Vaporiser-related injury among children (0-14 years)

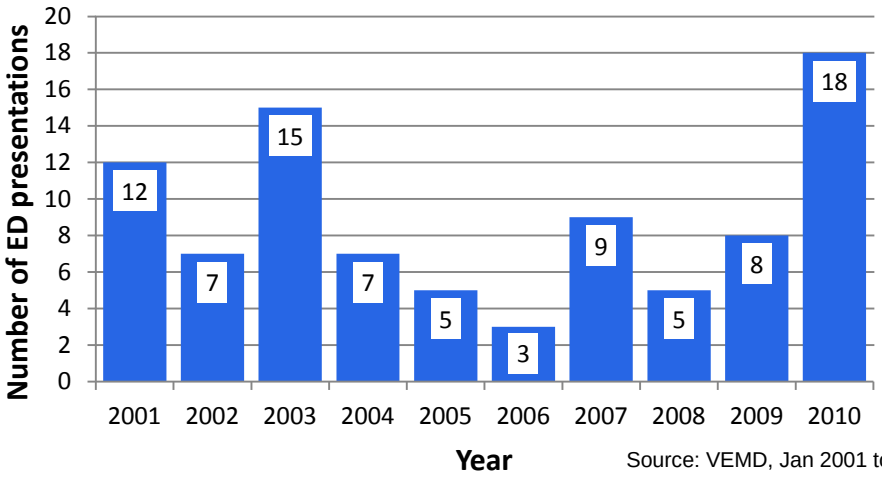
Data supplied by the Victorian Injury Surveillance Unit, Monash Injury Research Institute.

Data were selected from the Victorian Emergency Minimum Dataset (VEMD) which is collected from the 38 Victorian hospitals with a 24-hour emergency service. Data quality varies across the hospitals so the counts reported here are underestimates.

Data source: Victorian Emergency Minimum Dataset (VEMD) January 2001 – December 2010 (10 years)
Search Strategy: Child injury associated with vaporiser were identified by searching the VEMD for cases using the text term "vaporiser" and “humidifier” and spelling variations contained in the 250 character 'Description of Injury Event' field. Selected cases were checked and any irrelevant cases were excluded from the dataset prior to analysis.

Frequency: In the years between January 1 2001 and December 31 2010 there were 89 vaporiser-related emergency department (ED) presentations.

Figure 1 Child ED presentations for vaporiser-related injury by year 2001-2010 (n=89)



Source: VEMD, Jan 2001 to Dec 2010

Gender: Males (56 %) presented more frequently than females (44%).

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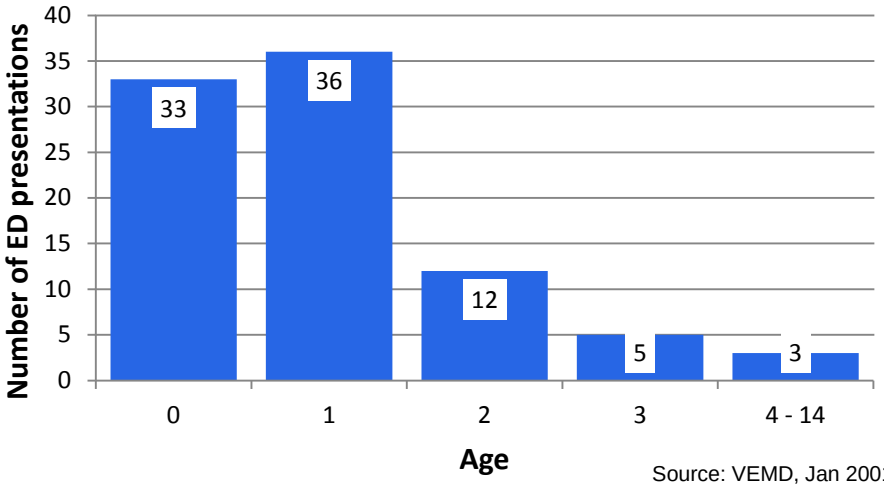
VISU is funded by the Victorian Department of Health

Figure 2 ED presentations related to vaporisers by age (0-14 years) (n=89)



Source: VEMD, Jan 2001 to Dec 2010

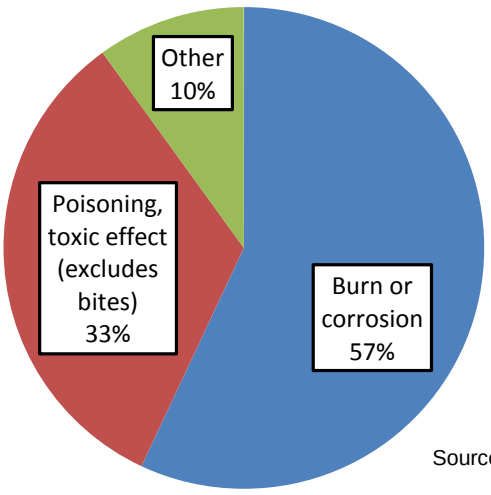
Age: All but three cases involved a child aged 0-4 years.

Sample of case narratives:

- *Father woke in middle of night to administer paracetamol, accidently administered camphor based vaporiser fluid.*
- *Eucalyptus ingestion drank from humidifier 20 ml worth of solution.*
- *Child crawled onto vaporiser steam burning right eye and cheek vaporiser had eucalyptus, lavender and rosemary oil from earlier in night.*
- *Steam burn to left hand from vaporiser.*

Cause: The two most common causes of ED presentation were burns caused by hot steam or contact with the vaporiser unit itself, and poisoning due to accidental ingestion of chemicals used in vaporisers. Ingestion of chemicals used in vaporisers occurred directly from the vaporiser and from the original bottle.

Figure 3 Child ED presentation for vaporiser-related injury by type of injury (n=89)



Source: VEMD, Jan 2001 to Dec 2010

Body site: The most commonly injured body site was hands (51%) and 37% of cases were coded to body region not required (these are poisoning cases).

Safety tips: Humidifiers that use cold liquid and spinning fan cannot cause burns but may cause cuts. They can cause upper respiratory tract infections though if not cleaned regularly.

Further information:
http://www.monash.edu.au/miri/research/research-areas/home-sport-and-leisure-safety/visu/hazard/haz43.pdf