



# Injuries and Violence in the Caribbean: How big is the problem?

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**ABSTRACT** Understanding the current mortality profile of injuries and violence in the Caribbean is critical to the development of effective and efficient interventions. The objective was to quantify and characterize deaths from injuries and violence in the English- and Dutch-speaking Caribbean using mortality data. Data for the period 2007-2013 were selected from the CARPHA regional mortality database and an analysis of regional causes of deaths by age and gender was completed. Annual deaths from injuries accounted for 11.5% of all deaths and four times as many men as women die from an injury. Among persons aged 15-44 years, 116,931 person-years of life were lost due to injuries. One in four males aged 1-44 years die from violence than from any other cause. Injury death rate and the related causes vary substantially across countries within the region. Variability of these profiles across the region suggests more research is needed to inform development of age-, gender- and country-specific programmes.

## INTRODUCTION

Injuries and violence is are recognised within the Caribbean as having a major impact on youth and those of the productive and reproductive age-groups<sup>1</sup>. Largely predictable and preventable, they are identified as a priority area in the Caribbean Health Research Agenda, in support of the Caribbean Cooperation in Health Phase III (CCHIII)<sup>1</sup>.

The Caribbean Public Health Agency (CARPHA) maintains a regional database of cause-of-death data, populated with annual data submitted by member states. A first step to tackling injuries and violence, is to quantify and describe the problem. This paper partially determines the magnitude of the burden of injuries in the Caribbean through a review of cause-of-death data for the region.

## OBJECTIVES

To partially determine the magnitude of the burden of injuries and violence in the Caribbean through a review of cause-of-death data for the region.

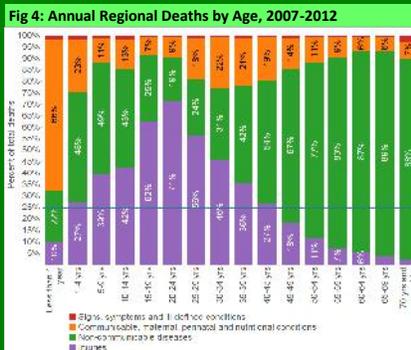
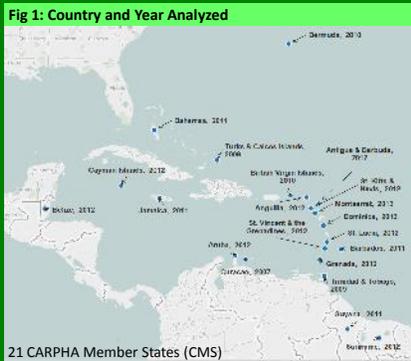
## METHODS

Data from CARPHA's regional mortality database, for the period 2007-2013, were reviewed and the following variables analysed: *age, gender and the underlying cause of death (UC)*<sup>2</sup>. The UC was coded using the 10<sup>th</sup> revision of the International Statistical Classification of Diseases and Related Health Problems (ICD-10).

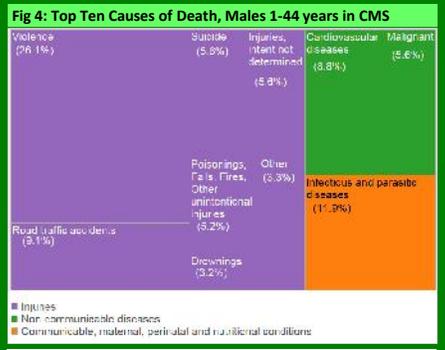
The most recent year of available data for each country for the period 2007-2013 was analysed. Descriptive analyses were used to summarize, for the region, the causes of death by 5-year age bands and the top ten leading causes of death among persons aged 1-44 years using the Global Burden of Diseases (GBD) grouping for causes of death. For each country, the crude death rate due to injuries, per 100,000 population, by gender was calculated, followed by a description of the distribution of the type of injuries contributing to death.

<sup>1</sup>World Health Organization. International Statistical Classification of Diseases and Related Health Problems, 10th Revision. Volumes 1, 2, 3. 2010th ed. Geneva: WHO; 2010.  
<sup>2</sup>Software used: PostgreSQL version 8.4, pgAdmin 1.18.1, Microsoft Access 2013, Microsoft Excel 2013 and Tableau 8.1.

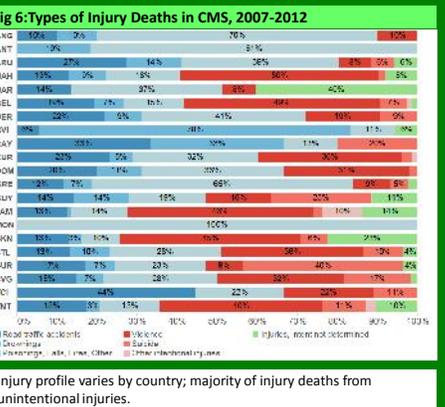
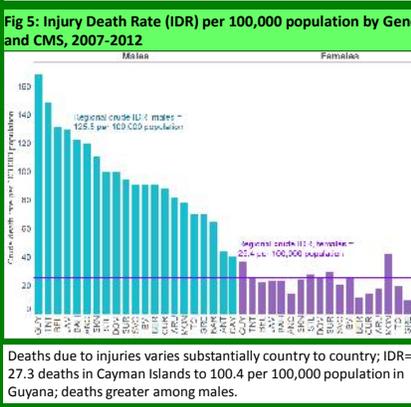
## RESULTS



More than a 1/4 of deaths from injuries in each 5-year age group. Males and persons aged 1-44yrs most vulnerable groups affected by injuries.



Leading causes of death for males as a vulnerable group indicate: 1 in 4 die from violence, 1 in 10 from road traffic accidents and 1 in 20 from self-inflicted wounds.



## CONCLUSIONS

This work provides useful information on vulnerable groups and the countries most affected by injuries and violence. Completion of the certificates by physician and the provision of information on accidents, violence and other external causes of death are some of the limitations. Males aged 1-44 years are more likely to die from violence and injuries than any other cause; the latter among males exceed the regional average in countries with larger population sizes (Guyana, Trinidad and Tobago, Belize and Jamaica). The profile of injury deaths varies from country to country, with, road traffic accidents, drownings, violence and suicide contributing to deaths in almost every country.

## ACKNOWLEDGEMENTS

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