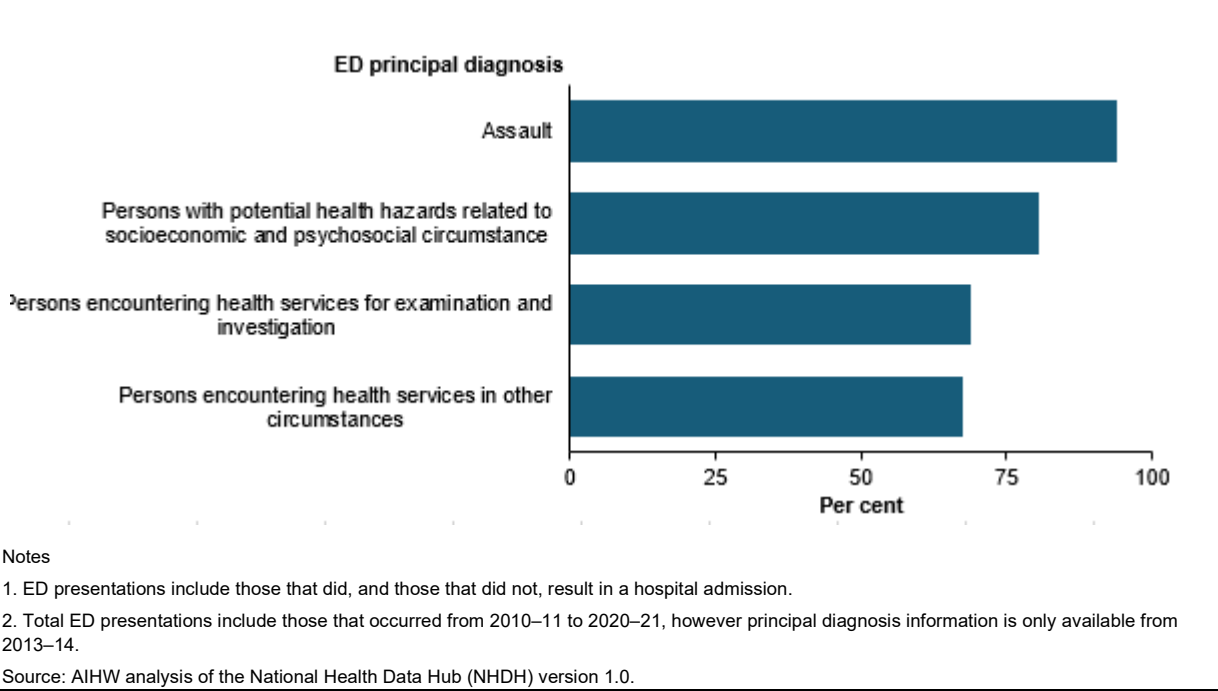
The principal diagnosis (as recorded in emergency department records) that most often led to a hospital admission (at the ICD chapter level) among the FDV group was *Endocrine, nutritional and metabolic* (618 admissions, or 80% admission rate), which was also the most common for the comparison group (550 or 67%) (Tables S42, S43). Around 1 in 20 admissions formed among the FDV group were for this reason, compared with around 1 in 50 among the comparison group (5% and 1.7% respectively).

The ICD Chapters of *External causes of morbidity and mortality*, and *Factors influencing health status and contact with health services*, were split out into smaller sub-categories (also known as blocks), as these are particularly relevant to FDV. Of these sub-categories, the two that most often led to a hospital admission among the FDV group were:

- *Persons with potential health hazards related to socioeconomic and psychosocial circumstances* (567 admissions, or 68% admission rate, compared with less than 3% admission rate in the comparison group). This block of codes includes circumstances associated with homelessness, problems related to social environment, negative life events in childhood and other problems related to upbringing, and primary support group, including family circumstances. This diagnosis was more common among the FDV group than the comparison group (4.8% ED presentations that lead to an admission, compared with <0.1%)
- *Assault* (50 admissions, or 62% admission rate), compared with less than 30% admission rate in the comparison group (Note this number does not align with total assault hospital stays, as assault is typically coded as an external cause in admission data, however, it has been listed as the principal diagnosis in ED) (Tables S42, S43).

The FDV group had higher admission rates than the comparison group for ED presentations with a diagnosis of *Persons with potential health hazards related to socioeconomic and psychosocial circumstances* and *assault* (Tables S42, S43). These diagnoses were also the most likely to have FDV recorded as the external cause after hospital admission (Table S42, Figure 4). These findings demonstrate there may be a specific ED diagnosis profile that is indicative of FDV. Options for enhancing FDV detection in ED data are discussed in section 6 *Future opportunities*.

Figure 4: Proportion of ED diagnoses where, after hospital admission, FDV was recorded as the external cause, by diagnosis, 2010–11 to 2020–21



For both the FDV group and comparison group, the majority (80–81%) of ED presentations that led to a hospital admission, had a same day admission, with 19–20% admitted within one day but not the same day (Tables S39, S40). Admissions that occur within one-day are likely accounting for ED presentations that continued past midnight, and therefore the admission technically occurred on the ‘next’ day.

From 2010–11 to 2020–21, the number of ED presentations leading to a hospital admission has increased, with about double the proportional increase for the FDV group (by 150% or from 672 to 1,703) compared with the comparison group (by 76% or from 2,592 to 4,564) (Table S41).

4 Medicare-subsidised health services

Medicare is Australia's universal health insurance scheme. Through Medicare, the Australian Government subsidises all or part of the costs of many health services, including general practice, specialist services, surgical procedures, pathology tests, diagnostic imaging scans and allied health services.

This section provides insights into the use of Medicare-subsidised health services among young people who had at least one FDV hospital stay prior to their 18th birthday (the FDV group), and the comparison group (a group of people with at least one injury-related hospital stay, matched on age, sex, Indigenous status, year of contact and remoteness area). However, there are some cases where services are not included in the Medicare Benefits Schedule (MBS) data. For example, some medical imaging scans may be provided during a hospital visit, including in emergency departments, during a hospital admission, and out-patient hospital clinics and these are not captured in the MBS data.

Key findings

From 2010–11 to 2020–21:

- the average number of Medicare-subsidised services per person, per year for the FDV group was highest for non-Indigenous females (16), followed by First Nations females (14), non-Indigenous males (11) and First Nations males (9).

How often did the FDV group access Medicare-subsidised health services?

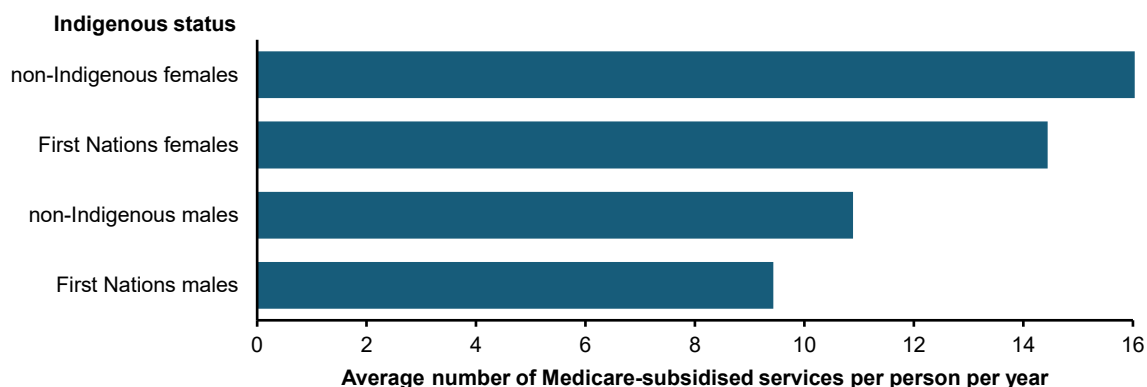
Of the 5,024 people in the FDV group, 5,010 received at least one Medicare-subsidised health service between 2010–11 and 2020–21 (Table S48). This group accessed a total of 731,633 Medicare-subsidised services, which equates to an average of 13 Medicare-subsidised health services, per person, per year. This is similar to the comparison group, who also accessed an average of 13 per person, per year (2,888,614 services in total) (Tables S48, S49).

These rates of Medicare-subsidised services are higher than the general Australian population of a similar age; in 2022–23, people aged 0–24 accessed an average of 8.4 services (ABS 2023b; Services Australia 2024).

Among the FDV group, non-Indigenous females had the highest number of Medicare-subsidised services per person per year, accessing on average 16 services. First Nations males accessed the lowest number of services, with around 9 per person, per year (Figure 5).

Medicare data for First Nations people does not capture all the support provided outside of Medicare billed services, for example by Community controlled primary health organisations relating to Family and Domestic Violence. This means that First Nations people may have accessed additional primary care services not visible in this analysis.

Figure 5: Average number of Medicare-subsidised services per person in the FDV group, per year, by Indigenous status and sex, 2010–11 to 2020–21



Source: AIHW analysis of the National Health Data Hub (NHDH) version 1.0.

How often did the FDV group access GP services?

Of the 731,633 Medicare-subsidised services accessed by the FDV group between 2010–11 and 2020–21, 250,401 were for GP services (34%) (Tables S48, S50). A total of 5,007 young people had at least one GP attendance, which equates to an average of 4.5 attendances per person, per year (Table S50). This is similar to the comparison group who had an average of 4.3 attendances per person, per year (961,079 GP attendances) (Table S51).

Among the total Australian population aged 0–24 in 2022–23, the average rate of GP attendances was 3.8 per person (ABS 2023b; Services Australia 2024).

Among the FDV group, non-Indigenous females accessed the highest number of GP-services, with an average of 5.5 per person, per year. First Nations males accessed the fewest GP services, with an average of 3.4 per person, per year (Table S50).

How often did the FDV group access diagnostic imaging services?

Of the 731,633 Medicare-subsidised services between 2010–11 and 2020–21, about 1 in 30 (3.5% or 25,307) were for diagnostic imaging services (which includes ultrasounds and diagnostic radiology such as x-rays, computed tomography scans, nuclear medicine imaging and magnetic resonance imaging) (Tables S48, S52). A total of 3,817 people in the FDV group had at least one diagnostic imaging service, which for this subset of the FDV group, equates to an average of 6.6 diagnostic imaging services per person over the 11-year period (Table S52). This compares with an average of 7.5 diagnostic imaging services per person among people in the comparison group who had at least one diagnostic imaging service (16,425 people had 123,648 diagnostic imaging services over 11 years) (Table S53).

When considering the entire FDV group (5,024 young people) they had an average of 5 diagnostic imaging services per person, while the entire comparison group had an average of 6.2 (Tables S52, S53). This is higher than the general Australian population of a similar age who recorded 0.4 diagnostic imaging services per person in 2022–23, which would equate to 4.7 per person over an 11-year period (if a similar rate was assumed to occur annually) (ABS 2023b; Services Australia 2024).

Similar to the patterns for GP services, non-Indigenous females accessed the highest number of diagnostic imaging services, with an average of 8.4 per person, with First Nations males accessing the fewest, with 4.2 per person (Table S52).

5 Deaths

The most severe outcome of FDV is death, and deaths due to FDV in Australia are well recognised and publicised.

Filicide is the killing of a person by their parent or parent equivalent. Australian research shows that children aged under 5 make up the largest proportion of filicide victims. The incidence of filicide is monitored by the Australian Institute of Criminology (AIC) National Homicide Monitoring Program (NHMP). The NHMP identified that there were 274 victims aged under 18 who were killed by a parent or parent-equivalent between 2000–01 and 2011–12 (Brown et al. 2019). This equates to an average of around one death every 2 weeks. Homicides of children and young people committed by other family members are less common, with 13 victims of intimate partners, 6 victims of siblings and 10 victims of other family members between 2002–03 and 2011–12 (Cussen and Bryant 2015).

Although these data examine deaths directly due to FDV, little data exists on the risk of death due to any cause, among those who have experienced an FDV hospital stay as a child. To fill this information gap, this section provides information on the number, cause and age at death among people with at least one FDV-related hospital stay prior to their 18th birthday (the FDV group) and the comparison group (a group of people with at least one injury-related hospital stay, matched on age, sex, Indigenous status, year of contact and remoteness area).

The NHDH is the only national source of data that can link experiences of hospitalised FDV to all-cause (i.e. any cause) deaths.

It is important to note that these data only refer to a hospitalised population (and does not include Western Australia or the Northern Territory) whose hospital stay can be attributed to FDV, and not the population more broadly. Therefore, these data do not capture deaths that occur among anyone who has been a victim of FDV.

These deaths are also not directly attributable to FDV in this analysis (i.e. it examines all-cause deaths).

Key findings

From 1 July 2010 to 31 December 2021:

- there was little difference in the rate of death, and age at death, between the FDV group and the comparison group
- the FDV group was much more likely than the comparison group to die of assault (27% or 11 deaths compared with 2.1% or 3 deaths) and diabetes (9.8% or 4 deaths, compared with 0.7% or one death).

Are there more deaths among the FDV group?

The proportion of children and young people who died at some point during the measurement period (1 July 2010 to 31 December 2021) was similar for those who had at least one FDV hospital stay (0.8%, or 41) and those in the matched comparison group (consisting of young people with at least one injury hospital stay) (0.7%, or 142) (Tables S36, S54, S55).

What are the common causes of death?

While the proportion of the cohort who died during the study period was similar between the FDV group and the comparison group, there was some variation in the cause of death.

The most common causes of death among the:

- FDV group were *assault* (27% or 11 deaths), *suicide* (20%, 8 deaths) and *diabetes* (9.8%, 4 deaths)
- comparison group were *suicide* (19%), *land transport accidents* (13%) and *perinatal and congenital conditions* (11%) (Tables S58, S59, Figure 6).

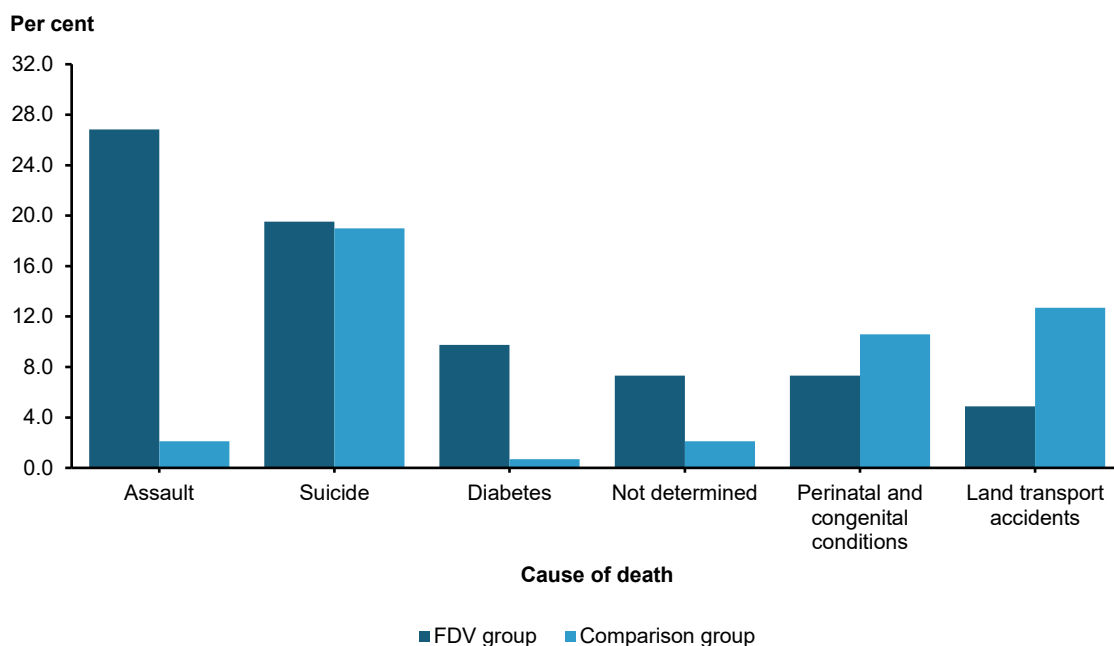
This means that the top 3 causes of death among the FDV group are potentially preventable, compared with the top 2 causes of death among the comparison group.

The AIHW's *Deaths in Australia* report found that in 2021 the leading cause of deaths for children under 1 year of age was perinatal and congenital conditions, for those aged 1–14 years it was land transport accidents and for young people aged 15–24 years it was suicide (AIHW 2023b). These were also the top 3 causes of death for the comparison group (Table S60).

There were 3 deaths in the FDV group (7.3%), and 3 deaths in the comparison group (2.1%) for which the cause was not determined. Cause of death information can be missing in the data when there are ongoing coronial investigations, which are later updated. Deaths are reported to a coroner under the following circumstances:

- the death is unexpected and the cause is unknown
- the person died in an unnatural or violent manner
- the death occurred during or as a result of an anaesthetic
- the death occurred to a person being 'held in care' or custody immediately before they died, or
- the identity of the person is unknown (AIHW 2021).

Figure 6: Top 6 leading causes of death among the FDV group and proportions among the comparison group, 1 July 2010 to 31 December 2021



Notes

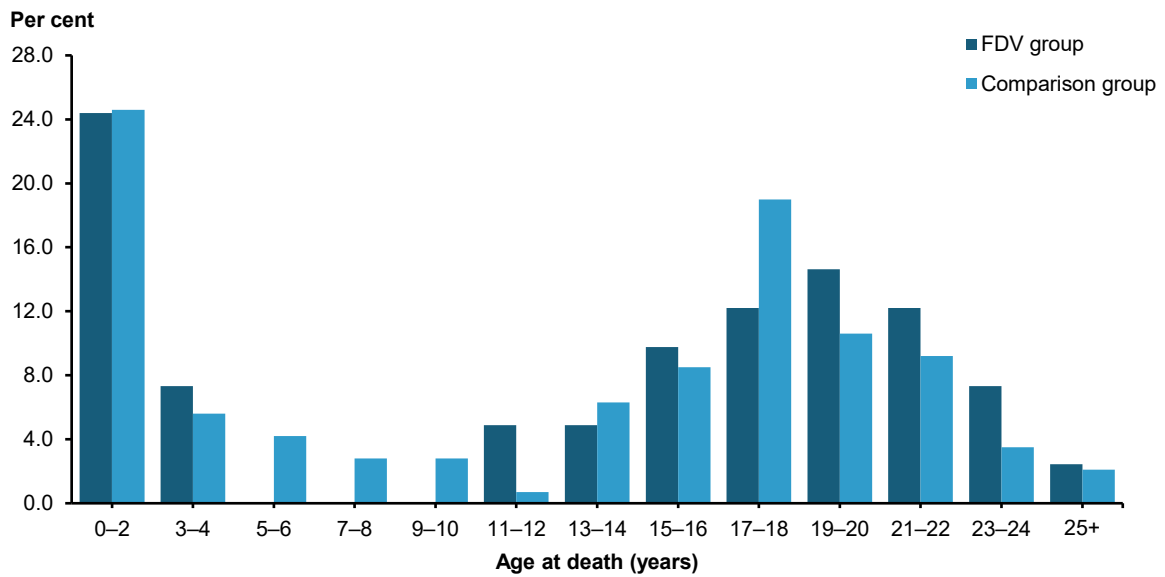
1. Deaths among the FDV group cannot be directly linked to FDV in this analysis.
2. This figure shows the 6 leading causes of death for the FDV group and the proportion for those causes among the comparison group. Other causes of death with small counts are not presented. This results in the 3 leading causes for the comparison group also being shown.
3. Due to the relatively small number of deaths, any change in the number can result in a large difference in proportions. There were a total of 41 deaths among the FDV group and 142 among the comparison group.

Source: AIHW analysis of the NHDH (NIHSI asset version 3.0).

How does the number of deaths vary by age?

The most common age at death followed a similar pattern between the FDV group and the comparison group with most deaths at ages 0–2 (24% and 25% of deaths, respectively) followed by deaths at either 17–18 (19% for the comparison group) or 19–20 (15% for the FDV group) (Tables S60, S61, Figure 7).

Figure 7: Age at death among the FDV group and the comparison group, 1 July 2010 to 31 December 2021



Notes:

1. Deaths among the FDV group cannot be directly linked to FDV in this analysis.
2. Due to the relatively small number of deaths, any change in the number can result in a large difference in proportions. There were a total of 41 deaths among the FDV group and 142 among the comparison group.

Source: AIHW analysis of the NHDH (NIHSI asset version 3.0).

6 Future opportunities

This report furthers understanding of the health service interactions and outcomes of children and young people experiencing FDV. However, a key limitation of the analysis is that FDV experience is only identified through the admitted hospital data in the NHDH, and cannot currently be identified using ED data.

Linking the health data collections in the NHDH with additional data, including beyond the health care system, would support analysis for a broader cohort of people who experience or are at risk of family and domestic violence and do not require hospitalisation as a result.

Two datasets which could be pursued for linkage with the NHDH, that are relevant to FDV, are the Specialist Homelessness Services Collection (38% of clients in 2022–23 had experienced FDV) (AIHW 2024c), and the Child Protection National Minimum Dataset. The AIHW is currently working with states and territories to explore the feasibility of undertaking these additional linkages as part of work funded by the Commonwealth Department of Social Services, to deliver the foundations of an integrated data system which can provide more people-centred information about FDV.

The addition of other data into the NHDH linkage system (for example, community mental health) will also expand the type of health service interactions which can be included in future analyses.

Linking the Voluntary Indigenous Identifier file to the NHDH in the future will also allow for a better capture of First Nations children hospital stays, Emergency department presentations admission and total Medicare use.

Further opportunities to identify FDV in existing data (which could then be added to the NHDH) include using machine learning on available free-text data. For example, while national emergency department data does not include external cause codes (required for the identification of FDV), there are structured free-text fields generally collected in hospital patient administration systems. These free-text fields may include language and terminology that indicates the occurrence of FDV. If it was possible to use machine learning techniques, informed by clinical advice, to derive insights on FDV experience, then in the longer term, it could be possible to estimate the number of people who present to emergency departments due to FDV without any additional data collection burden for clinicians.

In addition, this project demonstrated there are two specific ED diagnoses that are likely to have FDV identified once admitted into hospital: *Assault* and *Persons with potential health hazards related to socioeconomic and psychosocial circumstances*. These diagnoses types could be investigated to determine whether these ED diagnoses could be used as proxy codes alone, or in combination with free text, to identify FDV experience in ED data.

This report also showed that there is a higher rate of hospitalisation, and higher rate of death for Type 1 diabetes among the FDV group than the comparison group. Future work could explore this result by examining the rate of contact with primary care for people with diabetes in the FDV and comparison group.

Appendix A: Data and methods

This project uses data from the AIHW's NHDH. The NHDH contains longitudinal, de-identified, linked data on admitted patient care services (in public and some private hospitals), ED services and some outpatient services in public hospitals, for participating states and territories, along with Medicare Benefits Schedule data, Pharmaceutical Benefits Scheme and Repatriation Pharmaceutical Benefits Scheme data, Aged Care services data and National Death Index data. For more information on the NHDH see [National Health Data Hub - https://www.aihw.gov.au/reports-data/NHDH](https://www.aihw.gov.au/reports-data/NHDH)

Scope of analysis

The scope of analysis includes ED and admitted patient care hospital data, Medicare Benefit Schedule, and national death data components of the NHDH. These components were derived from the National Hospital Morbidity Database (NHMD), National Non-admitted Patient Emergency Department Care Database (NNAPEDCD), the Medicare Benefits Schedule (MBS) and the National Death Index (NDI), respectively. However, a key difference between the input data sets, and the components subsequently analysed, is that the NHDH allows analysis to be undertaken at the person level, while the underlying data sources most often can only be analysed at the event level.

Scope for the admitted patient care analysis (as derived from the NHMD) includes:

- all available years (2010–11 to 2020–21)
- participating states and territories (New South Wales, Victoria, Queensland, South Australia, Tasmania, Australian Capital Territory)
- family and domestic violence patients (see Box 5) and a selected comparison group
- public hospitals only.

Scope for the ED analysis (as derived from the NNAPEDCD) includes:

- all available years (2010–11 to 2020–21 with diagnosis information from 2013–14)
- participating states and territories (New South Wales, Victoria, Queensland, South Australia, Tasmania, Australian Capital Territory)
- family and domestic violence patients (as identified in admitted patient care data; see Box 5 for definitions) and a selected comparison group
- public hospitals only
- admitted and non-admitted episodes (ED presentations with and without subsequent hospital admissions).

Scope for MBS includes:

- all available years (2010–11 to 2020–21)
- all services
- family and domestic violence patients (see Box 5 for definitions) and a selected comparison group.

Scope for the deaths analysis (as derived from the NDI) includes:

- all available years (deaths registered from 1 July 2010–30 December 2021)
- all states and territories
- family and domestic violence patients (see Box 5 for definitions) and a selected comparison group.

Box 5: Definitions and concepts

Acute care is defined as care in which the intent is to perform surgery, diagnostic or therapeutic procedures in the treatment of illness or injury. Management of childbirth is also considered acute care (AIHW 2020b).

Care type is defined as the overall nature of a clinical service provided to an admitted patient during an episode of care (admitted care), or the type of service provided by the hospital for boarders or posthumous organ procurement (other care), as represented by a code.

Comparison group is defined as people with at least one injury-related hospital stay recorded in admitted patient care data, and matched to the FDV cases on age at first hospital stay, year of first hospital stay, sex, Indigenous status, and remoteness.

Family and domestic violence cases are identified from the admitted patient care data where there is at least one hospital stay before age 18 with an external cause of morbidity coded as assault or maltreatment (X85–Y09), where the perpetrator (5th character code) is specified as:

- Spouse or domestic partner (0) (including ex-partner and ex-spouse)
- Parent (1) (including adoptive cohabiting/non-cohabiting), natural and step parents and a parents cohabiting partner, and excluding foster parents, and parents non-cohabiting partner).
- Other family member (2) (including siblings, cousins, grandchildren, grandparents, nieces and nephews, sons and daughters, uncles, aunts)

Family and domestic violence by definition includes sexual assault where the perpetrator is spouse/domestic partner/parent or other family member.

Hospital separation refers to an episode of care for an admitted patient, which can be a total hospital stay (from admission to discharge, transfer or death) or a portion of a hospital stay beginning or ending in a change of type of care (for example, from acute care to rehabilitation). Separation also means the process by which an admitted patient completes an episode of care either by being discharged, dying, transferring to another hospital or changing type of care (see Figure 8).

Hospital stay is defined as the contiguous period of time a person receives hospital care. A hospital stay may be made up of one or more continuous hospital separations. For example, if an acute separation ends on 01/01/2018 and a subsequent separation starts on 01/01/2018, these two separations are counted as the same hospital stay. Similarly, if a person has a long hospital stay for one treatment, but also several one-day treatments at another hospital or ward (for example in cases where a person receives dialysis) during the same time period, these separations would be counted as a single 'hospital stay' (see Figure 10).

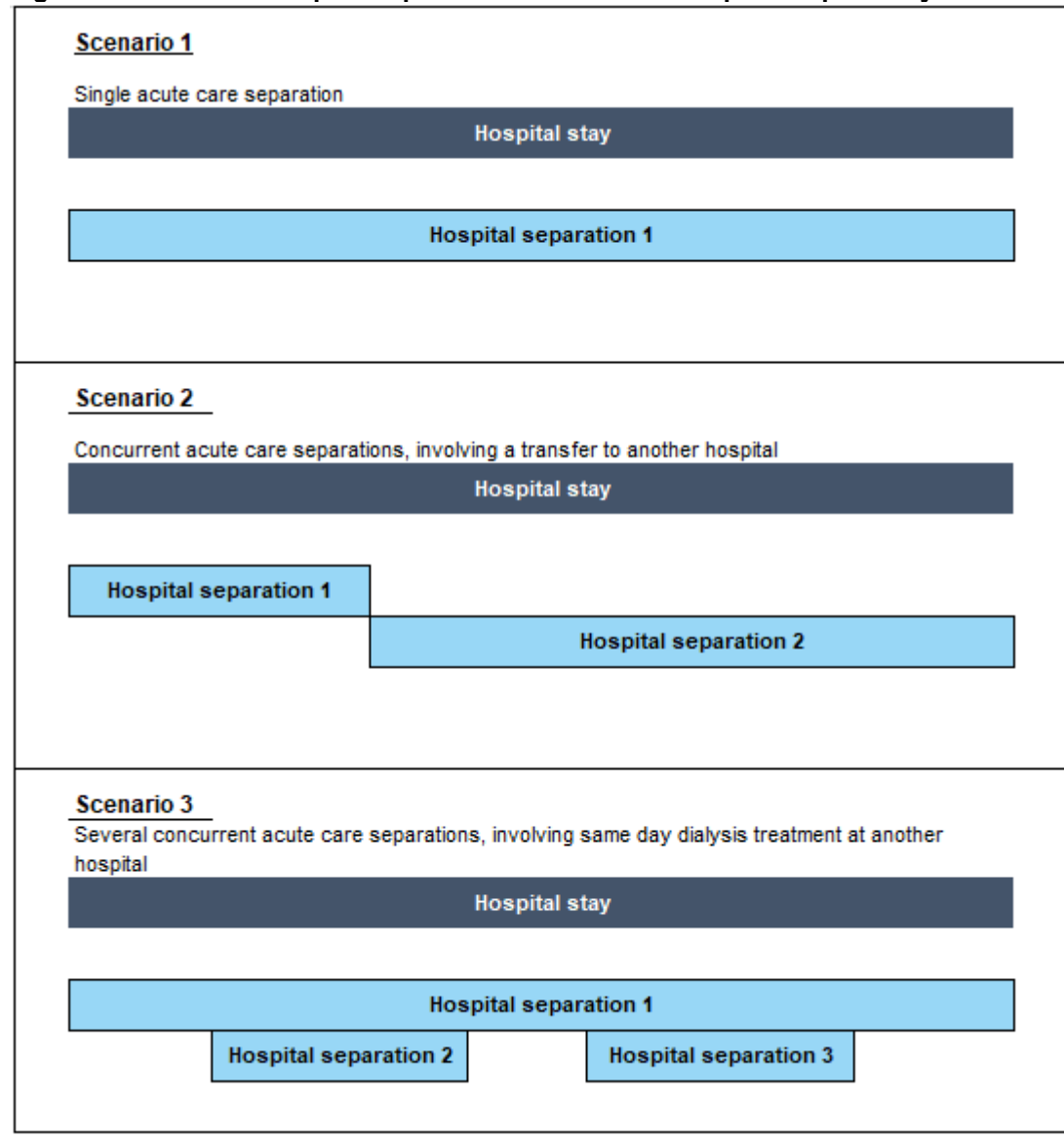
Only separations with a care type of acute are included.

Injury stay An injury hospital stay is one where there was a principal diagnosis of injury, regardless of mode of injury.

Presentation is the episode of care between when a person presents at an emergency department and when the non-admitted patient emergency department clinical care ends. The presentation of a patient at an emergency department occurs following the arrival of the patient at the emergency department and is the earliest occasion of being:

- registered clerically, or
- triaged.

Figure 8: Acute care hospital separations that can make up a 'hospital stay'



Box 6: Inclusion/exclusion criteria

Patients who are transferred: transfer records that are concurrent with another acute hospital separation are considered as the same hospital stay. Standalone transfer records (those which do not appear to have any preceding hospital separation) have been retained. This can occur where a transfer has occurred from a hospital that is not included in the NHDH (some private hospitals, and those in Western Australia and the Northern Territory).

Private hospitals: private hospitals have been excluded from all analytical outputs. This is because there is not equal coverage of private hospital data in the NHDH. Furthermore, most FDV hospital separations occur in public hospitals.

Acute care: only acute care hospital separations are included. Patients who have a subsequent hospital stay identified as rehabilitation have the rehabilitation episode removed from analysis. That is, subsequent rehabilitation hospital stays are not counted as a repeat case of FDV as it is assumed (but cannot be definitively determined) that the rehabilitation treatment relates to the prior hospital stay/FDV event.

Populations in this report

The case group

The definition for FDV cases is described in Box 1.

The comparison population

A comparison hospital population was established to allow FDV-related data to be contextualised. This comparison population was constructed by randomly selecting cases from an injury hospital population (i.e. children with an injury-related hospital stay who have no recorded FDV hospital stays) with stratification (matching) on the following variables:

- year of index hospital stay
- age group at index hospital stay
- sex
- Indigenous status
- remoteness area.

For every FDV case, 4 control cases were randomly selected from the remaining admitted patient care data, with each control matched to a case on the above stratification criteria.

Some cases could not be fully stratified by the 5 variables. For these cases, the stratification process was re-run without remoteness area.

Demographics of the case and comparison group

There were 5,024 people identified who had at least one FDV hospital stay recorded in the reference period. These individuals were predominantly female (54%) and all were aged between 0 and 18 at first hospital stay. Around 1 in 3 (33%) were Aboriginal and Torres Strait Islander people, as self-identified in the admitted patient care data.

The comparison group was selected on a 1:4 ratio, meaning that for every one FDV case, there were 4 matching control cases selected. Therefore, the comparison group contains 20,096 individuals, with the same demographic profile as the FDV group (same proportions in each sex, age group and Indigenous status).

The comparison group may include people who have experienced FDV, and/or been hospitalised due to FDV assault, but the FDV was not recorded in the hospital record. Therefore, this project also examines the level of assault in the comparison group, and the missing or undisclosed perpetrator information for hospitalised assault records.

Analysis methods and assumptions

Mapping classifications

The emergency department and admitted patient care data in the NHDH have a temporal coverage from 2010–11 to 2020–21, which includes several versions of the ICD-10-AM (the 7th to 11th editions). Therefore, for earlier years of data, mapping files were used to forward map diagnosis information the latest ICD 10 standard. In emergency department data, mapping was also used to map earlier Systematized Nomenclature of Medicine (SNOMED) and ICD 9 data to the ICD–10–AM.

Identifying FDV

In the admitted patient care data, information identifying:

- assault (including FDV assault), is coded under *External causes of morbidity and mortality*
- injury, is coded under *Diagnoses*.

Therefore, identifying FDV involved selecting records that had *External causes of morbidity and mortality* codes ranging from X85–Y09 (Assault), where a perpetrator was coded as spouse or domestic partner, parent, or other family member (5th character codes of 0, 1 or 2, respectively). These cases may or may not have had an injury as the principal diagnosis.

When examining hospital data, it is important to consider that:

- a single hospital record may have multiple *Diagnoses* and multiple *External causes of morbidity and mortality*
- *External causes of morbidity and mortality* codes must be used when there is an injury or poisoning *Diagnosis* code, however, *External causes of morbidity and mortality* codes can also be used in conjunction with other types of *Diagnoses*.

Further to this, the basis of analyses within this report is a ‘hospital stay’, which can include several hospital records (see Figure 8).

Because a single hospital record can contain multiple *Diagnoses*, and multiple *External causes of morbidity and mortality*, and because a single ‘hospital stay’ can include several hospital records, the following rationale for selecting information was developed:

Selecting assault and FDV assault information within a hospital stay

A key component of this report is understanding FDV. Therefore, codes indicating FDV and other assault were prioritised for inclusion regardless of their priority within the hospital record (that is, regardless of the position of the hospital separation within an entire stay and regardless of whether the FDV was the first or an additional *External causes of morbidity and mortality*). To achieve this, a flag for any assault or any FDV assault was raised to determine if any hospital separations included within a hospital stay (a continuous hospital period) indicated FDV or other assault. This is important to consider as a person could be more likely to disclose the cause of their injuries with an increasing length of their hospital stay (for example, if they are transferred to another hospital, this may provide opportunity away from the perpetrator). It is also important to examine the full range of *External causes of morbidity and mortality* codes (that is, in addition to the principal diagnosis) to fully capture all instances of FDV in hospitalisations data.

Selecting injury information within a hospital stay

The first injury recorded within a hospital record was selected for analysis. This means that the injury code was selected regardless of whether that injury was:

- indicated as being due to FDV assault through the corresponding *External causes of morbidity and mortality* code
- the principal diagnosis or an additional diagnosis.

Despite this method, the vast majority of injuries were the principal diagnosis and indicated as being due to FDV assault through the first *External causes of morbidity and mortality* code.

However, it is still important to consider that for injuries that were not recorded as the principal diagnosis, even though the hospital record indicated FDV assault had occurred, the injuries recorded through additional diagnoses may or may not be due to FDV.

Principal diagnoses

The first recorded principal diagnosis within a hospital stay was selected for analysis. That is the diagnosis from the first hospital separation contained within an entire hospital stay. This provides important contextual information around the diagnosis determined to be chiefly responsible for occasioning a hospitalisation and allows comparison to be made to the general hospitalised population. The principal diagnosis may or may not be directly related to the FDV assault.

Data and Technical notes

Input data sets

Further detail on each of the databases that were used to develop the admitted patient, ED and deaths data components of the NHDH, is provided below.

Boxes 5 and 6 outline key definitions and concepts.

National Hospital Morbidity Database

The NHMD is a compilation of episode-level records from admitted patient morbidity data collection systems in Australian hospitals. It is a comprehensive database that has records for all episodes of admitted patient care from essentially all public and private hospitals in Australia.

The NHMD base-counting unit is a hospital separation. Each separation includes a range of demographic and administrative data as well as data on the diagnoses of the patient, external causes of injury, and, where relevant, the patient's relationship to the perpetrator of assault. As a result, NHMD data are used within this report to identify and examine separations related to FDV (see Box 1).

Each episode of care (separation) is assigned a care type, which describes the overall nature of care delivered. There are several care types which can be recorded and therefore, a patient may have several episodes of care between their admission and discharge from hospital. For example, a person who has a brain injury may be admitted to hospital for immediate treatment of the injury in a high care area (such as intensive care) – this would be coded as an acute care episode (separation). Following the first acute care episode, the person may be transferred to another hospital for further acute care treatment. This would also be coded as an acute care episode. Once the person is well enough, they may begin a period of in-hospital rehabilitation – this would constitute a new separation and be coded as a rehabilitation care episode (separation). It could be in the same hospital, or the patient could also experience a transfer to an inpatient rehabilitation facility. This would be an additional separation with a different care type. Following completion of in-hospital rehabilitation, the person may be discharged from hospital, but return several times a week for further same-day rehabilitation treatments. These additional episodes (separations) would be coded as further discrete rehabilitation episodes. The additional discrete records typically do not provide an indication of being related to the same event.

As a result of these complex treatment pathways, a range of different methods can be used to define the unit of analysis, depending on purpose. For example, analysis to support an estimation of hospitalisation costs related to a condition would require inclusion of multiple

episodes of care (which may be contiguous or may be grouped close together with a small gap).

As the aim of this analysis was to capture discrete FDV events which resulted in a contiguous episode of care, rather than all episodes of care which may be related to a single FDV event, only the acute care episodes are included. If a patient had any concurrent acute episodes of care, for the purposes of this analysis, the 2 acute care episodes were treated as one 'hospital stay'.

A similar approach for creating hospital stays using continuous episodes, has been taken in other linked hospitals analyses, such as *Interfaces between the aged care and health systems in Australia: movements between aged care and hospital 2016–17* (AIHW 2020a). See Box 6 for a summary of inclusions and exclusions in this analysis.

For more information on hospitals data, see <https://www.aihw.gov.au/about-our-data/our-data-collections/national-hospitals>.

National Non-admitted Patient Emergency Department Care Database

ED data are a compilation of episode-level records, relating to individuals who are registered for care in public hospital EDs (AIHW 2020b). The base-counting unit for ED data is referred to as a presentation.

ED presentation data in this report are used to look at the number of presentations (which did and those that did not result in subsequent hospital admission) among those with at least one FDV hospital stay, and the comparison group. For this report, ED diagnosis information was forward mapped to the ICD-10-AM 11th edition ED shortlist. Mapping was also completed between SNOMED and ICD codes. However, this mapping is under development, with some codes unable to be mapped. In this case, the diagnosis is listed as 'Missing' in the resulting outputs. Current ED data does not support the identification of presentations related to FDV because external cause of injury codes are not available (see 'Future opportunities').

Although ED presentations cannot be attributed to FDV due to lack of external cause of injury data, ED data can still show patterns of use among FDV cases and the comparison population. Furthermore, this report linked ED presentations to hospital admissions, to examine cases where FDV was subsequently recorded in the hospital admission data.

For more information on ED data, see <https://www.aihw.gov.au/about-our-data/our-data-collections/national-hospitals>.

National Death Index

The NDI is a database developed and maintained by the AIHW. The database is a listing of all deaths that have occurred in Australia since 1980. Data come from *Registers of Births, Deaths and Marriages* in each jurisdiction, the National Coronial Information System and the ABS. It includes information on fact of death and, where available, cause of death. While cause of death can be easily attributed in some cases, it can take longer to determine in complex cases (for example, where a coroner is required to formally investigate and determine cause of death, such as death by suicide), and therefore some deaths will be missing cause of death information due to ongoing coroners' investigations. Additionally, there can be a lag between when 'fact of death' is listed on the NDI, and when the cause of death is added.

Further information about the NDI is available on the AIHW website at <https://www.aihw.gov.au/about-our-data/our-data-collections/national-death-index>.

Year

In this report, 2 measures are used to represent year, depending on the purpose of the analysis:

- year of first stay: this relates to the first time a person had a hospital stay due to FDV. Analyses are presented by year of first stay to highlight the impact of follow-up time periods on the recording of additional assault cases (that is, those who have an earlier FDV hospital stay, have a longer follow-up period, potentially allowing more FDV stays to be recorded).
- year of stay: this relates to the year of service (when the hospital stay ended). This is used when presenting information on total hospital stays over time.

Measurement period

The temporal coverage of the data are from 1 July 2010 to 30 June 2021.

For the comparison group, the same principal has been applied; that is only those with an index hospital stay between 1 July 2010 and 30 June 2021 are included.

Data linkage

This report analyses data from the AIHW's NHDH. The NHDH contains a wide range of person and service-level information from a range of Commonwealth and state and territory health data sets, linked via the AIHW's Data Integration Services Centre. For more information see <https://www.aihw.gov.au/our-services/data-linkage>.

Due to the development of the NHDH, the number of individuals who have been hospitalised due to FDV assault in Australia is able to be determined (in addition to the routinely reported number of hospital stays). The NHDH also provides the opportunity to analyse the interactions of individuals hospitalised for FDV assaults with other parts of the hospital system (for example, EDs), and to explore how these patterns may vary compared with those hospitalised for injuries for other reasons. This includes analysis of the frequency and type of injuries for which people are hospitalised, or with which they present to EDs.

Indigenous status

In the NHDH, Indigenous status in the demography file is constructed from hospitals data only. That is, if a person ever identified as Aboriginal or Torres Strait Islander in any hospital record, that will be recorded as their Indigenous status.

Sex

In the NHDH, the value for sex is taken first from the Medicare Benefits Schedule (MBS) and Pharmaceutical Benefits Schedule data (PBS). If sex is not available from the MBS or PBS, then it is taken from the National Death Index, Residential Aged Care or Hospitals data.

Limitations

Defining the FDV group

The results presented within this report are drawn from administrative hospitals data. Therefore, a key limitation of this study is that it relates to severe experiences of FDV, most likely physical or sexual in nature; that is, those cases that require admission to hospital for treatment and care. In addition to this, it is likely that not all hospitalisations due to FDV are

included in the analysis as FDV hospital stays, for example, where the perpetrator has not been identified on the hospital record. In recognition of this limitation, this report presents broader hospital interactions for people with at least one FDV event, including assault hospitalisations where the perpetrator has not been defined as a family member or partner, or the perpetrator is listed as missing or unknown to the victim.

Another limitation of this study is that some FDV hospital separations did not have enough personal information to be linked within the NHDH and were therefore excluded from the analyses. There were 125 FDV hospital separations where personal information was missing and these were therefore excluded from analyses. This equates to around 2% of in-scope FDV hospital separations within the NHMD.

Defining the comparison group

The comparison group was selected using stratified random sampling, with cases stratified by year of first hospital stay, age at first hospital stay, sex, Indigenous status and remoteness area as mapped according to postcode to the ASGS remoteness area score. These are all factors known to be associated with FDV which could influence the hospital interactions being analysed and are therefore controlled. However, this list is not exhaustive, and there may be unknown factors, or factors that are not captured within the hospital data that are likely to also influence results (such as drug and alcohol use and homelessness).

It is important to note that the comparison group may include people who have experienced FDV, and have been admitted for injuries related to FDV, but the assault, and/or perpetrator has not been identified on the hospital record. Further, there were 125 FDV hospital stays among the comparison group however these occurred after age 18 and therefore they are not eligible to be in the study group.

National Non-Admitted Patient Emergency Department Care Database

External causes of injury information is not available in national ED data, and therefore presentations that are due to FDV cannot be determined. Principal diagnosis information is also limited in the ED data, with data only available from 2013–14 onwards. Furthermore, coding practices of diagnosis data have varied over time and across jurisdictions.

Remoteness and socioeconomic areas (of patients' usual residence)

Remoteness and socioeconomic areas are not explicitly analysed in this report. However, remoteness area at the time of a person's first hospital stay is used for stratification purposes where possible, to make up the comparison group. There were 275 controls (out of 20,096) that could not be completely stratified based on remoteness area. These 275 controls were selected by running the stratification process again, but without remoteness area included.

Administrative data sources

This project focused on national admitted hospital data. Within these administrative hospital data, only acute care hospital stays were analysed in an attempt to capture discrete FDV events. However, a limitation of this is that a discrete FDV event may be missed. For example, if there was no associated acute care.

In order to measure the full system impacts of FDV, a person's full admitted hospital experience should be analysed including periods of rehabilitation and other care types, and ideally other aspects of the hospital system, for example, ED and outpatients, if FDV-related information were available in the data.

As mentioned in Chapter 1, analysis of service-level data will not represent the complete picture of people experiencing FDV and/or of those who may need the specific service being provided.

The NHDH also has some limitations. Currently, the NHDH does not include data from Western Australia and the Northern Territory. This is a key limitation as it means that there is under-representation, particularly in relation to more remote areas and Aboriginal and Torres Strait Islander populations.

Data coverage

Hospitals data for Western Australia and the Northern Territory are not included in the NHDH 1.0. This is a key limitation of the NHDH 1.0, as data from the NHMD show that in Australia in 2019–20, around 17% of FDV injury hospital separations occurred in Western Australia, and 21% occurred in the Northern Territory (AIHW 2024b).

Missing data

Some records derived from the NHMD did not contain enough information to be linked in the NHDH, and therefore were removed from analysis:

- 125 FDV hospital separations recorded from 2010–11 to 2020–21 that were not able to be linked in the NHDH
- 154 Assault hospital separations with an unknown or unspecified perpetrator recorded from 2010–11 to 2020–21 that were not able to be linked in the NHDH. There is a potential that some of these cases are FDV.

Unlinked data can represent cases where a person did not provide their name or date of birth when they presented to hospital. This may be more common among vulnerable populations, such as migrants and refugees, as well as people at risk of, or experiencing homelessness or mental health conditions.

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The authors of this report gratefully acknowledge the contributions of the jurisdictions who provide data for the NHDH, the AIHW data custodians, and the contributions of the NHDH Advisory Committee and the FDSV Advisory Group.

Abbreviations

ABS	Australian Bureau of Statistics
ACMS	Australian Child Maltreatment Study
AIC	Australian Institute of Criminology
AIHW	Australian Institute of Health and Welfare
DSS	Department of Social Services
ED	emergency department
FDSV	family, domestic and sexual violence
FDV	family and domestic violence
GP	general practitioner
ICD-10-AM	International Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification
MBS	Medicare Benefit Schedule
NDI	National Death Index
NHMD	National Hospital Morbidity Database
NHMP	National Homicide Monitoring Program
NHDH	National Health Data Hub
NNAPEDCD	National Non-admitted Patient Emergency Department Care Database
NSW	New South Wales
PSS	Personal Safety Survey
SHS	Specialist Homelessness Services
SNOMED	Systematized Nomenclature of Medicine
WHO	World Health Organization

Symbols

Symbol	Definition
—	nil or rounded to zero
..	not applicable
n.a.	not available
n.p.	not publishable because of small numbers, confidentiality or other concerns about the quality of the data

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Related publications

Australian Institute of Health and Welfare (2021) *Examination of hospital stays due to family and domestic violence 2010–11 to 2018–19*, AIHW, Australian Government, accessed 08 March 2024. doi:10.25816/9ypy-9p54



This report uses linked data to examine the demographic characteristics and health service interactions for young people with at least 1 FDV-related hospital stay. It shows 5,024 young people had at least one FDV-related hospital stay when aged under 18 from 2010–11 to 2020–21. Half (54%) were female, one-third (33%) were Aboriginal or Torres Strait Islander people, and over one-third (37%) had their first FDV-related stay before age 5.

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