

# **Epidemiology Of Gun Related Injuries Among Canadian Children and Youth from 2005-2013: A CHIRPP Study**

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## **Introduction**

Gun related injuries were last reported by the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP) in 2005. Since that time, Canadian gun control is less stringent and non-powder guns are increasingly popular. We aim to describe trends in pediatric gun related injuries and deaths since 2005.

## **Methods**

This is a retrospective review of CHIRPP data. The dataset included pediatric (age 0-19 years) gun-related injuries and deaths reported by participating CHIRPP emergency departments (ED) from 2005-2013. Variables were tested using Fisher's exact test and simple linear regression.

## **Results**

There were 421 records of gun-related injuries in the database. Three hundred and twenty-nine occurred from use of non-powder guns, 85 occurred from use of powder-guns, and in 7 cases the type of gun was not clear. The number of gun-related injuries per 100 000 ED visits remained stable from 2005-2013 with a male predominance (n=366, 87%). Most injuries resulted from non-powder guns and were unintentional. Injuries most often occurred in the context of recreation (n=181) and sport (n=51). One hundred fifty four eye injuries were reported, 98% of which were from a non-powder gun. Forty-six individuals required admission to hospital and 2 died in the ED. Nine of 10 intentional self-harm injuries were inflicted with a powder gun.

## **Conclusions**

This study describes the injuries and circumstances in which pediatric gun-related injury and death occur in Canada. Unintentional injuries caused by non-powder guns were most common. Though less fatal than powder guns, non-powder guns can still cause life-altering eye injuries. This evidence can inform injury prevention programs to target specific circumstances in which the pediatric population is most vulnerable.