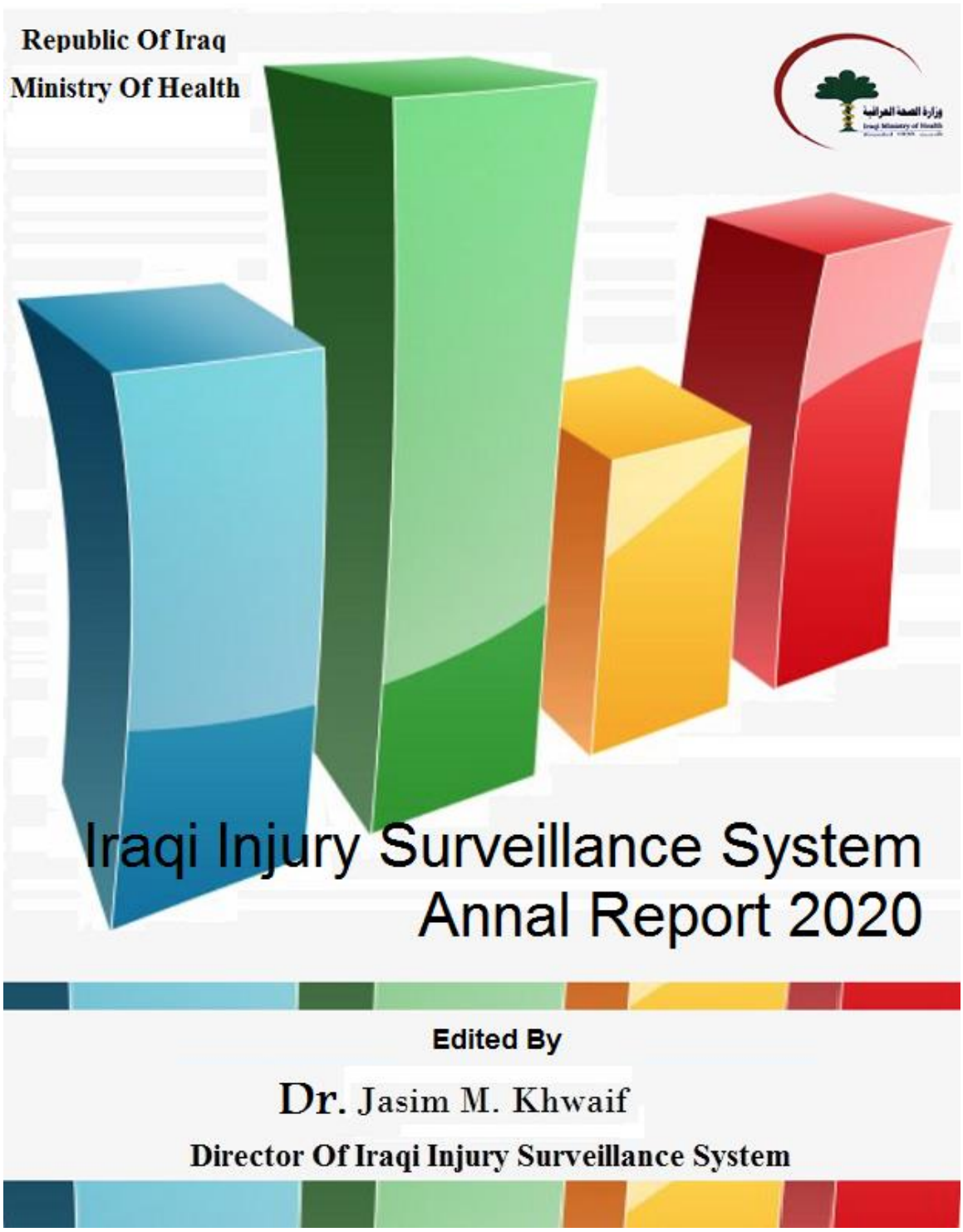


Republic of Iraq

Ministry of health

Iraqi Injury Surveillance System

Annual report, 2020

Edited by

Dr.Jasim Mohammed Khwaif

Director of Iraqi Injury Surveillance System

Table of Contents

Participants

Dr.Fadil Okla Al.Rubaei	Director of operations and emergency medical services directorate
Dr.Jasim Mohammed Khwaif	Director of operations department
Ph.Firas Tamween Abd	Deputy of operations department

Ahmed Abas Abidalkadum	Programmer

Scientific Committee

Dr.Faris Allami	Prof. community medicine department , collage of medicine , Baghdad university.
Dr.Mona Ataalla	Director of NCDs control department , public health directorate
Dr.Hanan Hashim Hasan	W.H.O.

Summary

The Iraqi injury surveillance system provides very important information about fatal and non-fatal injuries. Using this information will decrease the impact of injuries in community.

Data collected from all Iraqi governorates in sentinel hospitals for nonfatal injuries and from forensic medicine section for fatal injuries.

The report reveals that all governorates sent data during 2020,except Dohuk and Sulaimaniya D.O.H

The total number of non-fatal injuries reported was (61,727), while the total fatal injuries were (11,327).

The surveillance report (2020) reveals that the male accounted for more than 77% of non-fatal injuries, the most common age group was (15-29) year.

According to governorates distribution , the highest number of non-fatal injuries was collected from ThiQar, Erbil and Basrah, while Fatal injuries mainly collected from Baghdad Forensic Medicine Office (F.M.O), then Thiqar and kirkuk.

According to intention of injury , majority of non-fatal injuries were unintentional, followed by intentional injuries.

According to circumstances of injury, the main cause of non -fatal injuries was traffic injuries, then other injuries including (falls, burns, sharp tools and blunt injuries…).

Regarding traffic non-fatal injuries, the most common cause was car occupant, followed by motor cycle, and then pedestrian, while in fatal injuries car came first followed by pedestrian, then motorcycle.

The report reveals that street/high way /roads were the main locations for injuries, then homes and other places.

About 66 % of non-fatal injuries treated and sent home, but only 8 % of them arrived by ambulance and 17 % got medical care before emergency departments.

.

Introduction

Injuries are a major cause of morbidity and mortality in all countries. According to the World Health Organization (WHO), injuries kill more than 5 million people each year worldwide, accounting for about 9% of all global deaths. Eight of the top global twenty causes of death are injury related for the age group 15-29 years of age. In the Eastern Mediterranean Region, almost half a million people die of injuries every year, accounting for about 11% of all regional deaths. Injuries disproportionately affect young, active individuals. Global trends suggest that the burden of injuries is increasing.

Road injuries are projected to be one of the top five causes of death by 2030 (currently ranked seventh). The burden of self-harm as a mechanism of injury is also expected to increase (Table 1).

Table (1); Top 20 Leading Causes of Deaths in the Eastern Mediterranean Region, Estimated Numbers in 2015 and Projected Number in 2030 . Source:
http:\www.who.int/healthinfo/global_burden_disease\projections\en\

Rank	2015	**Rank**	2030
1	**Ischemic heart disease**	1	**Ischemic heart disease**
2	**Stroke**	2	**Stroke**
3	**Lower respiratory infections**	3	**Chronic obstructive pulmonary disease**
4	**Chronic obstructive pulmonary disease**	4	**Lower respiratory infections**
5	**Diarrheal diseases**	5	**Diabetes mellitus**
6	**HIV/AIDS**	6	**Trachea, bronchus, lung cancers**
7	**Trachea, bronchus, lung cancers**	7	**Road injury**
8	**Diabetes mellitus**	8	**HIV/AIDS**
9	**Road injury**	9	**Diarrheal diseases**
10	**Hypertensive heart disease**	10	**Hypertensive heart disease**
11	**Preterm birth complications**	11	**Cirrhosis of the liver**
12	**Cirrhosis of the liver**	12	**Liver cancer**
13	**Tuberculosis**	13	**Kidney diseases**
14	**Kidney diseases**	14	**Stomach cancer**
15	**Self-harm**	15	**Colon and rectum cancers**
16	**Liver cancer**	16	**Self-harm**
17	**Stomach cancer**	17	**Falls**
18	**Birth asphyxia and birth trauma**	18	**Alzheimer's disease and other dementias**
19	**Colon and rectum cancers**	19	**Preterm birth complications**
20	**Falls**	20	**Breast cancer**

In Iraq, injuries cause considerable morbidity and mortality. National estimates from the Ministry of Health (MOH) Annual Report 2014 suggest that deaths due to external causes of injuries were the second leading cause of death for all age groups excluding children under five. Global estimates also illustrate the disability resulting from injury, including ongoing conflict. According to the Global Burden of Disease Iraq profile, mechanical forces, interpersonal violence, road traffic injuries, fire, drowning, war and legal intervention were among the main causes of Years of Life Lost (YLL).

The Iraqi Injury Surveillance System was established to ensure systematic and ongoing data collection. The data is intended to be used for public health action. Between 2008 and 2013, the surveillance system has been piloted in Iraq. The pilot was initiated in 2008 with four provinces, scaled to eight provinces in 2009, and at the end of 2013 scaled nationally.

The surveillance system aims to determine the magnitude of the public health problem and trends, to identify risk groups in the community studied, allowing prioritization and planning of the necessary preventive programs, and enable research and assessment. Rigorous data ensures that interventions to mitigate injury can be data driven and evidence based.

This report presents the epidemiology of both fatal and non-fatal injuries. External injuries are described in terms of their magnitude, geographical distribution, time, intention, and mechanism of injury. During the period covered by this report data(2020) was collected from emergency departments in all directorates and coroner offices departments except Duhuk and sulaimaniya when both non-fatal and fatal injury data didn't send .

External injuries are considered as invisible epidemic across the world and as a global health problem. Particularly in countries experiencing war, injury surveillance is an important public health intervention.

The Iraqi Injury Surveillance System is implemented by the MOH in Baghdad and the MOH in Kurdistan. The project received technical support from the World Health Organization (WHO), United State Centers for Disease Control and Prevention (CDC).

Since the inception of this project, similar injury surveillance systems have been developed in the Kingdom of Saudi Arabia, Oman, Bahrain, Egypt and Uzbekistan with support of the WHO.

Report Overview

The current report contains four sections, including:

1- Description o**f the injury surveillance system in Iraq including development and rationale, system goals and objectives, methodology, definitions, data flow, ethics and limitations.**

2- Overview of the findings in 2020 for non-**fatal injuries from data recorded at sentinel emergency departments**

3- Overview of key findings for 2020 for fatal injuries from data recorded at governorate **level coroner offices**

4- S**ummary of key findings and recommendations for public health action based on these findings, as well as recommendations to address gaps and challenges facing the system.**

1. Description of the Iraqi Injury Surveillance System

1.1 Development of the system

Iraqi Injury Surveillance System has been gradually scaled up in Iraq. Data collection was first piloted beginning December 2008. Between 2009 and 2013, data on all causes of injury were collected from coroner offices and emergency departments in eight pilot governorates Al-Anbar, Baghdad, Basrah, Erbil, Kerbala, Misssan, Ninevah, and Al-Sulaimaniya.

Over the course of 2016-2017, the Inj**ury Surveillance System gradually scaled up to include facilities in all 18 governorates of Iraq. Facilities in newly added governorates were trained on data collection and reporting beginning in June of 2013. Data from these facilities was included in the annual reports beginning in 2016-2**017.

1.2 Goal and objectives of the system:

The following are the goals of the Iraqi Injury Surveillance System:

- **Implement a national injury surveillance system that covers all Iraqi provinces.**
- **Describe the epidemiology of external injuries in Iraq in terms of the overall burden, geographic distribution, and temporal trends.**
- **Provide an evidence base to inform public health interventions for those injured, including pre-hospital care.**
- **Inform prevention activities aimed at minimizing the burden of external injuries.**

1.3 Methodology of Injury Surveillance System:

a. Injury Surveillance Case Definition

The case definition used by the Iraqi Injury Surveillance System includes all persons killed or injured as a result of an external injury, including both intentional and unintentional injuries. For non-fatal injuries a case is defined as the first visit to the emergency department for each person with external injury, regardless of the number of injuries. The injured person with the second (or subsequent) visit due to the same external cause of injury is not considered a case. External injury includes, but is not limited to, injuries resulting from the following mechanisms – road traffic crashes, falls, fires, electricity, drowning, poisonings, natural disasters, shooting, shelling, suicide bombings and terrorist attacks. Injuries resulting from landmines or explosive remnants of war (ERWs) are included. Sexual assaults and legal intervention (action by police) are excluded.

b. Reporting Sites

The Injury Surveillance System includes both fatal and non-fatal injury surveillance.

Fatal injuries are reported by the central coroner offices or forensic institute in each health directorate. Each health directorate has one, and only one, facility that is responsible for examining injuries and issuing death certificates. Therefore the surveillance system *aims to capture all fatal injuries* in participating directorates. Fatal injury surveillance is exhaustive.

Non-fatal injury surveillance, by contrast, is sentinel surveillance. Within each directorate, there are 1-3 hospitals r**eporting. Sentinel hospitals are primarily large public, general hospitals serving both urban and rural populations. Non-fatal injury surveillance *does not aim to capture all non-fatal injuries* however it can provide useful information on trends, and relative burden of different types and mechanisms of injury.**

c. Data Collection

The data on injuries presenting to emergency room (ER) in the sentinel hospitals are collected by trained nurses using a standardized surveillance form. Information on demographics, cause, intent and place of injury as well as the mode of transport, pre-hospital care and patient disposition was obtained through patient interviews and review of ER medical cards. The data were entered at the ER statistical units in the hospitals and transmitted to the Directorates of Health (DOH). DOH conducted

preliminary analysis and transmitted the data to the project focal point at the MOH for final analysis. DOH shared the results of preliminary analysis with the reporting hospitals and other stakeholders.

For fatal injuries, data are collected by coroners using a similar standardized surveillance form. Forensic observation, police reports and interviews with witnesses are used to complete the form. The data are entered at the coroner office and transmitted to the DOH. DOH conducted preliminary analysis and transmitted the data to the project focal point at the MOH for final analysis .

The surveillance form used in coroner offices and ERs was prepared in English with the support of experts from the WHO and CDC. The form has been translated into Arabic and Kurdish. Data is entered into an electronic form (developed using the Epi-Info software) by trained technicians. The current form is provided as Annex 1.

The following variables are collected on the form:

- **Health Directorate and Reporting Site**
- **Demographic information**
- **Date and time of injury**
- **Date and time of arrival at ER or CO**
- **Mode of transport to health facility or CO**
- **Death certificate number (CO data only)**
- **Mechanism of Injury**
- **Intention**
- **Place of injury**
- **Pre-hospital care (for ER only)**
- **Patient disposition (for ER only)**
- **Additional modules: detailed information on circumstances of injuries resulting from mines and ordnance.**

The data are transferred to the project focal point at the Ministry of Health monthly (by e-mail as well as CD), where they are merged, consolidated, processed and sent to the CDC and the WHO for review.

d. Data Quality and Completeness

Designated focal points in ER and CO were trained to monitor the data collection process. These individuals are the first check to ensure accuracy and completeness of the data. They review the data daily before sending the forms for data entry.

Officials at the Operations department of DOH and/or the MOH conducted monthly visits to monitor the process. During monthly visits, surveillance forms are compared to hospital and COS records. An external auditing team from the MOH Scientific Committee also organizes field visits to review and verify the record in each reporting site.

The injury surveillance system is a unit in the Operations Department; which is part of Operations and Emergency Medical services Directorate in the MOH.

Additionally, the data quality is reviewed during analysis by colleagues at the WHO and CDC to comprehensively check for duplicates, missing data, consistency and face validity of the findings.

e. Ethical Consideration

The surveillance system has been approved by the MOH. Throughout all phases, the privacy of the injured persons is kept secure and confidential even when the records are transferred to the MOH. The injured persons are kept informed that all the information provided are for the improvement of the health services and will not be shared with any other legal or judicial entities and will not be used against them in any way.

Sexual assault is not documented in order to preserve the privacy of the patient in the conservative Iraqi society. Data derived from the forensic medicine departments are treated with full confidentiality while handling and all the forms are kept protected.

f. Dissemination and Use for Public Health Action

The focal point at the MOH, responsible for the surveillance system, develops the annual report with the assistance of the WHO and CDC. The report is delivered to Presidency of the Council of Ministers, National Security Council, and other MOH

Directorates including the Public Health Directorate and Non-Communicable Disease Control and Prevention Section of the Primary Health Care Department.

The following Ministries receive a copy of the report: Defense, Interior, Traffic Affair, Civil Defense, the Center of Health and Professional Safety, Labour, Electricity, Oil, Planning, Education, and Industry. The annual report is also disseminated to nongovernmental organizations.

The National Committee for Injury Prevention will use the data published in the report to enhance and redirect their preventive and control measures accordingly.

2.Overview of key findings _non-f**atal injury surveillance**

2-1 overall number of injuries and victims by (D.O.H), 2020.

Table (2); number and percent of non-fatal injuries reported by directorates of health (D.O.H), 2020.

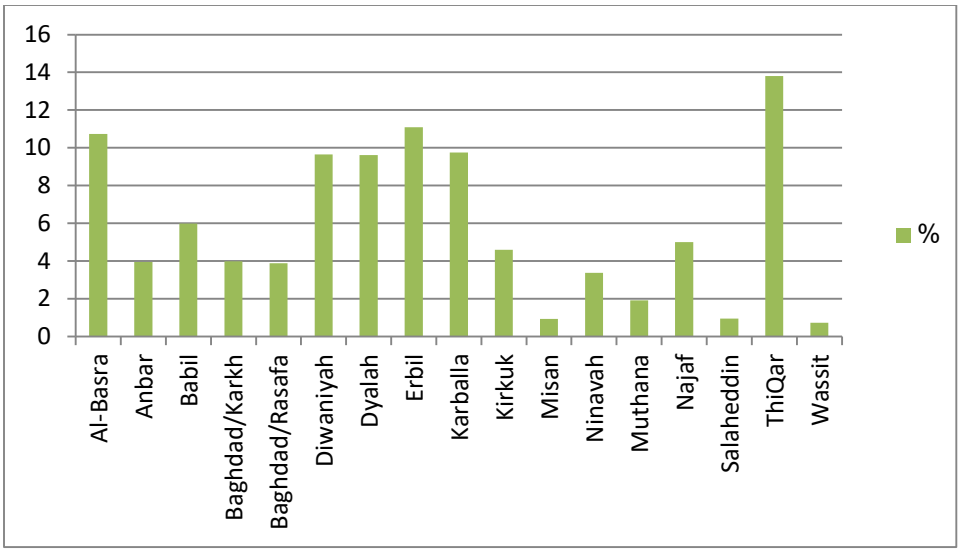
D.O.H	N	%
Al-Basra	6630	10.74
Anbar	2440	3.95
Babil	3694	5.98
Baghdad/Karkh	2462	3.99
Baghdad/Rasafa	2395	3.88
Diwaniyah	5959	9.65
Dyalah	5934	9.61
Erbil	6851	11.1
Karballa	6025	9.76
Kirkuk	2834	4.59
Misan	581	0.94
Ninavah	2080	3.37
Muthana	1186	1.92
Najaf	3090	5.01
Salaheddin	588	0.95
ThiQar	8521	13.8
Wassit	457	0.74
TOTAL	61727	100

The total number of non-fatal injuries reported in 2020 was (61.727), in 2020.

Data received from all directorates of health (D.O.H) except Dohuk D.O.H and Sulaymania D.O.H.

.

Figure (1); percent of non-fatal injuries reported by directorates of health (D.O.H), 2020.



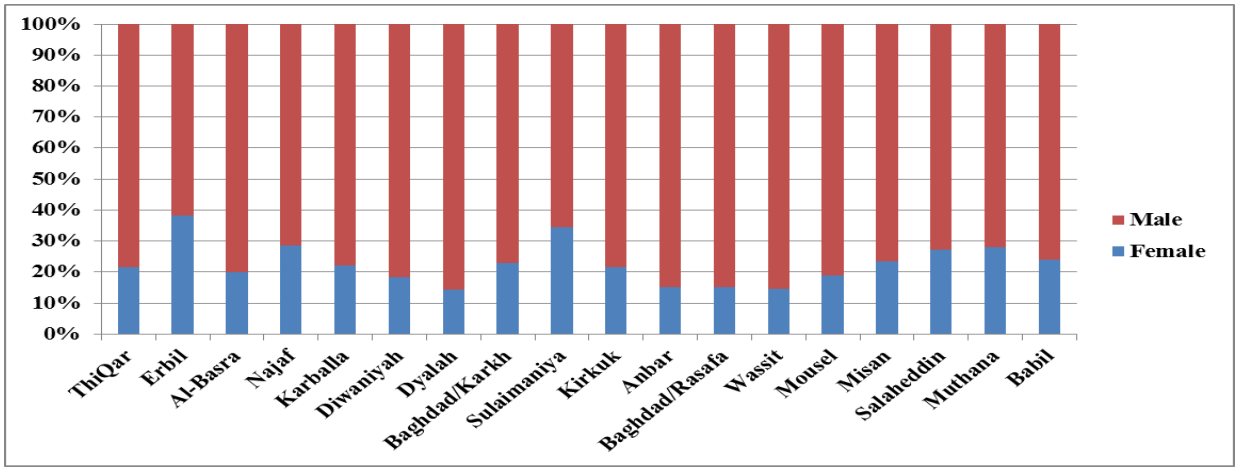
This figure shows that ThiQar reported the highest percent (13.8)%, then Erbil (11.1) % and Basrah (10.74) % , while Wassit reported the lowest percent (0.74) %.

Table (3); number and percent of male and female of reported non-fatal injuries, 2020.

D.O.H	female %	male %	total %
Al-Basra	1.62	9.12	10.74
Anbar	0.62	3.33	3.95
Babil	1.33	4.65	5.98
Baghdad/Karkh	0.9	3.09	3.99
Baghdad/Rasafa	0.57	3.31	3.88
Diwaniyah	1.74	7.91	9.65
Dyalah	1.65	7.96	9.61
Erbil	4.32	6.78	11.1
Karballa	2.65	7.11	9.76
Kirkuk	0.82	3.77	4.59
Misan	0.18	0.76	0.94
Ninavah	0.77	2.6	3.37
Muthana	0.54	1.38	1.92
Najaf	1.51	3.49	5.01
Salaheddin	0.31	0.65	0.95
ThiQar	2.85	10.95	13.8
Wassit	0.12	0.62	0.74
TOTAL	22.51	77.49	100

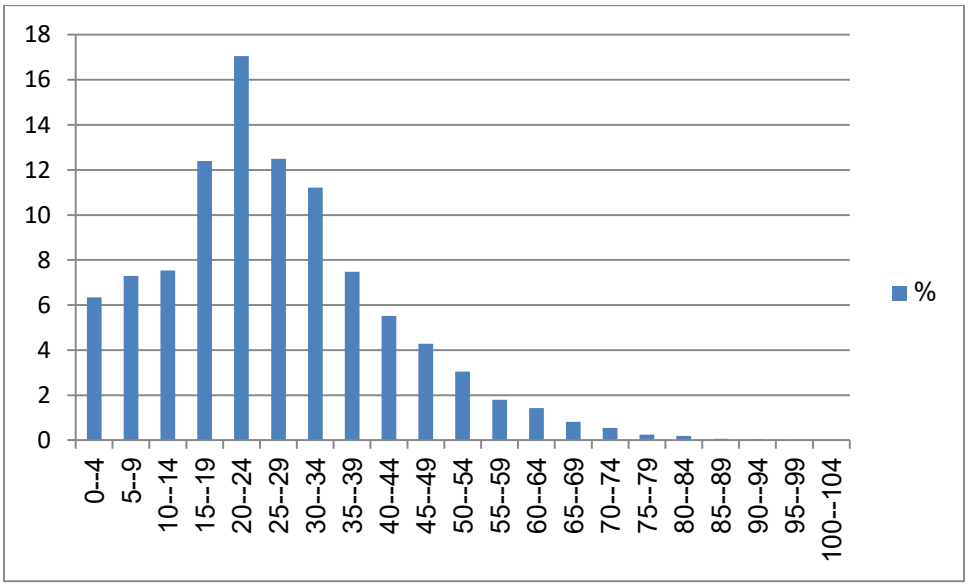
This table shows the highest percent in total reported non-fatal injuries during 2020 (77.49) % was among male.

Figure (2); sex distribution of reported non-fatal injuries, 2020.



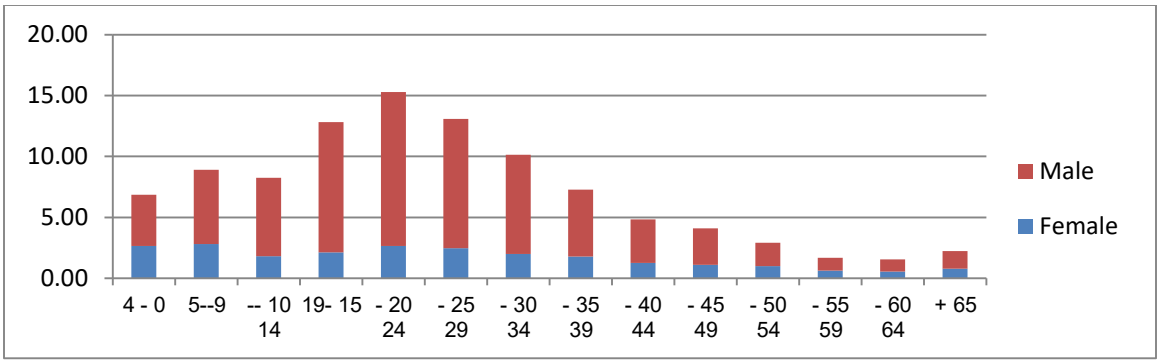
This figure shows highest percent of reported non-fatal injuries in 2020 was in male in all governorates as well as in total.

Figure (3): age distribution of reported non-fatal injuries, 2020.



This figure shows clearly that non-fatal injuries affected all age groups ,but reproductive age (15 – 39) affected more than other age groups.

Figure(4); age distribution of reported non-fatal injuries according to sex, 2020.



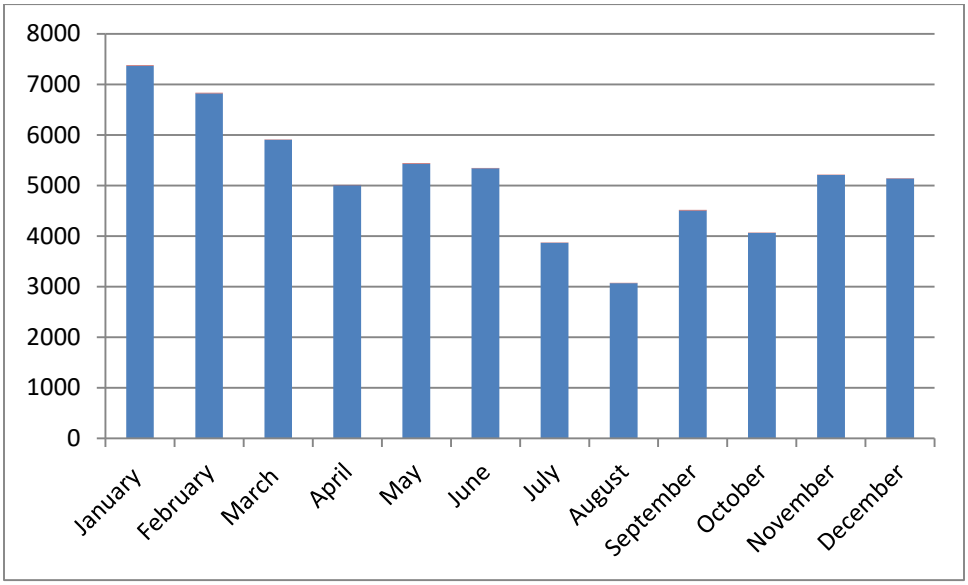
This figure shows that non-fatal injuries in both male and female reported according to age group, it is clear that male to female ratio is bigger in male than in female in all age groups.

2-2 time trend

Table (5); number and percent of non-fatal injuries according to months, 2020.

Month	N	%
January	7368	11.94
February	6824	11.06
March	5904	9.56
April	5004	8.11
May	5433	8.8
June	5342	8.65
July	3865	6.26
August	3071	4.98
September	4509	7.3
October	4061	6.58
November	5207	8.44
December	5139	8.33
Total	61727	100

Figure (5); time trend of non-fatal reported injuries, 2020.



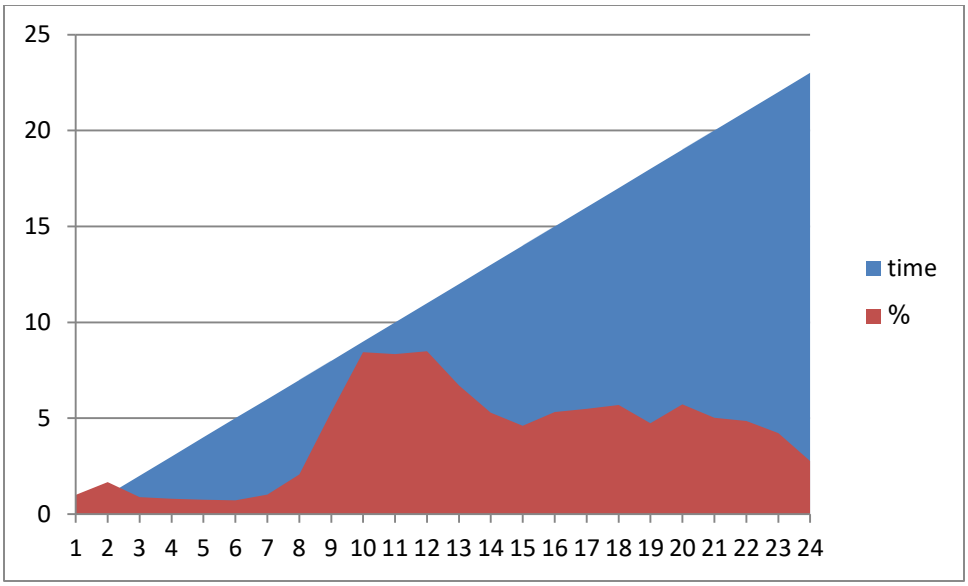
This figure shows that injuries reported in both male and female during all months .The highest percent recorded during January, while the lowest percent recorded during August.

Table (6); number and percent of non-fatal injuries reported according to time, 2020.

time	N	%
0	624	1.01
1	1028	1.67
2	551	0.89
3	491	0.8
4	469	0.76
5	444	0.72
6	627	1.02
7	1275	2.07
8	3296	5.34
9	5214	8.45
10	5152	8.35
11	5244	8.5
12	4144	6.71
13	3268	5.29
14	2838	4.6
15	3283	5.32
16	3395	5.5
17	3516	5.7
18	2927	4.74
19	3532	5.72
20	3100	5.02
21	2992	4.85
22	2603	4.22
23	1714	2.78
Total	61727	100

This table shows non-fatal injuries according to international time(0-2**3) .Majority of** Non-fatal injuries occurred during the period (8 am -1**7 pm).**

Figure (6); distribution of non-fatal injuries reported by day, 2020.



This figure shows number of non- fatal injuries reported started to increase after 8 am (morning) to reach peak around mid-day ,then began to decrease after 15pm (afternoon), then number became low till eight o'clock of next morning , when started to increase again.

2-3 distribution of injuries by intention

The following section presented injuries by intention of injury .

The intention of injury classified into;

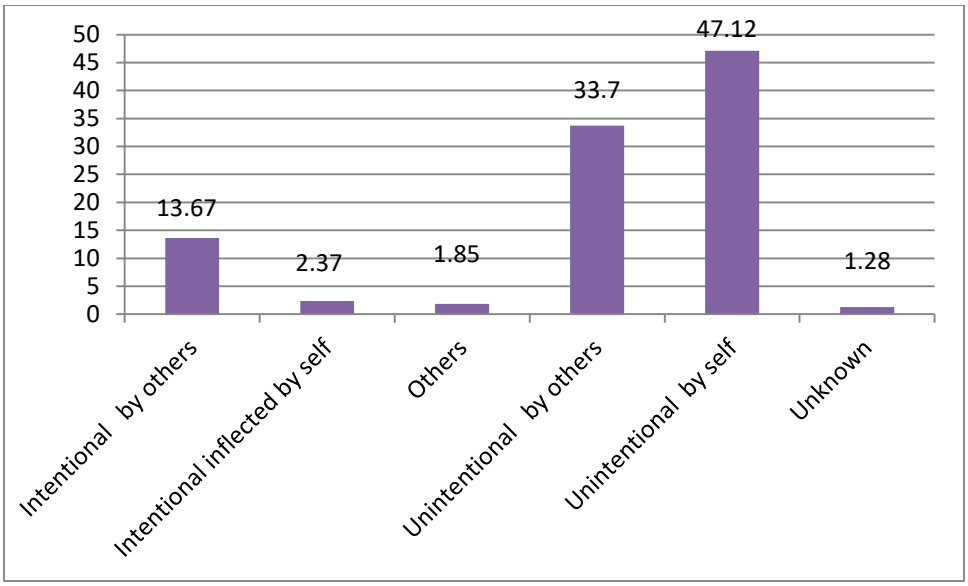
- Intentional by others
- Intentional by self (self-harm)
- Others
- Unintentional by others
- Unintentional by self
- Unknown intent.

Table (7) number and percent of injuries by intention of non – fatal injuries, 2020.

injury by intention	N	%
Intentional by others	8441	13.67
Intentional inflected by self	1466	2.37
Others	1143	1.85
Unintentional by others	20801	33.7
Unintentional by self	29088	47.12
Unknown	788	1.28
total	61727	100

This table shows that according to intention, majority of non-fatal injuries were unintentional, followed by intentional then unknown intent.

Figure (7); percent of injuries by intention of reported non – fatal injuries, 2020.



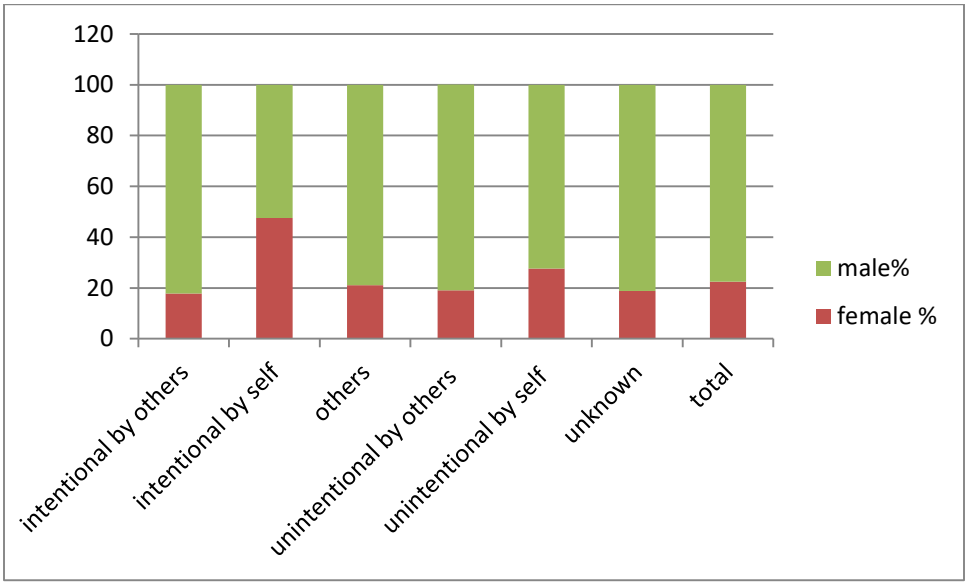
This figure shows that an un-intentional injuries either by self or by others cause the greatest proportion (more than 80% together) of all non- fatal injuries in 2020 ,and intentional injuries wither by self or by others represents (about 16% together), while the proportion of unknown intentional injuries and others represents (about 3%).

Table (8); percent of injuries reported according to sex, 2020.

intention	female %	male %
intentional by others	17.81	82.19
intentional by self	47.48	52.52
others	21.08	78.92
unintentional by others	19.03	81.02
unintentional by self	27.68	72.32
unknown	18.78	81.22
total	22.51	77.47

This table shows that the percent of injuries among male represented (77.47) % of total reported injuries. The percent in male is higher than in female in all types of injuries. To make table more obvious, unknown gender was discarded ,because there was very few number of injuries reported as unknown gender.

Figure (8); percent of injuries reported according to sex, 2020.



This figure shows that male to female ratio is greater in male ,only in intentional by self (self-harm),male to female ratio is nearly equal.

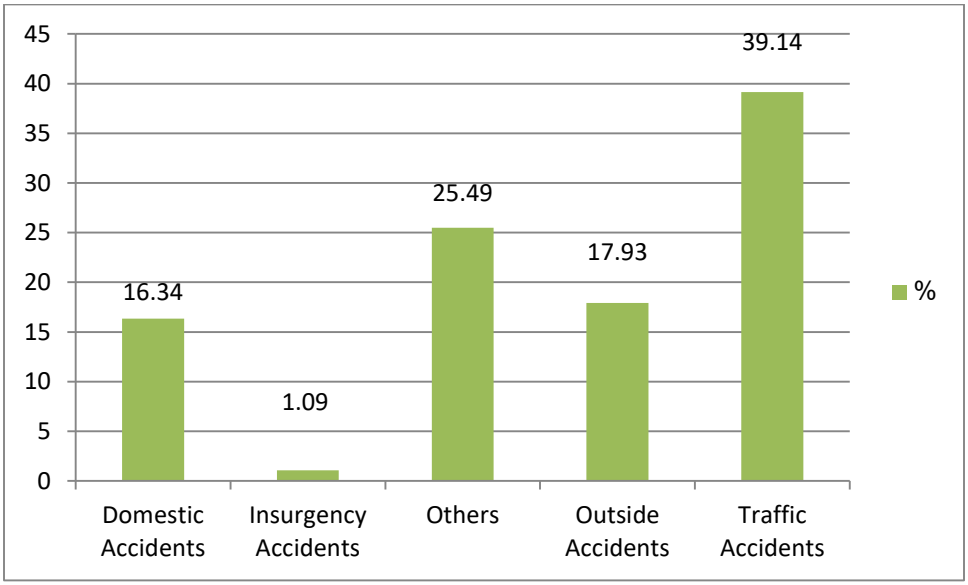
2-4 distribution of injuries by mechanism

The following section presented injuries by mechanism of injury .The mechanism of injury reflects the primary cause o**f** non-fatal injury as classified by health care provider, while circumstances of injury reveals how was the injury inflected.

Table (9); number and percent of non-fatal injuries according to circumstances of injury, 2020.

circumstances	N	%
Domestic Accidents	10087	16.34
Insurgency Accidents	673	1.09
Others	15737	25.49
Outside Accidents	11070	17.93
Traffic Accidents	24160	39.14
tot	61727	100

Figure (9); percent of non-fatal injuries according to circumstances ,2020.

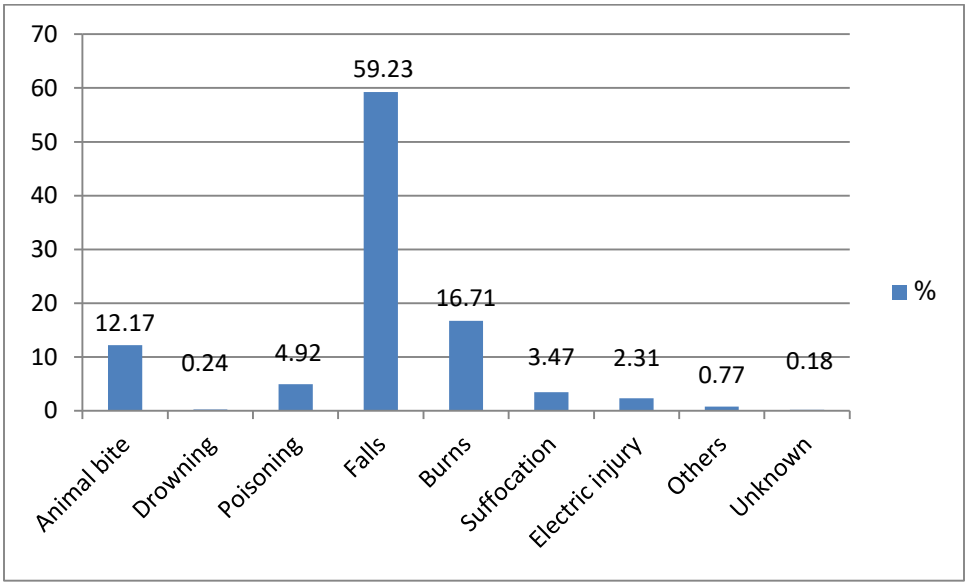


This figure shows that traffic was the main cause among non-fatal injuries, represented (39,14)% followed by others (injury other than traffic like falls, burns, animal bites..) which represented (25.49) %,then Outside accidents which represented (17.94) %.

Table (10); number and percent of unintentional (other than traffic…), injuries among all non-fatal injuries according to mechanism, 2020

unintentional-other injuries	N	%
Animal bite	1905	12.17
Drowning	38	0.24
Poisoning	770	4.92
Falls	9274	59.23
Burns	2617	16.71
Suffocation	543	3.47
Electric injury	361	2.31
Others	121	0.77
Unknown	28	0.18
total	15657	100

Figure (10); percent of unintentional (other than traffic…), injuries among all non-fatal injuries according to mechanism, 2020.



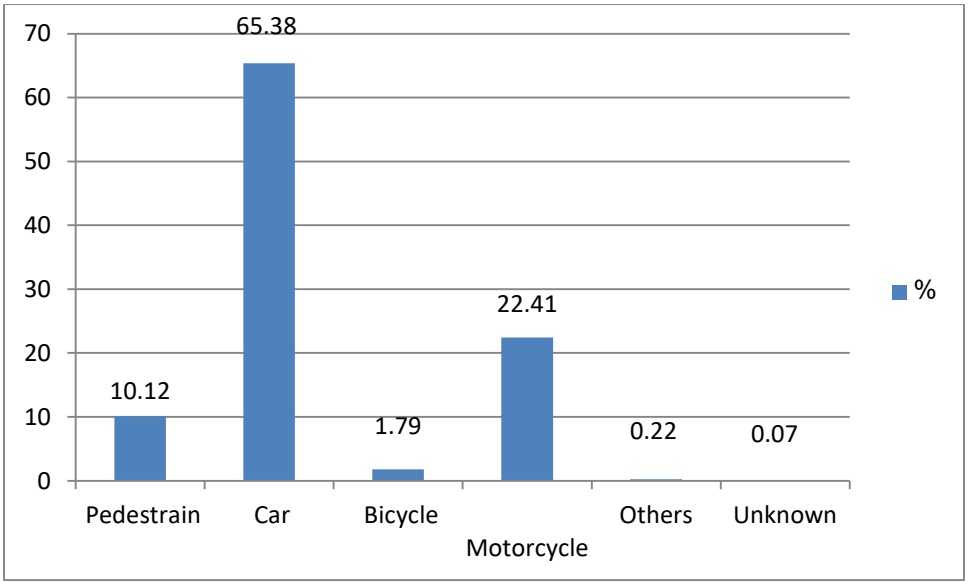
This figure shows that falls was the main cause among other (than traffic) non-fatal injuries, represented (59.23)% followed by burns which represented (16.71)%,then animal bites which represented (12.17) %.

Table (11); number and percent by mechanism among non-fatal traffic injuries,2020.

traffic injuries	N	%
Pedestrain	2450	10.12
Car	15825	65.38
Bicycle	433	1.79
Motorcycle	5425	22.41
Others	54	0.22
Unknown	17	0.07
total	24204	100

This table shows number and percent of traffic injuries classified wither (car, motorcycle bicycle …) undergo to an accident.

Figure (11); percent of injuries by mechanism among nonfatal- traffic injuries, 2020.



This figure shows that the main cause related to non-fatal road traffic injuries was car accidents (65.38) % followed by motorcycles (22.41) %, then pedestrians (10.12) %.

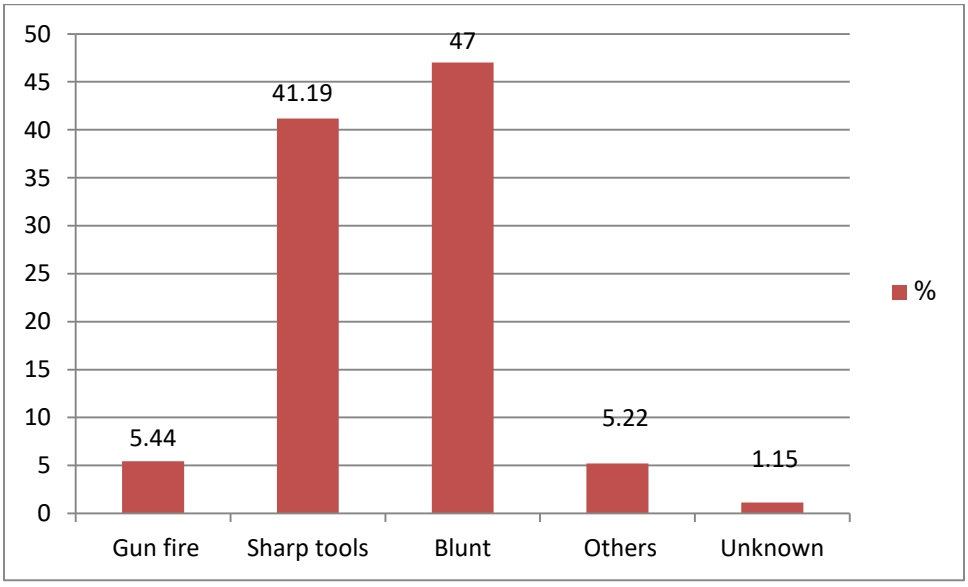
Table (12); number and percent of outside violence injuries among nonfatal injuries,2020.

outside violence	N	%
Gun fire	602	5.44
Sharp tools	4560	41.19
Blunt	5203	47
Others	578	5.22
Unknown	127	1.15
total	11070	100

This table shows number and percent of outside violence injuries according to cause.

Remember that outside violence injuries represented (17, 93) % from total non-fatal injuries as mentioned in table (9).

Figure (12) percent of outside violence injuries among nonfatal injury, 2020.



This figure shows that sharp tools and blunt injuries represented the two main causes in outside non-fatal injuries ,followed by gunfire.

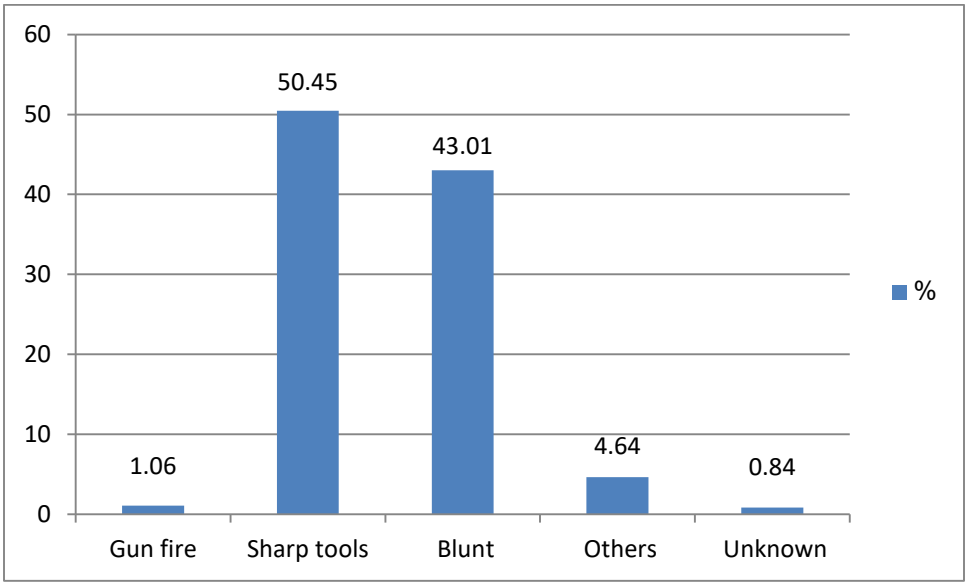
Table (13); number and percent of domestic violence among non-fatal injuries, 2020.

domestic violence	N	%
Gun fire	107	1.06
Sharp tools	5089	50.45
Blunt	4338	43.01
Others	468	4.64
Unknown	85	0.84
total	10087	100

This table shows number and percent of domestic violence injuries according to cause.

Remember that domestic violence injuries represented (16, 34) % from total non-fatal injuries as mentioned in table (9).

Figure (13) ; percent of domestic violence among all non- fatal injuries, 2020.



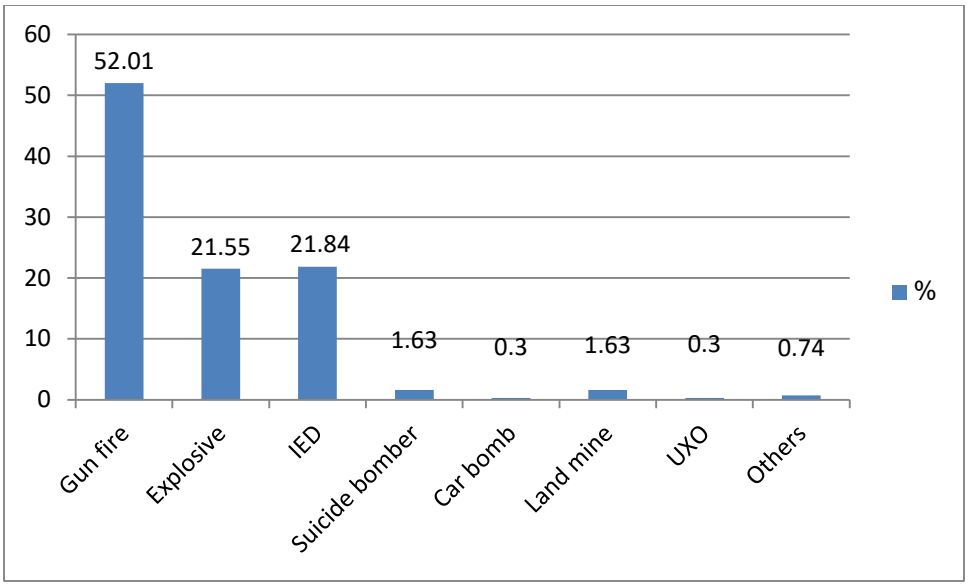
This figure shows that ,as in outside violence, sharp tools and blunt injuries represented the main causes, while gun fire represented only (1.06)% of domestic non-fatal injuries.

Table (14); number and percent of insurgency activities according to mechanism of injury among all non-fatal injuries, 2020.

insurgency	N	%
Gun fire	350	52.01
Explosive	145	21.55
IED	147	21.84
Suicide bomber	11	1.63
Car bomb	2	0.3
Land mine	11	1.63
UXO	2	0.3
Others	5	0.74
total	673	100

This table shows number and percent of Insurgency activities according to cause. Remember that insurgency injuries represented (1, 09) % from total non-fatal injuries as mentioned in table (9).

Figure (14); percent of insurgency activity according to mechanism of injury among all non-fatal injuries, 2020.



This figure shows that gun fire represented the main cause of non-fatal insurgency activities (52.01) %, then improvised explosive device (IED) (21.84) % and explosive(21.55) % .

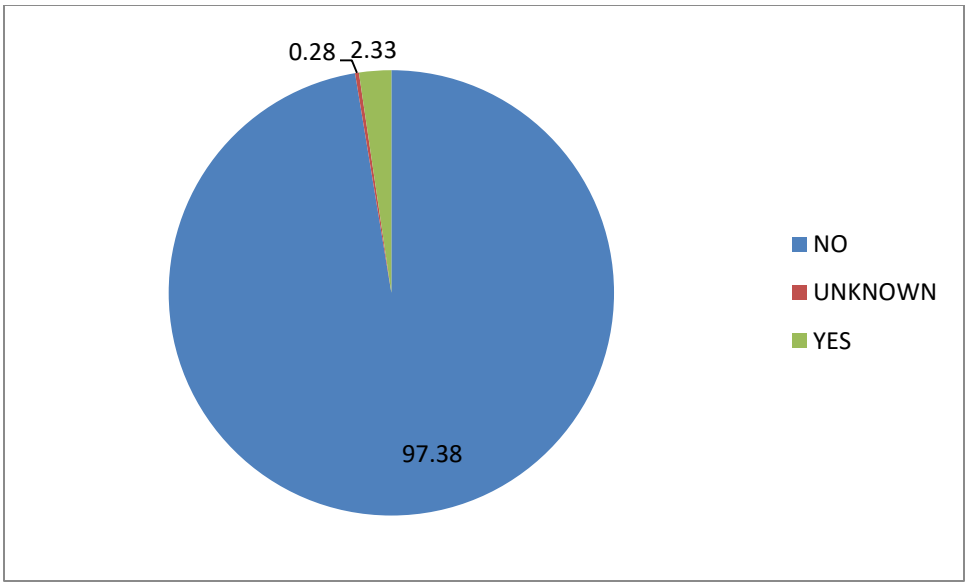
2 – 5 mass injury events

In this section a mass injury event is defined as an event that causes 5 or more people injured in the accident.

Table (15); number and percent of injuries resulting from mass injury event among reported non-fatal injuries, 2020.

mass event	N	%
NO	60111	97.38
UNKNOWN	175	0.28
YES	1441	2.33
TOTAL	61727	100

Figure (15); percent of injuries resulting from a mass injury event among reported non-fatal injuries, 2020.



This figure shows the proportion of injuries resulting from a mass casualty event among all reported non-fatal injuries.

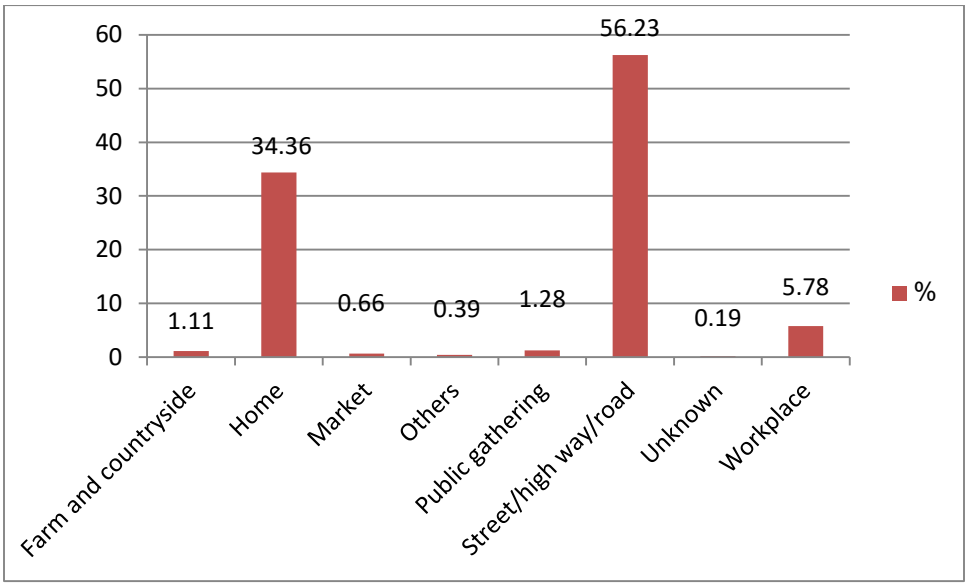
Only (2.33) %) % of injuries resulted from mass casualty events.

2 – 6 Distribution according to place of injury

Table (16) number and percent of non-fatal injuries according to place of occurrence, 2020.

place of accident	N	%
Farm and countryside	687	1.11
Home	21210	34.36
Market	405	0.66
Others	240	0.39
Public gathering	788	1.28
Street/high way/road	34708	56.23
Unknown	119	0.19
Workplace	3570	5.78
total	61727	100

Figure (16); percent of non-fatal injuries according to place,2020.



This figure shows that more than half of injuries (56.23) % occurred in street /highway/road, while injuries occurred at home represented (34.36%).

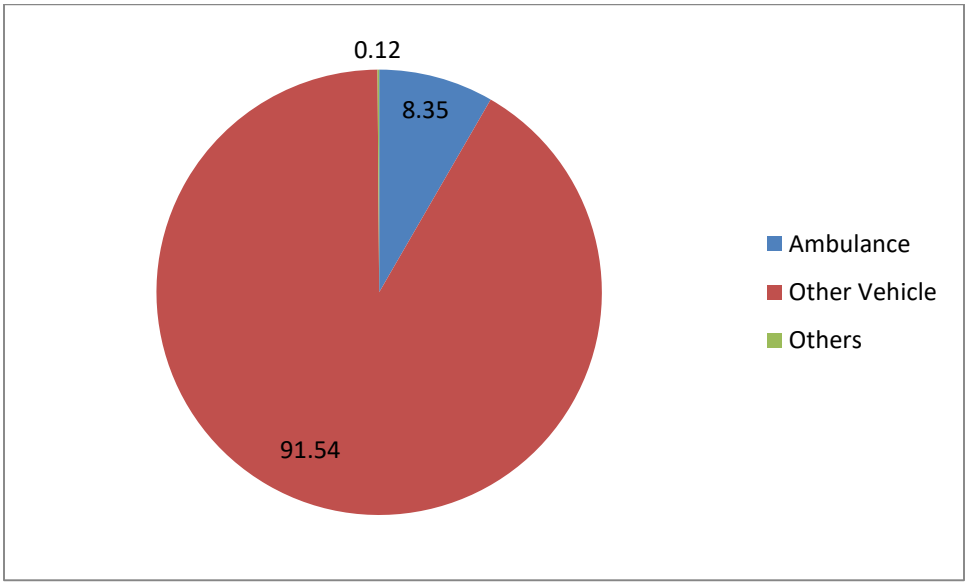
The injuries occurred in workplace came third and represented (5.78) % of total injuries reported during 2020.

2 – 7 **pre- hospital care and disposition**

Table (17); number and percent of reported non-fatal injuries received from (D.O.H) according to mode of arrival, 2020.

mode of arrival	N	%
Ambulance	5152	8.35
Other Vehicle	56503	91.54
Others	72	0.12
total	61727	100

Figure (17); percent of reported non-fatal injuries received from (D.O.H) according to mode of arrival, 2020.



This figure shows that only (8,35)% of non-fatal injuries arrived to hospital by an ambulance ,while (91,54) % arrived by other vehicles.

Table(18);number and percent of non-fatal injuries arrived by ambulance as reported by (DOH),2020.

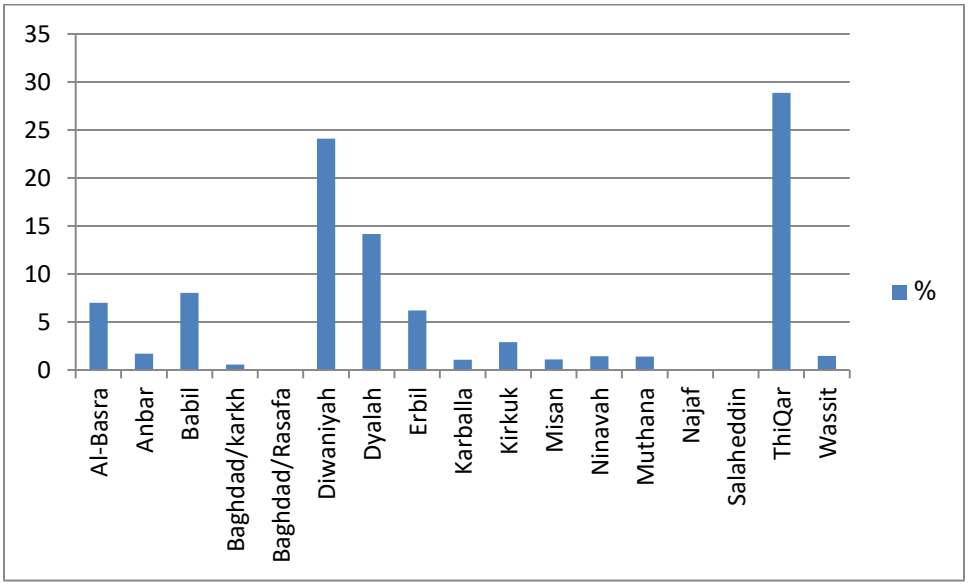
D.O.H	N	%
Al-Basra	360	6.99
Anbar	88	1.71
Babil	413	8.02
Baghdad/karkh	29	0.56
Baghdad/Rasafa	0	0
Diwaniyah	1242	24.11
Dyalah	730	14.17
Erbil	320	6.21
Karballa	54	1.05
Kirkuk	150	2.91
Misan	56	1.09
Ninavah	74	1.44
Muthana	72	1.4
Najaf	1	0.02
Salaheddin	0	0
ThiQar	1488	28.88
Wassit	75	1.46
total	5152	100

This table shows number and percent of non-fatal injuries transferred to hospital by ambulance. The total number (5152) ,represented only (8) % of total non-fatal injuries .

In some D.O.H like (Baghdad-Rasafa ,Baghdad –Karkh, Salahddin and Najaf) , the number of transferring injured cases by ambulance was very small.

Figure (18); percent of non-fatal injuries arrived by ambulance according to (D.O.H),

2020.



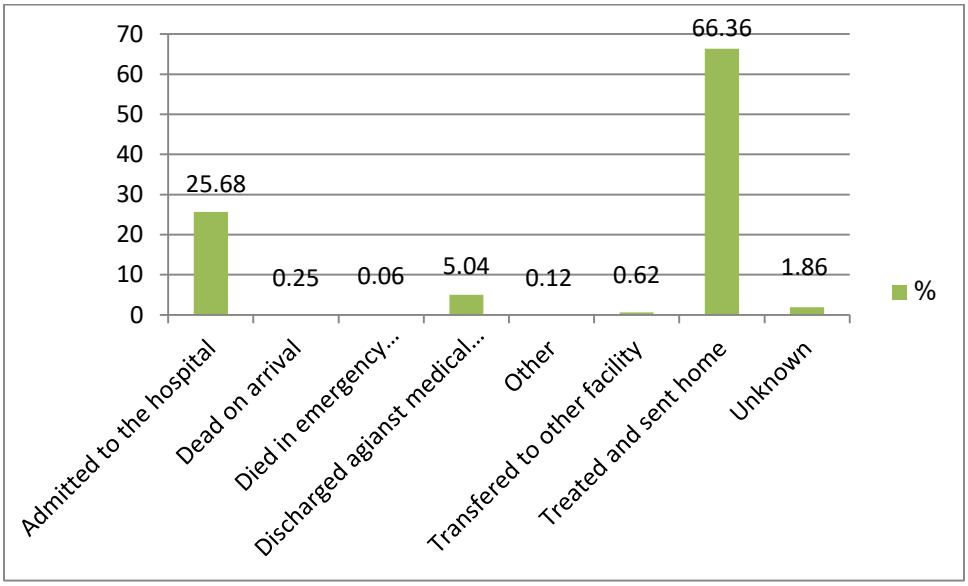
This figure shows that the highest percent of arriving to hospital by an ambulance was in ThiQar (28.88)%.,then Diwaniyah (24.11) %, and Dyalah (14.17) %.

Table (19); number and percent of initial disposition of reported non-fatal injuries,

2020.

Initial patient disposition in emergency department	N	%
Admitted to the hospital	15852	25.68
Dead on arrival	154	0.25
Died in emergency department	40	0.06
Discharged against medical advice	3114	5.04
Other	74	0.12
Transferred to other facility	385	0.62
Treated and sent home	40959	66.36
Unknown	1149	1.86
total	61727	100

Figure (19); percent of initial disposition of reported non-fatal injuries, 2020.



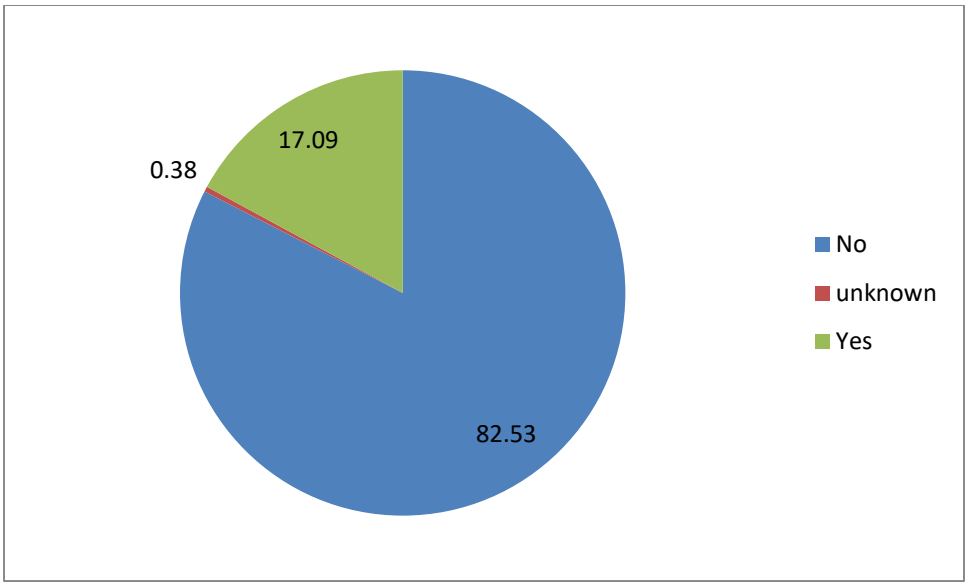
This figure shows that majority of non-fatal injuries was treated and discharged (66,36) %,while (25,68) % were admitted to hospital and (5,04) % were left hospital against medical advice.

Table (20); number and percent of non-fatal injuries got medical care before emergency department, 2020.

If patient got medical care before ER ?	N	%
No	50945	82.53
unknown	233	0.38
Yes	10549	17.09
total	61727	100

This table shows that only (17.09) % of the patients did get medical care before reaching to emergency department in hospitals. Majority (82.53) % of non-fatal injuries got no medical care before reaching ER in hospitals.

Figure (20); percent of non-fatal injuries got medical care before emergency department , 2020.



This figure shows that about 17 % of non-fatal injuries got medical care before reaching to emergency departments of hospitals .

٣- Overview of key findings - fatal injury surveillance

3 -1 Overall numbers of fatal injuries, demographics

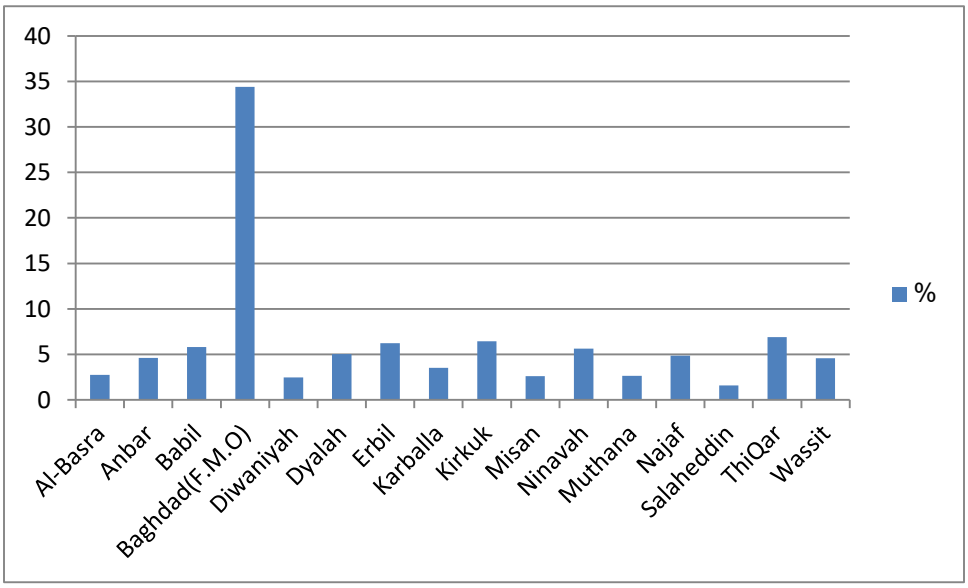
Table (21); number and percent of fatal injuries by D.O.H,.2020.

D.O.H	N	%
Al-Basra	310	2.74
Anbar	522	4.61
Babil	656	5.79
Baghdad(F.M.O)	3898	34.41
Diwaniyah	279	2.46
Dyalah	571	5.04
Erbil	705	6.22
Karballa	398	3.51
Kirkuk	730	6.44
Misan	294	2.6
Ninavah	637	5.62
Muthana	299	2.64
Najaf	551	4.86
Salaheddin	181	1.6
ThiQar	779	6.88
Wassit	517	4.56
total	11327	100

This table presents number and proportion of fatal injuries by D.O.H. The total number of fatal injuries reported was (11327). These numbers are proportions, not rates, because it is not represent the difference in total population in governorates.

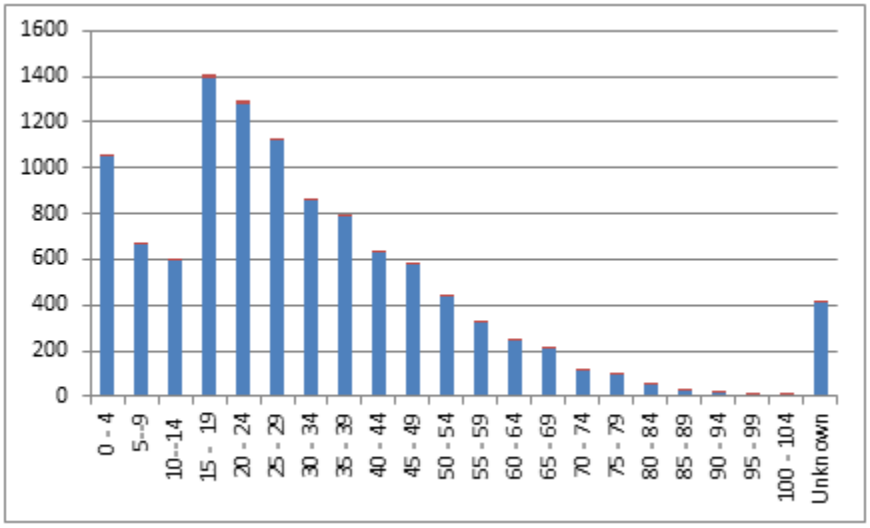
Dohuk and Sulaymania Health Directorate did not send data.

Figure (21):percent of fatal injuries according to D.O.H,2020.



This figure shows that percent of fatal injuries as reported by forensic medicine sections in D.O.H. The highest percent (34, 41) % was reported in Baghdad Forensic Medicine Office, then ThiQar (6.88)% and Kirkuk (6.44) %.

Figure (22); age distribution of fatal injuries, 2020.



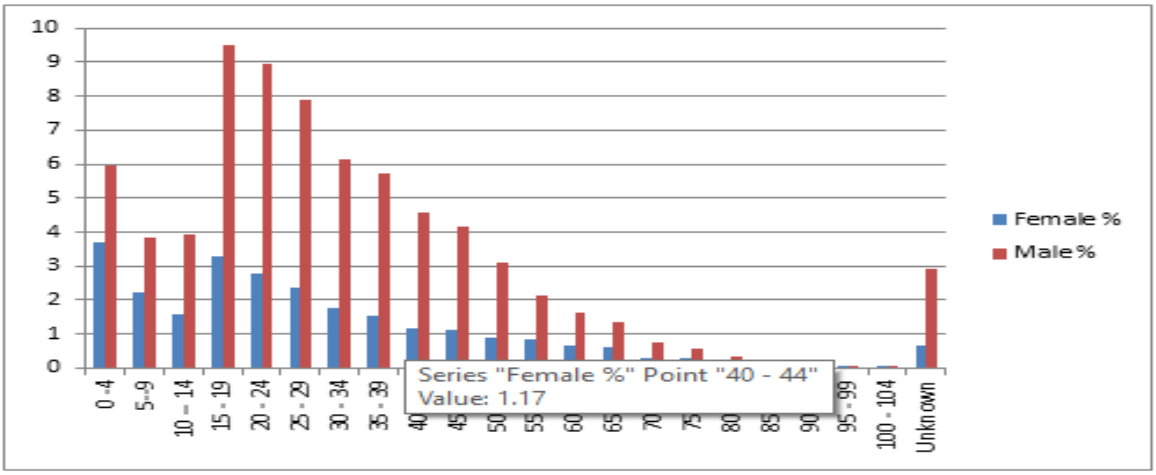
This figure shows that the most common age group affected due to fatal injuries was (15-29).

There is important percent (about 10 %) in children (0-4) years. The unknown age percent is bigger if we compare with non-fatal injuries in 2019..

Table (22); age and sex distribution of fatal injuries,2020.

Age group	Female %	Male %
0 -4	3.7	5.94
5--9	2.23	3.86
10 -- 14	1.57	3.93
15 - 19	3.29	9.5
20 - 24	2.79	8.96
25 - 29	2.36	7.88
30 - 34	1.78	6.12
35 - 39	1.53	5.72
40 - 44	1.17	4.58
45 - 49	1.13	4.16
50 - 54	0.89	3.09
55 - 59	0.85	2.15
60 - 64	0.64	1.61
65 - 69	0.62	1.33
70 - 74	0.28	0.76
75 - 79	0.3	0.56
80 - 84	0.16	0.32
85 - 89	0.07	0.15
90 - 94	0.03	0.11
95 - 99	0.02	0.04
100 - 104	0.02	0.03
Unknown	0.68	2.91

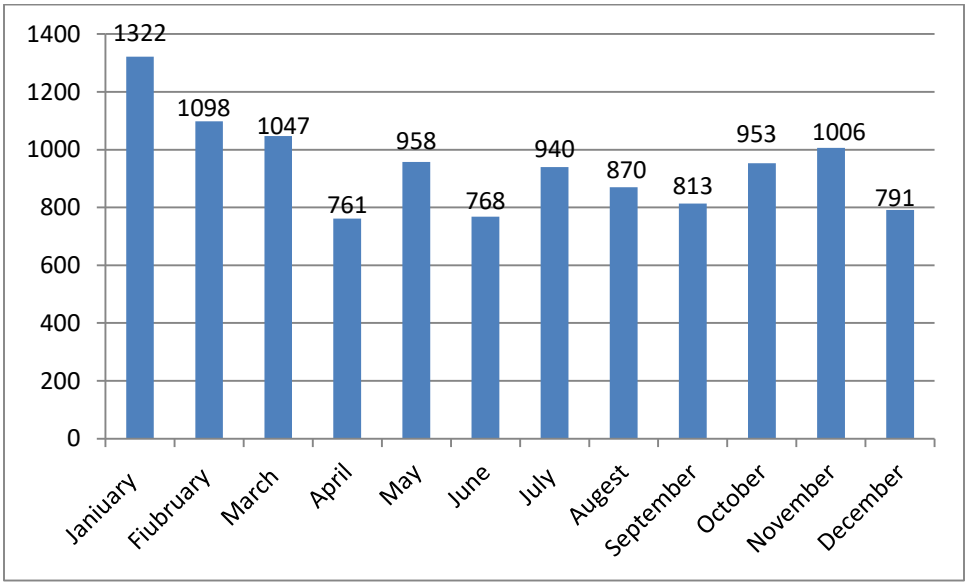
Figure (23); age and sex distribution of fatal injuries, 2020.



This figure shows that as with non-fatal injuries males represented a greater proportion of fatal injuries in every age group. This proportion is greater especially in age group (15-39) year.

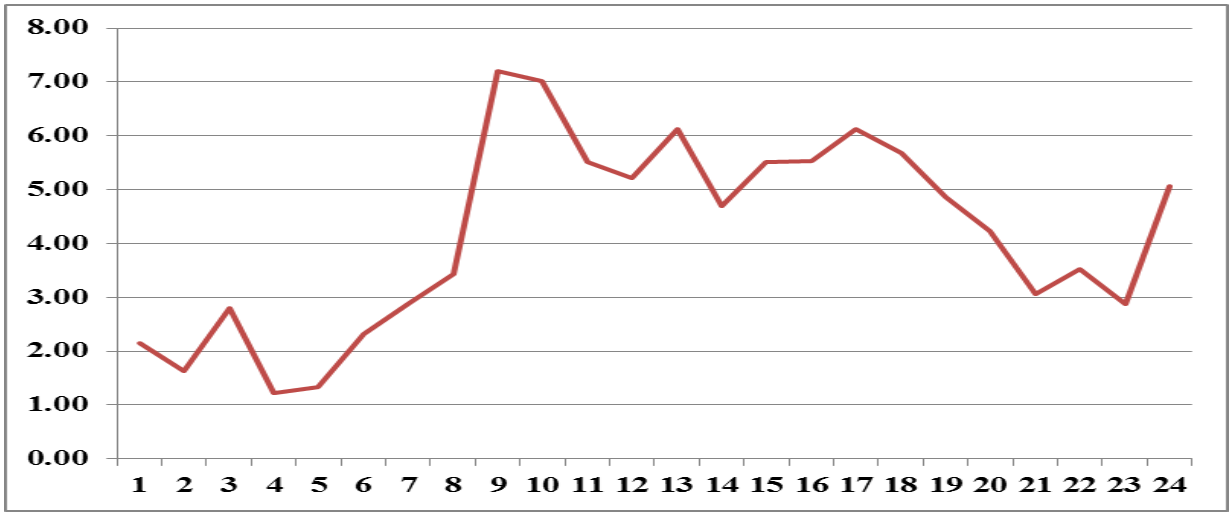
3-2 time trend

Figure (24); percent of fatal injuries according to month, 2020.



This figure shows that fatal injures recorded in all months, in 2020. The highest number of fatal injuries reported in January(1322) ,while the lowest number of fatal injuries reported in April(716).

Figure (25); percent of fatal injuries according to time of injury, 2020.



This figure shows the number of fatal injuries became increasing from 8 o'clock, reached peak at (10-12) o'clock in the morning.

3 – 3 Distribution of fatal injuries by intention

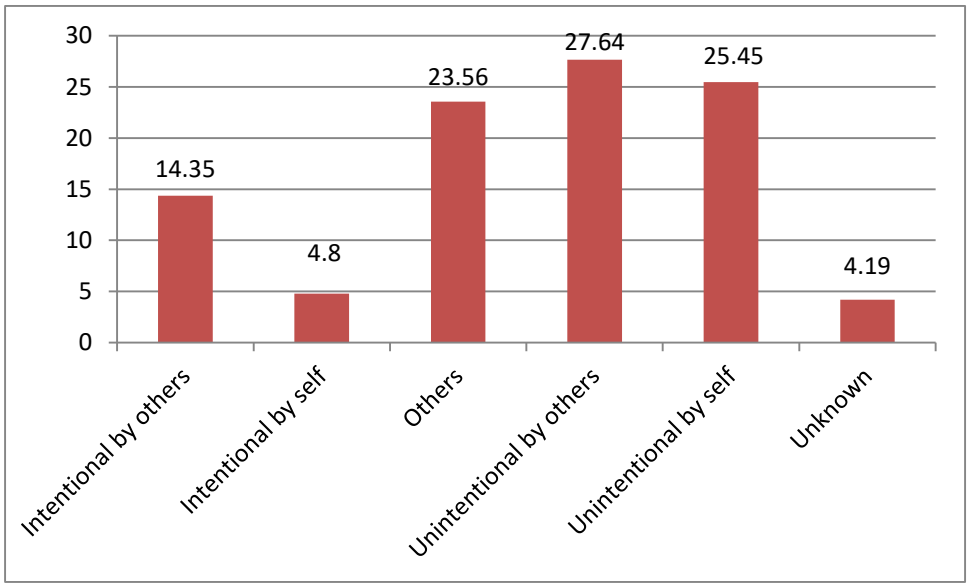
Injuries are classified into six categories according to intention

1. unintentional by others
2. unintentional by self
3. others
4. intentional by others
5. intentional by self (self-harm)
6. unknown intention

Table (23); number and percent of fatal injuries by intention, 2020.

intention	N	%
Intentional by others	1625	14.35
Intentional by self	544	4.8
Others	2669	23.56
Unintentional by others	3131	27.64
Unintentional by self	2883	25.45
Unknown	475	4.19
Total	11327	100

Figure (26); percent of fatal injuries by intention, 2020.

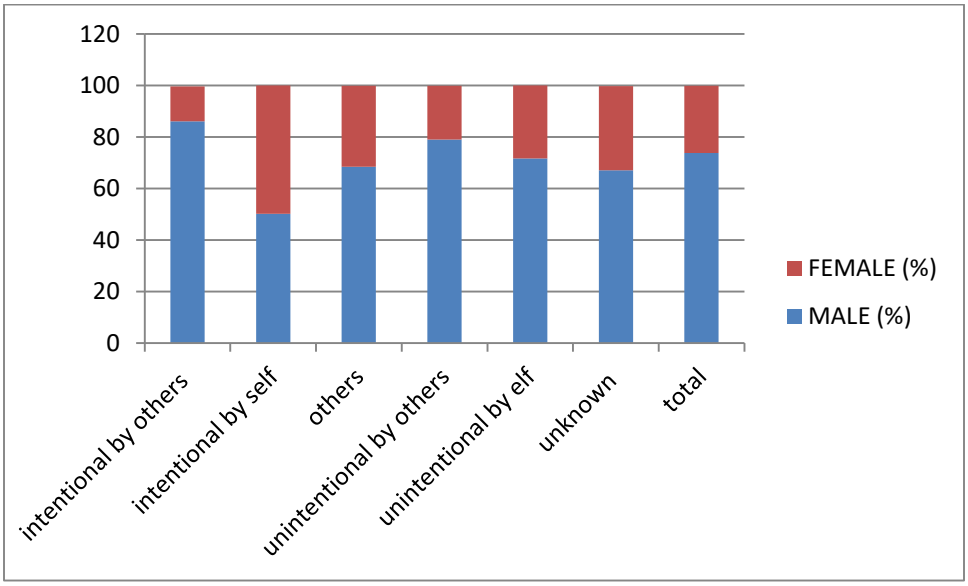


This figure shows unintentional by others injuries (27.64) % came first, followed by unintentional by self (25.45) % then intentional by others (14.35) %. according to intention.

Table (24); number and proportion of male and female among fatal injuries by intent, 2020.

Circumstances	MALE (N)	MALE (%)	FEMALE (N)	FEMALE (%)	UNKNOWN (N)	UNKNOWN (%)
intentional by others	1400	86.15	220	13.54	5	0.31
intentional by self	273	50.18	271	49.82	0	0
others	1827	68.45	839	31.43	3	0.11
unintentional by others	2474	79.02	656	20.95	1	0.08
unintentional by elf	2069	71.77	814	28.23	0	0
unknown	319	67.16	155	32.63	1	0.21
total	8362	73.82	2955	26.09	10	0.09

Figure; (27) sex distribution among fatal injuries according to intention, 2020.



This figure shows that males represented high proportion in all categories with exception of intentional by self (self-harm) when male was equal to female.

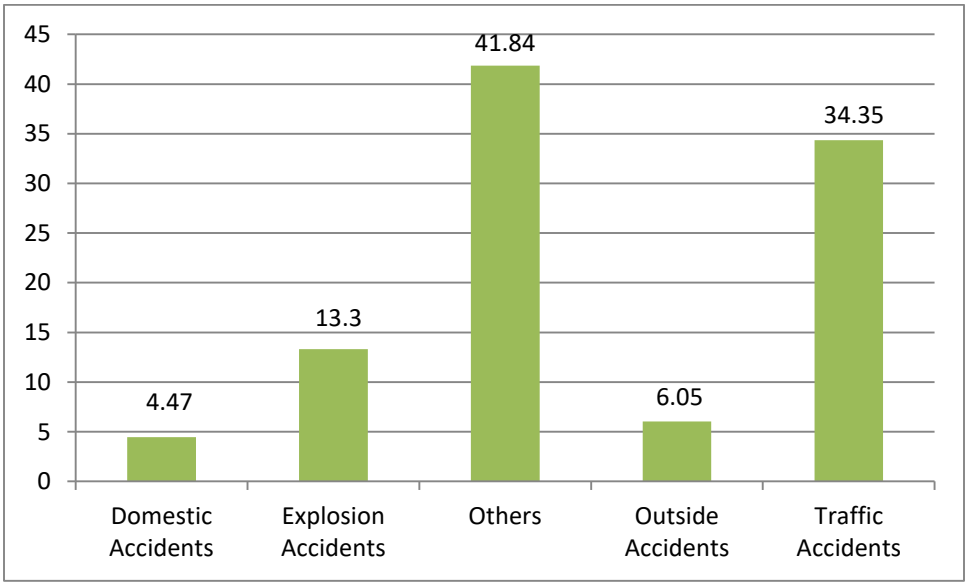
3-4 Distribution of fatal injuries by mechanism

The following section presented injuries by mechanism of injury. The mechanism of injury reflects the primary cause of fatal injury as classified by health care provider (for non-fatal injury) or by a coroner (for fatal injury), while circumstances of injury reveals how was the injury inflected.

Table (25); number and percent of fatal injuries according circumstances, 2020.

circumstances	N	%
Domestic Accidents	506	4.47
Explosion Accidents	1506	13.3
Others	4739	41.84
Outside Accidents	685	6.05
Traffic Accidents	3891	34.35
Total	11327	100

Figure (28); number and percent of fatal injuries according circumstances, 2020.

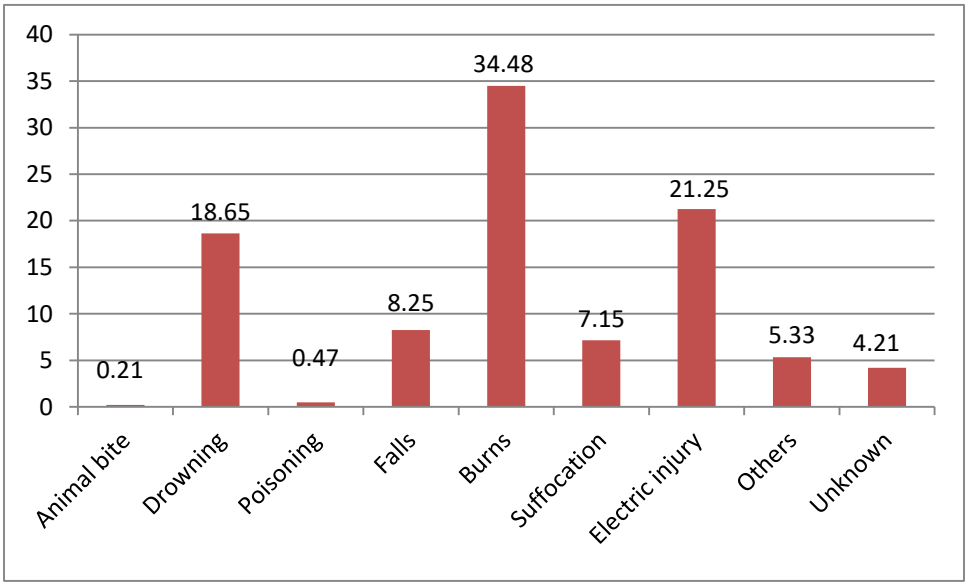


This figure shows that others injuries (injuries other than traffic) represents the main cause of fatal injuries, followed by traffic injuries, then explosion accidents. Traffic injuries alone represents (34.35) % from total fatal injuries.

Table (26); number and percent of fatal-injuries according to primary cause of fatal injury other than traffic, 2020.

causes other than traffic	N	%
Animal bite	10	0.21
Drowning	881	18.65
Poisoning	22	0.47
Falls	390	8.25
Burns	1629	34.48
Suffocation	338	7.15
Electric injury	1004	21.25
Others	252	5.33
Unknown	199	4.21
Total	4725	100

Figure (29); percent of fatal-injuries according to primary cause of fatal injury (other than traffic, 2020.

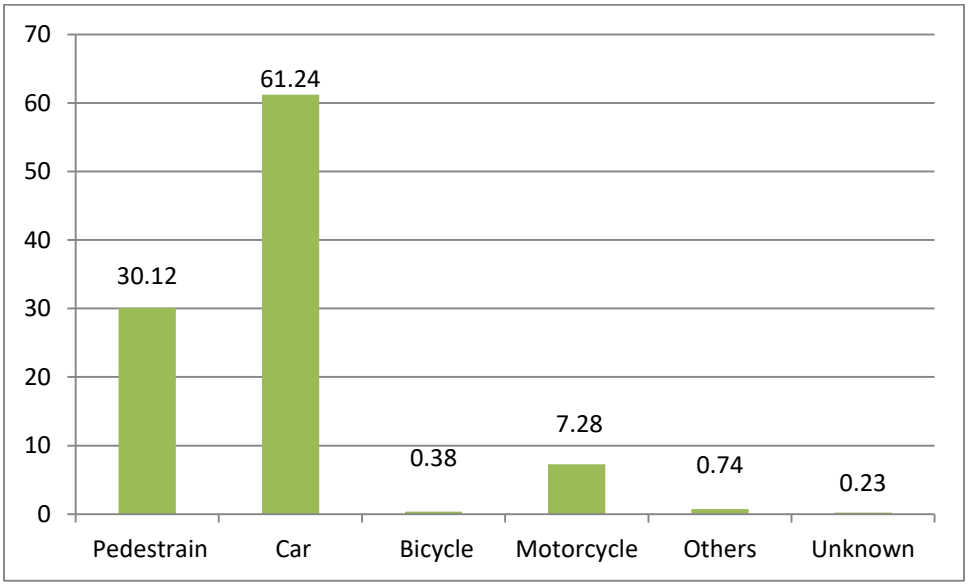


This figure shows that burns came first (34.48) %, followed by electric injury (21.25) %, then drowning (18.65) % .

Table (27); number and percent of traffic injuries according to mechanism of injury among fatal- injuries,2020.

Traffic injuries	N	%
Pedestrain	1175	30.12
Car	2389	61.24
Bicycle	15	0.38
Motorcycle	284	7.28
Others	29	0.74
Unknown	9	0.23
Total	3901	100

Figure (30); percent of traffic injuries according to mechanism of injury among fatal-injuries,2020.

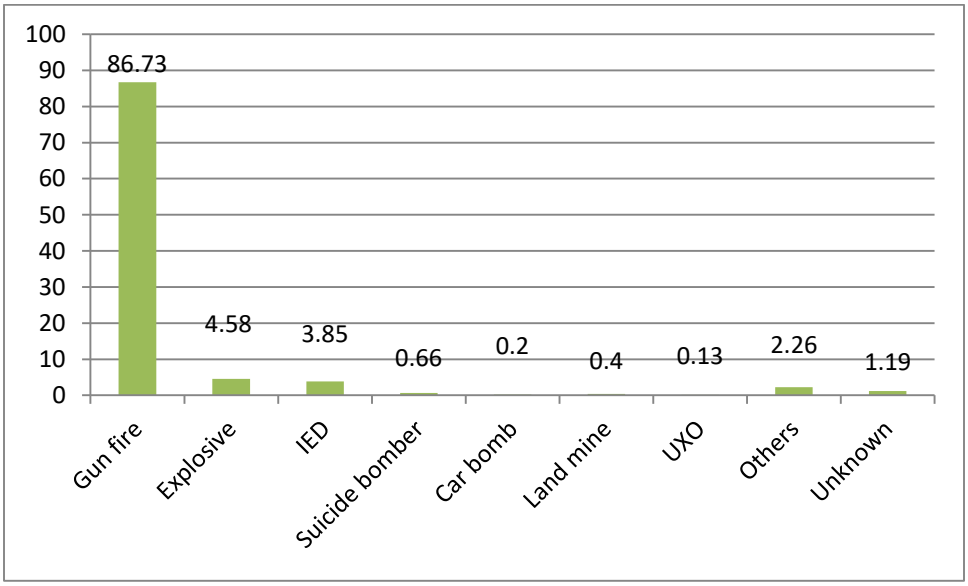


This figure shows that cars were the main cause of fatal-injuries (61.24)% ,followed by pedestrians (30,12) %,then motorcycles (7.28)% .Pedestrians represented higher proportion among fatal-injuries comparing with non-fatal injuries in 2020,when pedestrians represented (10.12) % of non-fatal injuries. See figure (11).

Table (28); number and percent by mechanism among unintentional –other fatal injuries,2020.

Insurgency	N	%
Gun fire	1307	86.73
Explosive	69	4.58
IED	58	3.85
Suicide bomber	10	0.66
Car bomb	3	0.2
Land mine	6	0.4
UXO	2	0.13
Others	34	2.26
Unknown	18	1.19
Total	1507	100

Figure (31) ; percent by primary cause among insurgency fatal injuries, 2020.

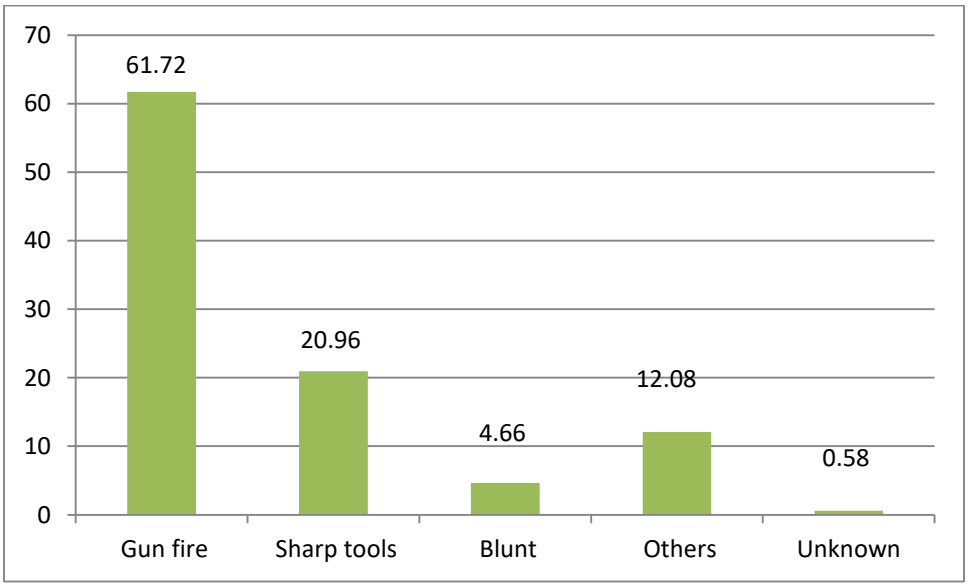


This figure shows gun fire represented the highest percent (86.73) % as mechanism among insurgency fatal injuries, followed by explosion (4..58) %, then improvised explosive device – IED – (3.85) %.

Table (29); number and percent of primary causes among fatal outside violence injuries, 2020.

Outside violence	N	%
Gun fire	424	61.72
Sharp tools	144	20.96
Blunt	32	4.66
Others	83	12.08
Unknown	4	0.58
Total	687	100

Figure (32); percent by mechanism among outside -assault fatal injuries, 2020.

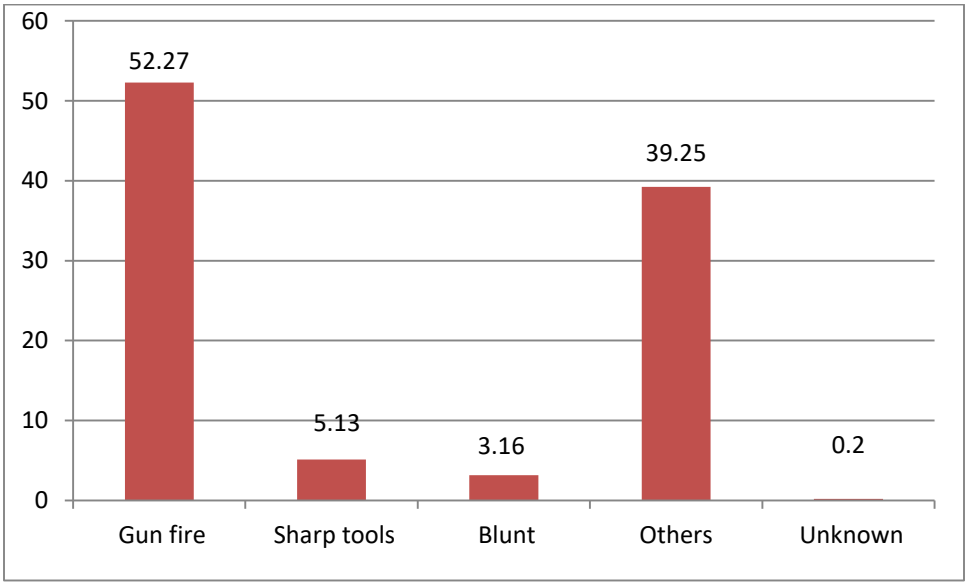


This figure shows that gun-fire (61.72) % represented the main cause of outside violence fatal injuries, followed by sharp tools (20,96) % ,then others and blunt injuries, while in non-fatal injuries the majority of outside violence was due to blunt and sharp tools.

Table (30); number and percent of primary causes among domestic violence fatal injuries, 2020.

Domestic violence	N	%
Gun fire	265	52.27
Sharp tools	26	5.13
Blunt	16	3.16
Others	199	39.25
Unknown	1	0.2
total	507	100

Figure (33); percent of primary cause among domestic violence fatal injuries, 2020.



This figure shows that majority of domestic violence injuries are due to gun- fire (52.27)% ,while in non-fatal injuries majority was due to sharp tolls and blunt injuries.

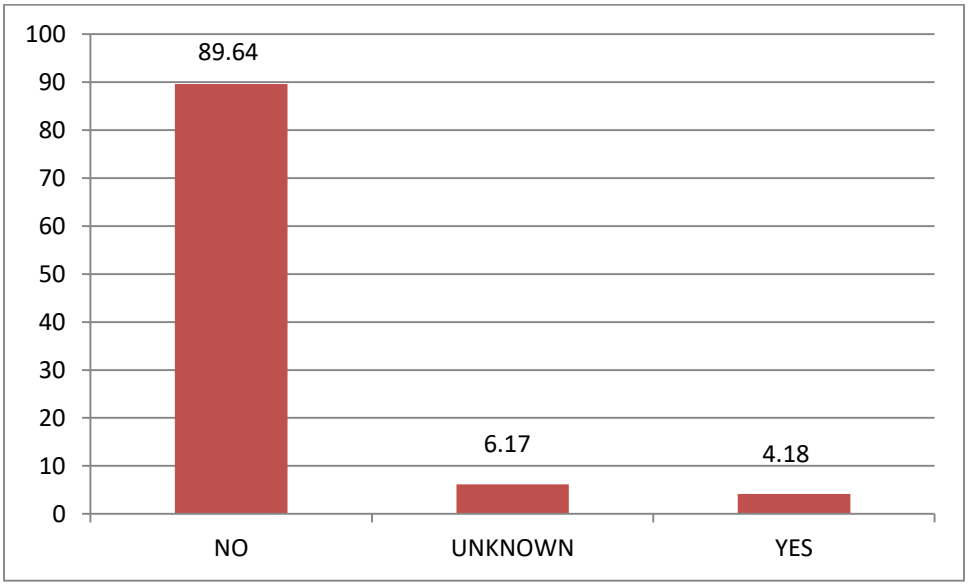
3 – 5 mass injury events

Mass injury event is defined as an event that caused five or more injuries.

Table (31); number and percent of injuries resulting from mass injuries among fatal injuries 2020.

Mass injury	N	%
NO	10154	89.64
UNKNOWN	699	6.17
YES	474	4.18
Total	11327	100

Figure (34), percent of injuries resulting from mass injuries among fatal injuries recorded in 2020.



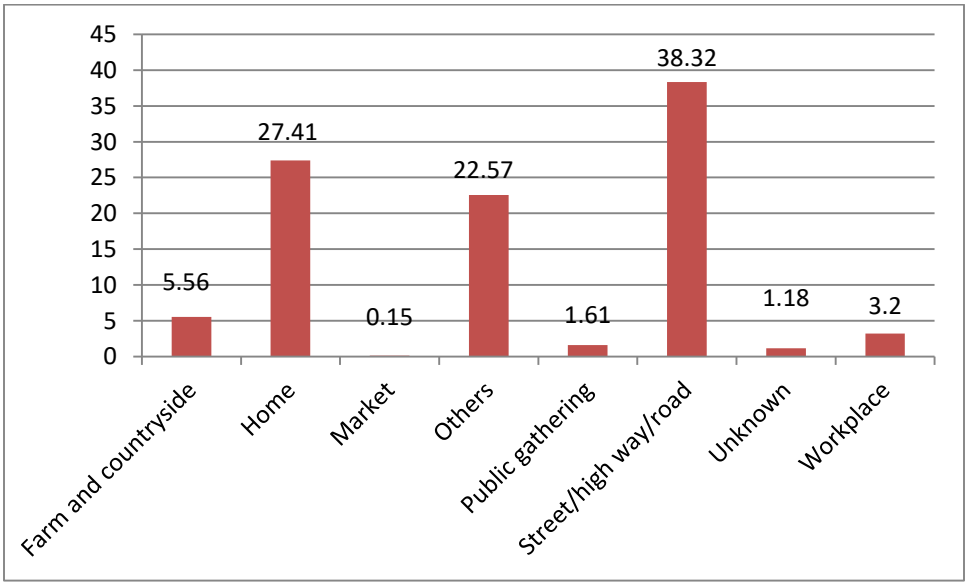
This figure shows about (4.18) % of all fatal injuries resulted from mass events.

3 – 6 Distribution according to place of injury

Table(32); percent of fatal injuries according to place among fatal injuries,2020.

Place	N	%
Farm and countryside	630	5.56
Home	3105	27.41
Market	17	0.15
Others	2556	22.57
Public gathering	182	1.61
Street/high way/road	4340	38.32
Unknown	134	1.18
Workplace	363	3.2
Total	11327	100

Figure (35): percent of fatal injuries according to place of among fatal injuries,2020.



This figure shows the most common location of fatal injuries was streets / highways/ roads (38.32) %, followed by homes (27.41) %.Farms and countryside, work place, public gathering and markets reported less fatal injuries than streets and homes

About (22.57) % of fatal injuries occurred in places other than that mentioned.

4.discussion

4.1. key findings and recommendations

1- The injury surveillance report 2020 reveals that, external injury is a major public health problem, because it leads to many morbidities and mortalities. The report mentions that the total fatal injuries were (11327), in addition to (61727) non-fatal injuries.
The health effects of injury needs great efforts from governmental and non-governmental sectors to decrease the impact of this problem.
A national multi-sectorial strategy for management ,control and prevention is essential, this strategy should be implemented by ministry of health in collaboration with other ministries and international partners (WHO).

2- According to circumstances of injuries road traffic accidents represents the main primary cause (39.14) % from non-fatal injuries and (34.35)% from fatal injuries. Car's occupants and pedestrians represent more than 90% of victims of traffic related injuries, so legislations and prevention programs should concentrate on : providing streets with areas for pedestrian's uses and crossing, controlling streets by cameras for monitoring speed and implementation of safety lows .

3- The report reveals that intentional fatal injuries (whether self-harm or by others) were more than(2500), this need psychological programs for prevention and control of intentional injuries especially self-harm and suicides.

4- The report illustrates that about (66)% of non-fatal injuries treated in emergency departments and send home ,trauma care centers should be reinforced and emergency departments must be supported to decrease severity an complications of injuries.

5- According to the report ,about 8% of non-fatal injuries arrived to emergency department by ambulance ,and (17.5) % got medical care before reaching hospitals. This needs programs for training drivers on first aids and Basic Life Support (BLS) and transferring of injured patients to decrease complications.

6- Regarding location of injuries, the report reveals that home represents second place after streets, so heath education for prevention risks at home is important. Work place represents other location for external injuries ,so preventive measures and occupational safety in factories and places of work is essential.

7. According to mechanism of injury the report reveals a difference between unintentional non-fatal and fatal injuries other than traffic injuries. For non-fatal injuries, the top mechanisms were falls, burns and animal bites , whereas for fatal injuries the top mechanism was burns , electrical injuries and drowning.

There is another difference between non-fatal outside and domestic injuries, when the top mechanisms were blunt and sharp tools injuries with fetal outside and domestic injuries when top mechanism was gun-fire. so this needs programs in collaboration with other sectors and ministries

8- For non-fatal injuries findings should be interpreted with caution as reporting sites are sentinel sites, so expanding of surveillance program to all general hospitals is important for generalization of results.

9 - The percent of arriving to hospital by an ambulance in some health directorates was very few , the reason may be transferring patients to hospitals may be transferring patients to hospitals occurring by ambulances belongs to center of operations and emergency services (especially in Baghdad) with no recording in surveillance system.

4.2. Limitations of the Current Surveillance System

The Injury Surveillance in Iraq is now among one of the most robust systems globally, capturing routine data useful for public health programming. The most common limitations of the system are the following.

• **Use of Sentinel Hospitals:** One limitation of the design of the system is that not all hospitals in the governorates are participating in the injury surveillance system. In most governorates there are only 1-2 hospitals participating. The catchment area of these hospitals is unknown. Given that the non-fatal surveillance is not exhaustive calculation of rates is not appropriate.

• **Access:** Because of situations in Iraq ,monitoring, supervision and visiting all sites of collecting data is difficult . Delaying in sending data or silent sites are major limitations of program,.

• **Limited Data/ Variables:** The current surveillance form is intentionally short to limit the burden on the health system. Information on the nature and severity of the injury (fracture, amputation, etc.) and the body region (s) injured (head and neck, torso, etc.) are not collected.

• **Underreporting of intentional injuries:** Intentional self-harm injuries and intentional assaults accounted for a smaller proportion of injuries than seen regionally or globally. This may in part due to under-reporting due to social and cultural reasons. Additional training may be needed so that the intent of the injury can be accurately ascertained.

• **Funding:** Inadequate funding and lack of human resources, particularly skilled personnel, were perceived as challenges to the system in some hospitals. At the national level, additional staff with capacity to analyze and critically review the data is needed. The system is supported by only one full time MOH staff.

• **Monitoring and Evaluation:** Ideally, monitoring and evaluation would be a regular activity to ensure high quality data. Each participating hospital was supposed to evaluate the sensitivity of the surveillance system by comparing the number of injury cases picked by the system with the number of cases registered by the hospital. To date, M&E activities have not been implemented as planned. Sensitivity of the surveillance system is expected to be high but is not known. The national team besides external monitoring from other teams from universities or world health organization or others is very important to insure quality of data obtained.

• **ICD Codes:** The external cause or mechanism of injury is not coded according to ICD codes. Given the limitations of ICD codes, this may not be an immediate priority.

4.3. Recommendations for Strengthening Surveillance

The following activities are recommended to improve the surveillance system in the upcoming year:

• **Successful return for out of the surveillance Governorates:** Beginning 2017, at least CO and one ER from liberated governorates reported on injuries. Successful training, monitoring and mentorship will be needed to ensure the quality remains as the program expands.

• **External Evaluation:** The need for an in-depth evaluation of this surveillance system was identified in 2012 but was not feasible given increased insecurity and violence. This evaluation by an external team remains a priority so that partners have a better understanding of the accuracy and completeness of reporting by facility.

• **Regular Quality Assurance:** To ensure quality, a team of trained personal has begun monitoring data quality. As the system scales up, having more of these teams able to perform routing monitoring visits will be even more essential. This group can also support with training and re-training activities.

• **Enhanced Training:** All individuals involved with collecting the data received some training on how to report. However, we note that problems in coding persist. Targeted trainings to address data quality problems as they are identified can help improve data quality. Some common themes to emphasize include: how to best identify the intention of an injury: when to suspect self-harm or assault (a difficult task given the social and culture realities in Iraq); distinguishing between assault and insurgency activity.

• **The forms:** development of one page form, paper and electronic, may ease the work.

• **Use of the Data:** To date analysis is performed only at the national level. Basic analysis at the governorate level on a more frequent basis (ideally real time) is feasible given that many governorates already enter their own data. Support to build the capacity of governorate level MOH staff to analyze and interpret data could help translate the information into public health action.

• **Collaboration:** Collaboration with international partners (WHO and CDC) should continue in order to maintain high standards of data collection, analysis and reporting.

5-1 Annex 6-1.Iraqi Injury Surveillance (Arabic)

وزارة الصحة
دائرة العمليات الطبية والخدمات المتخصصة/مركز العمليات
نظام الرصد الوطني العراقي للحوادث
ردهات الطوارئ / الطب العدلي

A. معلومات عن المؤسسة الصحية			1 ? ردهات الطوارئ		2 ? الطب العدلي
A1	اسم دائرة الصحة _____	A2	اسم المؤسسة الصحية _____	A3	رقم المريض/العظة _____
B. معلومات عن المريض / الحالة					
B1	اسم المريض/الحالة _____	B2	الجنس 1 ? ذكر 2 ? أنثى 9 ? غير معروف	B3	العمر ___ سنوات
B4	عنوان المريض/الحالة (المحافظة) _____	B5	رقم شهادة الوفاة _____	B6	تاريخها __/__/____
C. سلسلة الوصول					
C1	تاريخ الإصابة __/__/____	9 ? غير معروف	C2 زمن الإصابة __	C3	تاريخ العثور على الجثة __/__/____
C4	تاريخ الوصول إلى المؤسسة الصحية __/__/____		C5 زمن الوصول __		الزمن (0-23) بالتوقيت المائي
C6	وقت الإصابة المتوقع	1 ? خلال ساعة	2 ? خلال 24 ساعة	3 ? أكثر من 24 ساعة	9 ? غير معروف
C7	هل حصل التصاب على إسعاف أولي قبل الوصول للطوارئ في المستشفى	1 ? نعم		2 ? لا	9 ? غير معروف
C8	وسيلة الوصول (اختر واحد)	1 ? سيارة إسعاف	2 ? سيارة أخرى	8 ? وسيلة أخرى	9 ? غير معروف
D. معلومات متعلقة بالإصابة					
D1	ظروف الحادث: كيف حدثت الإصابة (اختر إجابة واحدة فقط)	في حالة اختيار (1.6 و 1.7) يجب ملء E			

1 نشاط إرهابي أو عسكري		2 حوادث مرور		3 عنف منزلي		4 عنف خارجي		5 حوادث أخرى	
1.1 ? قتال بري	2.1	? راجلا	3.1	? أسلحة نارية	4.1	? أسلحة نارية	5.1	? عضة حيوان	
1.2 ? انفجار	2.2	? سيارة	3.2	? الآت حادة	4.2	? الآت حادة	5.2	? غرق	
1.3 ? عبوة ناسفة	2.3	? دراجة هوائية	3.3	? الآت راضه	4.3	? الآت راضه	5.3	? تسمم	
1.4 ? انتحاري	2.4	? دراجة نارية	3.8	? أخرى	4.8	? أخرى	5.4	? سقوط	
1.5 ? سيارة مفخخة	2.8	? أخرى	3.9	? غير معروف	4.9	? غير معروف	5.5	? حروق	
1.6 ? ألغام أرضية	2.9	? غير معروف					5.6	? اختناق	
1.7 ? مخلفات حربية							5.7	? صعق كهربائي	
1.8 ? أخرى							5.8	? أخرى	
1.9 ? غير معروف							5.9	? غير معروف	

D2	عدد المصابين 5 أو أكثر في الحادثة	1 ? نعم	2 ? لا	9 ? غير معروف
D3	القصد	1 ? مقصودة من قبل الآخرين	2 ? مقصودة من قبل المصاب	3 ? عرضية من قبل الآخرين
		4 ? بعرضية من قبل المصاب	8 ? أخرى	9 ? غير معروف
D4	المكان الجغرافي للحادث	المحافظة: _____	أقرب من مركز شرطة: _____	المنطقة: _____
D5	مكان وقوع الحادثة (اختار واحدة)	1 ? السكن	2 ? الشارع	3 ? مكان العمل
		4 ? تجمع سكاني	5 ? السوق	
		6 ? الريف أو المزرعة	8 ? أخرى	9 ? غير معروف
D6	الإجراء الأولي للمريض في ردهة الطوارئ	1 ? تمت المعالجة و أرسل إلى المنزل		2 ? خرج على مسؤوليته الخاصة
		3 ? نقل للمستشفى	4 ? متوفى عند الوصول	5 ? متوفى في ردهة الطوارئ
		6 ? نقل إلى مستشفى أخر(حدد): _____		
		8 ? أخرى		9 ? غير معروف

ملئت بواسطة: _____	___ ___	تاريخ الإملاء __/__/____	التوقيع
دققت بواسطة: _____	___ ___	تاريخ التدقيق __/__/____	التوقيع

E	إذا كان الشخص مصابا نتيجة الألغام أو القذائف غير المنفلقة المتروكة اسأل المريض الأسئلة الآتية				
E1	عنوان المصاب الكامل	المحافظة: ______	القضاء: ______	الناحية: ______	
		الحي: ______	المحلة: ___	زقاق: ___	رقم الدار: ___
		أقرب نقطة دالة: ______			
E2	النشاط في وقت الإصابة (اختار إجابة واحدة فقط)	☐ 1 يمشي على قدميه	☐ 2 كان في العمل	☐ 3 زراعة	
		☐ 4 متنقل بالسيارة	☐ 5 تعليم	☐ 6 رعي	
		☐ 7 إزالة ذاتية للألغام و المخلفات الحربية		☐ 8 التسوق	
		☐ 9 جمع السكراب	☐ 10 اللعب	☐ 11 نشاط ديني	
		☐ 12 عبر حدود	☐ 88 أخرى	☐ 99 غير معروف	
E3	كيف فُجر اللغم أو القذيفة المتروكة؟	☐ 1 عبث (فقط العمد)	☐ 2 حادث عرضي عن طريق اللمس أو التخطي عليها (لم يقصد تفجيره)		
		☐ 8 أخرى	☐ 9 غير معروف		
E4	من فجر المتفجر؟	☐ 1 من قبل الشخص نفسه	☐ 2 من قبل شخص آخر	☐ 3 سيارة	☐ 9 غير معروف
E5	هل كان الضحية يعلم أن المنطقة ملغومة بالألغام؟	☐ 1 نعم لكنه ذهب لأسباب اقتصادية	☐ 2 نعم لكنه ذهب لأسباب أخرى		
		☐ 3 لا	☐ 9 غير معروف		
E6	هل جرح أو قتل أشخاص آخرين في الانفجار نفسه؟	☐ 1 نعم	☐ 2 لا	☐ 9 غير معروف	
	إذا كان الجواب نعم	عدد المصابين: ___	عدد المتوفين: ___	☐ 9 غير معروف	

تعليمات ملء الاستمارة

١. يرجى قراءة التعليمات جيداً قبل الإملاء.
٢. وضع علامة ☒ داخل المربع المناسب و عدم وضع علامات أخرى مثل √ أو × ... الخ لكي تتوحد الأجوبة لمدخل البيانات
٣. الحرص على ملء جميع حقول الاستمارة بدقة وكما يلي: اللون الأزرق خاص للطوارئ واللون الأحمر للطب العدلي والأسود مشترك بينهما.
٤. يجب على الأشخاص الذين يملؤون الاستمارة أن يكتبوا أسمائهم بوضوح و توقيعهم و تاريخ الملء و المصادقة.
٥. يملأ حقل A من قبل مسؤول البرنامج.
٦. (B) المقصود بـ (الحالة) هو المتوفي أو المصاب المحال إلى المعهد.
٧. (B1) إذا كان الاسم غير معروف يدون غير معروف و لا يترك فارغاً.
٨. (B3) إذا كان العمر أقل من سنة يكتب ثلاثة أصفار (٠٠٠) و يقدر عمر المصاب في حالة عدم معرفته و أن لم تتمكن من ذلك أكتب (٩٩٩).
٩. الوقت حسب التوقيت العالمي من (٠٠-٢٣) و بالساعات فقط و تهمل أجزاء الساعة و بالنسبة للساعة ١٢ ليلاً فتكتب (٠٠).
١٠. الانتباه إلى التسلسل المنطقي بين تاريخ الإصابة و تاريخ الوصول و تاريخ الإملاء و أن لا يتقدم تاريخ الإملاء أو الوصول قبل تاريخ الإصابة.
١١. (C8) يعني بالوسيلة الأخرى أية وسيلة غير الإسعاف والسيارات (عربة، دراجة، طيارة...الخ) ذلك.
١٢. (D1) في حالة اختيار فقرة ١,٦ ألغام و ١,٧ مواد قابلة للانفجار يجب ملء حقل E
١٣. (D1 ١,٢) عبارة - انفجار- تتضمن كل الانفجارات غير معروفة السبب و المقذوفات من بعد مثل صواريخ - هاونات، طائرات أو أي مقذوف آخر.
١٤. (D1 ١,٨) أخرى يقصد بها آلية حدوث الإصابة مما لم يذكر أعلاه مثل (عربة دفع، حيوان، قطار أو غيرها).
١٥. (D5) تجمع سكاني يشمل دور العبادة (مسجد، كنيسة، الخ) أو التجمعات لأغراض التطوع أو لأغراض التدريب ...الخ.
١٦. ينبغي بذل الجهد للتفريق بين النشاط الإرهابي و العنف خارج المنزل.

5-2.Iraqi Injury Surveillance(English)

CO □2		ER □1			A Reporting Site HEALTH FACILITY INFORMATION			
Patient / Case number ___	A3	Name of Health Facility_____		A2	Name of Health Directorate _____			A1
PATIENT DEMOGRAPHIC INFORMATION B								
Age ___ Years	B3	Gender □ 1 Male □ 2 Female □9 Unknown		B2	Patient\ Case full Name_____			B1
Date of Death Certificate _ __ / __ / _	B6	Death Certificate No _ _ _ _ _ _ . __		B5	Patient\ Case Address) Governorate (_____			B4
C ARRIVAL SEQUENCE								
Date of Cadaver Found / __ / __ __	C3	Time of Injury __	C2	□ Date Unknown 9	Date of injury ___ / __ / __ _			C1
Time) 0-23 (International time		Time of arrival__	C5	Date of arrivall to the health facility _ / __ / __				C4
□Unknown 9	□3 More than 24 hours	□2 within 24 hours		□1 within 1 hour	Time from injury to arrival			C6
□Unknown 9	□2 No	□1 Yes	Patient got medical care before coming to ER?					C7
□Unknown 9	□ 8) Others(not a car(	□ Other vehicle 2		□1 Ambulance	Mode of Arrival) one choice(			C8
D INJURY RELATED INFORMATION								
fill field E selected)1.6 ,g 1.7 (If				Circumstances (How was the injury inflected) (one choice(				D1
Others 5		4 Outside Violence		3 Domestic Violence		2 Traffic Accidents		1 Explosion Accidents		
□Animal bite	5.1	□Gun fire	4.1	□Gun fire	3.1	□Pedestrian	2.1	□Gun fire	1.1
□Drowning	5.2	□Sharp tools	4.2	□Sharp tools	3.2	□Car	2.2	□Explosive	1.2
□ Poisoning	5.3	□Blunt	4.3	□Blunt	3.3	□Bicycle	2.3	□IED	1.3
□Falls	5.4	□Others	4.8	□Others	3.8	□Motorcycle	2.4	□Suicide bomber	1.4
□Burns	5.5	□Unknown	4.9	□Unknown	3.9	□Others	2.8	□Car bomb	1.5
□ Suffocation	5.6					□Unknown	2.9	□Land mine	1.6
□Electric injury	5.7							□UXO	1.7
□Others	5.8							□Others	1.8
□Unknown	5.9							□Unknown	1.9
□9 Unknown		□2 No		□1 Yes	Were 5 or more people injured in this incident				D2
□3 Unintentional inflected by others		□2 Intentional inflected by self			□1 Intentional inflected by others		Intention		D3
□Unknown 9		□ Others 8			□4 Unintentional inflected by self				
District_____ :		Police Station_____ :		Governorate_____ :		Geographical location of incident			D4
□ 5 Market	□4 Public gathering	□3 Workplace	□2 Street	□1 Home	Place of occurrence) one choice(				D5
□Unknown 9		□8 Others	□6 Farm and countryside						
□2 Discharged agianst medical advice		□1 Treated and sent home			Initial patient disposition in emergency department				D6

▫5 Died in emergency department	▫4 Dead on arrival	▫3 Admitted to the hospital		
▫6 Another Hospital) specify_____ :(				
▫Unknown 9	▫8 Others			

Sig.	Date of Filling_ _ _ _ / _ _ / _ _	Filled by__ __ _____ :
Sig.	Date_ _ _ _ / _ _ / _ _	Checked by__ __ _____ :

Instructions how to fill the form

1- Read the instruction carefully before filling.
2- Use the mark ☒ inside the suitable square and do not use other marks like √ or ° in order to standardize the answers for data entry.
3- Care on filling all the fields in the form, the red color is used for special fields for C.O.
4- Data collectors and supervisors should write clearly their name, signature and date of filling.
5- Section A should be fillet by supervisor.
6- In section (B), a (Case) means the dead person or the injured transferred to C.O.
7- In section (B1), if the name is unknown should be written unknown and not left blank.
8- In section (B3), if the age less than one year will be written (000) and estimate the age of the case, if not possible will be write (999).
9- Time upon international time is between (0 – 23) should be written in hours and ignore the minutes, for 12 o'clock at midnight should be written (00).
10- Attention on the logic consequences between the date of injury, date of arrival and the date of filling.
11- In section (C8) others means any facility other than ambulance and cars (carriage, motorcycle, plane,... etc).
12- In section (D1) if the answers 1.6 Land mine or 1.7 UXO section (E) should be filled.
13- In section (D1 choisw 1.2 includes all unknown explosive matters and projectiles, mortar rockets, planes,....
14- In section (D1) choice 2.8 *others* means mode of injury that not mentioned like (carriage, animal, train,...)
15- In section (D5) public gathering includes (Church, Mosque, ...) or other gathering for training purposes.
16- Emphasize on distinguish between *Explosion Accidents* and *Outside Violence*.

جمهورية العراق

وزارة الصحة

مديرية العمليات والخدمات الطبية الطارئة

تقرير برنامج رصد الإصابات الخارجية العراقي عام ٢٠٢٠

اعداد:
الدكتور : جاسم محمد خويف / مدير برنامج رصد الاصابات الخارجية العراقي

فريق العمل:

ت	الاســـــــــم	العنوان الوظيفي
١	د.فاضل عكلة بنيان	مدير العمليات والخدمات الطبية الطارئة
٢	د.جاسم محمد خويف	مدير قسم العمليات
٣	ص.فراس تموين عبد	رديف مدير قسم العمليات
٤	احمد عباس عبدالكاظم	مبرمج اقدم

الخلاصة:

يوفر برنامج رصد الاصابات الخارجية العراقي **Iraqi Injury Surveillance** معلومات هامة جدا حول الاصابات الخارجية التي تراجع اقسام الطوارئ في المستشفيات والوفيات الناجمة عنها والمسجلة في دائرة الطب العدلي وشعب الطب العدلي في المحافظات.

ان استخدام هذه المعلومات الموثقة سيقلل من عبء الاصابات وما تسببه من وفيات واعاقات في المجتمع.

- يتم جمع البيانات من خلال دوائر الصحة في كافة محافظات العراق , حيث تستلم البيانات من اقسام الطوارئ في المستشفيات للإصابات غير المؤدية الى الوفاة , بينما تستلم بيانات الاصابات المميتة من دائرة الطب العدلي في بغداد وشعب الطب العدلي في دوائر الصحة , وبعد جمع البيانات في اقسام العمليات التابعة الى دوائر الصحة ترسل شهريا الى برنامج رصد الاصابات في قسم العمليات / مديرية العمليات والخدمات الطبية الطارئة في وزارة الصحة
- يتم استلام البيانات من قبل العاملين في البرنامج وادخالها الكترونيا وفق استمارة خاصة اعدت بواسطة برنامج , Epi-Info حيث تتضمن الاستمارة المعلومات الديموغرافية وتاريخ الاصابة ونوعها والاجراءات المتخذة وغيرها من المعلومات وفيما يلي ملخص التقرير السنوي لرصد الاصابات الخارجية لعام: ٢٠٢٠ .
- كافة دوائر الصحة في العراق ودائرة الطب العدلي ارسلت بيانات عام , ٢٠٢٠ ماعدا دائرة صحة دهوك ودائرة صحة السليمانية (لم ترسل بيانات الطوارئ والطب العدل).
- ان حدوث جائحة كورونا أثر بشكل واضح على بيانات رصد الاصابات المرسلة من دوائر الصحة وذلك لان كثير من المستشفيات قد تم تحويلها الى مستشفيات تستقبل المرضى المصابين بكورونا وان بعض هذه المستشفيات كانت مراكز لتسجيل الاصابات الخارجية وقد ادى ذلك الى نقصان تسجيل الاصابات خصوصا غير المميتة التي تسجل في ردهات الطوارئ.
- يوضح التقرير السنوي لرصد الاصابات الخارجية في العراق لعام , ٢٠٢٠ ان العدد الكلي المسجل للإصابات غير المميتة هو ٦١,٧٢٧ حالة ,بينما العدد الكلي للإصابات المميتة هو ١١٢٣٧ وفاة.
- يوضح التقرير السنوي لعام ٢٠٢٠ ان الذكور يمثلون اكثر من % ٧٧ من الاصابات غير المميتة كما يوضح ان الاصابات والوفيات تحدث في كافة الفئات العمرية والفئة العمرية الاكثر تعرضا هي ١٥-٢٩ سنة.
- حسب البيانات التي جمعت من دوائر الصحة عام ٢٠٢٠ فأن العدد الاكبر من حالات الاصابات غير المميتة كان في ذي قار ثم اربيل ثم البصرة , اما ما يخص الاصابات المميتة فأن عدد الوفيات الاكبر سجلت من دائرة الطب العدلي بغداد ثم ذي قار ثم كركوك.
- حسب استمارة البرنامج تم توزيع الاصابات الى:

اولا :الاصابات غير المقصودة سواء بسبب الشخص نفسه او بسبب الاخرين.

ثانيا :الاصابات المقصودة(العمدية)سواء من قبل الشخص نفسه او من قبل الاخرين.

ثالثا :الاصابات غير معروفة القصد.

- من خلال تحليل البيانات لعام ٢٠٢٠ بحسب القصد(النية)جاءت الاصابات غير المقصودة اولا ثم الاصابات المقصودة(العمدية) وبعدها الاصابات غير المعروفة القصد.
- وبتحليل البيانات حسب ظروف الحادث للإصابات غير المميتة فأن اصابات الطرق جاءت اولا ثم الاصابات الاخرى(كالسقوط والحروق وعضة الحيوان .الخ)، اما في الاصابات المميتة جاءت اصابات الطرق ثم حوادث الحروق والصعقات الكهربائية وحوادث الغرق.

- ان التقرير النهائي عام ٢٠٢٠ - للإصابات غير المميتة الناتجة عن اصابات الطرق يوضح ان اكثر المعرضين للإصابة هم مستخدمو السيارات ثم الدراجات النارية ثم المشاة واخيرا مستخدمي الدراجات الهوائية ،اما ما يخص الاصابات المميتة فأن مستخدمي السيارات كانوا اول الضحايا ثم المشاة ثم مستخدمي الدراجات النارية وبنسبة قليلة جدا مستخدمي الدراجات الهوائية.
- ان حوادث الطرق - وما تسببه من اصابات مميتة في تزايد واضح من خلال المقارنة مع ارقام السنوات السابقة كما ان تسجيل اصابات لأنواع مركبات غير خاضعة للسيطرة النوعية(التكتك) مثلا في تزايد.
- ظهر من خلال التقرير لعام ٢٠٢٠ ان(حوالي)% ٦٦ من الاصابات غير المميتة وبكافة انواعها تم علاجها في ردهات الطوارئ وخرجت متحسنة.
- كما ظهر من التقرير ان حوالي ٨٣٪ من المصابين بإصابات غير مميتة لم يتلقوا عناية طبية وصحية قبل الوصول الى ردهات الطوارئ وحوالي)% ١٧ (من المصابين فقط قد تلقوا نوعا من العناية الطبية او الصحية قبل الوصول الى ردهات الطوارئ.
- يبين التقرير ان ترتيب الاصابات غير المميتة والمميتة حسب مكان وقوع الحادث على النحو التالي : اولا الطرق الخارجية والشوارع , وثانيا المنازل ثم اماكن العمل ثالثا.
- يوضح التقرير ان حوالي % ٨ فقط من المصابين بإصابات خارجية غير مميتة نقلوا الى ردهات الطوارئ بسيارات اسعاف بينما النسبة الاكبر تم نقلها بواسطة وسائل نقل اخرى.

التوصيات:

١- استنادا الى المعلومات الواردة في تقرير رصد الاصابات ٢٠٢٠ فأن عبء الاصابات لايزال مشكلة صحية في العراق, حيث يوضح التقرير ان عدد الوفيات الناجمة عن الاصابات كان) ١١٣٢٧)وفاة بالإضافة الى) ٦١٧٢٧ (اصابة غير مميتة ، ولغرض الحد من الوفيات والاصابات والاعاقات الناجمة عن الاصابات ينبغي القيام بفعاليات وبرامج علاجية وتأهيلية ووقائية وبما ان مشكلة الاصابات تمثل مشكلة متعددة والقطاعات من حيث التخطيط والتنفيذ والوقاية فأن تبني استراتيجية وطنية لوزارة الصحة بالتعاون مع الوزارات الاخرى وباشتراك منظمة الصحة العالمية بات امرا ضروريا.

٢- يوضح التقرير النهائي عام ٢٠٢٠ ان اصابات الطرق تمثل السبب الرئيسي للإصابات حيث تمثل نسبتها % ٣٩ من الاصابات غير المميتة و % ٣٤ من الاصابات المميتة كما يبين التقرير بأن مستخدمي السيارات والمشاة يمثلون حوالي % ٩٠ من مجموع الاصابات المميتة وان الاصابات المميتة تؤثر بشكل اكبر على المشاة مما في الاصابات غير المميتة وعلى ضوء ذلك ينبغي العمل على تشريع القوانين التي تحمي المشاة وتنظم السير واماكن خاصة للعبور مع مراقبة الشوارع بالكاميرات للحد من السرعة والالتزام بوسائل السلامة والامان.

٣- يوضح التقرير بأن الاصابات المميتة , سواء ايذاء النفس او الاخرين قد سببت فقدان حياة اكثر من ٢٥٠٠شخص مما يحتم تبني برامج نفسية للحد منها خصوصا ايذاء النفس والانتحار.

٤- يبين التقرير ان حوالي % ٦٦ من الاصابات غير المميتة قد تم علاجها وخرجت متحسنة بعد زيارة اقسام الطوارئ في المستشفيات وهذه نسبة جيدة ومشجعة تتطلب الاهتمام بردهات الطوارئ وانشاء مراكز العناية بالحوادث) trauma center (للحد من الاصابات وتقليل مضاعفاتها .بالإضافة الى دعم اقسم الطوارئ في المستشفيات.

٥- بحسب التقرير فأن % ٨ فقط من الاصابات غير المميتة قد تم نقلهم بسيارات اسعاف وان % ١٧فقط من الاصابات قد تلقوا عناية صحية وطبية قبل الوصول الى ردهات طوارئ وهذا يتطلب جهود كبيرة سواء في التعريف بخدمة ١٢٢ للإسعاف الفوري او تدريب السائقين الاخرين وعموم المجتمع على الاسعافات الاولية والاساليب الصحيحة لنقل الاصابات لغرض تقليل المضاعفات.

٦- يوضح التقرير بأن البيوت تمثل السبب الثاني بعد الطرق والشوارع لحدوث الاصابات وعليه فأن التوعية والتثقيف بالمخاطر المنزلية مهم جدا خصوصا ان نسبة لابأس بها من الاصابات للفئة العمرية (صفر) ٤ -سنوات اما الاماكن الاخرى لحدوث الاصابات فهي اماكن العمل مما يتطلب التنسيق مع الجهات المعنية ووزارة العمل والشؤون الاجتماعية لتفعيل برامج السلامة المهنية والوقائية من اصابات العمل.

٧- يبين التقرير وحسب الية الاصابات, ان اكثر الاصابات غير المميتة(عدا اصابات الطرق) هي(السقوط ,الحروق , وعضة الحيوان... الخ)بينما في الاصابات المميتة فان اكثر الأسباب هي(الحروق ,الصعقات الكهربائية وحوادث الغرق... الخ,)كما ان اكثر الأسباب في اصابات العنف الخارجي والعنف المنزلي غير المميتة هي(الآلات الحادة والآلات الراضة ,)بينما السبب الرئيسي في الاصابات ا لخارجية والمنزلية المميتة هي الاطلاقات النارية .وللحد من هذه الاصابات فأن هناك جهدا كبيرا يجب بذله من كافة الاطراف.

٨- ان الاصابات غير المميتة وبسبب تسجيلها في اماكن رصد مختارة في بعض المستشفيات وليس جميعها ,ينبغي توخي الحذر عند المقارنة بينها للسنوات المختلفة لصعوبة تعميم النتائج وعليه فان توسيع البرنامج ليشمل كافة المستشفيات العامة امر هام جدا.

٩- يوضح التقرير بأن نقل الاصابات بواسطة سيارات الاسعاف قليل جدا وربما كون الحالات(خصوصا في بغداد)تنقل بسيارات تابعة الى قسم الاسعاف الفوري التابع الى مديرية العمليات والخدمات الطبية الطارئة وليس الى دوائر الصحة وبالتالي عدم تسجيلها ضمن البرنامج وعلى قسم الاسعاف الفوري تحري سبب ذلك ووضع الحلول المناسبة.

جمهورية العراق

وزارة الصحة

مديرية العمليات والخدمات الطبية الطارئة

تقرير برنامج رصد الإصابات الخارجية العراقي عام ٢٠٢٠

اعداد:
الدكتور : جاسم محمد خويف / مدير برنامج رصد الاصابات الخارجية العراقي

فريق العمل:

ت	الاســـــــــم	العنوان الوظيفي
١	د.فاضل عكلة بنيان	مدير العمليات والخدمات الطبية الطارئة
٢	د.جاسم محمد خويف	مدير قسم العمليات
٣	ص.فراس تموين عبد	رديف مدير قسم العمليات
٤	احمد عباس عبدالكاظم	مبرمج اقدم