

Princess Margaret Hospital Injury Surveillance

From 1987 to now



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Established in 1986 by the WA division of the Child Accident Prevention Foundation of Australia

- **Surveillance:** data record of PMH ED presentations
- **Development:** appropriate injury prevention interventions
- **Dissemination:** of findings to increase community awareness of childhood injury



Developments

- 1986: Establishment of the ISS by CAPFA WA
- 1987: First calendar year report
- 1995: DoH & PMH became responsible for managing the ISS
- 2004: Changes to the ISS Coding Set
- 2005: Kidsafe WA contracted to produce the WA Childhood Injury Surveillance Bulletin
- 2007: Contract renewed until 2010

ISS Operation

- **Classification:** International Classification of External Causes of Injury (ICECI)
- **Database:** Emergency Department Information System
- **Recording:** Triage nurse assesses all presentations, those presenting due to injury then have injury surveillance data taken
- **Data completeness & accurateness:** Daily validation of injury data fields by the Injury Surveillance Officer
- **Limitations:** Represents only the presentations to PMH

Kidsafe WA's responsibilities

- Re-form & coordinate Injury Surveillance **steering group**
- Liaise with PMH Injury Surveillance officer to **identify specific injury issues**
- Produce **Quarterly Injury Surveillance Bulletins**
- Produce an Injury Surveillance **Annual Report**
- Produce an **Annual Research Report**
- Update the Kidsafe WA **website** to include all Injury Surveillance Reports

ISS Coding Sets - 1987 vs. 2004

1987

- Number/Age/Sex
- Month/Day/Time of Injury
- Body Parts Injured
- Human Intent
- Breakdown Event
- Breakdown Factor
- Context of Incident
- Location of Incident
- Nature of Injury
- Mechanism of Injury
- Safety Precautions
- Disposal

2004

- Number/Age/Sex/
Aboriginality/Residence
- Month/Day/Time of Injury
- Human Intent of Injury
- Cause of Injury
- Place of Injury *
- Source of Referral
- Injury Factor *
- Disposal *

* Limited

ISS Coding Changes - Drawbacks

- **Removal of coding sets for:**

- Body Parts
- Context of Injury
- Breakdown event which led to injury
- Mechanism of injury
- Nature of injury

} Simplified and combined to "cause of injury"

- **Simplification of Coding Sets for:**

- Location of injury
- Breakdown factor (injury factor)
- Disposal



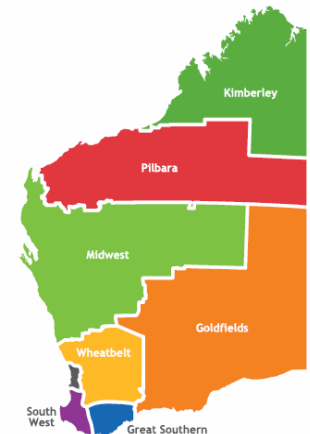
Implications:

- Now have to rely on any free text entered by Triage Nurses to get same level of information as previously available
- Impedes data analysis, hinders the observation of trends and development of interventions



ISS Coding Changes - Benefits

- ISS form easier and faster to complete
 - Reduced possibility for incorrectly coded details or incomplete form completion
- Injury data can be integrated with the system used in other major metropolitan hospital ED's in WA
 - More comprehensive surveillance of injury in WA
- Added data sets:
 - Aboriginality
 - Mode of referral
 - Area of residence



Additional Modifications

- Since 2004, the usefulness of the new ED ISS has been monitored on an ongoing basis, and modified accordingly
- Additions to Coding Sets:
 - Safety precautions
 - Poisons breakdown
 - Sport
 - Areas within the home (still to come)



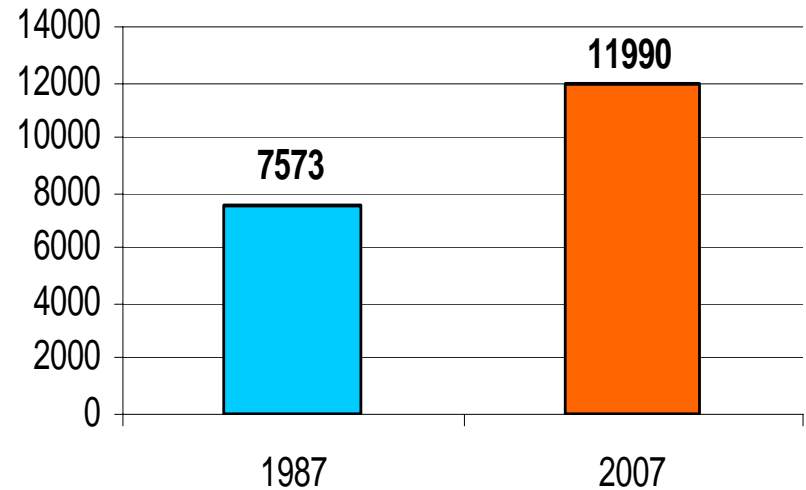
Injuries - 1987 to Now

- Data taken from 1987 annual report and from the 2006/07 annual report and database
- Comparisons of patient demographics, injury causes and types, treatment and assessment characteristics
- Changes to ISS and the data coding set limits detailed comparison
- However, where comparison has been possible, little appears to have changed between 1987 and now

Raw Presentation Numbers

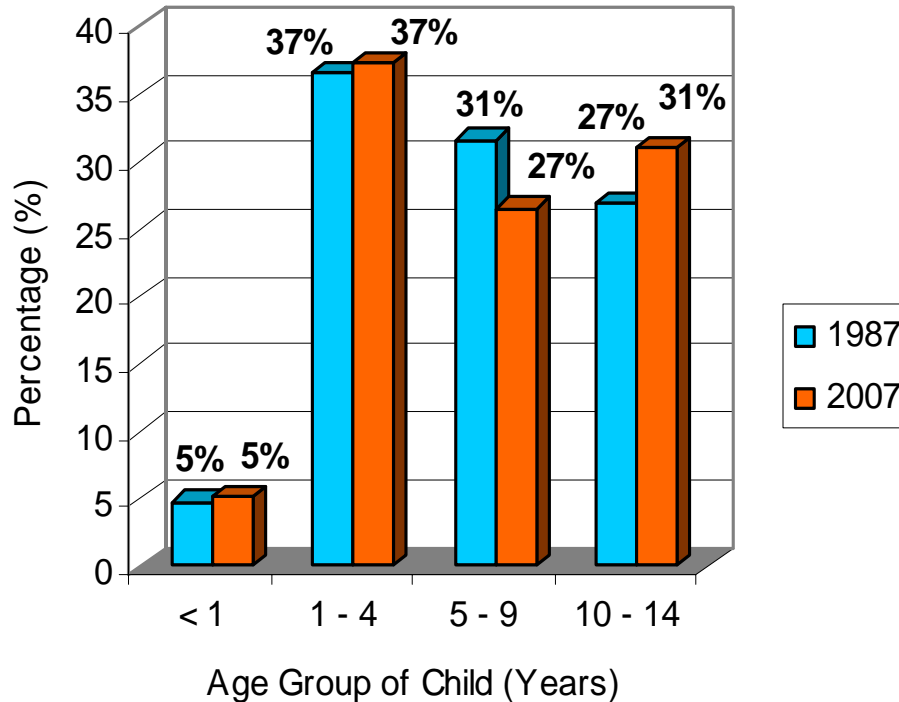
- Raw presentation numbers have increased by 58%
- This could be the effect of a larger population rather than a true increase in numbers

PMH ED Presentations 1987 and 2007



Age and Gender

Presentations by Age Group



- Gender ratios of males to females in both years 3:2

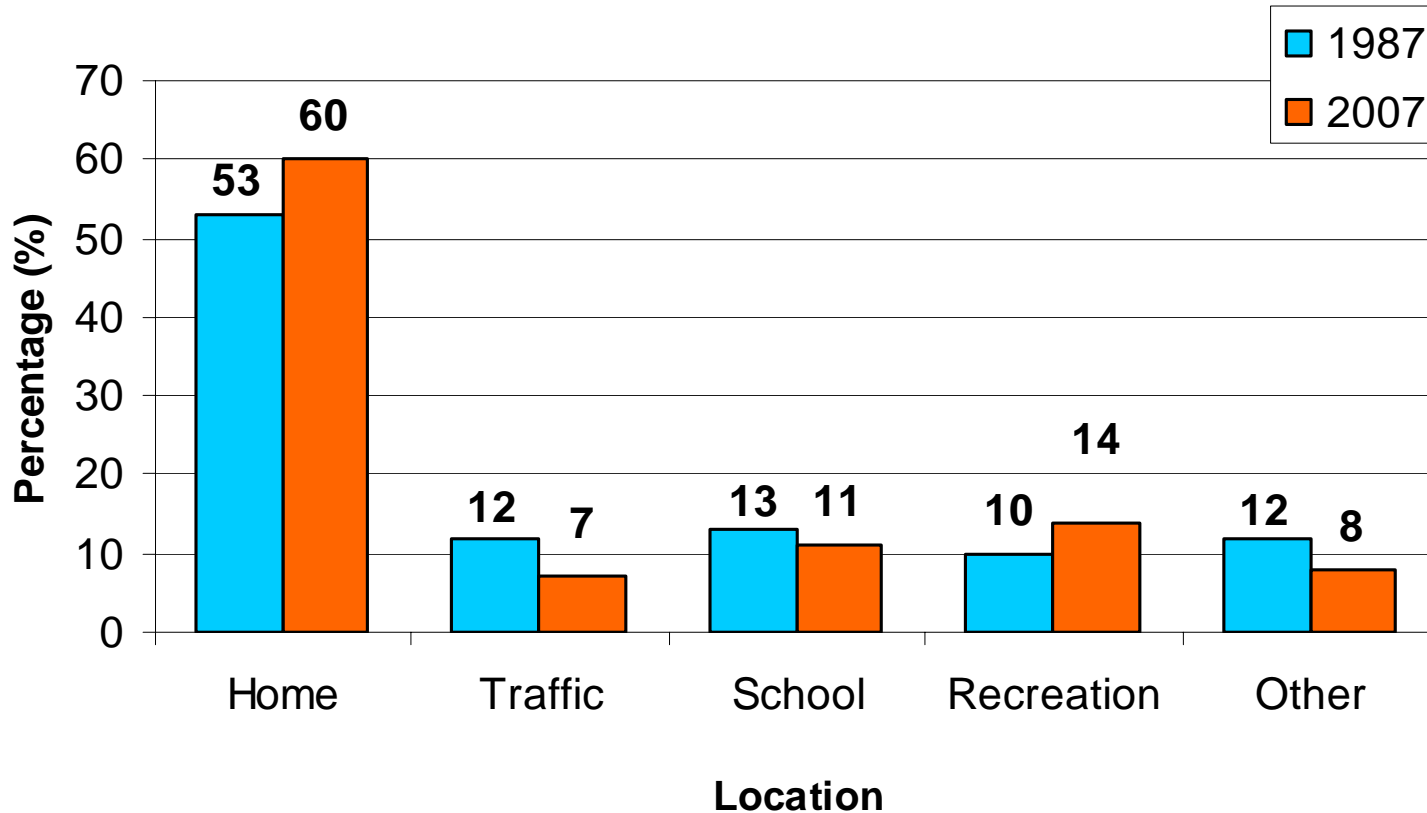
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Location of Injury

Presentations by Location



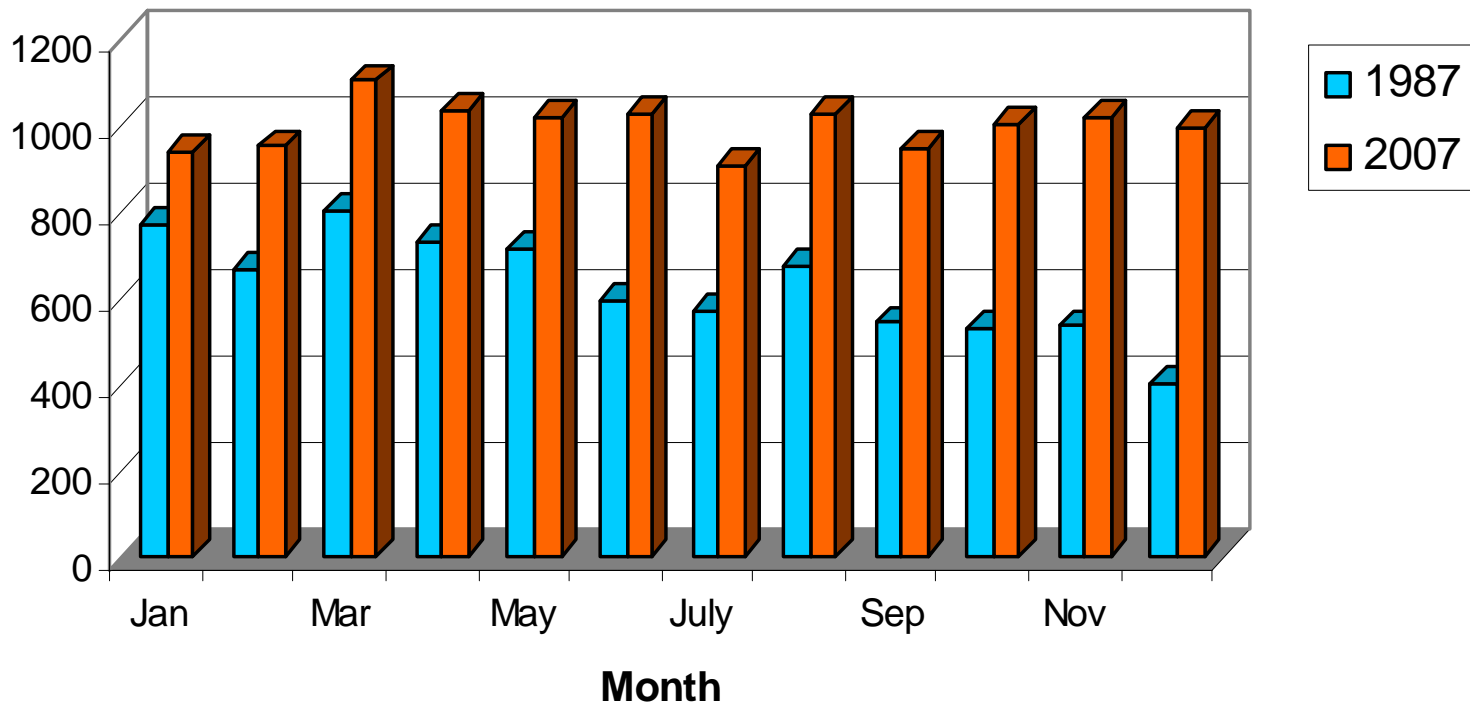
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Month of Injury

Presentations by Month



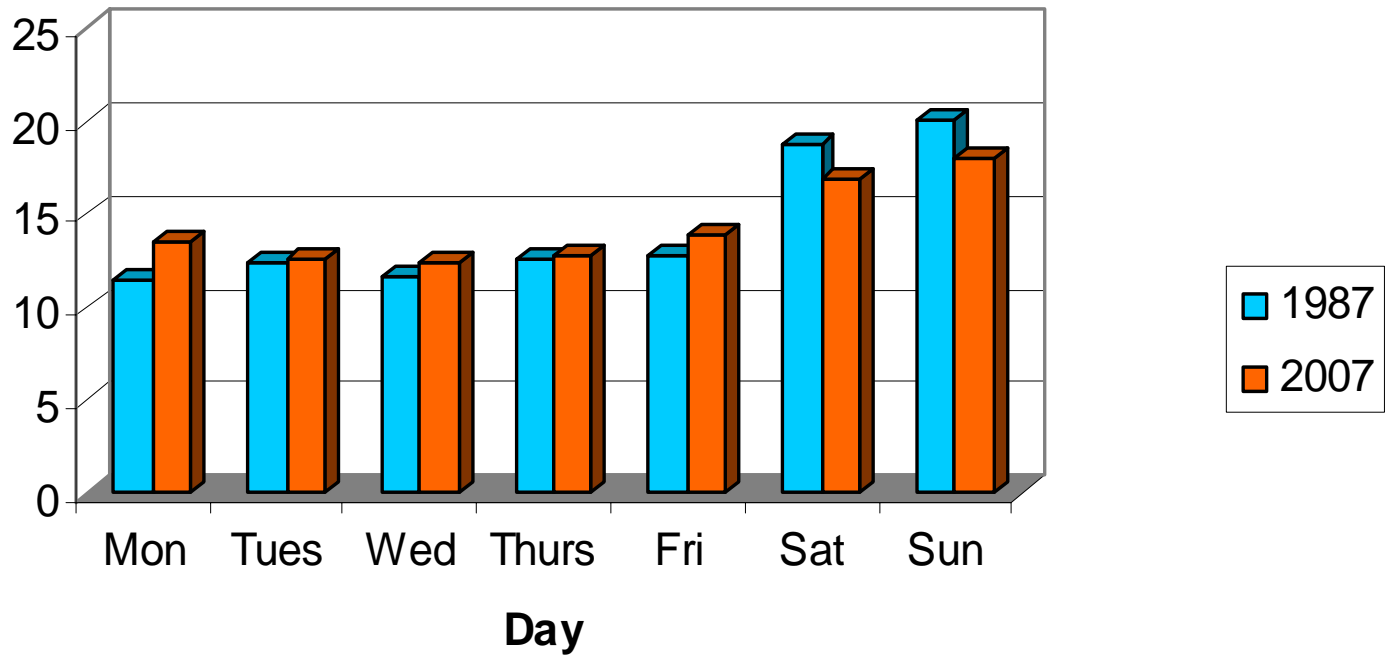
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Day of Injury

Presentations (%) by Day



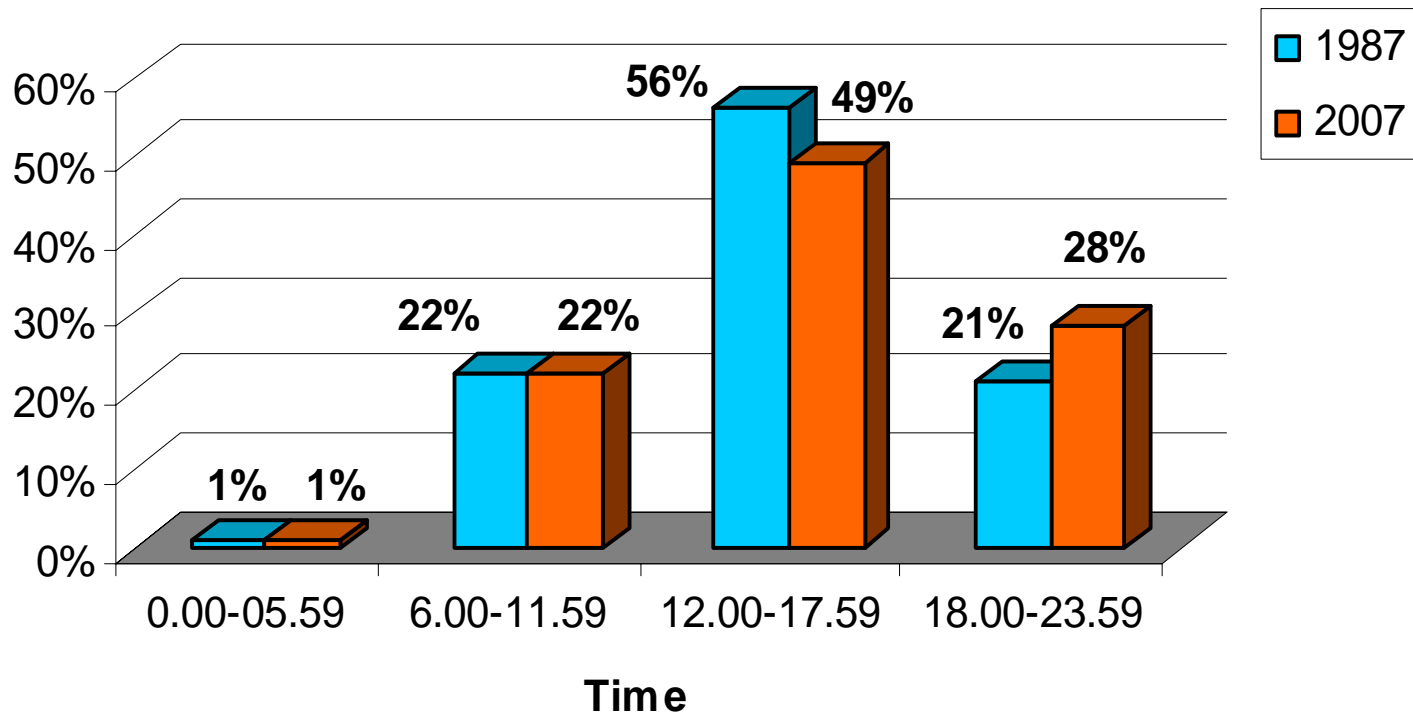
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Time of Injury

Presentations by Time of Injury



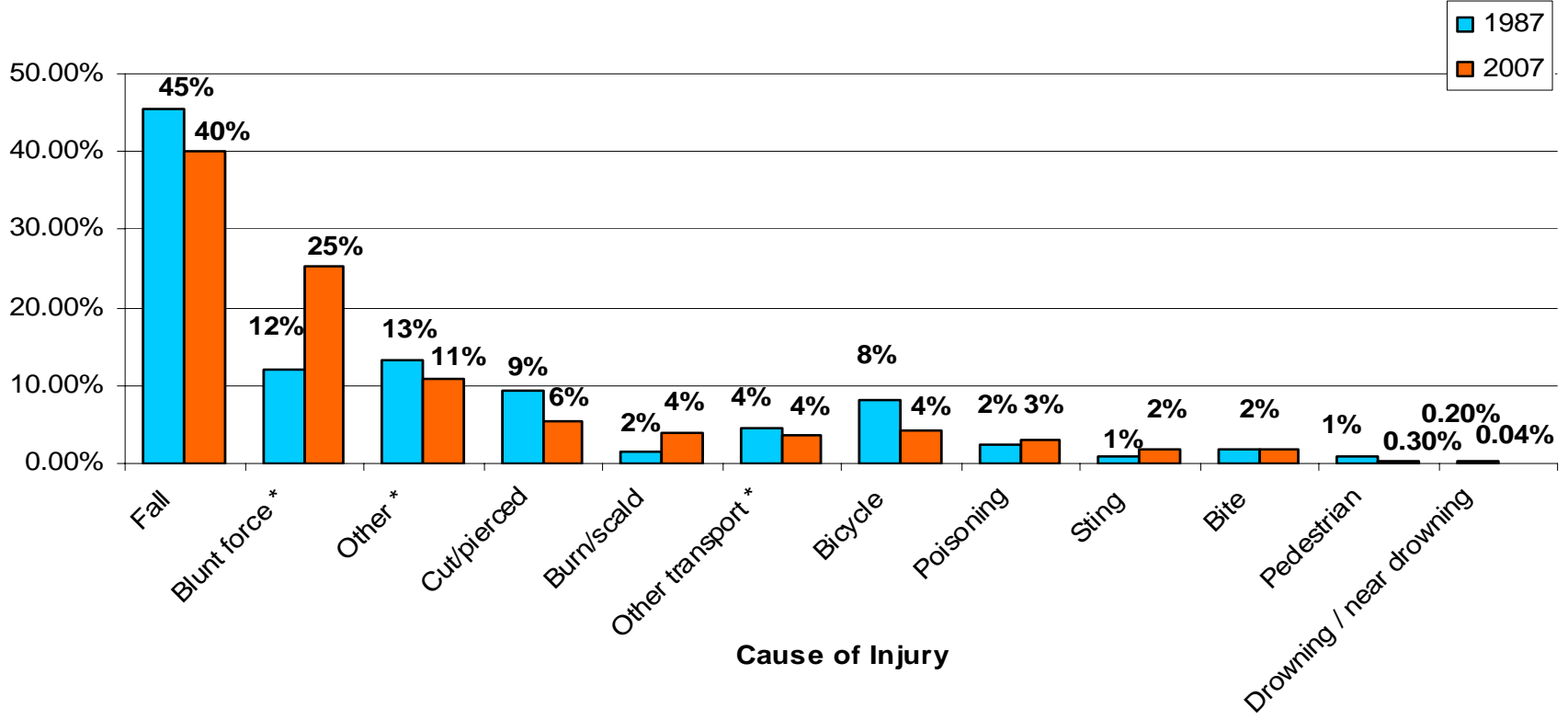
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Cause of Injury

Presentations by Cause



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Intent of Injury

	1987	2007
Unintentional	97.4%	96.1%
Assault	0.3%	1.0%
Self-Harm	0.3%	1.0%
Not Known	2.0%	0.9%

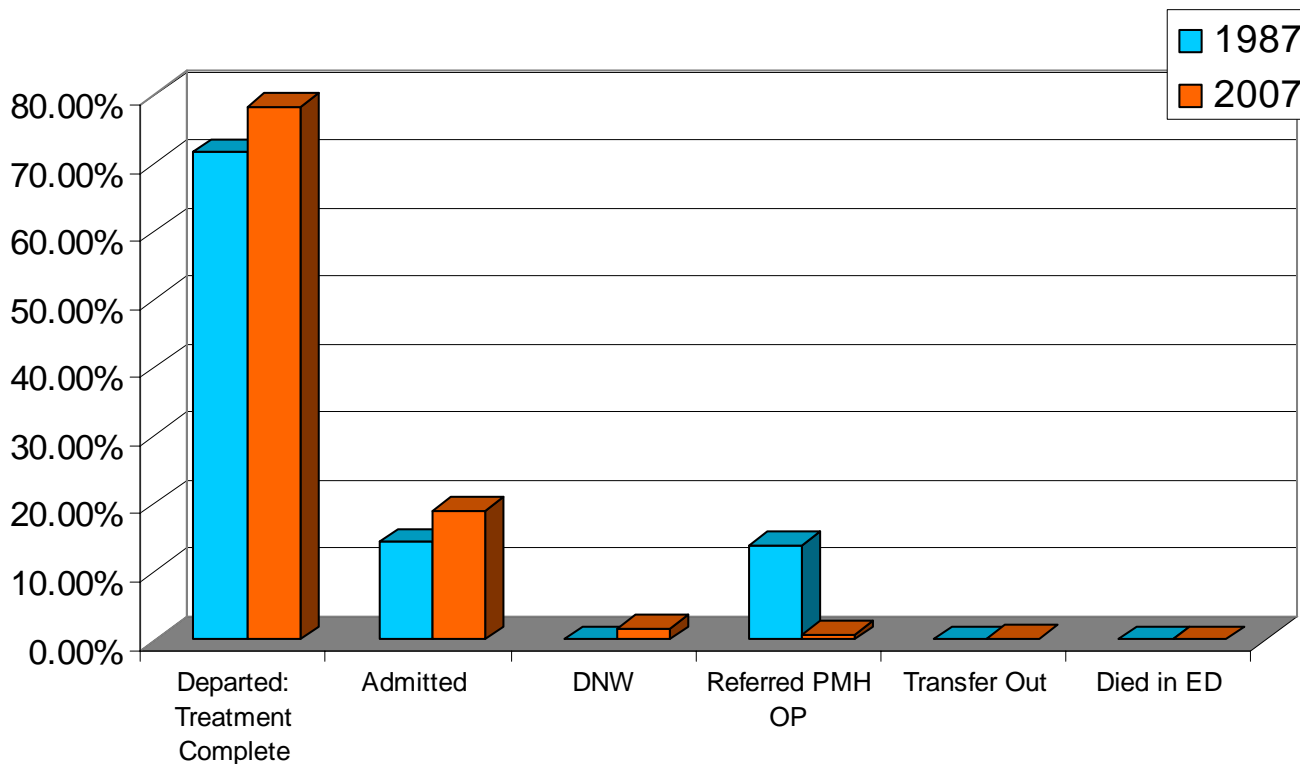
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Outcome

Outcome of Presentations



Outcome

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What does this all mean?

- Little has changed since 1987
- Number of presentations greater
- Improvements in road traffic injuries and bicycle related injuries
- Legislative changes, awareness raising

Where to go from here?

- Not as much is now able to be gained about context and causes of childhood injury
- Need to re-instate some of old codes to gain a more comprehensive understanding
- Continue to monitor trends, disseminate information, raise awareness and campaign for change