An Epidemiological study of Injuries In Egypt during 2011

THESIS
SUBMITTED FOR PARTIAL FULFILLMENT OF
MEDICAL DOCTOTATE DEGREE
IN PUBLIC HEALTH

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Acknowledgment

First and foremost, all praise to **ALLAH** Almighty for giving me opportunity, determination and strength to accomplish this work.

Really, I can hardly find the words to express my gratitude to **Prof.Dr. Mohsen Gadalla**, Professor of Public Health, Department of Community, Environmental and Occupational Medicine, Faculty of Medicine, Ain Shams University, for his supervision, continuous help, and tremendous effort he has done in the meticulous revision of the whole work. It is a great honor to work under his guidance and supervision.

I would like to express my sincere appreciation and gratitude to **Prof. Dr. Aish Aboul Fotouh** Professor of Public Health, Department of Community, Environmental and Occupational Medicine, Faculty of Medicine, Ain Shams University, for her continuous encouragement, unlimited help, unlimited patience and close supervision throughout the entire work.

I feel deeply thankful to **Prof. Dr. Nahla Fawzy** Professor of Public Healthe, Department of Community, Environmental and Occupational Medicine, Faculty of Medicine, Ain Shams University, for her continuous help, and supervision throughout the entire work.

I am deeply touched by the support of my mother and my father (God bless his soul), as well as, my beloved brother for their indefinite support and courage.

I would also like to thank the administrative staff and all workers in the community department at Ain Shams University for their support and help.

I would like to extend my deepest appreciation to all staff in the critical care department and occupational health department injury control unit, Ministry of health and population for their kind contribution in retrieving data and other necessary aspect of the study.

Mohamed Ali Seif-Eldin

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CAPMAS Central Agency for Public Mobilization and

Statistics.

Casualty: is in this context referred to as a

person who are injured or killed in a road traffic

crash.

DALYs Disability Adjusted Life Years

DUI Driving under the influence (of alcohol)

EMR Eastern Mediterranean region

EMS Emergency medical service

FARS Fatality Analysis Reporting System

GES General Estimates System

GIS Geographical Information Systems: captures,

stores, analyzes, manages, and presents data that

refers to or is linked to location"

HIV Human immunodeficiency virus

HDR Homicide death rate

ICD 10 International Classification of Diseases, 10th

revisions: "the international standard diagnostic classification for all general epidemiological, many health management purposes and clinical

use."

ICECI International Classification of External Causes

of Injury

LoS Length of hospital stays

MOHP *Ministry of Health and Population*

MVA *Motor Vehicle Accidents*

LIST OF ABBREVIATIONS

Pedestrian Pedestrians, whether they are walking, jogging,

running, or even sitting in public, can be vulnerable to an accident with a negligent

driver

Pre-hospital *Pre-hospital* care: or emergency medical

services (abbreviated EMS), is a medical subspecialty which focuses on caring for seriously ill or injured patients before they reach hospital, and during emergency transfer to hospital mainly by ambulance or bystander

and is usually done by

emergency medical technicians and paramedics.

RTA Road Traffic Accidents.

RTCs Road Traffic Crashes: this term has been

selected as the most appropriate for this study

and is used throughout the thesis. and

RTIs Road Traffic Injuries: this term has been

selected as the most appropriate for this study

and is used throughout the thesis.

SPSS Statistical package of social science

TBSB Total body surface burn

TB Tuberculosis

SMPH Summary measures of population health

YLD Years lived with a disability

YPLL Years of potential life lost

ABSTRACT

Background: More than 5 million people die annually from injury causes, which represent a small fraction of those injured. In Egypt RTIs contributed 62 % of total deaths among other injury causes. The objectives of this study are to study a) pattern of injuries served by ambulance, b) the outcome of hospitalized cases of traumatic insults in selected hospitals in Cairo, c) to compare the ICD 10 hospitals registry with the ambulance-based data. Subjects & Methods: the study was carried out in three parts. 1st part: An epidemiological descriptive study was established in ambulance departments in Egypt during year 2011 to monitor the injuries reported by the ambulance department. 2nd part: An epidemiological descriptive study data was collected from 3 general hospital registries during first 6 months in the same year. Finally, comparison between the both systems was carried out. Results: The analysis of ambulance data revealed a total of 4388 injurious insults leading to 47789 injuries and 2806 deceased. The incidence was higher in August, mainly in Cairo. RTCs were found to be responsible for 70% of injurious insults leading to 20448 injuries and 1749 deaths followed by; fire burn, firearm and protest induced injuries. RTCs occurred mainly in midsummer months with higher incidence on Thursday from 7am to 10am, with a mean of 7 injured per crash mainly on Cairo/Alex Agriculture highway, mainly from inter-vehicle collision (46%). As regards the hospital data animal bites (45%), and road traffic (16%) were the main causes of injuries, males were reported to have higher rate (69.5%), mainly between the age groups from 15 to 24. Injures affect mainly the body extremities in 60.3%. Matching of data revealed,

ABSTRACT

ambulance delivers 131 (7.8%) of hospital injuries, 44 (34%) were in agreement with hospital data.

Conclusions: Despite the burden of injuries, surveillance of injuries is still lacking in Egypt.

Key words: Injuries, Epidemiology, Ambulance data, Hospital registry

Introduction

Injury is a bodily lesion at the organic level, resulting from acute exposure to energy (mechanical, thermal, electrical, chemical, or radiant) in amounts that exceed the threshold of physiologic tolerance[1]. In year 2000, injuries accounted for 9% of global mortality, as many deaths as from HIV, malaria and tuberculosis combined and 12% of the burden of disease worldwide [2]. Approximately five million people died as a result of an injury in 2000, accounting for nearly 1 in every 10 deaths [3]. Eight of the 15 leading causes of death for people ages 15 to 29 years are injury-related: road traffic injuries, suicides, homicides, drowning, burns, war injuries, poisonings and falls. [4].

From the global estimate of injury related death road traffic injuries account for 2.1% of global mortality. The developing countries bear a large share of burden and account for about 85% of the deaths as a result of road traffic crashes [5]. That are a significant,[6] but preventable,[7] cause of death, disability and economic loss in developing countries. Among males of the economically active age group, motor vehicle injuries are the third most important cause of death in these countries.[8] It is projected that road traffic injuries will be the second most common cause of disability-adjusted life years in developing countries in the year 2020.[9]

In Egypt Road traffic injuries contributed 62 percent of total injury deaths among all the other injury causes during 2009.[10] and no day passes without ambulance mission in

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road accident, as it is the main responsible department for providing this critical component of health through fast emergency transportation first aid measures for injured in traffic crashes.

Incidence of injuries is very high in Egypt according to what recorded by the ambulance departments that perform rescue missions for 132,158 traumatic insults of which 56% are due to traffic and 54% to other types with its outcome casualties (230,933 injured and 8538 deaths) in year 2010. [11]

Central department for emergency and critical care sector in ministry of health is responsible for framing, planning, putting policies and procedures for ambulance and emergency sectors in Egypt.

To cope with these huge responsibilities it contains a 24 h. emergency control room through which all ambulance and emergency centers are obligated to report all incident that results in the injury or illness of multiple individuals or any insults with 3 casualties or more within 15 min. of tackling their rescue mission. This is for supervision control over and crises management.

Retrospective data were collected from the submitted written reports to describe the incidence and epidemiology of major incidents dealt with by a government-run emergency medical service (EMS) in the Punjab province of Pakistan, a developing country in South Asia. A major incident in this EMS is defined as any incident that produces three or more patients,