Republic of Iraq

Ministry of Health

Iraqi Injury Surveillance System

Annual Report, 2022

Edited by

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Summary;

The Iraqi injury surveillance system provides very important information about fatal and nonfatal injuries. Using this information for public health action will decrease the impact of injuries in the community. Data was collected from all Iraqi governorates in sentinel hospitals for non-fatal injuries and from the forensic medicine section or coroner's office for fatal injuries.

This report reveals that all governorates sent data during 2022, except Sulaymaniyah and Dohuk directorates didn't send data for nonfatal injuries... The total number of non-fatal injuries reported was (129,074), while the total fatal injuries were (12334). The surveillance report (2022) reveals that males accounted for about (78.7) % of non-fatal injuries, the most common age group was (20-24) years, while in fatal injuries males accounted for (73.4) %, the most common age group was (20-24) year. According to governorates distribution, the highest number of non-fatal injuries was collected from Baghdad) Noting that Baghdad consists of three health directorates: Baghdad-Karkh, Baghdad-Rusafa, and Medical City), then, ThiQar, Diyala while fatal injuries are mainly collected from Baghdad Medico-legal Directorate, then Anbar, K, Kirkuk, and Babil. According to the intention of injury, the majority of non-fatal injuries and fatal injuries were unintentional, followed by intentional injuries. According to the circumstances of the injury, the main cause-fatality and fatal injuries were traffic injuries, then other injuries including (falls, burns, drowning, and animal bites ...), followed by outside and domestic violence, and lastly insurgency or explosive accidents.

Regarding traffic non-fatal injuries, the most common cause was car occupants, followed by motorcycle users, and then pedestrians while in fatal injuries car occupants came first followed by pedestrians then motorcycle users.

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

This report shows that about 62.7 % of non-fatal injuries were treated and sent home, but only 7.1 % of them arrived by ambulance and 8.1 % got medical from before emergency departments.

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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/health info/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, 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 date data-driven and evidence-based.

This report presents the epidemiology of both fatal and nonfatal 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 (2022) was collected from emergency departments in all directorates and coroner offices departments except Sulaymaniyah and Dock when only fatal injury data did send.

External injuries are considered an invisible epidemic across the world and 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 the support of the WHO.

Report Overview

The current report contains four sections, including:

1- Description of 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 2022 for non-fatal injuries from data recorded at sentinel emergency departments

3- Overview of key findings for 2022 for fatal injuries from data recorded at governorate-level coroner offices

4- Summary 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 in 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, Basra, Erbil, Kerbala, Missan, Nineveh, and Al-Sulaymaniyah.

From 2016 to 2017, the Injury 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 2013. Data from these facilities were included in the annual reports beginning in 2016-2017.

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. (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 an 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, shootings, shelling, suicide bombing, 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's offices or forensic institute in each health directorate. Each health directorate has one, and only one, the 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, 1-3 hospitals are reporting. 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 the relative burden of different types and mechanisms of injury.

c. Data Collection; The data on injuries presented to the 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 were 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 a preliminary analysis and transmitted the data to the project focal point at the MOH for final analysis. DOH shared the result of the preliminary analyses 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's office and transmitted to the DOH. DOH conducted a 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 a 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 to check to ensure re 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 the 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 is 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 to preserve the privacy of the patient in the conceive 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 Affairs, Civil Defense, the Center of Health and Professional Safety, Labor, 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-fatal injury; surveillance

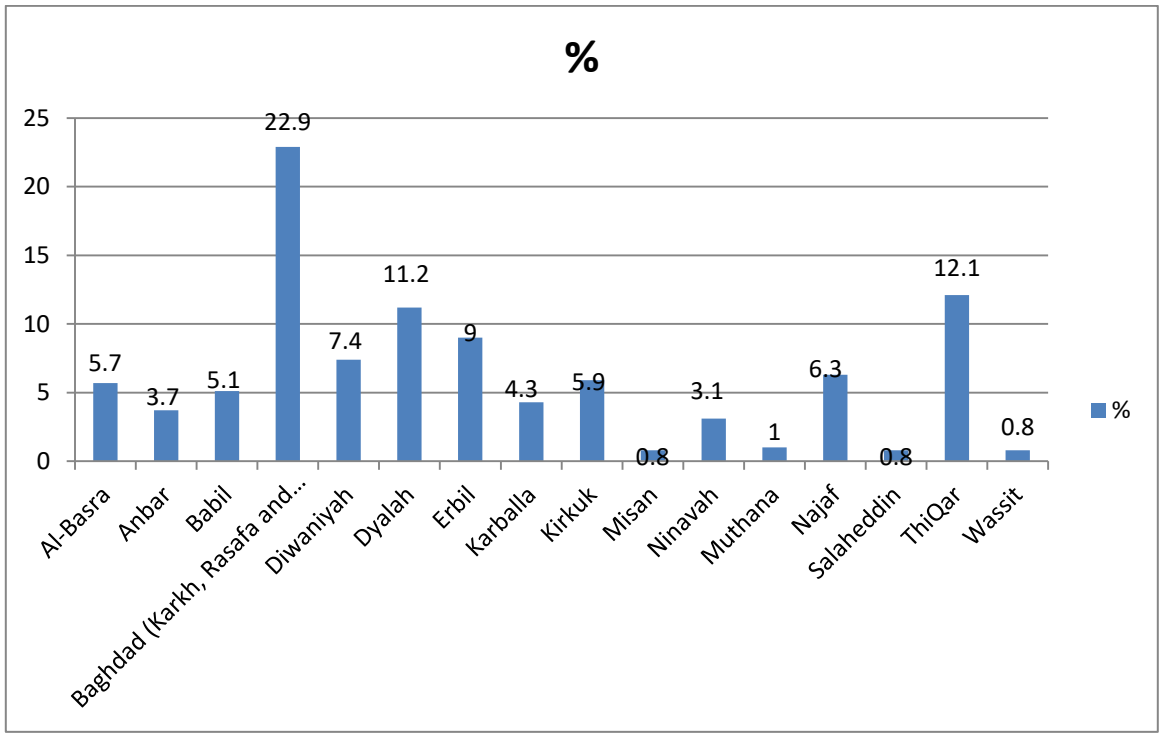
2-1 Overall number of injuries and victims by (D.O.H), 2022.

Table (2); number and percent of non-fatal injuries reported by directorates of health (D.O. Hs), 2022.

Governorates	N	%
Al-Basra	7327	5.7
Anbar	4717	3.7
Babil	6570	5.1
Baghdad (Karkh, Rusafa, and Medical City)	29551	22.9
Diwaniyah	9574	7.4
Diyala	14435	11.2
Erbil	11609	9.0
Karbala	5497	4.3
Kirkuk	7643	5.9
Missan	1019	0.8
Ninavah	3986	3.1
Muthana	1354	1.0
Najaf	8081	6.3
Salaheddin	1072	0.8
ThiQar	15570	12.1
Wasit	1069	0.8
Total	129074	100

The total number of non-fatal injuries reported in 2022 was (129074), Data was received from all directorates of health (D.O. Hs) except Sulaymani and Dohuk. The non-fatal surveillance site doesn't capture all non-fatal injuries.

Figure (1); percent of non-fatal injuries reported by directorates of health (D.O.H), 2022.



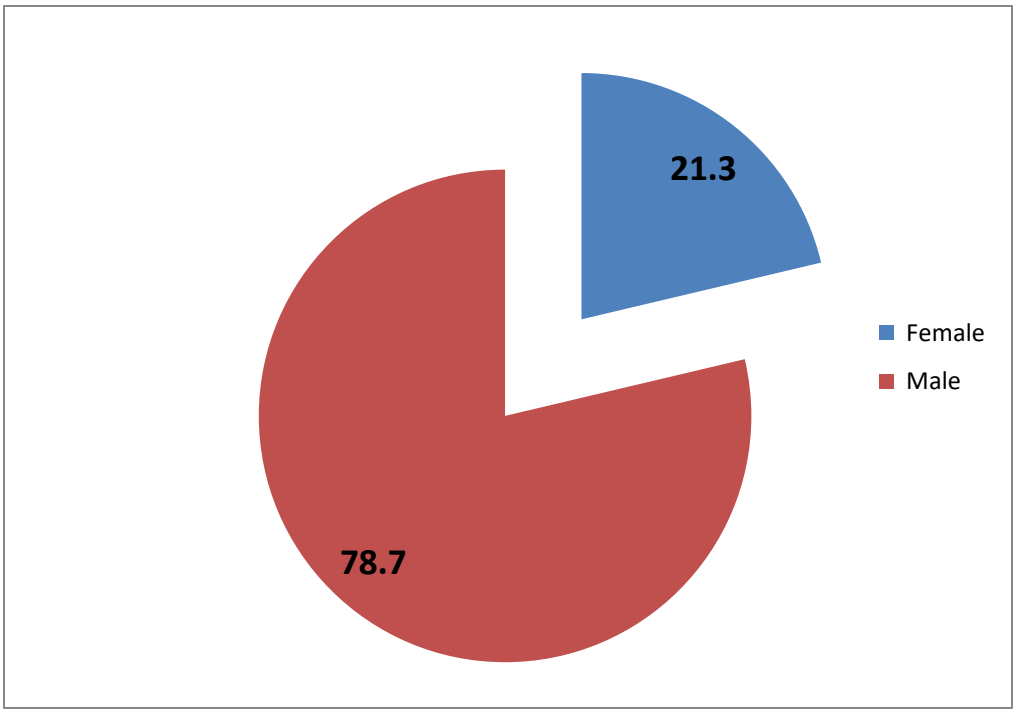
This figure shows that Baghdad reported the highest percentage (22.9) % of all reported cases, then ThiQar (12.1) % and Diyala (11.2) %, while, Wasit, Salaheddin and Missan reported the lowest percentage (0.8) %.Every governorate represented one D.O.H, except Baghdad, which consists of three D.O. Hs, Baghdad-Karkh, Baghdad- Rusafa and Medical City. Although there are (18) governorates in Iraq, there are (21) D.O.Hs. Within each directorate, some hospitals are reporting non-fatal injuries, which are general and large public hospitals. Non-fatal injury surveillance does not representative of all non-fatal injuries.

Table (3); number and percent of males and females reported non-fatal injuries, 2022.

Gender	N	%
Female	27434	21.3
Male	101640	78.7
Total	129074	100

This table shows the highest percentage of total reported non-fatal injuries (78.7) % was among males, while in females' the percentage was (21.3) %

Figure (2); Sex distribution of reported non-fatal injuries, 2022.



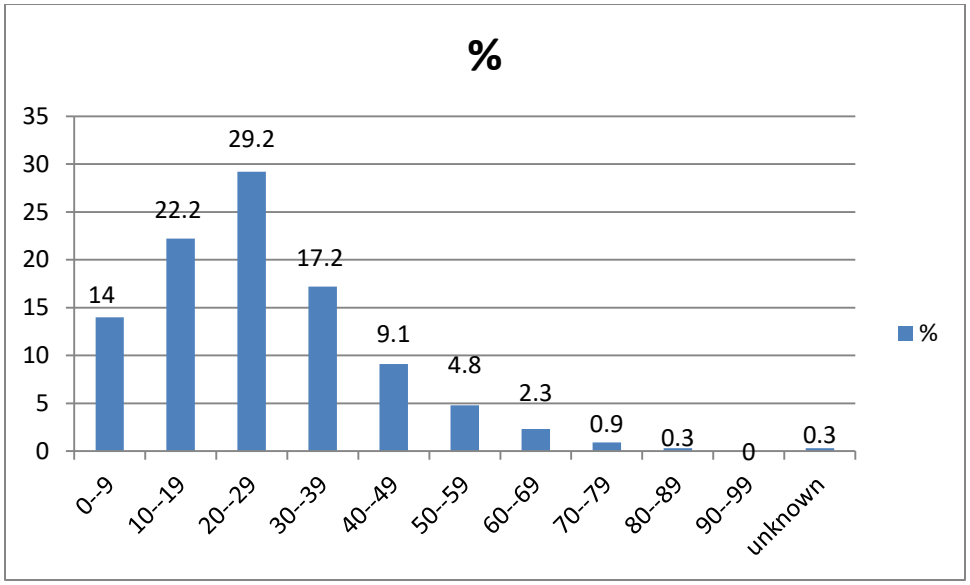
This figure shows the highest percentage of reported non-fatal injuries in 2022 was male than female in all governorates as well as in total.

(78.7) % of all cases were male, while only (21.3) % were female.

Table (4): age distribution of reported non-fatal injuries, 2022

Age group	N	%
0--9	18017	14.0
10--19	28515	22.2
20--29	37528	29.2
30--39	22179	17.2
40--49	11728	9.1
50--59	6228	4.8
60--69	2959	2.3
70--79	1216	0.9
80--89	346	0.3
90--99	13	0.0
unknown	348	0.3
TOTAL	**129074**	**100**

Figure (3): age distribution of reported non-fatal injuries, 2022.



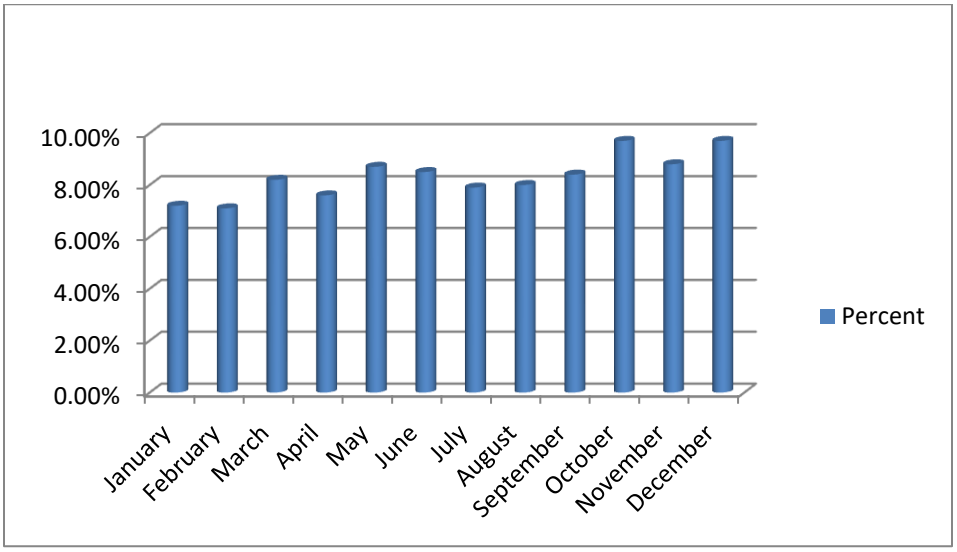
This figure shows clearly that non-fatal injuries affected younger age more than older age groups, but reproductive age (20 – 29) affected more than other age groups**.** The most common age group affected was (0-40), which represented more than (80 %) of total injuries.

2-2 Time trend

Table (5); number and percent of non-fatal injuries according to months, 2022.

MONTH	Frequency	Percent
January	9327	7.20%
February	9192	7.10%
March	10610	8.20%
April	9849	7.60%
May	11257	8.70%
June	10929	8.50%
July	10241	7.90%
August	10351	8.00%
September	10844	8.40%
October	12559	9.70%
November	11331	8.80%
December	12584	9.70%
Total	129074	100.00%

Figure (5); time trend of non-fatal reported injuries, 2022.



This figure shows that non-fatal injuries were reported during all months.

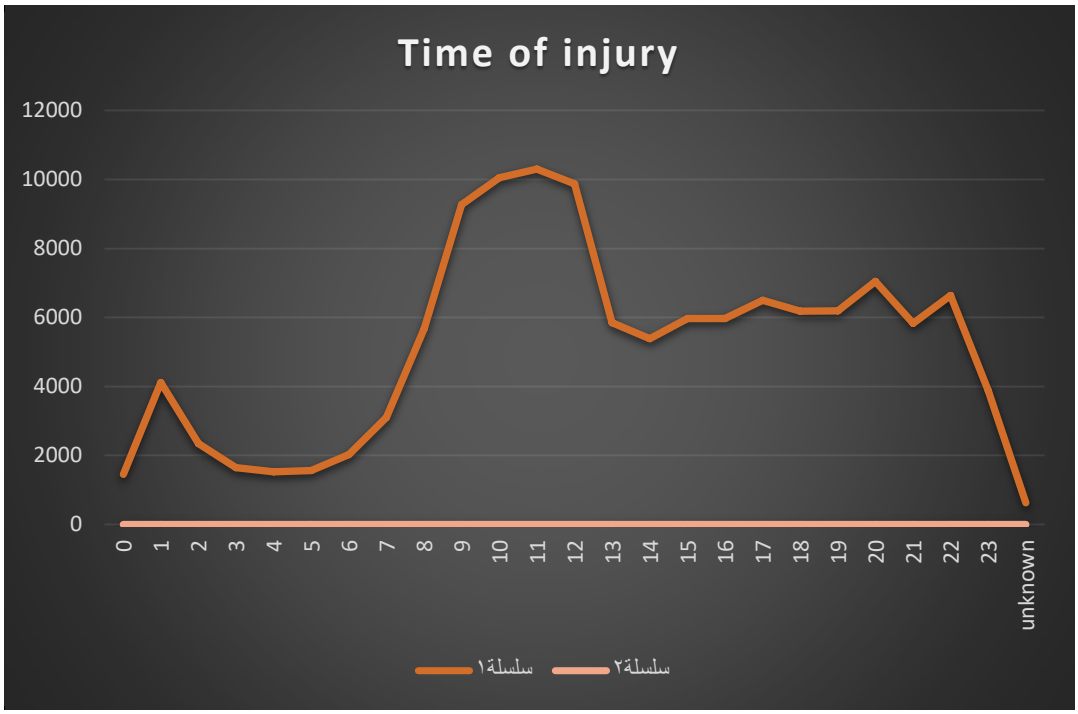
No consistent trend was identified.

Table (6); number and percent of non-fatal injuries reported according to time, 2022.

Time Of Injury	Frequency	Percent
0	1453	1.10%
1	4115	3.20%
2	2344	1.80%
3	1648	1.30%
4	1529	1.20%
5	1567	1.20%
6	2027	1.60%
7	3109	2.40%
8	5674	4.40%
9	9275	7.20%
10	10058	7.80%
11	10307	8.00%
12	9876	7.70%
13	5853	4.60%
14	5384	4.20%
15	5972	4.60%
16	5977	4.70%
17	6498	5.10%
18	6190	4.80%
19	6192	4.80%
20	7053	5.50%
21	5831	4.50%
22	6641	5.20%
23	3871	3.00%
unknown	630	0.48%
Total	129074	100.00%

This table shows non-fatal injuries according to international time (0-23). Cases of Non-fatal injuries started to increase from the period (8 am -11 pm).

Figure (6); distribution of non-fatal injuries reported by time, 2022.



This figure shows the number of number-fatal injuries reported started to increase after 8 am (morning) to reach a peak (midnight.), then began to decrease after 15p.m (afternoon), then the number of cases became low till eight o'clock of the next morning when started to increase again.

2-3 distribution of injuries by intention

The following section presented injuries by the intention of injury.

The intention of injury is classified into;

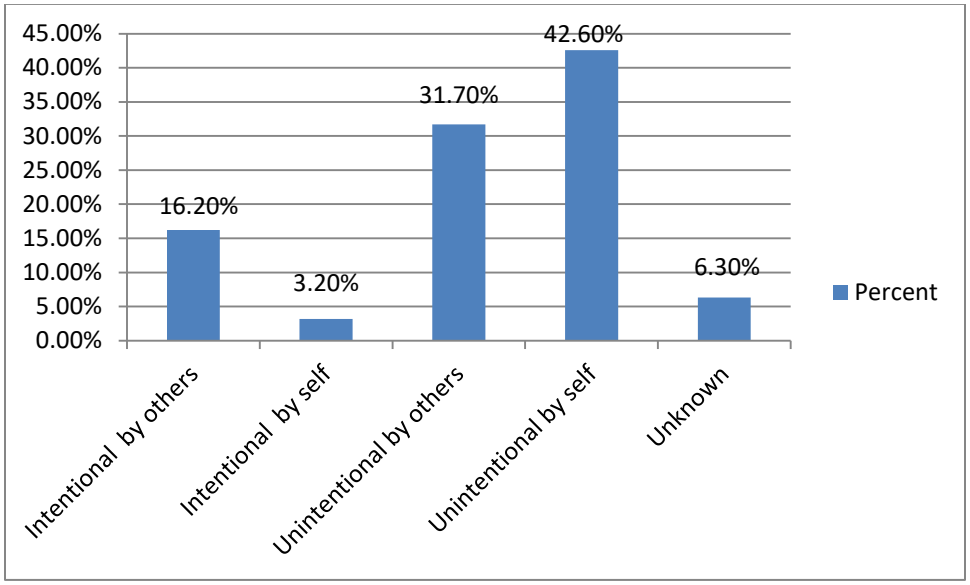
- Intentional by others
- Intentional by self (self-harm)
- Others
- Unintentional by others
- Unintentional by self
- Unknown intent.

Table (7) Number and percent of injuries by intention of non–fatal injuries, 2022.

Injury by intention	Frequency	Percent
Intentional by others	20918	16.20%
Intentional by self	4170	3.20%
Unintentional by others	40906	31.70%
Unintentional by self	54987	42.60%
Unknown	8093	6.30%
Total	129074	100.00%

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

Figure (7); Percent of injuries by the intention of reported non–fatal injuries, 2022.



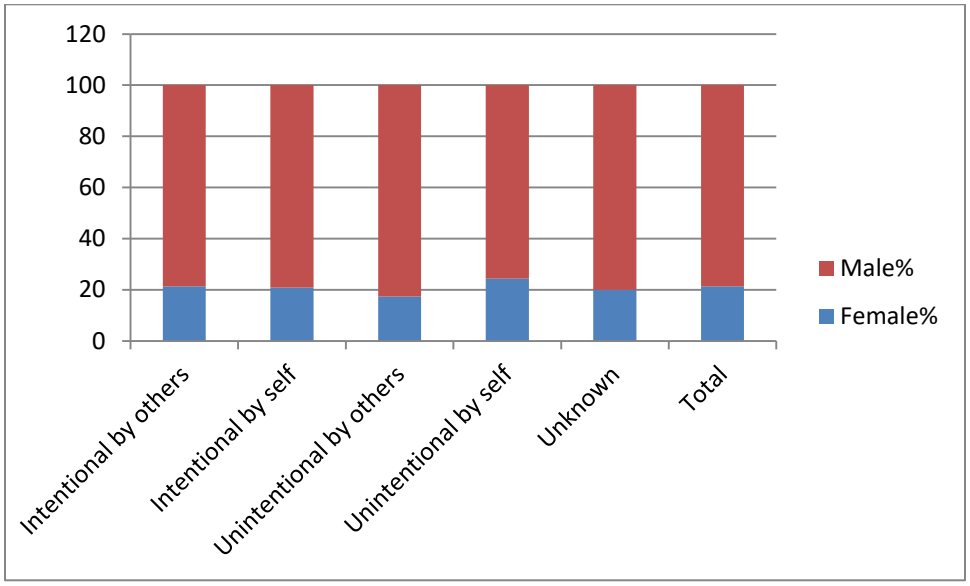
This figure shows that an un-intentional injury, either by self or by others causes the greatest proportion of all on-fatal iinjuries42.6%),(31.7 %) sequentially, and intentional injuries by others (16.2%) than intentional injuries by self (3.2%). (6.3%) of non-fatal injuries was of unknown intent.

Table (8); percent of non-fatal injuries reported according to sex, 2022.

Intention	Female N	Female%	Male N	Male%	Total N	Total%
Intentional by others	4479	21.4	16439	78.6	20918	100
Intentional by self	866	20.8	3304	79.2	4170	100
Unintentional by others	7105	17.3	33801	82.7	40906	100
Unintentional by self	13368	24.4	41619	75.6	54987	100
Unknown	1616	20	6477	80	8093	100
Total	27434	21.3	101640	78.7	129074	100

This table shows that the percentage of injuries among males represented (78.7) % of the total, while the percentage of injuries among females represented (21.3) %.

Figure (8); percent of injuries reported according to sex, 2022.



This figure shows that male to female ratio is greater in males than in females in all types of injuries.

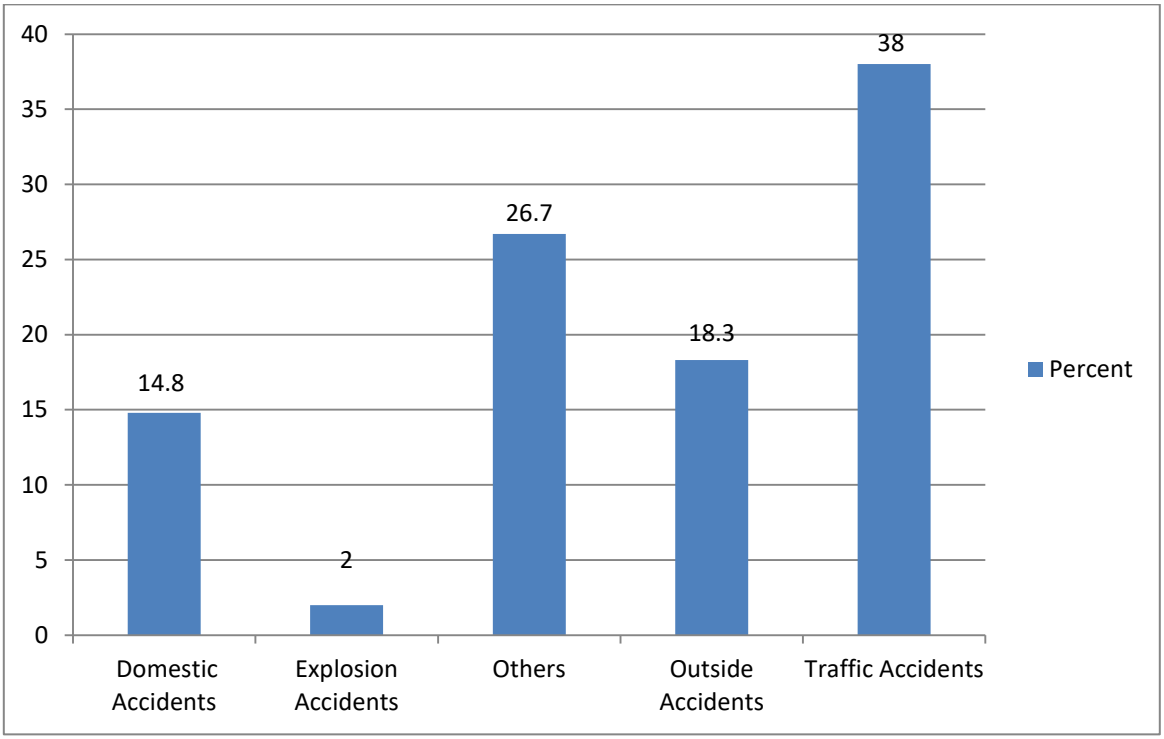
2-4 distribution of injuries by a mechanism;

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

Table (9); number and percent of non-fatal injuries according to circumstances of injury, 2022.

Circumstances	Frequency	Percent
Domestic Accidents	19101	14.8
Explosion Accidents	2710	2.0
Others	34536	26.7
Outside Accidents	23621	18.3
Traffic Accidents	49106	38.0
Total	129074	100.

Figure (9); percent of non-fatal injuries according to circumstances,2022.

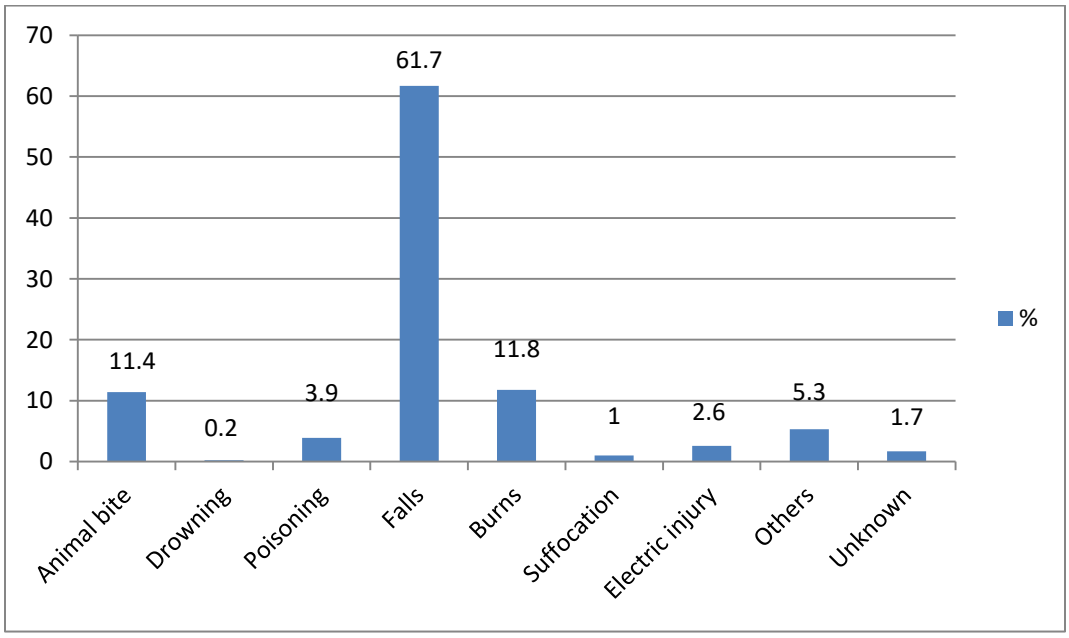


This figure shows that traffic Accidents was the main cause of non-fatal injuries, reprepresenting8,0) %, followed by others (which are injury other than traffic like falls, burns, and animal bites...) these injuries represented (26.7) %, then Outside accidents which represented (18.3) % from total cases.

Table (10); number and percent of unintentional (other than traffic…), injuries among all non-fatal injuries according to Mechanism, 2022.

Unintentional-other injuries	N	%
Animal bite	3938	11.4
Drowning	96	0.2
Poisoning	1369	3.9
Falls	21311	61.7
Burns	4107	11.8
Suffocation	355	1
Electric injury	907	2.6
Others	1843	5.3
Unknown	610	1.7
Total	34536	100

Figure (10); percent of unintentional (other than traffic…), injuries among all non-fatal injuries according to Mechanisms, 2022.



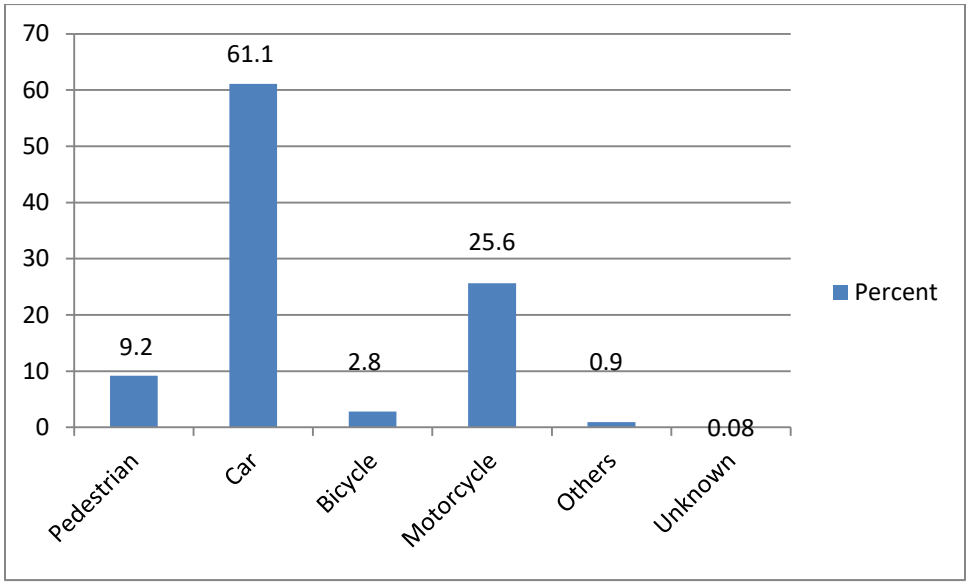
This figure shows that falls were the main cause among other (than traffic) non-fatal injuries, represented (61.7) % followed by burns which represented (11.8) %, then animal bites which represented (11.4) %.

Table (11); Number and percent by mechanism among non-fatal traffic injuries,2022.

Traffic injuries	Frequency	Percent
Pedestrian	4565	9.2
Car	30033	61.1
Bicycle	1403	2.8
Motorcycle	12585	25.6
Others	480	0.9
Unknown	40	0.08
Total	49106	100

This table shows the number and percentage of traffic injuries classified whether (a car, motorcycle bicycle, or…) undergo to an accident.

Figure (11); Percent of injuries by mechanism among nonfatal- traffic injuries, 2022.



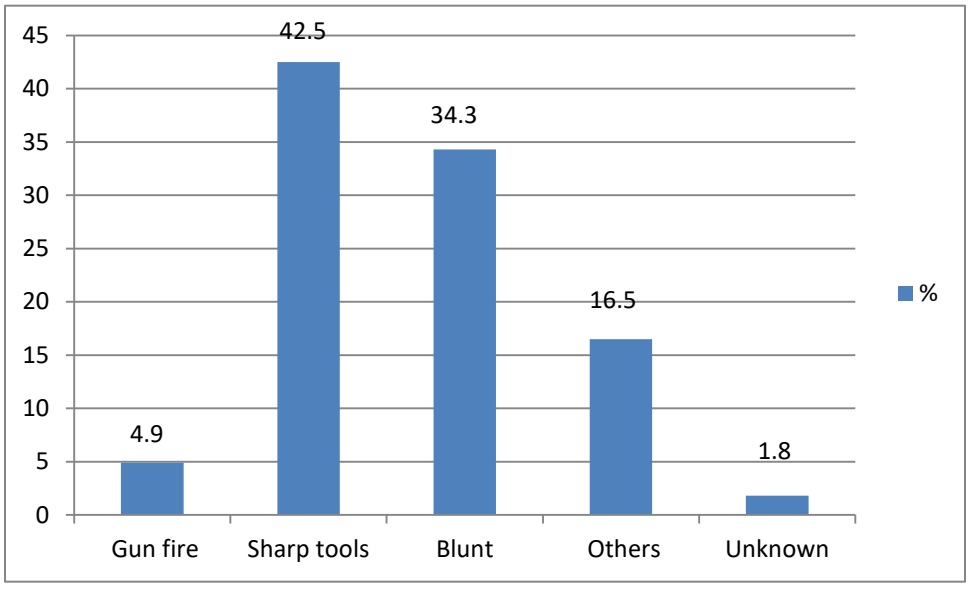
This figure shows that the main cause related to non-fatal road traffic injuries was car accidents (61.1) % followed by motorcycles (25.6) %, then pedestrians (9.2) %.

Table (12); Number and percent of outside violence injuries among nonfatal injuries,2022.

Outside violence	N	%
Gunfire	1153	4.9
Sharp tools	10048	42.5
Blunt	8080	34.3
Others	3910	16.5
Unknown	430	1.8
Total	23621	100

This table shows the number and percent of outside violence injuries according to the cause. Remember that outside violence injuries represented (18, 3) % of total non-fatal injuries as mentioned in Table (9).

Figure (12) percent of outside violence injuries among nonfatal injury,2022.



This figure shows that sharp tools injuries represented (42.5) % then blunt injuries (34.3) %, and gunfire injuries represented only (4.9) %.

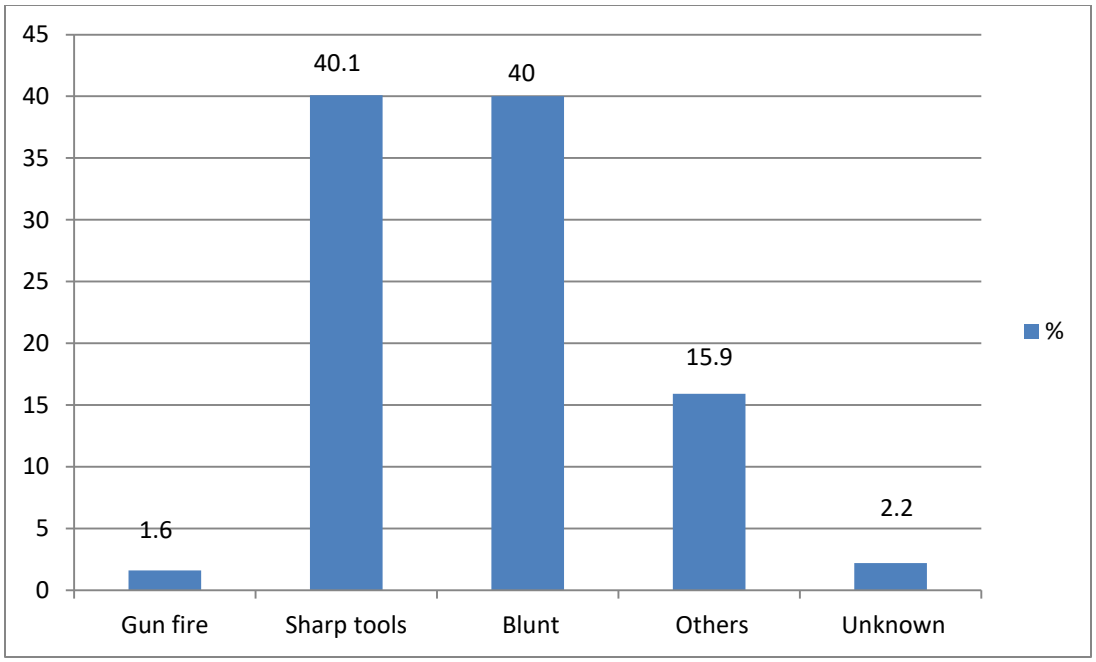
The two main causes of outside non-fatal injuries were sharp and blunt injuries.

Table (13); Number and percent of domestic violence among non-fatal injuries, 2022.

Domestic violence	N	%
Gunfire	306	1.6
Sharp tools	7673	40.1
Blunt	7653	40.0
Others	3040	15.9
Unknown	429	2.2
total	19101	100

This table shows the number and percentage of domestic violence injuries according to the cause. Remember that domestic violence injuries represented (14, 8) % of total non-fatal injuries as mentioned in Table (9).

Figure (13); percent of domestic violence among all non-fatal injuries,2022.



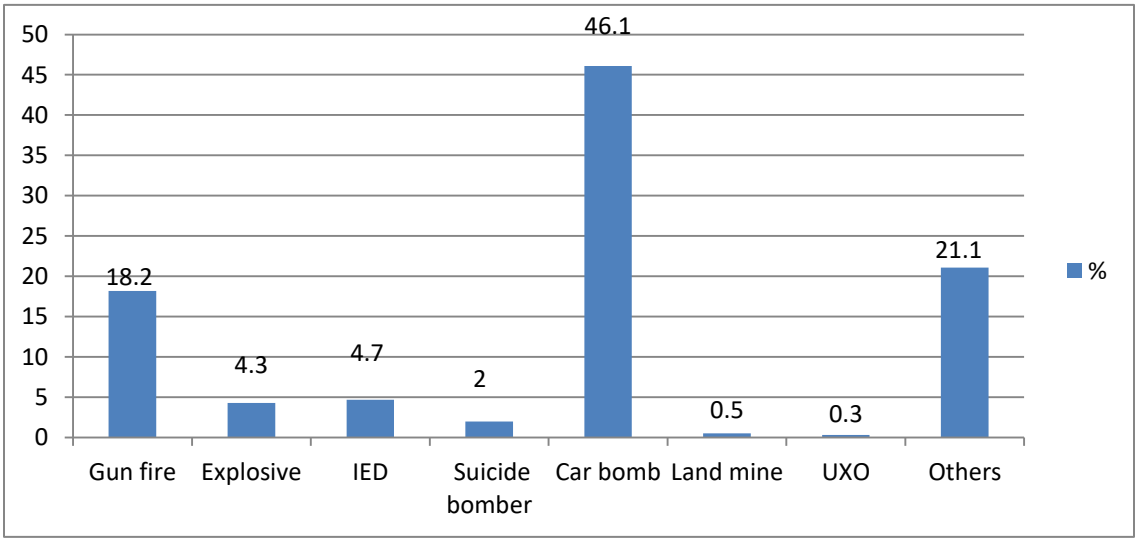
This figure shows that, as in outside violence, sharp tools and blunt injuries represented the main causes, (of about 80) %, while gunfire represented only (1.6) % of all domestic non-fatal injuries.

Table (14); number and percent of insurgency activities according to the mechanism of injury among all non-fatal injuries, 2022.

Insurgency	N	%
Gunfire	494	18.2
Explosive	118	4.3
IED	129	4.7
Suicide bomber	56	2
Car bomb	1251	46.1
Land mine	16	0.5
UXO	8	0.3
Others	573	21.1
Total	2710	100

This table shows the number and percentage of Insurgency activities according to the cause. Remember that insurgency injuries represented (2of of total non-fatal injuries as mentioned in Table (9).

Figure (14); percent of insurgency activity according to the mechanism of injury among all non-fatal injuries, 2022.



This figure shows that car bombs represented the main cause of non-fatal insurgency activities (46.1) %, then gunfire (18.2) %, then improvised explosive devices (IED) (4.7) % and explosives (4.3) %.

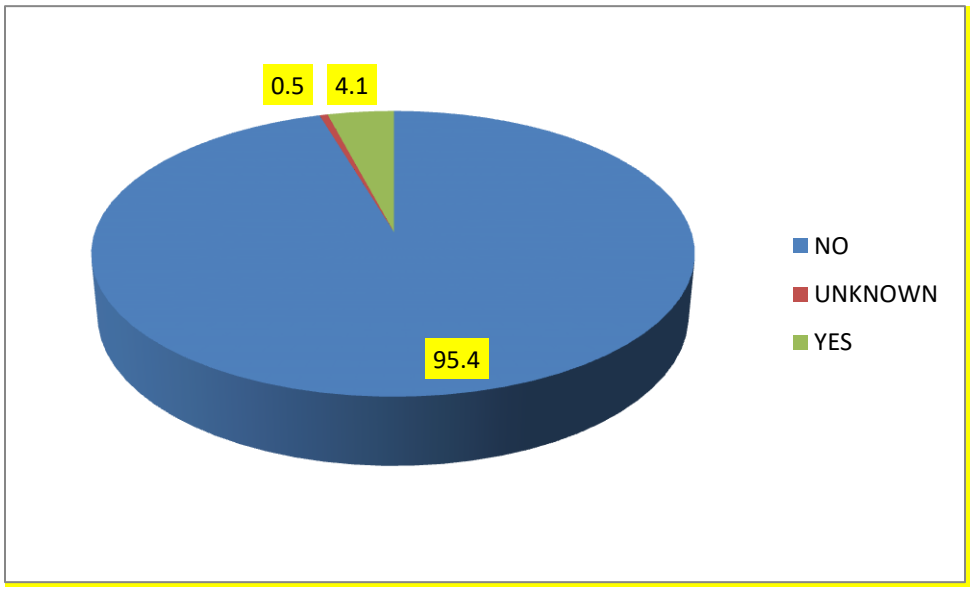
2 – 5 Mass Injury Events

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

Table (15); number and percent of injuries resulting from mass injury events among reported non-fatal injuries, 2022.

Mass event	N	%
NO	123133	95.4
UNKNOWN	645	0.5
YES	5292	4.1
TOTAL	129074	100

Figure (15); percent of injuries resulting from a mass injury event among reported non-fatal injuries, 2022.



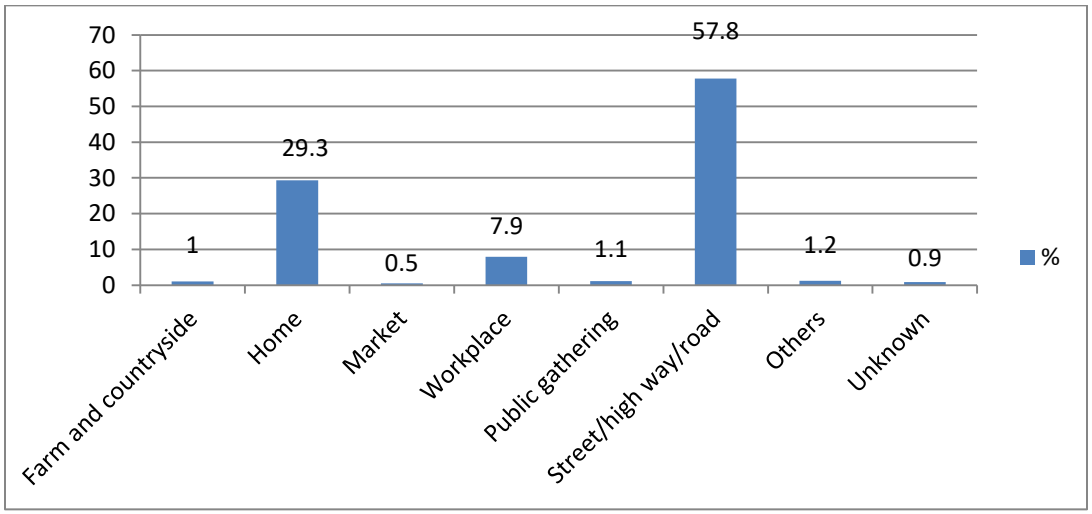
This figure shows the proportion of injuries resulting from a mass casualty event, among all reported non-fatal injuries. Only (4.1) % of injuries resulted from mass casualty events.

2 – 6 Distribution according to place of injury

Table (16) number and percent of non-fatal injuries according to place of occurrence, 2022.

Place of accident	N	%
Farm and countryside	1182	1
Home	37884	29.3
Market	750	0.5
Workplace	10275	7.9
Public gathering	1471	1.1
Street/highway/road	74686	57.8
Others	1556	1.2
Unknown	1270	0.9
Total	129074	100

Figure (16); percent of non-fatal injuries according to Place,2022.



This figure shows that about (57.8) % occurred on the street /highway/road, while injuries occurred at home represented (29.3) %.

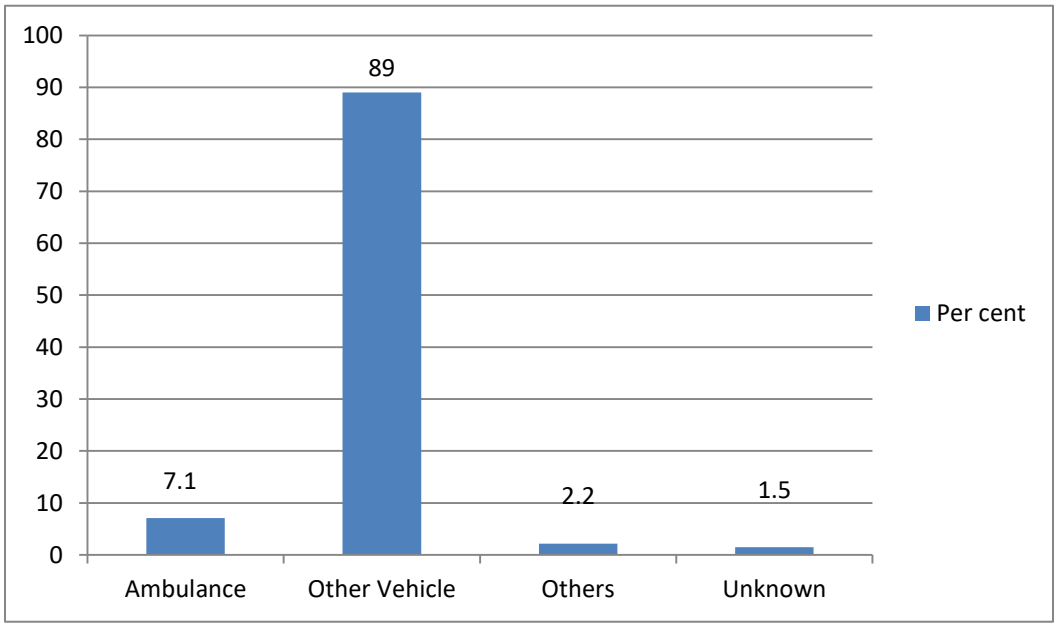
Injuries that occurred in the workplace came third and represented (7.9) % of total injuries reported during 2022.

2 – 7 Pre-hospital care and disposition

Table (17); number and percent of reported non-fatal injuries received from (D.O.H) according to the mode of arrival, 2022.

Mode Of Arrival	Frequency	Percent
Ambulance	9220	7.1
Other Vehicle	115003	89
Others	2913	2.2
Unknown	1938	1.5
Total	129074	100.

Figure (17); percent of reported non-fatal injuries received from (D.O.H) according to the mode of arrival, 2022.



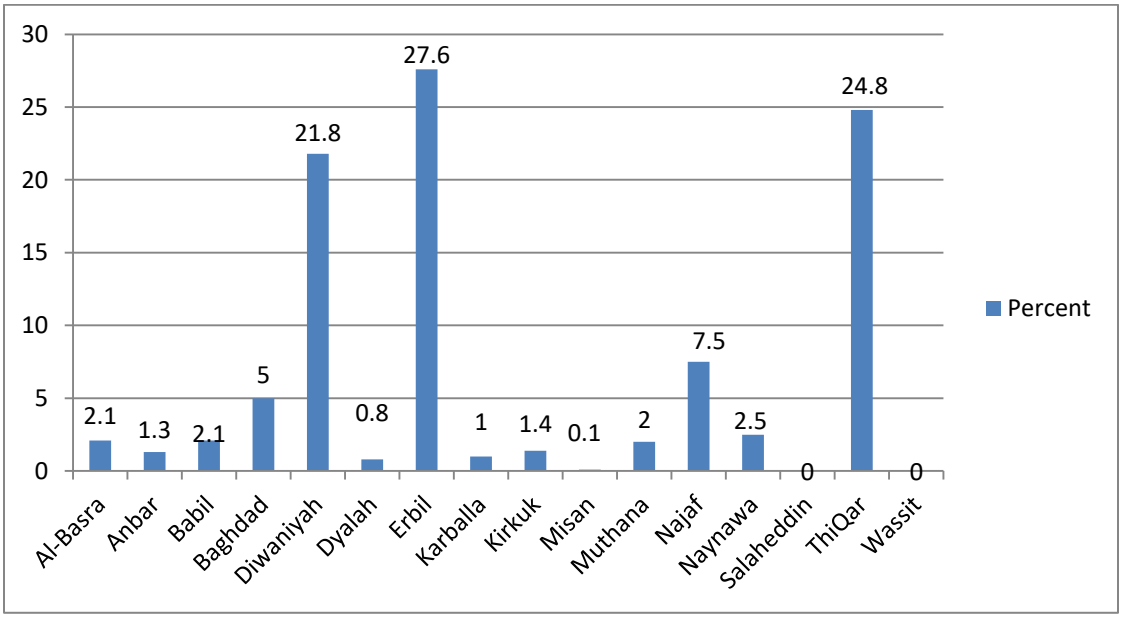
This figure shows that only (7,1) % of non-fatal injuries arrived at the hospital by ambulance, while (89) % arrived by other vehicles.

Table (18); number and percent of non-fatal injuries arrived by ambulance as reported by (DOHs),2022.

D.O.H	Frequency	Percent
Al-Basra	193	2.1
Anbar	119	1.3
Babil	190	2.1
Baghdad	457	5.
Diwaniyah	2011	21.8
Diyala	72	0.8
Erbil	2549	27.6
Karbala	94	1.
Kirkuk	131	1.4
Missan	10	0.1
Muthana	185	2.
Najaf	689	7.5
Ninawa	233	2.5
Salaheddin	0	0.0
ThiQar	2286	24.8
Wasit	1	0.0
Total	9220	100.

This table shows the number percentage of non-fatal injuries transferred the to hospital by ambulance. The total number (9220), represented only (7.1) % of total non-fatal injuries. I n some D.O.H. sH**.** like (Saladin, Wasit, and Missan), 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), 2022.

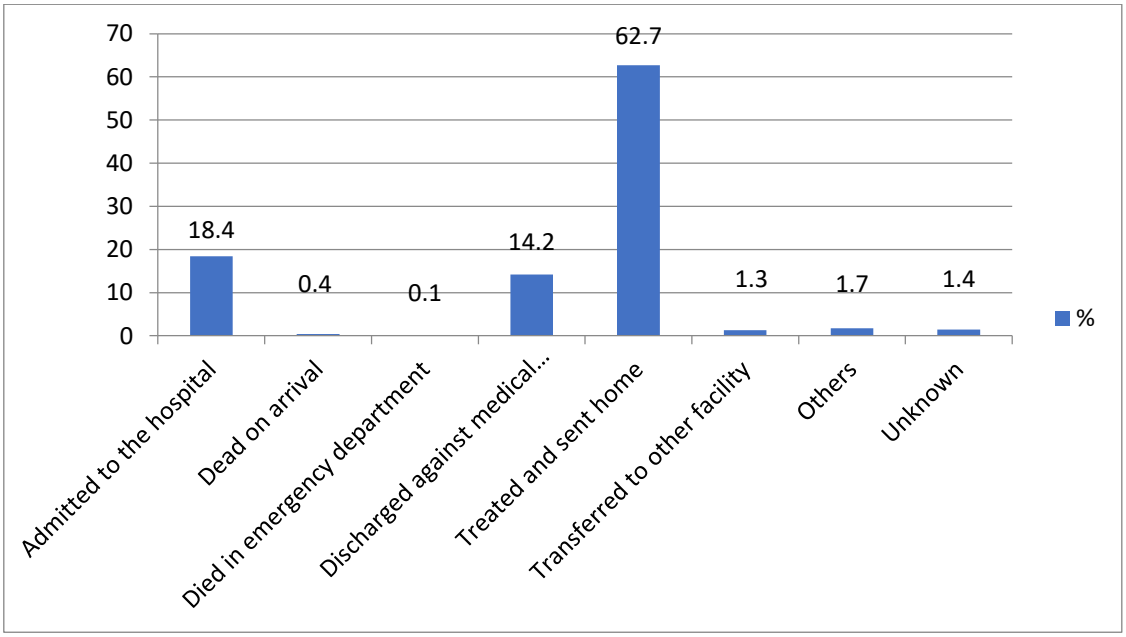


This figure shows that the highest percentage of arriving at the hospital by ambulance was Najaf (7,5) %. and Baghdad (5) %.

Table (19); number and percent of initial disposition of reported non-fatal injuries, 2022.

Initial patient disposition in an emergency department	N	%
Admitted to the hospital	23815	18.4
Dead on arrival	508	0.4
Died in an emergency department	66	0.1
Discharged against medical advice	18358	14.2
Treated and sent home	80974	62.7
Transferred to other facilities	1491	1.3
Others	2195	1.7
Unknown	1667	1.4
Total	129074	100

Figure (19); percent of initial disposition of reported non-fatal injuries, 2022.



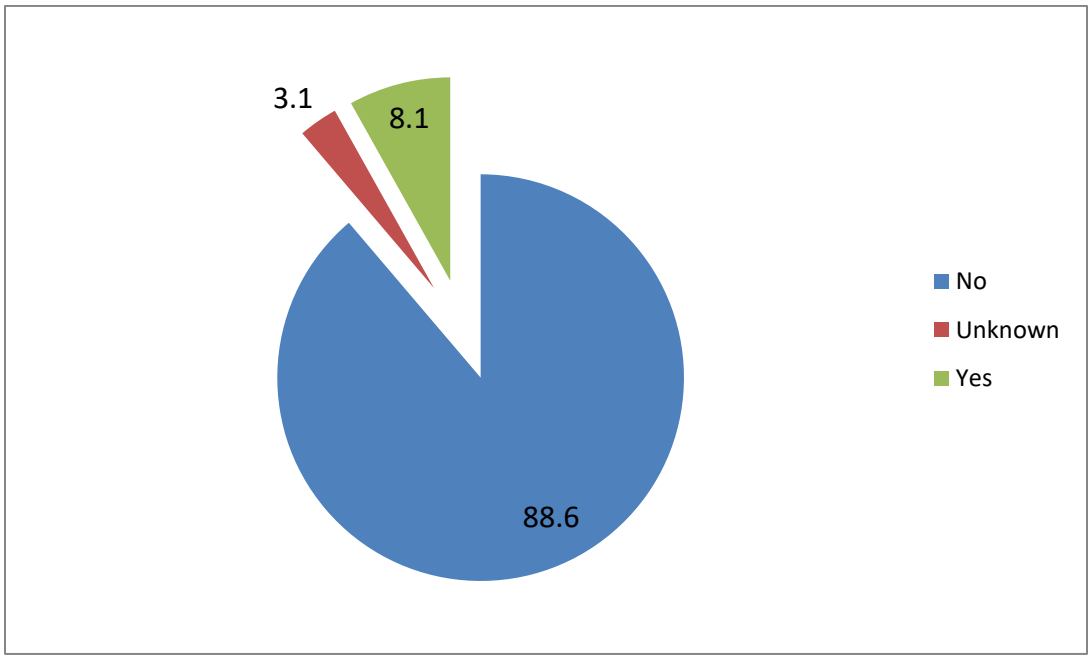
This figure shows that the majority of nonfatal injuries were treated and discharged (62.7) %, while (18.4) % were admitted to the hospital and (14.2) % left the hospital against medical advice.

Table (20); number and percent of non-fatal injuries got medical care before the emergency department, 2022.

If the patient got medical care before ER?	N	%
No	114455	88.6
Unknown	4117	3.1
Yes	10502	8.1
Total	129074	100

This table shows that only (8.1) % of the patients did get medical care before reaching an emergency department in hospitals. The majority (88.6) % of non-fatal injuries got no medical care before reaching ER in hospitals.

Figure (20); percent of non-fatal injuries got medical care before the emergency department, 2022.



This figure shows that only (8.1) % of non-fatal injuries got medical care before reaching to emergency departments of hospitals.

3- Overview of key findings - fatal injury surveillance

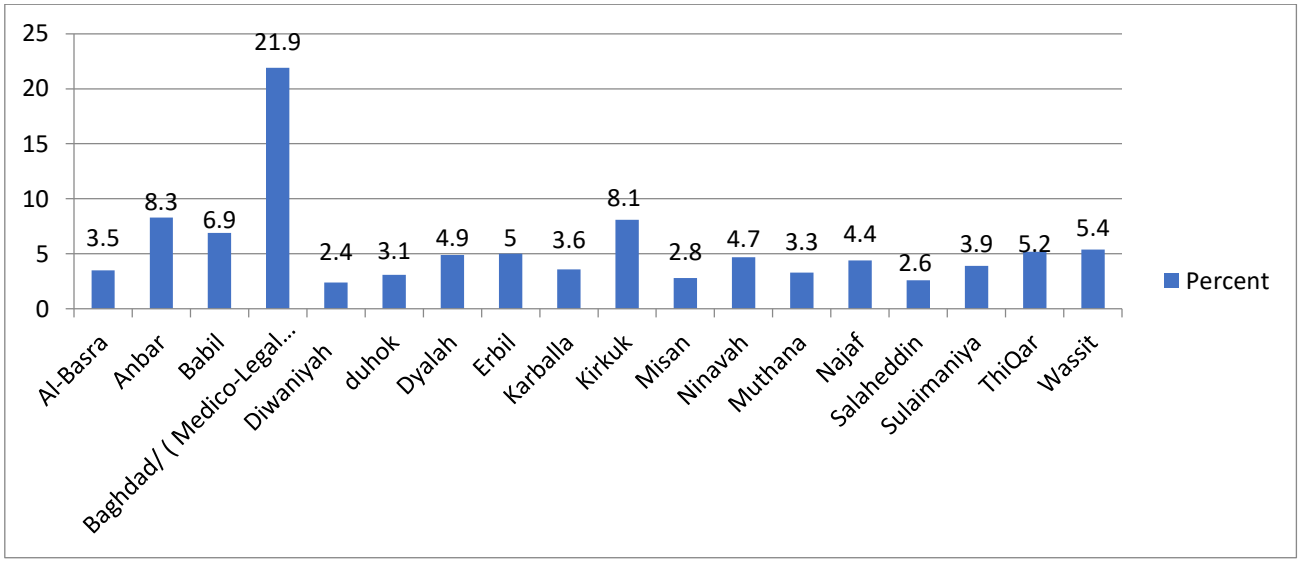
3 -1 Overall numbers of fatal injuries, demographics

Table (21); number and percent of fatal injuries by D.O. Hs,.2022.

Name Of Health Doctorate	Frequency	Percent
Al-Basra	434	3.5
Anbar	1024	8.3
Babil	846	6.9
Baghdad/ (Medico-Legal Office)	2707	21.9
Diwaniyah	297	2.4
Duhok	381	3.1
Diyala	605	4.9
Erbil	620	5.0
Karbala	444	3.6
Kirkuk	996	8.1
Missan	341	2.8
Ninavah	585	4.7
Muthana	403	3.3
Najaf	541	4.4
Salaheddin	323	2.6
Sulaymaniyah	476	3.9
ThiQar	646	5.2
Wasit	665	5.4
Total	12334	100.

This table presents the number and proportion of fatal injuries by D.O.Hs, the total number of fatal injuries reported was (12334). These numbers are proportions, not rates because it does not represent the difference in total population in governorates.

Figure (21): percent of fatal injuries according to D.O.H,2022.



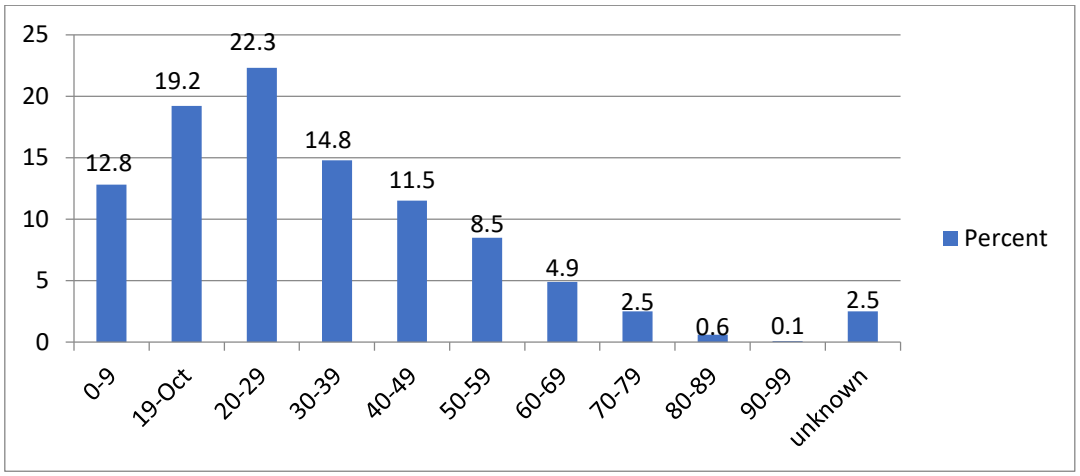
This figure shows the percentage of fatal injuries as reported by forensic medicine sections in the Directorates of Health.

The highest percentage (21,9) % was reported in Baghdad Forensic Medicine Office (Medico-legal Directorate), then Anbar (8.3) %, Kirkuk (8.1) % and Babil (6.9) %.

Table (22): age distribution of reported fatal injuries, 2022

Age group	Frequency	Percent
0-9	1542	12.8
10-19	2373	19.2
20-29	2756	22.3
30-39	1832	14.8
40-49	1430	11.5
50-59	1052	8.5
60-69	616	4.9
70-79	311	2.5
80-89	86	0.6
90-99	24	0.1
unknown	312	2.5
Total	12334	100.

Figure (22); Age distribution of fatal injuries, 2022

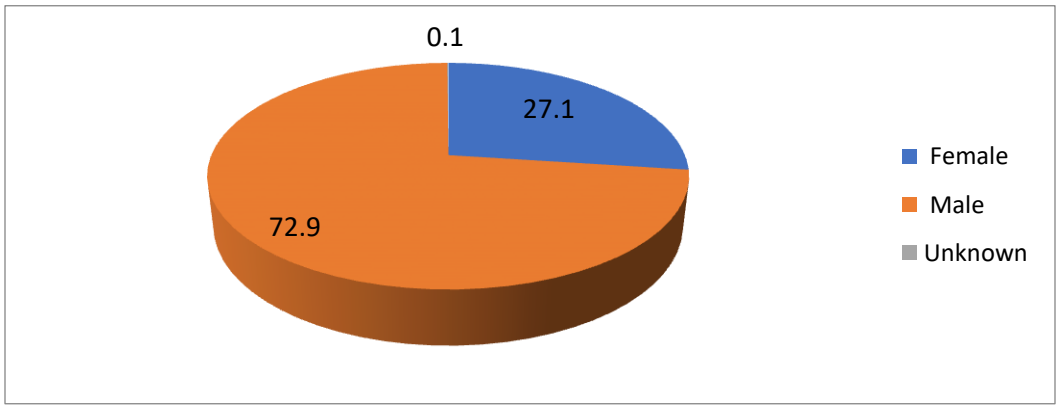


This figure shows that the most common age group affected due to fatal injuries was (20-29), which represented (22.3) %. There (12.8) % in children (0-9) years. The unknown age percentage (2.5) %.

Table (23); Sex distribution of fatal injuries,2022.

Gender	N	%
Female	3337	27.1
Male	8986	72.9
Unknown	11	0.1
Total	12334	100

Figure (23); Age and sex distribution of fatal injuries, 2022.



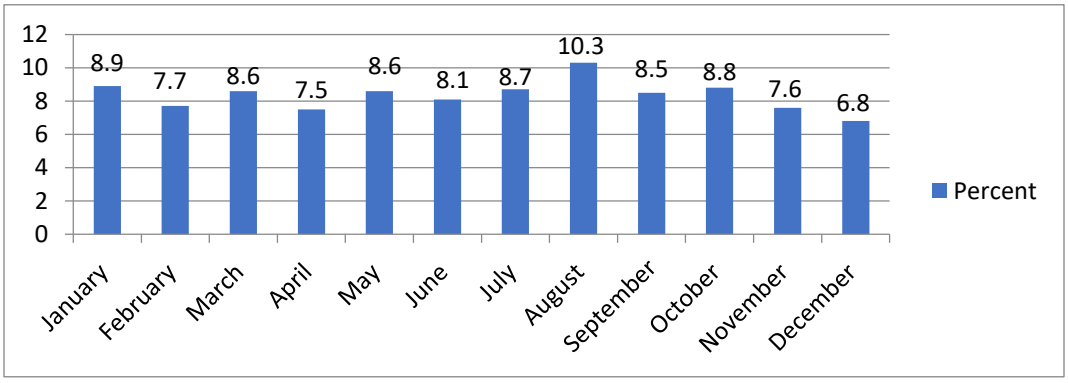
This figure shows that as with non-fatal injuries, males represented a greater proportion of fatal injuries (72.9) %, while females represented (27.1) %. Male to female ratio is greater in all age groups.

3-2 Time trend

Table (24); number and percent of fatal injuries according to months, 2022.

MONTH	Frequency	Percent
January	1095	8.9
February	944	7.7
March	1065	8.6
April	928	7.5
May	1064	8.6
June	998	8.1
July	1071	8.7
August	1265	10.3
September	1043	8.5
October	1082	8.8
November	939	7.6
December	840	6.8
Total	12334	100.

Figure (24); percent of fatal injuries according to month, 2022.



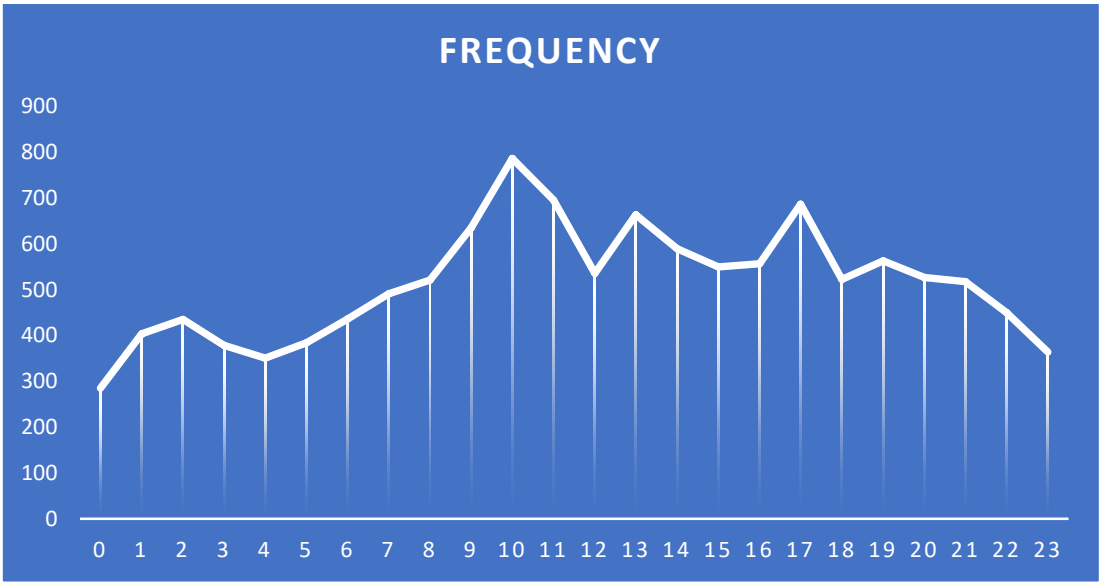
This figure shows that fatal injuries were recorded in all months. The highest percentage was reported in August (10.3) %, while the lowest percentage of fatal injuries was reported in December (6.8) %.

Table (25); number and percent of fatal injuries reported according to time of injury, 2022.

Time Of Injury	Frequency	Percent
0	285	2.3
1	404	3.3
2	435	3.5
3	379	3.1
4	351	2.8
5	384	3.1
6	436	3.5
7	491	4.0
8	521	4.2
9	636	5.2
10	787	6.4
11	696	5.6
12	536	4.3
13	664	5.4
14	590	4.8
15	550	4.5
16	557	4.5
17	687	5.6
18	523	4.2
19	563	4.6
20	527	4.3
21	518	4.2
22	450	3.6
23	364	3.0
Total	12334	100.

This table shows the number and percent of fatal injuries according to international time (0-23).

Figure (25); percent of fatal injuries according to time of injury, 2022.



This figure shows the number of fatal injuries started to increase from (8 - 17), reaching a peak at (9-11) o'clock in the morning.

3 – 3 Distribution of fatal injuries by intention;

Injuries are classified into six categories according to the intention

1. unintentional by others.

2. unintentional by self.

3. others.

4. intentional by others.

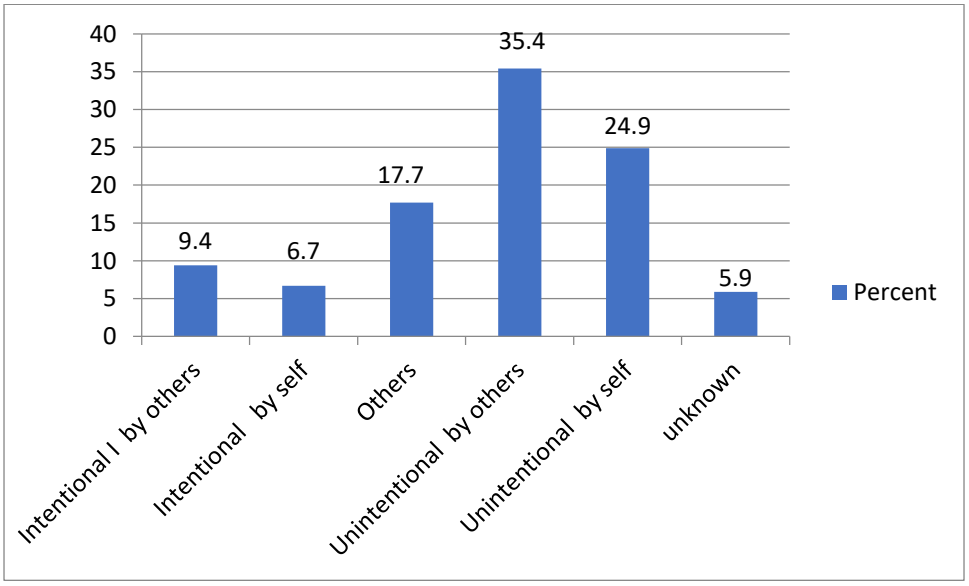
5. intentional by self(self-harm)

6. unknown intention

Table (26); Number and percent of fatal injuries by intention, 2022.

Intention	Frequency	Percent
Intentional by others	1157	9.4
Intentional by self	828	6.7
Others	2177	17.7
Unintentional by others	4364	35.4
Unintentional by self	3076	24.9
unknown	732	5.9
Total	12334	100.

Figure (26); percent of fatal injuries by intention, 2022.



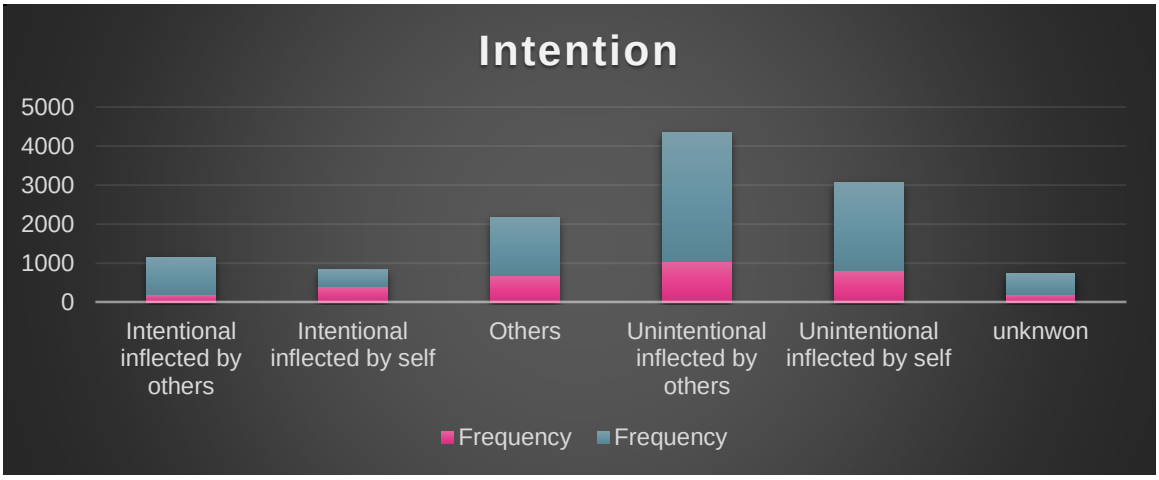
This figure shows that unintentional by others injuries (35.4) % came first, followed by unintentional by self (24.9) %, then intentional by others (9.4) %, according to intention.

Fatal injuries are intentional by self-represented (6.7) %.

Table (27); Number and proportion of male and female among fatal injuries by intent, 2022.

Forward	female		male	
D3_Intention	Frequency	Percent	Frequency	Percent
Intentional inflected by others	197	5.90%	956	10.60%
Intentional inflected by self	403	12.10%	425	4.70%
Others	690	20.70%	1487	16.50%
Unintentional inflected by others	1033	31.00%	3331	37.10%
Unintentional inflected by self	809	24.20%	2267	25.20%
unknown	206	6.10%	530	5.80%
Total	3338	100.00%	8996	100.00%

Figure; (27) Sex distribution among fatal injuries according to intention, 2022.



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

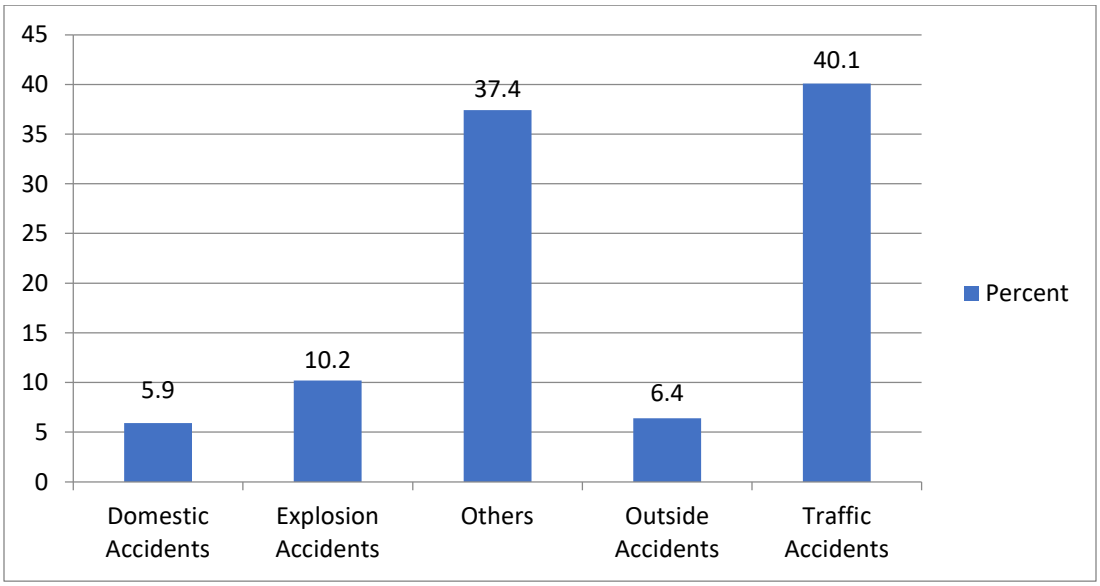
3-4 Distribution of fatal injuries by a mechanism

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

Table (28); number and percent of fatal injuries according to circumstances, 2022.

Circumstances	Frequency	Percent
Domestic Accidents	740	5.9
Explosion Accidents	1255	10.2
Others	4609	37.4
Outside Accidents	785	6.4
Traffic Accidents	4945	40.1
Total	12334	100.

Figure (28); number and percent of fatal injuries according to circumstances, 2022.

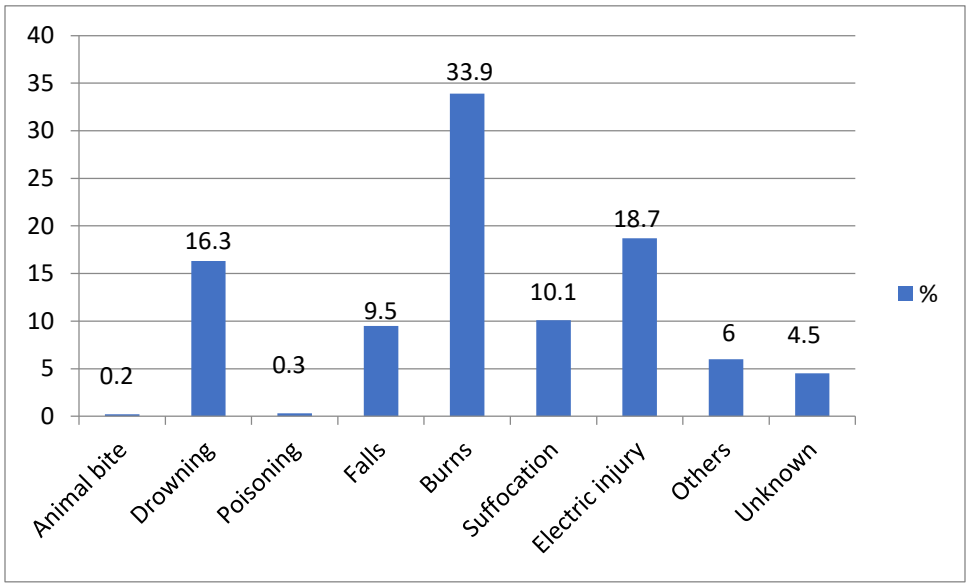


This figure shows that traffic injuries represent the main cause of fatal injuries, followed by other injuries (injuries other than traffic), and explosion accidents. Traffic injuries alone represent (40.1) % of total fatal injuries.

Table (29); number and percent of fatal injuries according to the primary cause of fatal injury other than traffic, 2022.

Causes other than traffic	N	%
Animal bite	9	0.2
Drowning	755	16.3
Poisoning	16	0.3
Falls	442	9.5
Burns	1564	33.9
Suffocation	469	10.1
Electric injury	865	18.7
Others	277	6
Unknown	212	4.5
Total	4609	100

Figure (29); percent of fatal injuries according to the primary cause of fatal injury (other than traffic), 2022.

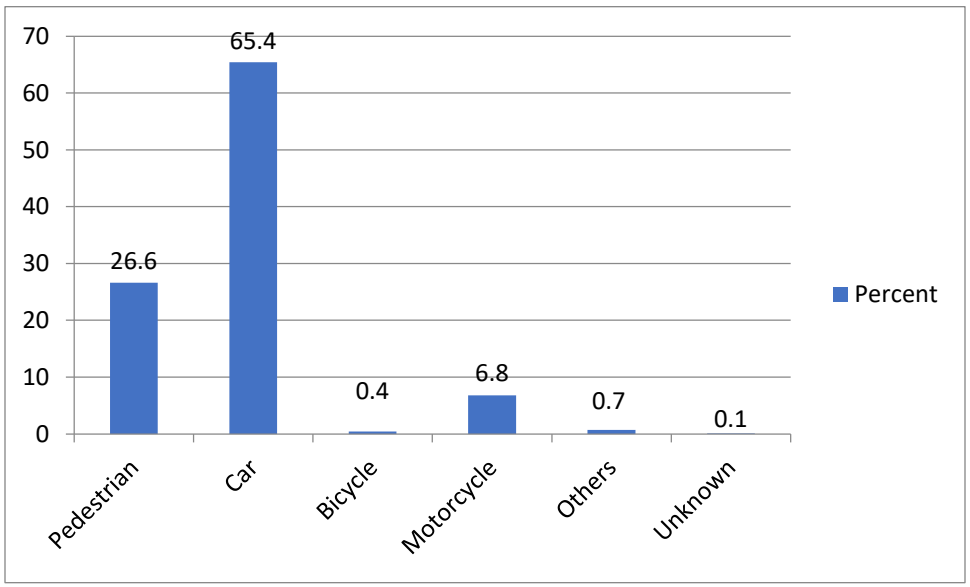


This figure shows that burns came first (33.9) %, followed by Electric injury (18.7) %, then drowning represented (16.3) % of fatal injuries.

Table (30); Number and percent of traffic injuries according to the mechanism of injury among fatal- injuries,2022.

Traffic injuries	Frequency	Percent
Pedestrian	1314	26.6
Car	3235	65.4
Bicycle	20	0.4
Motorcycle	336	6.8
Others	36	0.7
Unknown	4	0.1
Total	4945	100.

Figure (30); Percent of traffic injuries according to the mechanism of injury among fatal-injuries,2022.

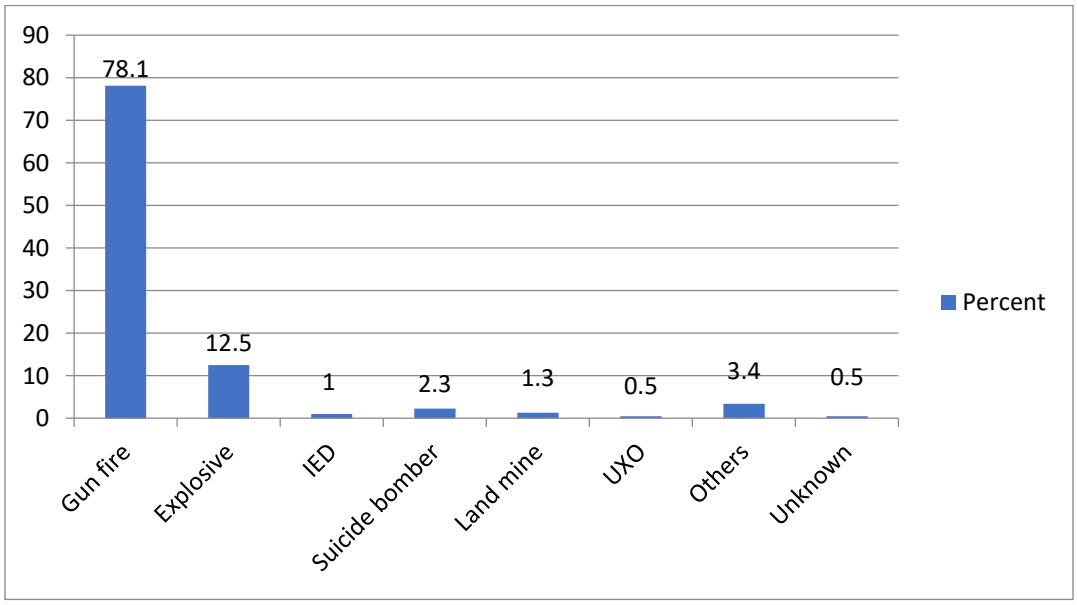


This figure shows that fatal injuries due to cars were the main cause (65.4) %, followed by pedestrians (26,6) %, then motorcycles (6.8) %. Fatal injuries affected pedestrians were a higher proportion than non-fatal injuries when pedestrians represented (9.2) % of non-fatal injuries. Figure (11).

Table (31); Number and percent by primary cause among insurgency fatal injuries, 2022.

Insurgency	Frequency	Percent
Gunfire	981	78.1
Explosive	158	12.5
IED	13	1
Suicide bomber	29	2.3
Land mine	17	1.3
UXO	7	0.5
Others	43	3.4
Unknown	7	0.5
Total	1255	100

Figure (31); percent by primary cause among insurgency fatal injuries, 2022.

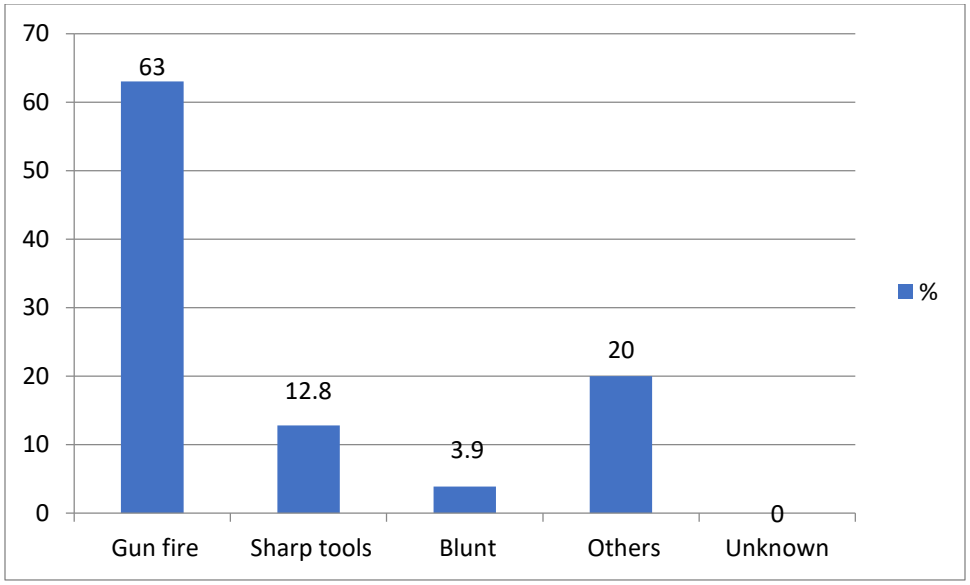


This figure shows gunfire represented the highest percentage (78.1) % as a mechanism among insurgency fatal injuries, followed by explosion (12.5) %, then suicidal bomber (2.3) % and improvised explosive device – IED – (1) %.

Table (32); Number and percent of primary causes among fatal outside violence injuries, 2022.

Outside violence	N	%
Gunfire	495	63.0
Sharp tools	101	12.8
Blunt	31	3.9
Others	157	20
Unknown	1	0.0
Total	785	100

Figure (32); percent by mechanism among outside -assault fatal injuries, 2022.

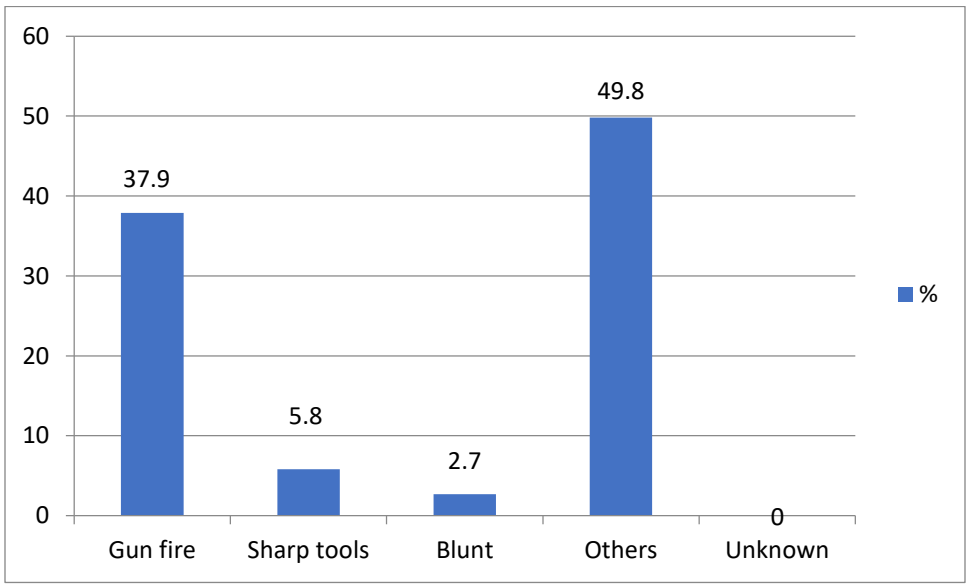


This figure shows that gunfire (63.0) % represented the main cause of outside violence fatal injuries, followed by sharp tools (12.8) %, then others, while blunt injuries represented (3.9) %. sharp tools.

Table (33); Number and percent of primary causes of domestic violence fatal injuries, 2022.

Domestic violence	N	%
Gunfire	281	37.9
Sharp tools	43	5.8
Blunt	20	2.7
Others	396	49.8
Unknown	0	0.0
Total	740	100

Figure (33); percent of primary cause among domestic violence fatal injuries, 2022.



This figure shows that domestic violence injuries due to gunfire represented (37.9) %, while in non-fatal injuries majority was due to sharp tolls and blunt injuries.

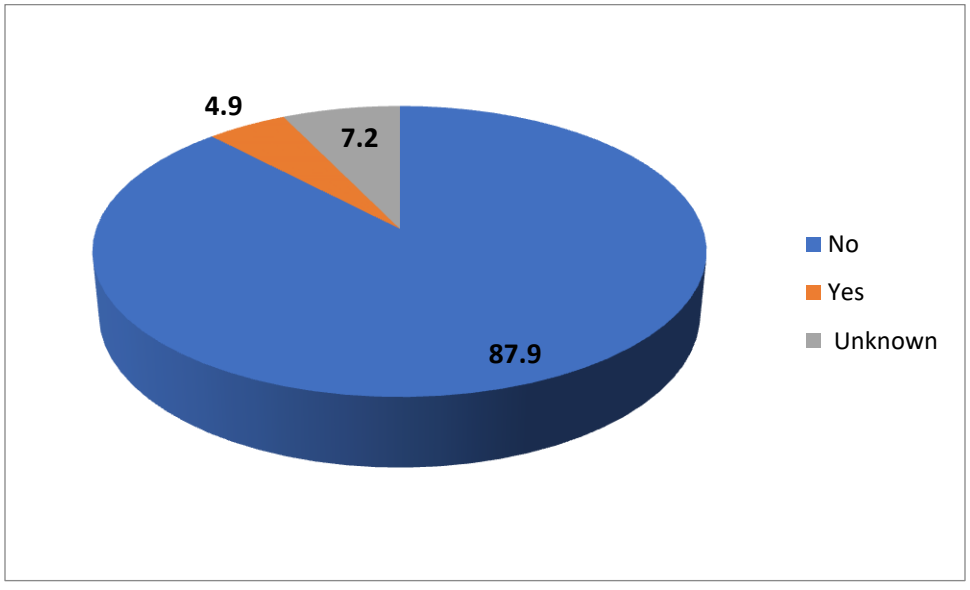
3 – 5 Mass Injury Events

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

Table (34); Number and percent of injuries resulting from mass injuries among fatal injuries 2022.

Mass injury	N	%
No	10841	87.9
Yes	604	4.9
Unknown	889	7.2
Total	12334	100

Figure (34), percentage of injuries resulting from mass injuries among fatal injuries recorded in 2022.



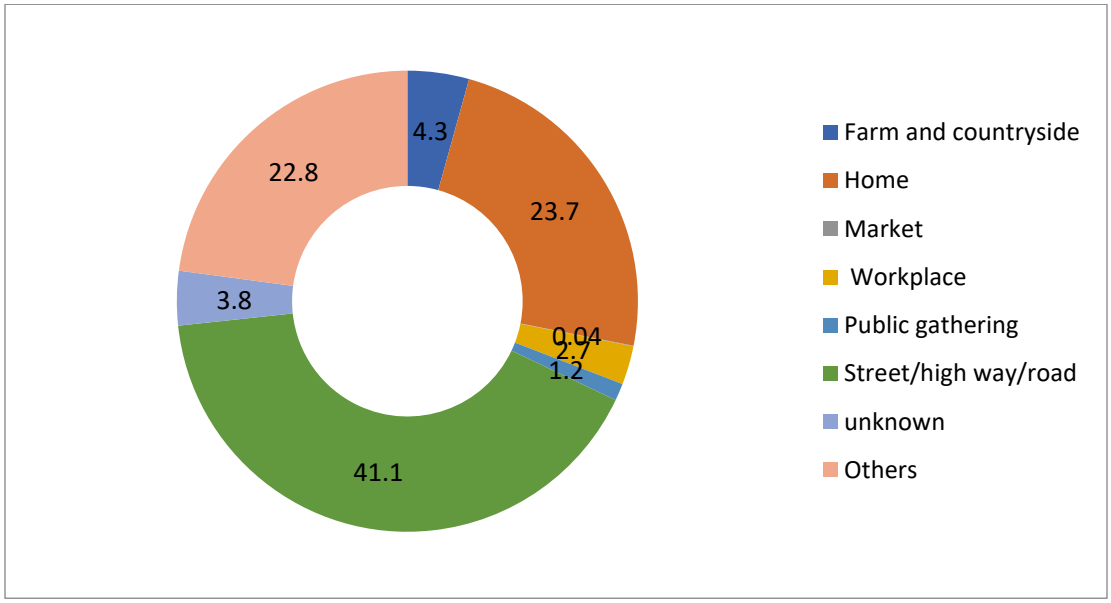
This figure shows about (4.9) % of all fatal injuries resulted from mass events

3 – 6 Distribution according to place of injury

Table (35); percent of fatal injuries according to place among fatal injuries,2022.

Place Of Occurrence	Frequency	Percent
Farm and countryside	535	4.3
Home	2933	23.7
Market	6	0.04
Workplace	339	2.7
Public gathering	155	1.2
Street/highway/road	5073	41.1
unknown	476	3.8
Others	2817	22.8
Total	12334	100.

Figure (35): percent of fatal injuries according to place of among fatal injuries,2022.



This figure shows the most common location of fatal injuries was streets/highways/ roads (41.1) %, followed by homes (23.7) %. Farms and countryside, workplaces, public gatherings, and markets reported fewer fatal injuries than streets and homes, about (22.8) % of fatal injuries occurred in places other than that mentioned.

4. Discussion:

4.1. key findings and recommendations

1- The injury surveillance report 2022 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 (12334), in addition to (129074) non-fatal injuries.

The health effects of injury need 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 the Ministry of Health in collaboration with other ministries and international partners (WHO).

2- In 2022, after the COVID-19 pandemic, nearly all hospitals returned to receive some health directorates that did not send data for nonfatal injuries like Sulaymaniyah and Dohuk health directorates.

3- This report reveals that road traffic accidents (RTAs) represent the main primary cause (38) % of all reported non-fatal injuries and (40.1) % of fatal injuries. About (4945) persons lost their life due to RTAs.

Car occupants represented the majority in non-fatal RTAs, followed by motorcycle users, then pedestrians.

The majority of victims in fatal RTAs were car occupants, followed by pedestrians, then motorcycle users, so legislations and prevention programs should concentrate on providing streets with areas for pedestrian use and crossing, controlling streets with cameras for monitoring speed, and implementing safety laws.

4- The report reveals those intentional fatal injuries (whether self-harm or by others) resulted in (1985) persons losing their lives, so this needs

psychological programs for the prevention and control of intentional injuries and violence, especially self-harm and suicides.

5- The report illustrates that about (62.7) % 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 the severity of complications of injuries.

6- According to the report, about (7.1) % of non-fatal injuries arrived at the emergency department by ambulance, and (8.1) % got medical care before reaching hospitals. This needs advertising programs for ambulance no.122 and programs for training drivers, policemen, and others on first aid and Basic Life Support (BLS) and transferring injured patients to decrease complications.

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

8- According to the mechanism of injury, the report reveals a difference between unintentional non-fatal and fatal injuries other than traffic injuries. The top mechanisms for non-fatal injuries were falls, burns, and animal bites, while, for fatal injuries, the top mechanism was burned, electrical injuries, and drowning and there is another difference in the cause of injury when comparing non-fatal and fatal injuries. The common cause of outside and domestic injuries was blunt and sharp tools in non-fatal injuries, while the main cause was gunfire in fatal injuries, so this needs multisectoral violence prevention programs in collaboration with other sectors and ministries.

9- The results in non-fatal injuries should be interpreted with caution as reporting sites are sentinel sites and not comprehensive, so expanding the surveillance program to all general hospitals is important for the generalization of results.

10 - The percentage of arriving at the hospital by ambulance in some DOHs was very few, the reason for this may be that patients were transferred to hospitals by ambulances belonging to the Directorate of Operations and Emergency Medical Services (especially in Baghdad) with no recording in a surveillance system.

4.2. Limitations of the Current Surveillance System:

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, only 1-2 hospitals are participating. The catchment area of these hospitals is unknown. Given that the non-fatal surveillance is not the exhaustive calculation of rates is not appropriate.

• **Access:** Because of situations in Iraq, monitoring, supervision, and visiting all sites for collecting data is difficult. Delaying in sending data or silent sites are major limitations of the 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 be 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 the 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. The 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 world health organization or others is very important to ensure the 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 the surveillance Governorates:** Beginning in 2017, at least CO and one ER from liberated governorates reported 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 the facility.

• **Regular Quality Assurance:** To ensure quality, a team of trained personnel 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 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 training 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 cultural realities in Iraq); distinguishing between assault and insurgency activity.

• **The forms:** development of a 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 in real-time) is feasible given that many governorates already enter their 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.

5- Annex
5.1 injury surveillance form(Arabic)

وزارة الصحة
مديرية العمليات والخدمات الطبية الطارئة
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/الحالة _ _ _ _ _ _ _
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 العالمي
C6	وقت الإصابة المتوقع	□ 1 خلال ساعة	□ 2 خلال ٢٤ ساعة	□ 3 أكثر من ٢٤ ساعة	□ 9غير معروف	
C7	هل حصل المصاب على إسعاف أولي قبل الوصول للطوارئ في المستشفى	□ 1 نعم	□ 2 لا	□ 9 غير معروف		
C8	وسيلة الوصول(اختيار واحد)	□ 1 سيارة إسعاف	□ 2 سيارة أخرى	□ 8 وسيلة أخرى	□ 9 غير معروف	
D	**معلومات متعلقة بالإصابة**					
D1	**ظروف الحادثة: كيف حدثت الإصابة** (اختار إجابة واحدة فقط)	**في حالة اختيار(1.6 و 1.7) يعبأ حقل E**				

1 نشاط إرهابي أو عسكري		**2 حوادث مرور**		**3 عنف منزلي**		**4 عنف خارجي**		**5 حوادث أخرى**	
1.1	□ طلق ناري	**2.1**	□ راجلاً	**3.1**	□ أسلحة نارية	**4.1**	□ أسلحة نارية	**5.1**	□ عضة حيوان
1.2	□ انفجار	**2.2**	□ سيارة	**3.2**	□ الآت جارحة	**4.2**	□ الآت جارحة	**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 ٥ 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 عرضية من قبل المصاب	□ 8 أخرى	□ 9 غير معروف
D4	**المكان الجغرافي للحادث**	**المحافظة:** _____	**أحيل من مركز شرطة:** _____	**المنطقة:** _____

D5	**مكان وقوع الحادثة (اختار واحدة)**	□ **1** المسكن	□ **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** ادخل المستشفى	□ **4** متوفى عند الوصول		□ **5** توفى في ردهة الطوارئ
		□ **6** نقل إلى مستشفى آخر(حدد): _____			
		□ **8** أخرى			□ **9** غير معروف

ملئت بواسطة: _____	_ _ _ _	**تاريخ الإملاء** _ _/_ _/_ _ _ _ التوقيع
دققت بواسطة:		**تاريخ التدقيق** / / التوقيع

E	إذا كان الشخص مصابا نتيجة الألغام أو القنابل 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 جميع المكاسب	□ 10 اللعب	□ 11 نشاط ديني	
		□ 12 غير محدود	□ 88 أخرى	□ 99 غير معروف	
E3	كيف فجر الشخص أو القنبلة المتروكة؟	□ 1 عبث (لمسة العدة)	□ 2 حدثت عرضي عن طريق اللمس أو التخطي عليها (لم يلحظ الضرر)		
		□ 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 - يوضع علامة ☒ داخل المربع المناسب و عدم وضع علامات أخرى مثل √ أو ٥ ... الخ لكي تتوحد الأجوبة لمدخل البيانات

٣ - الحرص على ملء جميع حقول الاستمارة بدقة وكما يأتي: 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 ب (المحلة) هو المتوفي أو المصاب المحال إلى المعهد.

٧ - (B1) إذا كان الاسم غير معروف يدون الغير 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 قبلاً تكتب(٠٠).

١٠ - الانتباه إلى التسلسل المنطقي بين تاريخ الإصابة و تاريخ الوصول و تاريخ الإملاء و أن لا يقدم تاريخ الإملاء أو الوصول قبل تاريخ الإصابة.

١١ - (C8) يعني بالوسيلة الأخرى أية وسيلة غير الإسعاف والسيارات (عربة، دراجة، طيارة...الخ) تذكر.

١٢ - (D1) في حالة اختيار فقرة ١،٦ أقدام و ١،٧ سواء قابلة للانفجار يجب ملء حقل E

١٣ - (D1 ١،٦) عبارة ـ لغماز ـ تتضمن كل الانفجارات الغير معروفة السبب و المقذوفات عن بعد مثل صواريخ ـ هاونات، طائرات أو أي مقاذيف أخر.

١٤ - (D1 ١،٨) أخرى يقصد بها أية حادث 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 - يتبقى بذل الجهد للتفريق بين النشاط الإرهابي و العنف خارج المنزل.

5-2. Iraqi Injury Surveillance form (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	B 3	Gender □ 1 Male □ 2 Female □9 Unknown			B2	Patient\ Case full Name_____					B1
Date of Death Certificate _ _/_ _/_ _	B 6	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 و 1.7 (If					Circumstances (How was the injury inflicted) (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 الاصابات الخارجية العراقي عام 2022

اعداد

الدكتور: جاسم محمد خويف

مدير برنامج رصد الاصابات الخارجية العراقي

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3	د. مصطفى إسماعيل جبار	برنامج الوبائيات التطبيقية
4	احمد عباس عبد الكاظم	مبرمج أقدم

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 ٢٠٢٢:

- كافة دوائر الصحة في العراق ودائرة الطب العدلي ارسلت بيانات عام ٢٠٢٢، ماعدا دائرة صحة السليمانية وصحة دهوك (لم ترسل بيانات الطوارئ).
- خلال عام ٢٠٢٢ عادت اغلب المستشفيات العامة لاستقبال الحالات المرضية بشكل اعتيادي بعد أن تم تحويلها الى مستشفيات تستقبل المرضى المصابين بكورونا. وبذلك تحسنت عملية جمع البيانات عن الإصابات والحوادث من ردهات الطوارئ مقارنة "بالسنة السابقة.
- يوضح التقرير السنوي لرصد الاصابات الخارجية في العراق لعام ٢٠٢٢ ، ان العدد الكلي المسجل للإصابات غير المميتة هو (١٢٩٠٧٤) حالة، بينما العدد الكلي للإصابات المميتة هو (١٢٣٣٤) وفاة
- يوضح التقرير السنوي لعام ٢٠٢٢ ان الذكور يمثلون نسبة أكثر من ٧٨,٧% من الإصابات غير المميتة، ونسبة ٧٢,٩% من الإصابات المميتة، كما يوضح أن الإصابات والوفيات تحدث في كافة الفئات العمرية والفئة العمرية الاكثر تعرضا في الإصابات غير المميتة والمميتة هي (٢٠-٢٩) سنة.
- حسب البيانات التي جمعت من دوائر الصحة عام ٢٠٢٢ فأن العدد الاكبر من حالات الاصابات غير المميتة كان في بغداد ثم ذي قار ثم ديالى (علما" أن بغداد تتكون من ثلاث دوائر صحة وهي بغداد-الكرخ وبغداد- الرصافة ومدينة الطب)، اما ما يخص الاصابات المميتة فأن عدد الوفيات الاكبر سجلت من دائرة الطب العدلي بغداد ثم الانبار ثم كركوك وبابل.
- 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 ٢٠٢٢ 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 والمميتة فأن اصابات الطرق جاءت اولا ثم الاصابات الاخرى (كالسقوط والحروق وعضة الحيوان والغرق. الخ)، ثم إصابات العنف الخارجي والعنف المنزلي وأخيرا" الإصابات الناجمة عن الحوادث الإرهابية

- ان التقرير النهائي عام ٢٠٢٢ للإصابات غير المميتة الناتجة عن اصابات الطرق يوضح ان أكثر 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 (التك تك) مثلا في تزايد.
- ظهر من خلال التقرير لعام ٢٠٢٢ ان (حوالي٦٢,٧ %) من الاصابات غير المميتة وبكافة انواعها تم علاجها في ردهات الطوارئ وخرجت متحسنة.
- كما ظهر من التقرير ان حوالي (٨,١%) من المصابين بإصابات غير مميتة 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 (٧,١ %) 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 ٢٠٢٢ فأن عبء الاصابات لايزال مشكلة صحية في العراق ،حيث يوضح التقرير ان عدد الوفيات الناجمة عن الاصابات كان (١٢٣٣٤) وفاة بالإضافة الى (١٢٩٠٧٤) 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 القطاعات 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 ٢٠٢٢ ان اصابات الطرق تمثل السبب الرئيسي للإصابات حيث تمثل نسبتها ٣٨ % من الاصابات غير المميتة و٤٠,١ % من الاصابات المميتة وأن حوالي (٤٩٤٥) شخص قد فقدوا حياتهم خلال عام ٢٠٢٢ بسبب حوادث الطرق المميتة. كما يبين التقرير بأن مستخدمي السيارات والمشاة يمثلون النسبة الأعلى من الإصابات المميتة يليها مستخدمي الدراجات النارية وان الاصابات المميتة تؤثر بشكل أكبر 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 الناجمة عن العنف، سواء ايذاء النفس او الاخرين قد سببت فقدان حياة اكثر١٩٨٥ شخص مما يحتم تبني برامج نفسية للحد منها خصوصا ايذاء النفس والانتحار.

٤- يبين التقرير ان حوالي ٦٢,٧ % 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 ٧,١% فقط من الاصابات غير المميتة قد تم نقلهم بسيارات اسعاف وان ٨,١% فقط 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 لا بأس 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 أكثر الاصابات غير المميتة (عدا اصابات الطرق) هي (السقوط، الحروق، وعضة الحيوان ...الخ) بينما في الاصابات المميتة فان أكثر الأسباب هي (الحروق، الصعقات الكهربائية وحوادث الغرق ...الخ)، كما ان أكثر 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 ذات العلاقة.

٨- ان الاصابات غير المميتة وبسبب تسجيلها في اماكن رصد مختارة في بعض المستشفيات وليس جميعها، لذلك 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 لتحسين التسجيل.