

## Introduction

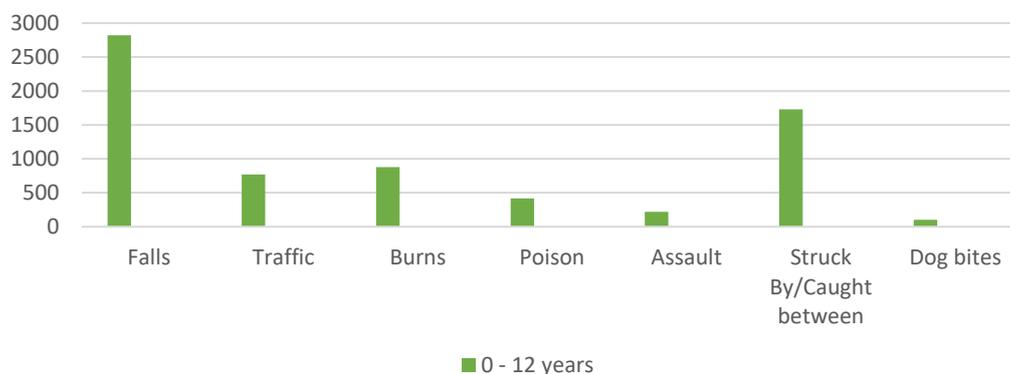
The collection of child injury data plays an important role in the development of strategies to prevent and minimise children's injuries. It relies on an efficient and reliable data system such as that of ChildSafe with the RCWMCH. Through the analysis of data, injury trends can be noted as well as the effects of injury prevention programs. This report was compiled through a collaboration between ChildSafe, Red Cross War Memorial Children's Hospital's Trauma and Paediatric Units, and the Poisons Information Centre.

The World Report on Child Injury Prevention outlines that the five most common causes of injury amongst children worldwide are transport injuries, drowning, burns, falls and poisoning which closely aligns with the injury statistics reported in this report. Injuries are a leading cause of death and disability among children in South Africa. During the study period, on average 18 children per day were attended to at the RCWMCH Trauma Unit, 6568 children were treated during this period, 1873 injuries required hospital admission and 6 children died of their injuries.

A close analysis of the most recent five- year study period shows an overall 15% reduction in the number of child injuries. The reduction excludes fall injuries though, which show a consistent annual increase of 2%.

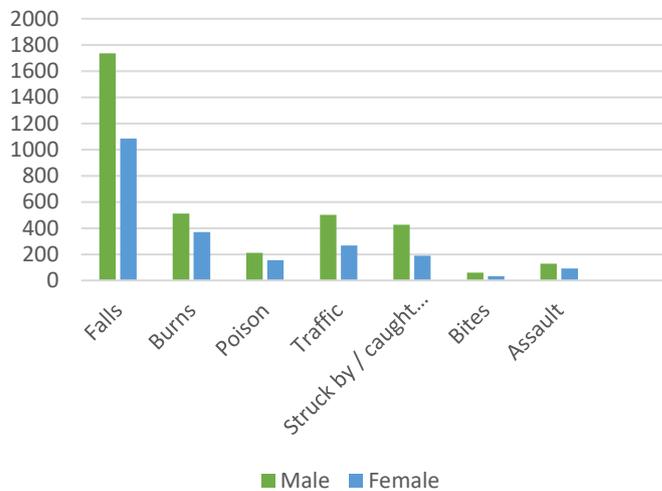
While this overall decrease is a cause for optimism, much work is still needed to reach decision makers, communities, caregivers/parents and children to raise awareness around child injury prevention. Data shows individual injury type numbers remain high.

**2019 Injuries by cause for children aged 0 to 12 years**



In 2019 fall injuries accounted for 43% of all injuries, children struck by or caught between objects for 28%, burns for 14%, traffic crash injuries at 12%, poisoning for 7%, assault, 4% and dog bites for 2%. The 15 locations with the highest child injury rates were all located in what is called the Cape Flats. Athlone had the highest number at 845 child injuries.

## All injuries by gender

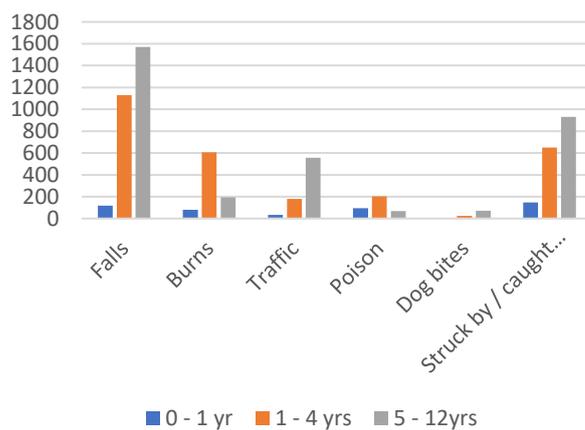


Boys were treated 1.5 times more than girls across all injury types, except sexual assault; in some cases, the ratio was as high as 2.5;

Girls accounted for all the sexual assault injuries.

Boys accounted for 60% (3992) of the 6568 children treated; their injuries were also more severe than those of girls.

## All injury by age

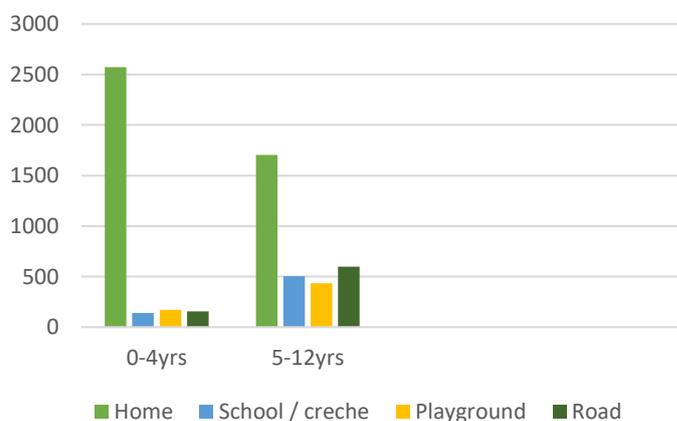


Children between the age of 5 and 12 years accounted for 52% of injuries.

Children aged 1 to 4 years accounted for 41% of children treated.

Children under 1 year accounted for 7% of injuries.

## Location of injury by age



In children under 4 years, 85% of injuries occurred at home, followed by 3% at ECD / creche, 6% on the playground and 6% on the road.

For children between 5 and 12 years, 55% of injuries occur at home, followed by 20% on the road, 13% at school and school and 12% on the playground.

## 6 Children died due to preventable injuries

In 2019, 6 children died; 3 died of head injuries due to pedestrian crashes, 1 died of a firearm injury, 1 died after being struck by an object; and 1 was declared dead on arrival at the hospital.

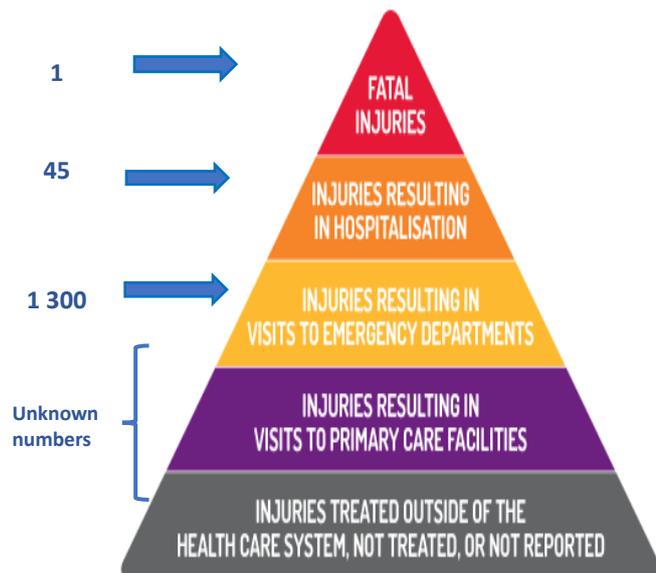
While the ChildSafe data show overwhelming numbers of child injuries for one hospital, it is worth bearing in mind that it is only the tip of the iceberg.

### Pyramid of injury

Death is the most prominent measure of injury, but death is not the only outcome of injury, nor the most common one.

Injury is often represented as a pyramid, with the smallest outcome, death, at the top.

The Child Safety Network<sup>1</sup> showed that for every child who was fatality injured, 45 other children required hospitalization, further 1300 were seen in trauma units and countless others were treated outside the health care system or not treated at all.



Unicef<sup>2</sup> in 2008 further showed that for every death there are approx. 12 children permanently disabled.

## Head Injuries

In 2019, 763 head injuries were treated.

3 children died of head injuries.

Children under 5 years accounted for 55% (421) of the overall head injuries and 5 to 12 -year olds for 45% (342).

60% of the head injuries were as a result of falls, 27% due to traffic related injuries, 3% due to assault.

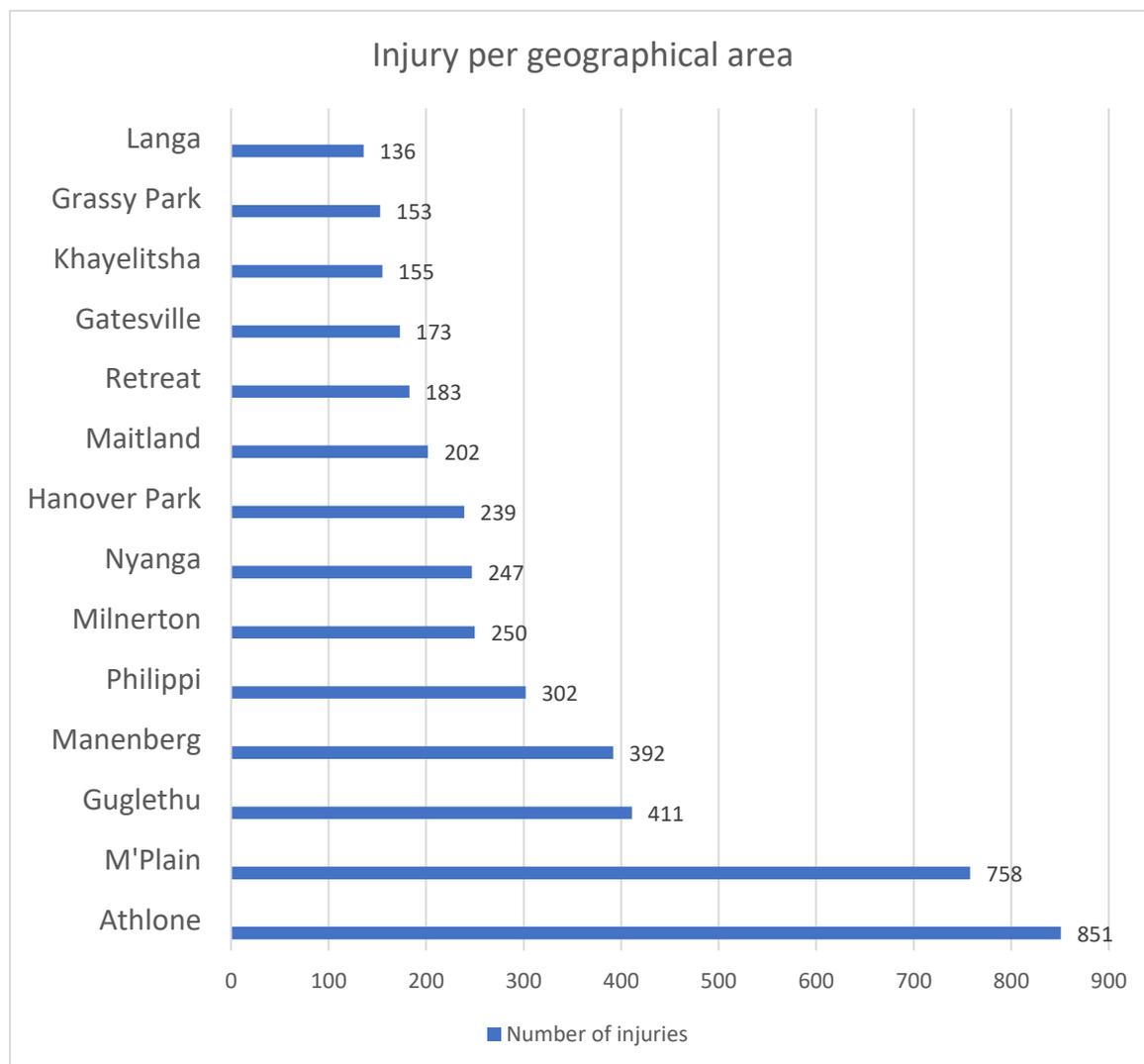
Boys (480) sustained head injuries at almost twice the rate than girls (283)

<sup>1</sup> Gallagher SS et al. The incidence of injuries in 87,000 Massachusetts children and adolescents. *American Journal of Public Health*. 1984, 74:1340 - 1347

<sup>2</sup> Linnan M et al *Child Mortality and injury in Asia: survey results and evidence*. Florence, Unicef Innocenti Research Centre, 2007.

## Geographical areas where injury occurred

Athlone accounted for 23% of all injuries (4213) out of the top 15 areas in Cape Town. Mitchel's Plain accounted for 19% of the cases. The majority of the areas were in the area considered the Cape Flats.



The report assessed data with a prevention approach by summarizing key injury data points, along with suggested prevention interventions for each injury. The rationale being that there are not enough child injury prevention practitioners, we must therefore use every opportunity to raise awareness and share strategies which works; and it is meaningless to publish data only, while strategies exist that have been show to work and can reduce the number of injuries.

## The importance of a prevention approach

Improving child safety is far more complex than previously recognized. Rather than an overreliance on simple solutions, effective child injury prevention requires dynamic solutions that address the complex contexts in which children are injured. Therefore, multifaceted interventions are more effective in reducing injury.

ChildSafe's aim is to identify and focus on evidence-informed good practice and strategies most likely to reduce childhood injuries. Globally, there are seven proven and promising strategies to reduce intentional injuries:

1. Environmental modifications – to make the world more child and family friendly. This can include introducing traffic calming measures and reducing the speed limit.
2. Product modification – for example child-resistant caps on medication or containers of poisonous substances.
3. Legislation, regulation and enforcement – these are considered the most effective strategies, especially when enforced and used in combination with other strategies e.g. the law that requires mandatory child restraint use in passenger cars
4. Promoting safety devices – such as bike helmets or child restraints.
5. Home visits to families of young children, where information provided is age appropriate and combines with strategies such as provision of free safety equipment.
6. Community-based interventions – with a focus on changing community values and behaviours, along with the children's environment
7. Education and skills development – this can work well if combined with other strategies with a focus on targeted community interventions for children and parents, in health and education settings.

## Conclusion

While children can never be entirely protected from injury, research has shown that a significant portion of unintentional injuries are preventable. It is ChildSafe's hope that routine data sharing of child injury can illustrate the importance of data collection, standardization and quality. Data on the circumstances of injury, location and community details, can all work toward a systematic surveillance of child injury to inform our prevention and response interventions. Quality, routine data can also highlight the importance of adequately resourcing policies and programs to reduce the burden that child injuries place on the government system.

Prevention guided by strong data is critical. Prevention safety strategies designed specifically for children which consider various developmental issues, risk taking behaviours, levels of activity and the child's degree of dependence are important for success. If we simply replicate safety strategies designed for adults, we cannot provide adequate protection for children. The most effective programs for reducing childhood deaths and hospitalisations are those that consider childhood vulnerabilities and use a multidisciplinary approach.

The World Report on Child Injury Prevention advises that there is no single strategy for success, but six basic principles that when done together can be successful in preventing child injuries:

1. Legislation and regulations, and their enforcement
2. Product modification
3. Environmental modification
4. Supportive home visits
5. The promotion of safety devices
6. Education and the teaching of skills.

We need to continue to focus on evidence-based interventions and sustained investment in injury prevention and control for children. Injury prevention strategies need to be designed to target the specific needs of different groups where injury rates are significantly higher and ensure that there is ongoing community engagement with the communities.

We also need to consider the general population and ensure that we continue to focus on providing contemporary programs and interventions for all new parents to ensure the safety of generations to come.

While still allowing children to grow, develop, take risks and play, we can achieve a greater reduction in injuries and a reduced burden on the health system and emotional toll on families who must deal with the loss/serious injuries of a child.