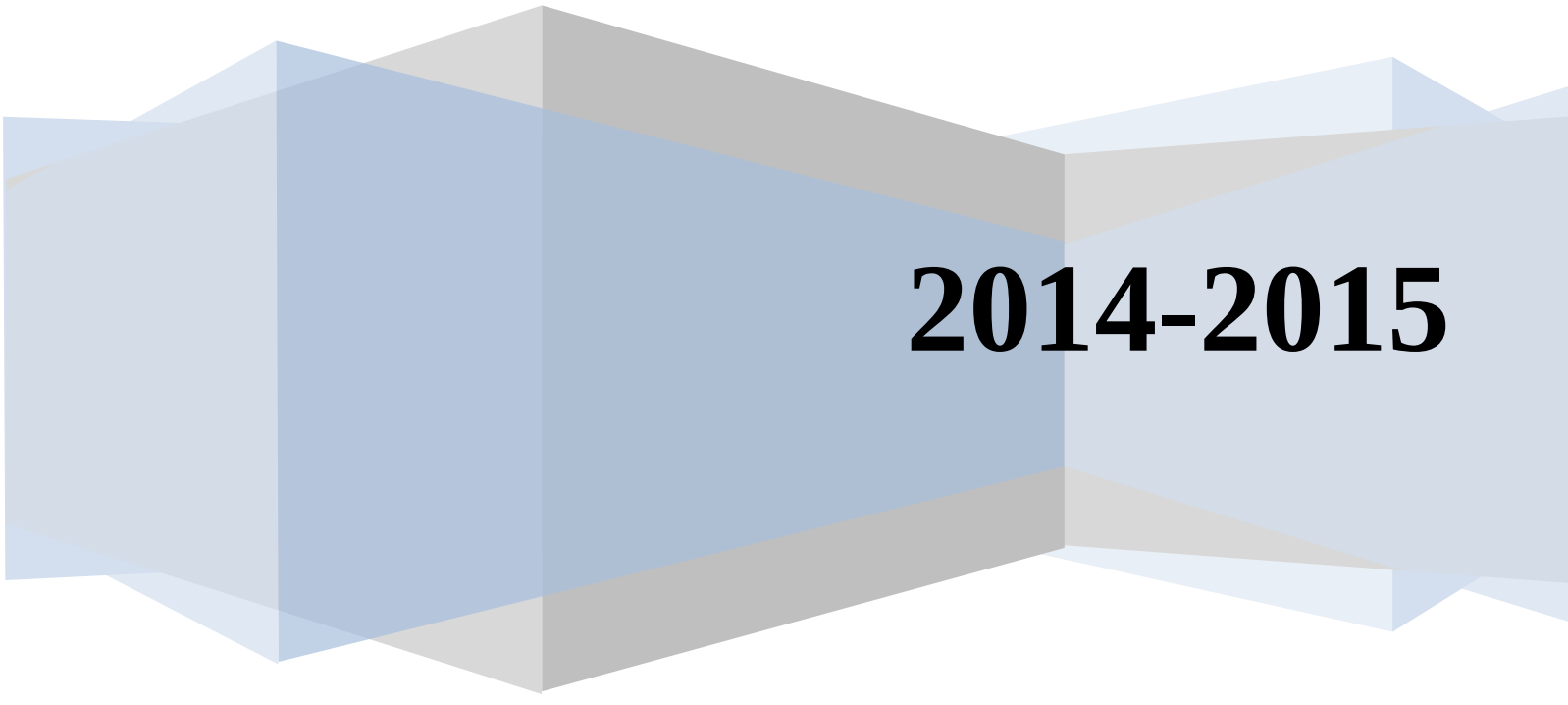
Iraq Injury Surveillance System Biennial Report



2014-2015

Iraq Injury Surveillance System report 2014-2015

Edited by

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Table of Contents

Acknowledgments

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Finally, we give great thanks to Dr. Oleg Bilukha and Eva Leidman from the Centers for Disease Control and Prevention (CDC) for their support in developing the surveillance system as well as their ongoing technical support in analyzing and critically reviewing the surveillance data.

Summary

The Iraqi injury surveillance system provide very important information about the fatal and non-fatal injuries. Using these information to decrease the impact of injuries in society. The data collected from all governorates in Iraq except Mousel , Salahdeen in 2014 and Anabar, Mousel and Salahdeen in 2015 in sentinel hospitals for non fatal injuries and from coroner offices in case of fatal injuries .

The report reveals that the male more than 70% and the most common age group was between 15-29.

According to governorates distribution in 2014 the highest number were collected from Basra, Erbil and Baghdad /Rasafa while in 2015 Thi Qar ,Baghdad/Rasafa and Erbil .The report show the time trend was highest in between 10-14 h.

Regarding to the mechanism of injury the main causes of injuries was road traffic, falls, sharp and bunt injuries while regarding to fatal injury was road traffic, gun fire (insurgency related) and expulsions .In road traffic the most common cause was car 60% followed by motor cycle 20%. The report reveals that the home was the high percent 43% followed by high way /street 38%.

About 18% of all non-fatal injuries received care prior to reach to hospital and about 70% treated and sent to home .

In fatal injury the report shows the high number collected from Baghdad (Medico legal directorate) followed by Kirkuk .

The mortality rate was 41.5 per 100000 in 2014 while the mortality rate was 34.5 per 100000 in 2015.

The highest mortality rate were recorded in Misan ,Kirkuk and Deylah respectively .The report present that the time trend was highest percent at 8-12h and at 16-18h. The street and the home were the main place of injury

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.[1] 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[2]

Rank	2015	Rank	2030
1	Ischaemic heart disease	1	Ischaemic 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	Diarrhoeal 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	Diarrhoeal 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 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

[1]Global Health Estimates 2015

[2]Source: Projections of mortality and causes of death, 2015 and 2030: http://www.who.int/healthinfo/global_burden_disease/projections/en/

ongoing conflict. According to the Global Burden of Disease Iraq profile, mechanical forces, interpersonal violence, road traffic injuries, fire, drowning, and war and legal intervention were among the main causes of Years of Life Lost (YLL).
The Iraq 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 was collected from emergency departments in all directorates and coroner offices departments except Ninavah , Saladeen. In Anbar data not available from emergency rooms of last three months in 2014 and no data collected in 2015.
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 Iraq Injury Surveillance System is implemented by the Ministry of Health and the Ministry of Health in Kurdistan. The project received technical support from the World Health Organization (WHO), US 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 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 2014-2015 for non-fatal injuries from data recorded at sentinel emergency departments
3- Overview of key findings for 2014-2015 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:

Iraq 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, Maysan, Ninevah, and Al-Sulaimaniya. Table 2 lists the reporting sites by governorate for all sites contributed data every month during 2014-2015. Data from the facilities listed are presented in this Report.

Over the course of 2014-2015, 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 of 2013. Data from these facilities was included in the annual reports beginning in 2014-2015.

1.2 Goal and objectives of the system:

The following are the goals of the Iraq 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 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 relative burden of different types and mechanisms of injury.

c. Data Collection

The data on injuries presenting to 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 Ministry of Health 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 Directorates of Health (DOH). DOH conducted preliminary analysis and transmitted the data to the project focal point at the Ministry of Health 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 emergency rooms and coroner offices 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 Center of DOH and/or the Ministry of Health conducted monthly visits to monitor the process. During monthly visits, surveillance forms are compared to hospital and coroner offices' records. An external auditing team from the Ministry of Health 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 Center Department; which is part of Operations center and emergency medicine Directorate in the Ministry of Health

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 Ministry of Health. Throughout all phases, the privacy of the injured persons is kept secure and confidential even when the records are transferred to the Ministry of Health. 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 Ministry of Health, 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 Fatal Injury Surveillance

2.1 Overall Number of Injuries and Victim Demographics

Table 2. Number and percent of reported non-fatal injuries by governorate, 2014-2015

	2014		2015	
	N	%	N	%
Al-Basra	15,816	14.9	7,115	7.5
Anbar	2,985	2.8		
Babil	5,198	4.9	3,598	3.8
Baghdad/ Rasafa	10,325	9.7	14,381	15.1
Baghdad/ karhk	1,958	1.8	1,713	1.8
Diwaniyah	1,844	1.7	1,411	1.5
Dohuk	2,042	1.9	1,731	1.8
Dyalah	9,510	8.9	9,653	10.2
Erbil	11,408	10.7	12,885	13.6
Karballa	8,359	7.9	3,010	3.2
Kirkuk	3,218	3.0	3,310	3.5
Misan	3,119	2.9	3,286	3.5
Muthana	2,787	2.6	1,747	1.8
Najaf	5,817	5.5	5,527	5.8
Sulaimaniya	9,637	9.1	6,326	6.7
ThiQar	7,757	7.3	15,590	16.4
Wassit	4,725	4.4	3,768	4.0
Total	106,505	100.0	95051	100.0

The number of injuries reported overall decreased from 106505 in 2014 to 95051in 2015; however this decrease due unavailable data from Mousel ,Saladeen and Anbar governorates in the surveillance system. In 2014 the high percent collected from Basra while in 2015 the most common recorded data from ThiQar .

Table 3. Percent of Adult and children among all non-fatal injuries, 2014-2015

	2014					2015				
	Child (U18)	%	Adult	%	Total	Child (U18)	%	Adult	%	Total
FEMALE	10,707	44.1	13,594	55.9	24,301	10,254	45.1	12,502	54.9	22756
MALE	28,263	34.5	53,641	65.5	81,904	27,096	37.7	44,835	62.3	71931
Total	38,970	36.7	67,235	63.3	106,205	37,350	39.4	57,337	60.6	94687

Table 3 show the data collected in 2014 -2015 of all non-fatal injuries. The most common proportion related to adult male than female in this period.

Figure 1. Age distribution of all non-fatal injuries, 2014

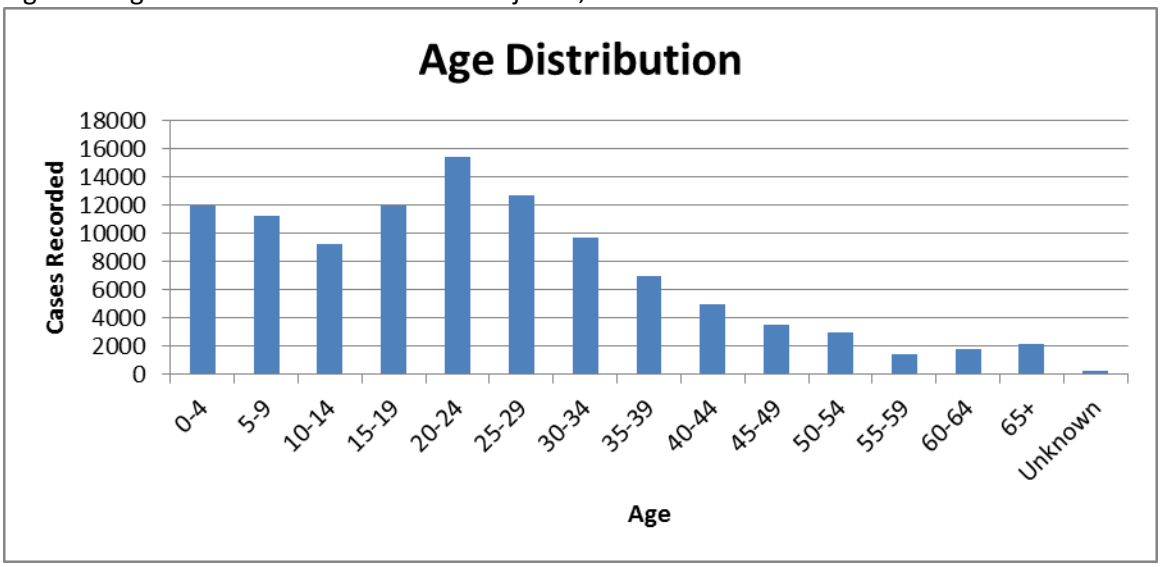


Figure 1 shows the number of injuries within each five year age cohort in 2014. The demographics of non-fatal injuries in 2014. Injuries disproportionately affected males 15-29 years of age. There was also consistently high number of injuries in the youngest age groups (0-9 years).

Figure 2. Age distribution of all non-fatal injuries, 2015

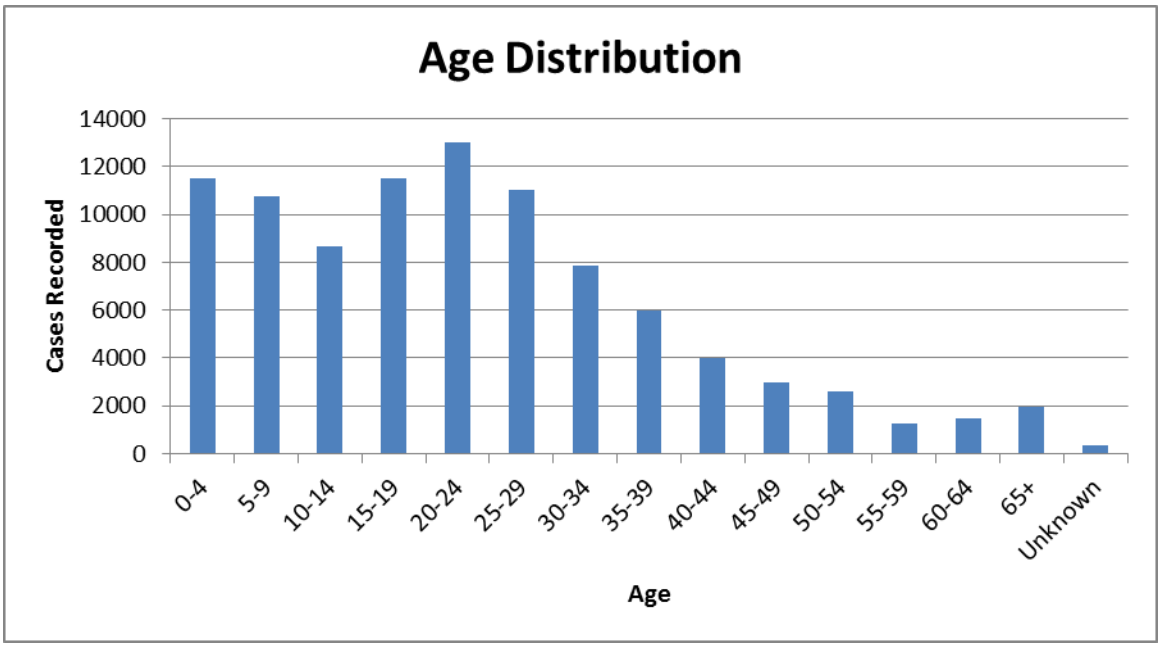


Figure 3. Sex distribution of all non-fatal injuries, 2014

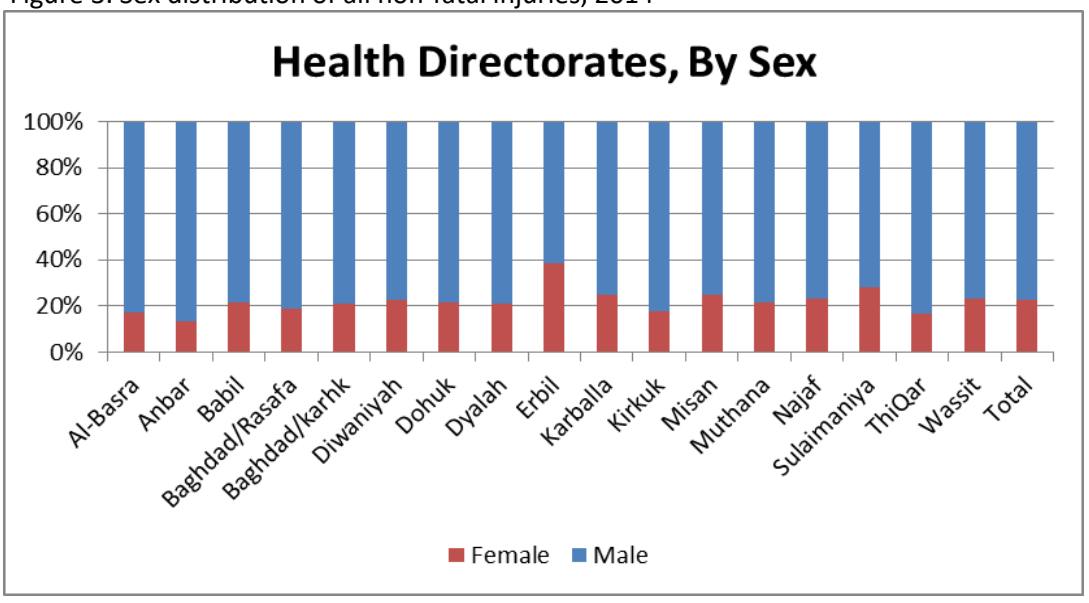


Figure 3 show the distribution of all non-fatal injuries occurred in the health directorates by sex in 2014 .The males more common affected by injuries all over the health directorates .

Figure 4. Sex distribution of all non-fatal injuries, 2015

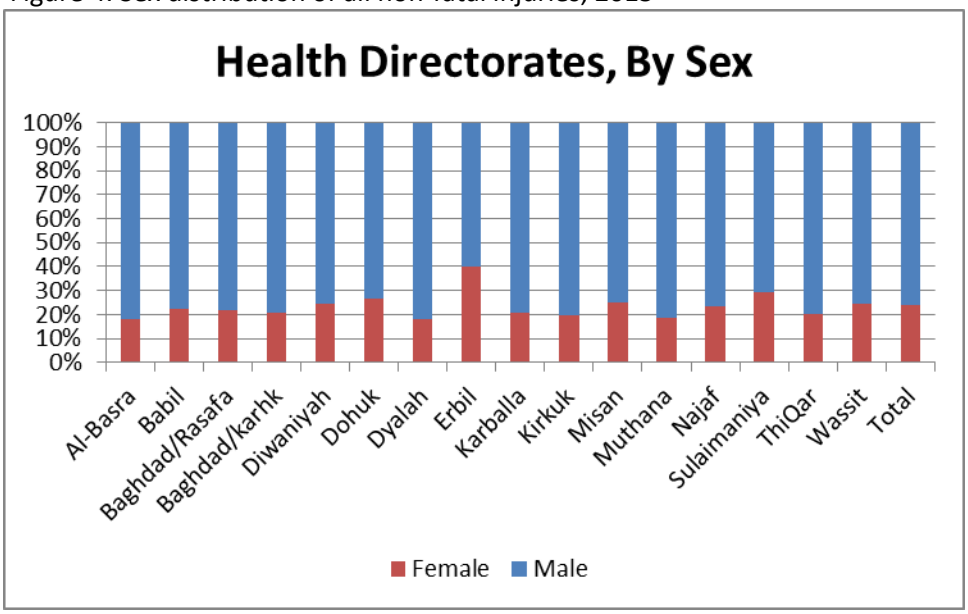


Figure 4 shows the sex distribution of all non-fatal injuries according to health directorates, male represent the higher proportion in all governorates.

2.2 Time Trends, 2014

figure 5. Percent of injuries per month among all non-fatal injuries, 2014

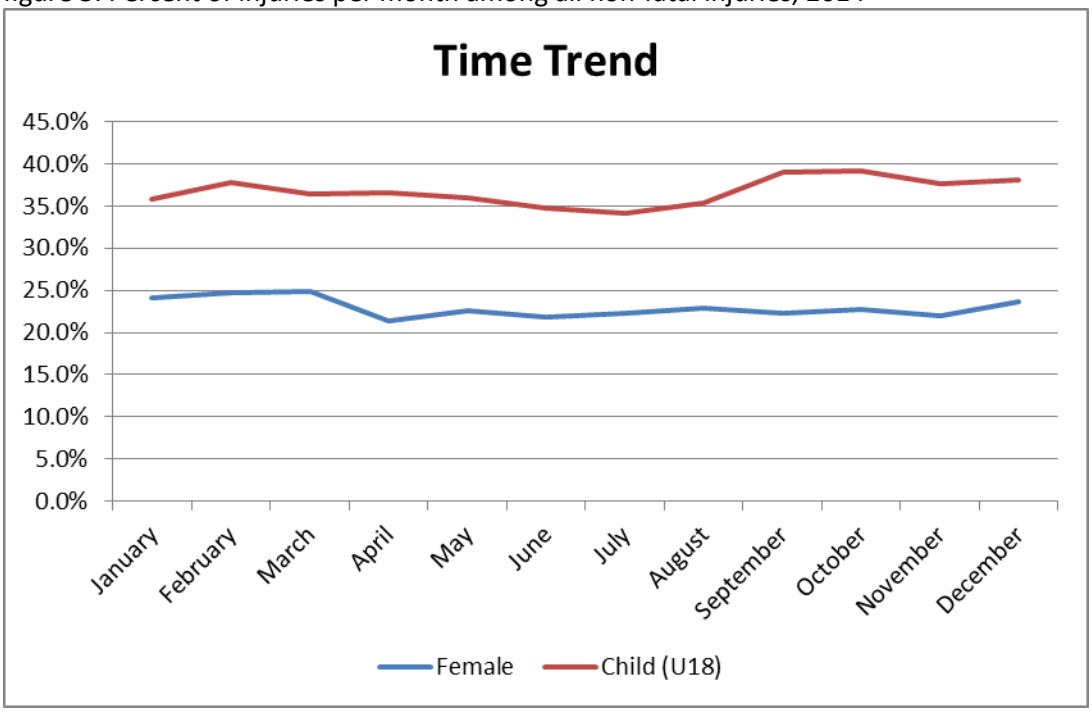


Figure 6. Percent of injuries per month among female and child of non-fatal injuries, 2015

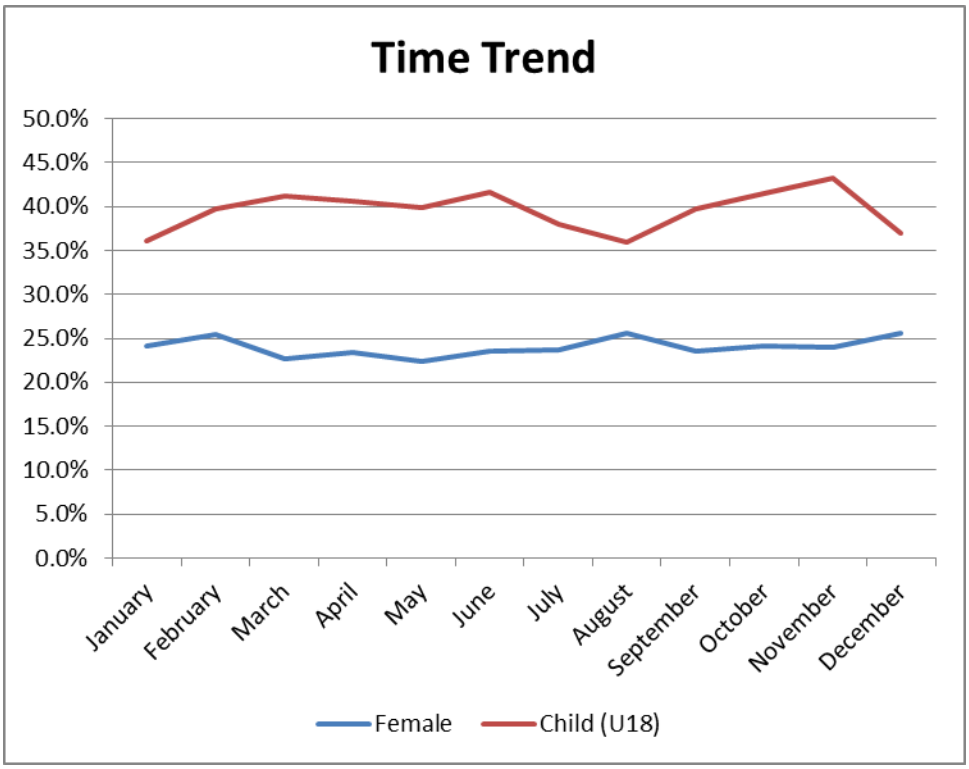


Figure 6,7 show the time trend in 2014 and 2015 distributed by sex ,revealed that consistent trend in the period of two years .

Figure 7. Percent of injuries per month among all non-fatal injuries, 2014

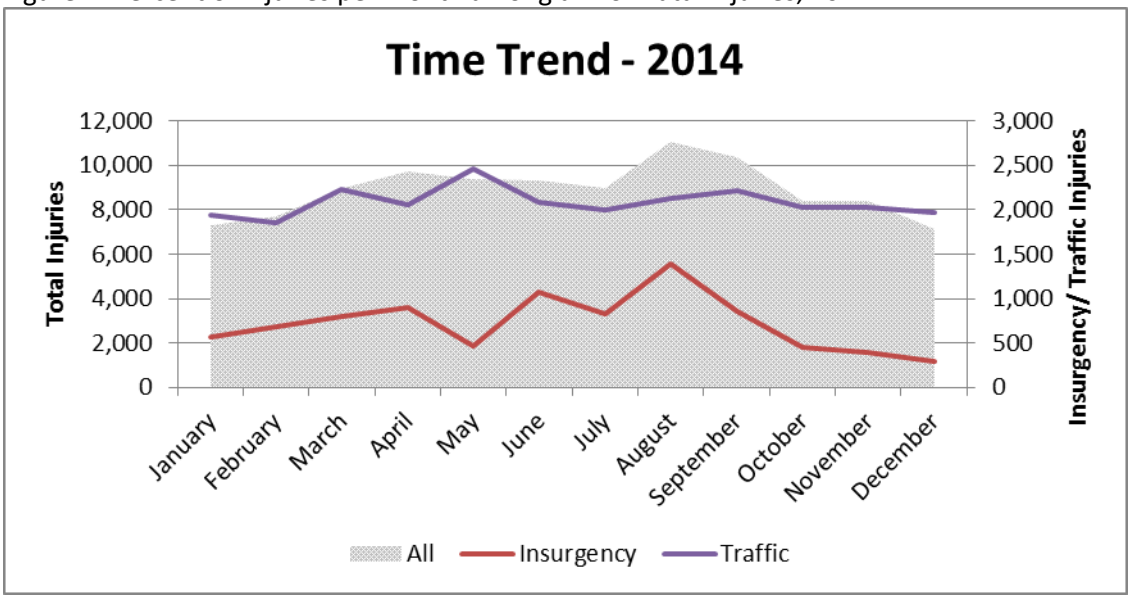


Figure 8. Percent of injuries per month among all non-fatal injuries, 2015

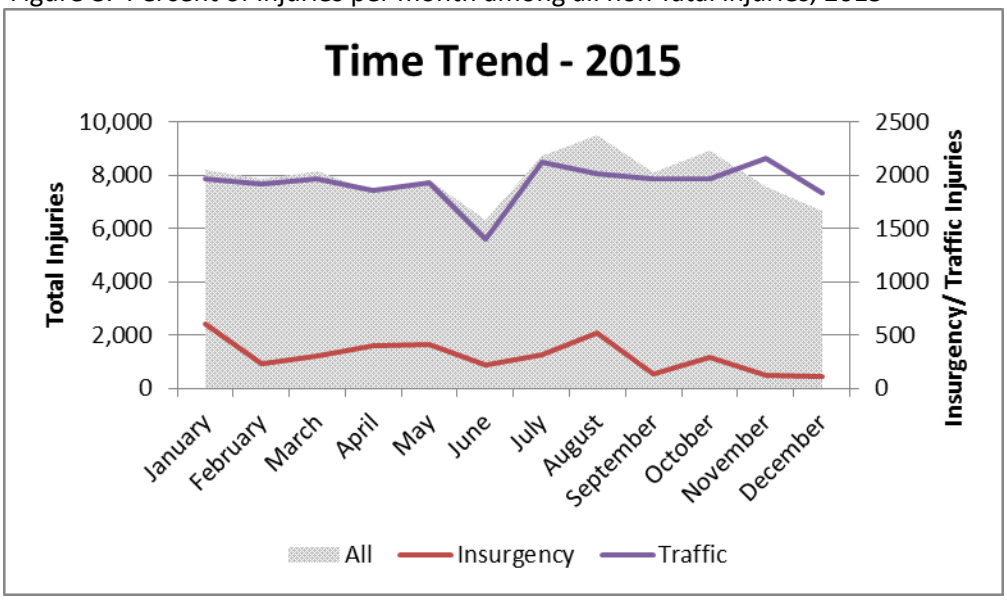


Figure 7 and Figure 8 show the proportion of injuries recorded in a given by month of injury for this two years. No consistent secular trends were identified for non-fatal injuries. high number of traffic injuries all over the months.

Figure 9. Percent of injuries by time of day among all non-fatal injuries, 2014

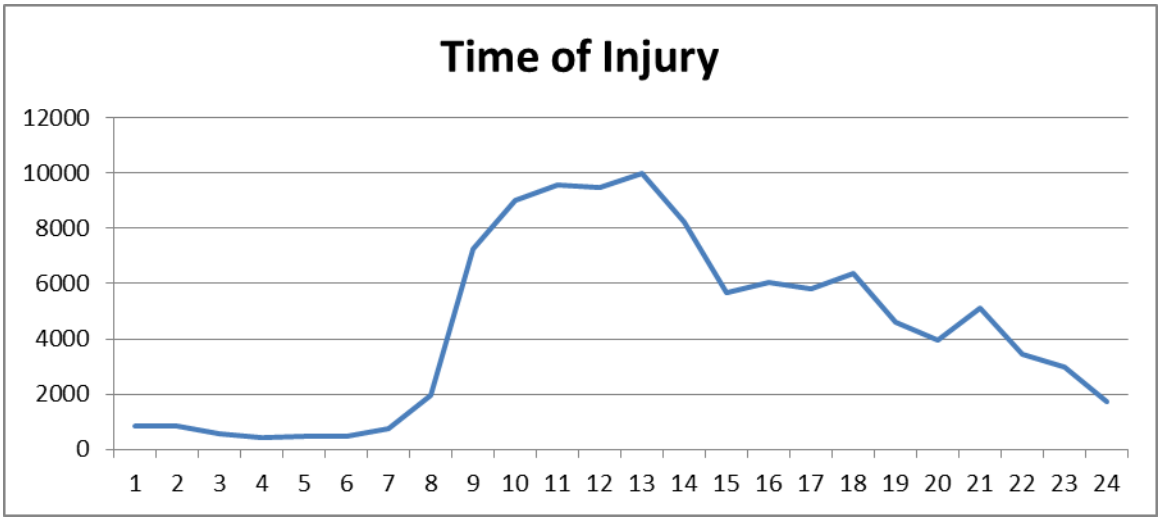


Figure 10.Percent of injuries by time of day among all non-fatal injuries, 2015

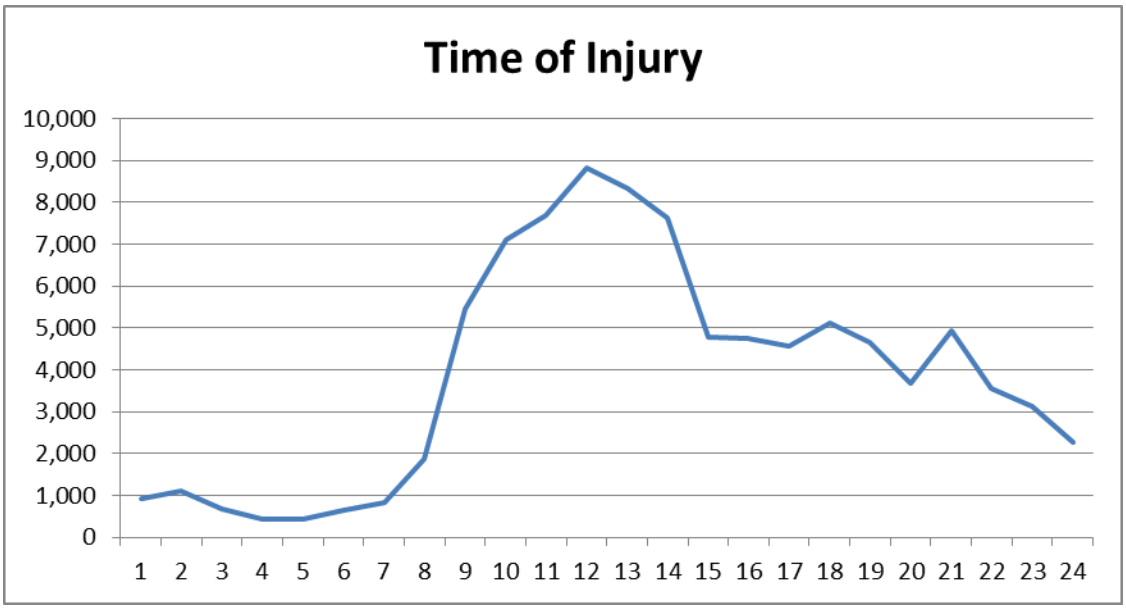


Figure 9 and 10. Shows the number of injuries by the time of injury. As reported, most injuries occurred during the day time (8am to 14pm) then decline gradually with time in both two years.

2.3 Distribution of Injuries by Intention

For the following analysis injuries are classified into six categories by intention— (1)unintentional – road traffic accidents, (2)intentional – insurgency related, (3)intentional – assault, (4)intentional – self-harm, (5)unintentional – other, and (6)unknown intention.

Table 4. Percent of injuries by intention among all non-fatal injuries, 2014-2015

	2014		2015	
	N	%	N	%
Traffic	25,050	23.5	23,120	24.3
Insurgency	8,691	8.2	3,679	3.9
Assault	5,640	5.3	6,715	7.1
Self-Harm	988	0.9	905	1.0
Unintentional	62,845	59.0	57,907	60.9
Unknown Intent	3,291	3.1	2,725	2.9
Total	106,505	100	95,051	100

Table 4 presents the number and percent of injuries by intention category in 2014-2015. Unintentional injuries cause the greatest proportion of non-fatal injuries, approximately two-thirds of all non-fatal injuries during two year. Traffic

injuries are responsible for about 23.5% and 24.3% in 2014-2015 of all non-fatal injuries respectively. The proportion of injuries that were intentional remained below 10%. Low numbers of intentional injuries may be due in part to underreporting. The proportion of intentional injuries from insurgency decreased between 2014 and 2015, while the proportion attributed to assaults increased.

Table 5. Number and Percent of injuries by intention among all non-fatal injuries in 2014, governorate

	Traffic		Insurgency		Assault		Self-Harm		Unintentional		Unknown Intent		Total
		%		%		%		%		%		%	N
Al-Basra	2,806	17.7%	74	0.5%	244	1.5%	96	0.6%	11,891	75.2%	705	4.5%	15,816
Anbar	269	9.0%	2,352	78.8%	94	3.1%	9	0.3%	243	8.1%	18	0.6%	2,985
Babil	1,767	34.0%	658	12.7%	259	5.0%	183	3.5%	1,616	31.1%	715	13.8%	5,198
Baghdad/Rasafa	1,449	14.0%	963	9.3%	422	4.1%	172	1.7%	6,606	64.0%	713	6.9%	10,325
Baghdad/karhk	361	18.4%	186	9.5%	199	10.2%	62	3.2%	1,114	56.9%	36	1.8%	1,958
Diwaniyah	813	44.1%	125	6.8%	470	25.5%	5	0.3%	429	23.3%	2	0.1%	1,844
Dohuk	784	38.4%	346	16.9%	49	2.4%	10	0.5%	717	35.1%	136	6.7%	2,042
Dyalah	1,582	16.6%	1,983	20.9%	436	4.6%	22	0.2%	5,395	56.7%	92	1.0%	9,510
Erbil	3,141	27.5%	387	3.4%	274	2.4%	108	0.9%	7,498	65.7%	0	0.0%	11,408
Karballa	1,147	23.5%	206	8.2%	203	5.3%	22	0.9%	6,499	59.0%	282	3.1%	8,359
Kirkuk	919	28.6%	1,029	32.0%	271	8.4%	16	0.5%	982	30.5%	1	0.0%	3,218
Misan	545	17.5%	10	0.3%	27	0.9%	41	1.3%	2,443	78.3%	53	1.7%	3,119
Muthana	1,066	38.2%	26	0.9%	270	9.7%	57	2.0%	1,352	48.5%	16	0.6%	2,787
Najaf	1,770	30.4%	84	1.4%	289	5.0%	32	0.6%	3,292	56.6%	350	6.0%	5,817
Sulaimaniya	1,442	15.0%	163	1.7%	38	0.4%	3	0.0%	7,984	82.8%	7	0.1%	9,637
ThiQar	3,638	46.9%	69	0.9%	1,708	22.0%	97	1.3%	2,080	26.8%	165	2.1%	7,757
Wassit	1,551	32.8%	30	0.6%	387	8.2%	53	1.1%	2,704	57.2%	0	0.0%	4,725
Total	25050	23.5%	8691	8.2%	5640	5.3%	988	0.9%	62845	59.0%	3291	3.1%	106505

Table 5 show the number and percent of all non-fatal injuries reported in 2014 in governorates according to intention. Unintentional injuries represent about two third of non-fatal injuries. 78.8% of injuries reported in Anbar insurgency related followed by Kirkuk 32%. Road traffic injuries more common in ThiQar , Diwaniyah , Dyalah and Muthana. 25.5% and 22.% of Assault injuries in Diwaniyah and ThiQar respectively.

Table 6. Number and Percent of injuries by intention among all non-fatal injuries in 2015, governorates

	Traffic		Insurgency		Assault		Self Harm		Unintentional		Unknown Intent		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N
Al-Basra	1,101	15.5	11	0.2	40	0.6	7	0.1	5,954	83.7	2	0.0	7,115
Babil	1,393	38.7	49	1.4	29	0.8	31	0.9	1,561	43.4	535	14.9	3,598
Baghdad/Karkh	335	19.6	96	5.6	119	6.9	6	0.4	1,123	65.6	34	2.0	1,713
Baghdad/Rasafa	2,322	16.1	473	3.3	613	4.3	256	1.8	9,655	67.1	1,062	7.4	14,381
Diwaniyah	842	59.7	58	4.1	332	23.5	8	0.6	165	11.7	6	0.4	1,411
Dohuk	580	33.5	17	1.0	73	4.2	8	0.5	917	53.0	136	7.9	1,731
Dyalah	1,889	19.6	1,740	18.0	713	7.4	6	0.1	5,211	54.0	94	1.0	9,653
Erbil	2,924	22.7	278	2.2	246	1.9	185	1.4	9,252	71.8	0	0.0	12,885
Kerbala	424	14.1	232	7.7	47	1.6	131	4.4	2,001	66.5	175	5.8	3,010
Kirkuk	1,180	24.3	425	3.9	595	7.1	1	1.0	1,109	60.9	0	2.9	3,310
Misan	595	18.1	21	0.6	104	3.2	15	0.5	2,492	75.8	59	1.8	3,286
Muthana	701	40.1	3	0.2	178	10.2	50	2.9	812	46.5	3	0.2	1,747
Najaf	1,677	30.3	117	2.1	172	3.1	41	0.7	3,204	58.0	316	5.7	5,527
Sulaimaniya	1,089	17.2	114	1.8	220	3.5	32	0.5	4,660	73.7	211	3.3	6,326
ThiQar	4,739	30.4	31	0.2	2,719	17.4	95	0.6	7,914	50.8	92	0.6	15,590
Wassit	1,329	35.3	14	0.4	515	13.7	33	0.9	1,877	49.8	0	0.0	3,768
Total	23120	24.3	3679	3.9	6715	7.1	905	1.0	57907	60.9	2725	2.9%	95051

Table 6 show the number and percent of all non-fatal injuries according the intention in the all governorates in 2015 except Anabar ,Mousl and Saladeen .Two third of all injuries reported were unintentional and about 24% were related to road traffic injuries. The most common reported number of road traffic injuries from ThiQar followed by Erbil and Baghdad/Rasafa.

According to percent of injuries about 60% of intention related to road traffic injuries reported from Diwaniyah also high percent recorded from Muthana 40.1% and 38.7% from Babil and 30.4% from ThiQar . About 18 % of injuries reported from Dyalah related to insurgency .Assault represent significant percent 17.4% reported from ThiQar.

Figure 11. Time trend by intention among all non-fatal injuries 2014

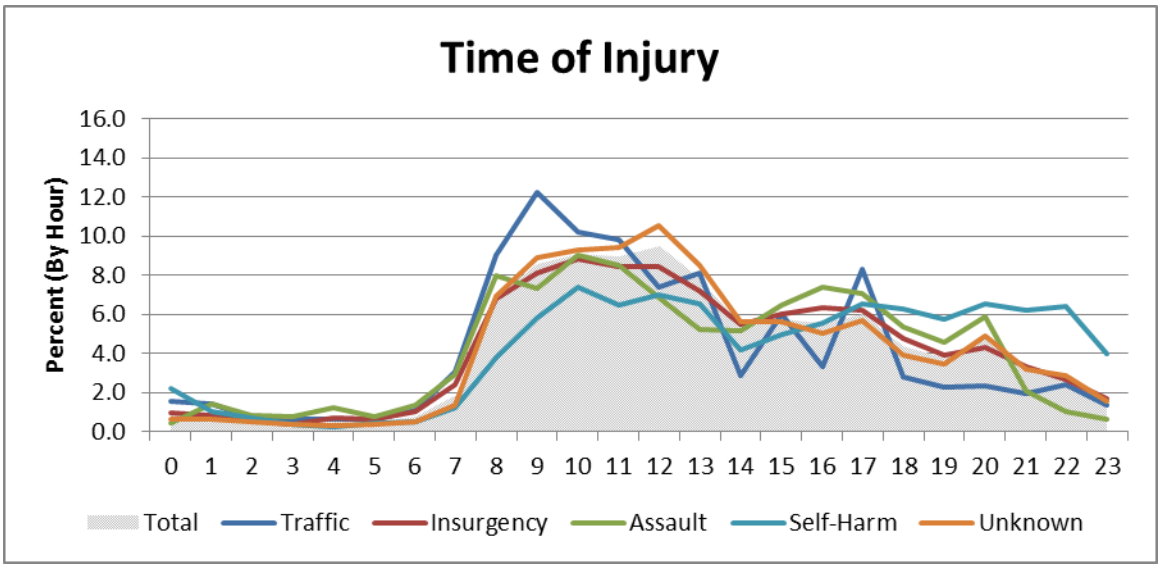


Figure 12. Time trend by intention among all non-fatal injuries 2015

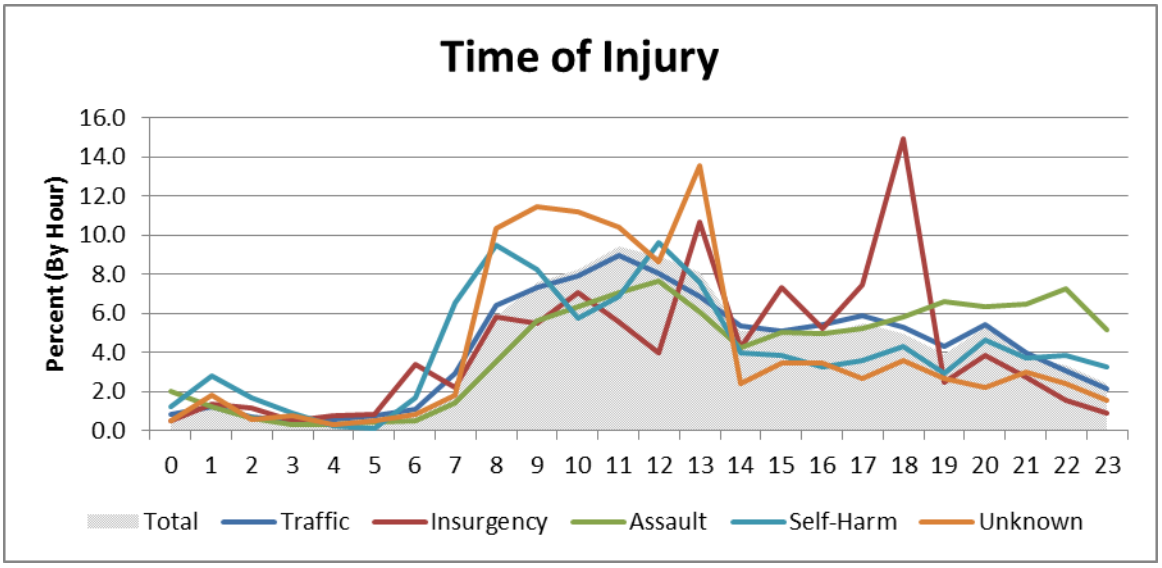


Figure 11 and 12 show the time trend of all non-fatal injuries according to intention in 2014-2015 were the most common time between 8-18 hour with two elevated peak at 13 and 18 hour regarding to insurgency.

Table 7. Proportion of sex among all non-fatal injuries, by intent 2014

	Female		Male		Unknown	Total
	N	%	N	%	N	N
Traffic	4,243	16.9	20,805	83.1	2	25,050
Insurgency	799	9.2	7,888	90.8	4	8,691
Assault	769	13.6	4,868	86.4	3	5,640
Self- Harm	357	36.1	631	63.9	0	988
Unintentional	17,348	27.6	45,489	72.4	8	62,845
Unknown Intent	836	25.5	2,437	74.5	18	3,291
Total	24,352	22.9	82,118	77.1	35	106,505

Table 8 .Proportion of injuries by sex among all non-fatal injuries, by intent 2015

	Female		Male		Unknown	Total
	N	%	N	%	N	N
Traffic	3,922	17.0	19,187	83.0	11	23,120
Insurgency	207	5.6	3,470	94.4	2	3,679
Assault	1,062	15.8	5,650	84.2	3	6,715
Self-Harm	363	40.1	542	59.9	0	905
Unintentional	16,650	28.8	41,234	71.2	23	57,907
Unknown Intent	624	23.1	2,082	76.9	19	2,725
Total	22,828	24.0	72,165	76.0	58	95,051

Table 8 and 8 present the distribution of sex according to intention in 2014 about 77% of all reported injuries were males .The road traffic injuries represent the main cause of injuries followed the insurgency related injuries . Similar in 2015 with exception assaults represent the second cause after road traffic injuries.

Table 9 Proportion of injuries by age among all non-fatal injuries, by intention 2014

	Child (U18)		Adult		Unknown	Total
	N	%	N	%	N	N
Traffic	6,992	28.0	18,003	72.0	55	25,050
Insurgency	1,171	13.6	7,448	86.4	72	8,691
Assault	1,048	18.6	4,578	81.4	14	5,640
Self Harm	351	35.7	631	64.3	6	988
Unintentional	28,319	45.1	34,420	54.9	106	62,845
Unknown Intent	1,097	33.7	2,156	66.3	38	3,291
Total	38,978	36.7	67,236	63.3	291	106,505

Table 10.Proportion of injuries by age among all non-fatal injuries, by intention 2015

	Child (U18)		Adult		Unknown	Total
	N	%	N	%	N	N
Traffic	6,854	29.7	16,212	70.3	54	23,120
Insurgency	366	10.2	3,213	89.8	100	3,679
Assault	1,239	18.5	5,464	81.5	12	6,715
Self-Harm	290	32.2	611	67.8	4	905
Unintentional	27,591	47.8	30,185	52.2	131	57,907
Unknown intent	1,034	38.3	1,663	61.7	28	2,725
Total	37,374	39.5	57,348	60.5	329	95,051

Table 9 and 10 present the Proportion of injuries by age among all non-fatal injuries by intention in 2014 -2015 were two third of reported cases was adults ,the main causes of all non-fatal injuries were road traffic and insurgency in 2014 while in 2015 were road traffic and assaults .

2.4 Distribution of Injury by Mechanism

The following section presented injuries by the mechanism of injury. The mechanism of injury reflects the primary cause of injury as classified by a health care provider (for non-fatal injuries).

Table11. Number and percent of injuries by mechanism among all non-fatal injuries, 2014-2015.

Overall Injury Mechanisms	2014		2015	
	N	%	N	%
Traffic	25,050	23.5	23,120	24.3
Insurgency	8,691	8.2	3,679	3.9
Sharp Objects	18,992	17.8	16,811	17.7
Blunt Objects	14,641	13.8	12,743	13.4
Falls	22,162	20.8	22,513	23.7
Burns	5,836	5.5	4,568	4.8
Gun-Fire (Non-explosive)	1135	1.1	951	1.0
Poisoning	2,111	2.0	2,287	2.4
Animal /Insect Bite	2,949	2.8	3,359	3.5
Suffocation	951	0.9	532	0.6
Electric Injury	1126	1.1	1179	1.2
Drowning	101	0.1	73	0.1
Other	2,645	2.5	2,788	2.9
Unknown	115	0.1	448	0.5
	106,505	100.0	95,051	100.0

Table 12. Percent of injuries by mechanism among non-fatal unintentional-traffic injuries, 2014-2015

	2014		2015	
	N	%	N	%
Pedestrian	2,775	11.1	2,882	12.5
Car	15,949	63.7	14,069	60.9
Bicycle	1,000	4.0	919	4.0
Motorcycle	5,109	20.4	4,888	21.1
Other	197	0.8	333	1.4
Unknown	20	0.1	29	0.1
Total	25,050	100	23,120	100

Table 12 present the mechanism of injury for non-fatal traffic related injuries during 2014 -2015. Among traffic related injuries, the two third of victims were in car. About one fifth of victims were on motorcycles. Injuries among, bicyclists, pedestrian and motorcycles constitute about one third of road traffic injuries.

Table 13. Percent of injuries by mechanism among non-fatal unintentional-other injuries, 2014-2015

	2014		2015	
	N	%	N	%
Falls	21,380	34.0	21,975	38.0
Sharp Tools	15,567	24.8	13,246	22.9
Blunt Tools	12,635	20.1	10,478	18.1
Burns	5,517	8.8	4,360	7.5
Animal/Insect bite	1,997	3.2	2,244	3.9
Poisoning	1,576	2.5	1,796	3.1
Electric injury	1,066	1.7	1,139	2.0
Suffocation	705	1.1	517	0.9
Gun fire	608	1.0	471	0.8
Drowning	89	0.1	65	0.1
Others	1,644	2.6	1,490	2.6
Unknown	61	0.1	126	0.2
Total	62,845	100	57,907	100

Table 13 and Figures 14 present the mechanism of injury for non-fatal unintentional injuries other than traffic. The majority of these injuries were falls (34.4%), followed by sharp tools (24.8%), blunt tools (20.1%) and burns 8.8%. Only 0.2% of injuries were coded as unknown mechanism.

Table 14. Percent of injuries by mechanism among non-fatal intentional-assault injuries 2014-2015.

	2014		2015	
	N	%	N	%
Sharp Tool	2,824	50.1	3,044	45.3
Blunt Tool	1,589	28.2	1,969	29.3
Gunfire (Non-insurgency)	438	7.8	390	5.8
Fall	150	2.7	169	2.5
Animal/Insect Bite	261	4.6	584	8.7
Burns	49	0.9	46	0.7
Poisoning	49	0.9	39	0.6
Electric Injury	3	0.1	7	0.1
Drowning	3	0.1	1	0.0
Suffocation	2	0.0	7	0.1
Other	268	4.8	450	6.7
Unknown	4	0.1	9	0.1
Total	5,640	100.0	6,715	100

Table 14 present the mechanism of injury for all non-fatal intentional-assaults in 2014-2015. Assaults include both domestic violence and violence among strangers. Nearly half of assaults were attributed to sharp objects (50.1%). As in previous years, blunt objects and guns were the second and third, respectively. Together guns, sharp and blunt objects were responsible for more than 85% of all assaults each year.

Table 15. Percent of injuries by mechanism among non-fatal intentional-self harm injuries 2014.

	2014		2015	
	N	%	N	%
Fall	182	18.4	88	9.7
Sharp Tool	278	28.1	281	31.1
Poison	250	25.3	328	36.2
Blunt	78	7.9	62	6.9
Burns	74	7.5	31	3.4
Gun Fire	39	4.0	46	5.1
Animal / Insect Bite	20	2.0	11	1.2
Electrical Injury	3	0.3	5	0.6
Drowning	6	0.6	6	0.7
Suffocation	4	0.4	4	0.4
Other	50	5.1	35	3.9
Unknown	4	0.4	8	0.9
Total	988	100.0	905	100.0

Table 15 present the mechanism of injury for all non-fatal intentional self-harm injuries in 2014 -2015. The most common mechanism of self-harm was sharp object followed by poison and fall.

Table 16. Percent of injuries by mechanism among non-fatal insurgency activity 2014-2015.

	2014		2015	
	N	%	N	%
Gun Fire	3,119	35.9	1,353	36.8
Explosives	3,626	41.7	1,162	31.6
IED	1,107	12.7	559	15.2
Suicide Bomb	119	1.4	6	0.2
Car Bomb	446	5.1	470	12.8
Land Mine	11	0.1	7	0.2
UXO	4	0.1	10	0.3
Other	256	3.0	86	2.3
Unknown	3	0.0	26	0.7
Total	8,691	100	3,679	100

Table 16 present the mechanism of injury for all non-fatal insurgency related injuries. Nearly (41.7%), (35.9%) of injuries were coded as explosives and gun fire respectively followed by IEDs, car bombs, and suicide bombs. This category includes conventional (manufactured) explosives as well as explosives of unknown type.in 2015 the main cause of insurgency was gun fire.

2.5 Mass Injury Events

Table 27. Percent of injuries resulting from a mass injury event among all non-fatal injuries, 2014

	2014							
	Five or More People Affected	Four or Fewer People Affected	Unknown	Total	Five or More People Affected	Four or Fewer People Affected	Unknown	Total
	N	N	N	N	%	%	%	%
Traffic	1,958	22,982	110	25,050	7.8	91.7	0.4	100.0
Insurgency	4,237	4,381	73	8,691	48.8	50.4	0.8	100.0
Assault	263	5,353	24	5,640	4.7	94.9	0.4	100.0
Self Harm	82	901	5	988	8.3	91.2	0.5	100.0
Unintentional	1,839	60,923	83	62,845	2.9	96.9	0.1	100.0
Other	429	2,790	72	3,291	13.0	84.8	2.2	100.0
Total	8,808	97,330	367	106,505	8.3	91.4	0.3	100.0

Table 18. Percent of injuries resulting from a mass injury event among all non-fatal injuries, 2015

	Five or More People Affected	Five or More People Affected	Four or Fewer People Affected	Four or Fewer People Affected	Unknown	Unknown	Total	Total
	N	%	N	%	N	%	N	%
Traffic	1,439	6.2	21,610	93.5	71	0.3	23,120	100.0
Insurgency	1,847	50.2	1,778	48.3	54	1.5	3,679	100.0
Assault	138	2.1	6,568	97.8	9	0.1	6,715	100.0
Self Harm	142	15.7	757	83.6	6	0.7	905	100.0
Unintentional	1,095	1.9	56,747	98.0	65	0.1	57,907	100.0
Other	89	3.3	2,548	93.5	88	3.2	2,725	100.0
Total	4,750	5.0	90,008	94.7	293	0.3	95,051	100.0

Table 18 shows the proportion of injuries resulting from a mass casualty event among all injuries, by intention. Mass injury event is defined as an event that caused five or more injuries. About 5% of injuries overall resulted from mass casualty events. However, about half (50%) of insurgency related events resulted from mass casualty events.

2.6 Place of Injury

Table 19. Percent of injuries by place among all non-fatal injuries, 2014

	2014		2015	
	N	%	N	%
Countryside	1,322	1.2	950	1.0
Home	46,811	44.0	44,755	47.1
Market	719	0.7	578	0.6
Street / Highway	41,158	38.6	37,224	39.2
Workplace	12,790	12.0	9,382	9.9
Public gathering	2,291	2.2	1,040	1.1
Others	1,093	1.0	858	0.9
Unknown	321	0.3	264	0.3
Total	106,505	100.0	95,051	100

Table 19 present the proportion of injuries by place where the injury occurred in 2014-2015. Nearly half of the injuries occurred at home and more than third occurred on highways or streets. The third most common location of injury was the workplace.

2.7 Pre-hospital Care and Disposition

Table20. Percent of injuries receiving pre-hospital care among all non-fatal injuries, 2014

	Received Care Prior to Arrival				
	Yes	No	Unknown	Total	Yes
	N	N	N	N	%
Traffic	5,637	19,293	120	25,050	22.5
Insurgency	2,226	6,394	71	8,691	25.6
Assault	958	4,670	12	5,640	17.0
Self Harm	200	777	11	988	20.2
Unintentional	9,164	53,518	163	62,845	14.6
Other	349	2,881	61	3,291	10.6
Total	18,534	87,533	438	106,505	17.4

Table 21. Percent of injuries receiving pre-hospital care among all non-fatal injuries, 2015

	Yes	No	Unknown	Total	Yes
	N	N	N	N	%
Traffic	5,887	17,130	103	23,120	25.5
Insurgency	1,444	2,188	47	3,679	39.2
Assault	1,393	5,300	22	6,715	20.7
Self Harm	216	687	2	905	23.9
Unintentional	8,114	49,630	163	57,907	14.0
Other	196	2,439	90	2,725	7.2
Total	17,250	77,374	427	95,051	18.1

Table 20 and 21 presents data on the pre-hospital care received by victims presenting at the emergency rooms in 2014-2015. About 18% of all non-fatal injuries received pre-medical care and the most cases received care reported from insurgency 39.2%.

Table 22. Percent of injuries arriving at the hospital in an ambulance among all non-fatal injuries 2014-2015, by governorate

	2014						2015					
	Ambulance	Ambulance	Other Vehicle	Other Vehicle	Other / Unknown	Total	Ambulance	Ambulance	Other Vehicle	Other Vehicle	Other / Unknown	Total
	N	%	N	%	N	N	N	%	N	%	N	N
Al-Basra	781	4.9	15,019	95.0	16	15,816	156	2.2	6,959	97.8	0	7,115
Anbar	212	7.1	2,754	92.3	19	2,985						
Babil	1,398	26.9	3,527	67.9	273	5,198	393	10.9	3,134	87.1	71	3,598
Baghdad/ Rasafa	872	8.4	9,445	91.5	8	10,325	10	0.6	1,673	97.7	30	1,713
Baghdad/ karhk	53	2.7	1,879	96.0	26	1,958	425	3.0	13,941	96.9	15	14,381
Diwaniyah	573	31.1	1,263	68.5	8	1,844	476	33.7	931	66.0	4	1,411
Dohuk	700	34.3	1,341	65.7	1	2,042	241	13.9	1,490	86.1	0	1,731
Dyalah	1,295	13.6	8,191	86.1	24	9,510	1,166	12.1	8,481	87.9	6	9,653
Erbil	1,082	9.5	10,326	90.5	0	11,408	577	4.5	12,308	95.5	0	12,885
Karballa	211	2.5	8,103	96.9	45	8,359	380	12.6	2,582	85.8	48	3,010
Kirkuk	373	11.6	2,845	88.4	0	3,218	187	5.6	3,122	94.3	1	3,310
Misan	376	12.1	2,742	87.9	1	3,119	562	17.1	2,718	82.7	6	3,286
Muthana	347	12.5	2,440	87.5	0	2,787	257	14.7	1,486	85.1	4	1,747
Najaf	646	11.1	5,122	88.1	49	5,817	908	16.4	4,535	82.1	84	5,527
Sulaimaniya	772	8.0	8,857	91.9	8	9,637	730	11.5	5,512	87.1	84	6,326
ThiQar	1,406	18.1	6,348	81.8	3	7,757	1,561	10.0	14,028	90.0	1	15,590
Wassit	575	12.2	4,150	87.8	0	4,725	548	14.5	3,219	85.4	1	3,768
Total	11,672	11.0	94,352	88.6	481	106,505	8,577	9.0	86,119	90.6	355	95,051

Table 22 shows the proportion of injuries arriving at the emergency room in an ambulance by governorate in 2014-2015. The proportion was highest in Dohuk (34.3%) in 2014, while the proportion was highest in Diwaniyah in 2015. In Baghdad/Karkh and Karballa, fewer than 3% of injuries were transported by ambulance in 2014 and slightly increased in 2015 .

Table 23. Percent of injuries by disposition upon arrival among all non-fatal injuries, 2014-2015

	2014		2015	
disposition upon arrival	N	%	N	%
Treated and sent home	69,107	64.9	67,349	70.9
Admitted to the hospital	29,794	28.0	21832	23.0
Transferred to other facility	1,125	1.1	1,255	1.3
Left against medical advice	1,453	1.4	1,750	1.8
Dead on arrival	905	0.9	764	0.8
Died in emergency department	178	0.2	132	0.1
Other	103	0.1	116	0.1
Unknown	3,840	3.6	1,853	2.0

Table 23 shows the majority of injuries were treated and discharged (64.9%). Percentage of patients who were admitted into the hospital, transferred to a different facility, or left against medical advice, increase from 30.5% in 2014 to 25% in 2015. Less than 1% of all injuries was dead on arrival or died within the emergency room.

3. Overview of Key Findings – Fatal Injury Surveillance

3.1 Overall Number of Injuries

Table 25. Number and percent of fatal injuries by governorate, 2014-2015

	2014		2015	
Governorate	N	%	N	%
Al-Basra	601	4.0	730	5.7
Anbar	1,299	8.7		
Babil	1,042	7.0	979	7.7
Baghdad/ Rasafa	3,348	22.4	3,104	24.4
Diwaniyah	399	2.7	423	3.3
Dohuk	657	4.4	433	3.4
Dyalah	1,240	8.3	942	7.4
Erbil	817	5.5	860	6.8
Karballa	486	3.3	504	4.0
Kirkuk	1,459	9.8	1,170	9.2
Misan	778	5.2	1,002	7.9
Muthana	382	2.6	318	2.5
Najaf	406	2.7	334	2.6
Sulaimaniya	733	4.9	633	5.0
ThiQar	855	5.7	906	7.1
Wassit	443	3.0	395	3.1
Total	14945	100.0	12733	100.0

Table 25 presents the number and proportion of injuries by governorate for 2014 to 2015. The total number of injuries reported was relatively consistent during the two years with relatively decreased in 2015 (range 14945-12733). More than 20% of injuries occurred in Baghdad (range 22.4-24.4%). These numbers are proportions, not rates, and do not account for the differences in total population by governorate.

Table 26. Percent of adults and children among all fatal injuries, 2014

	Child (U18 years)		Adult (18+ years)		Unknown	Total
	N	%	N	%	N	N
Al-Basra	135	22.8	458	77.2	8	601
Anbar	207	16.2	1,073	83.8	19	1299
Babil	345	35.5	627	64.5	70	1042
Baghdad/Rasafa	611	23.7	1,972	76.3	765	3348
Diwaniyah	164	41.3	233	58.7	2	399
Dohuk	147	22.4	509	77.6	1	657
Dyalah	186	17.0	906	83.0	148	1240
Erbil	219	26.8	597	73.2	1	817
Karballa	158	32.5	328	67.5	0	486
Kirkuk	247	18.0	1,125	82.0	87	1459

Misan	296	38.0	482	62.0	0	778
Muthana	162	42.4	220	57.6	0	382
Najaf	183	45.1	223	54.9	0	406
Sulaimaniya	155	21.3	574	78.7	4	733
ThiQar	321	37.8	529	62.2	5	855
Wassit	139	31.4	303	68.6	1	443
Total	3675	26.6	10159	73.4	1111	14945

Table 27. Percent of adults and children among all fatal injuries, 2015

	Child (U18 years)		Adult (18+ years)		Unknown	Total
	N	%	N	%	N	N
Al-Basra	153	21.0	574	79.0	3	730
Babil	343	35.1	634	64.9	2	979
Baghdad	744	28.1	1,899	71.9	461	3,104
Diwaniyah	163	38.5	260	61.5	0	423
Dohuk	146	33.7	287	66.3	0	433
Dyalah	172	20.2	681	79.8	89	942
Erbil	207	24.1	653	75.9	0	860
Kerbala	160	31.8	343	68.2	1	504
Kirkuk	169	17.4	804	82.6	197	1,170
Misan	314	31.3	688	68.7	0	1,002
Muthana	132	41.8	184	58.2	2	318
Najaf	122	36.6	211	63.4	1	334
Sulaimaniya	138	22.1	487	77.9	8	633
ThiQar	312	34.7	587	65.3	7	906
Wassit	147	37.3	247	62.7	1	395
Total	3422	28.6	8539	71.4	772	12733

Table 26 and 27 present the proportion of child under 18 and adult in 2014-2015 . Three quarter of fatal injuries recorded coroner office's was adult 73.4%. The high percent of fatal cases recorded from Baghdad, Kirkuk and Anbar.

Figure 13 Age distribution of all injuries 2014

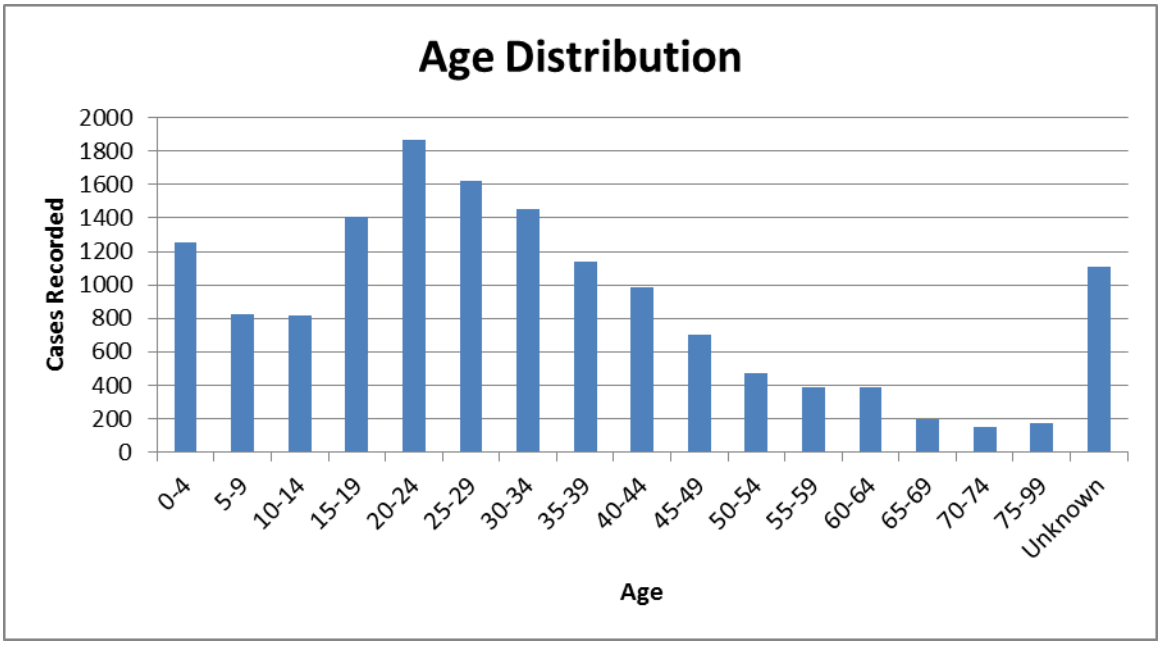


Figure 14 Age distribution of all injuries 2015

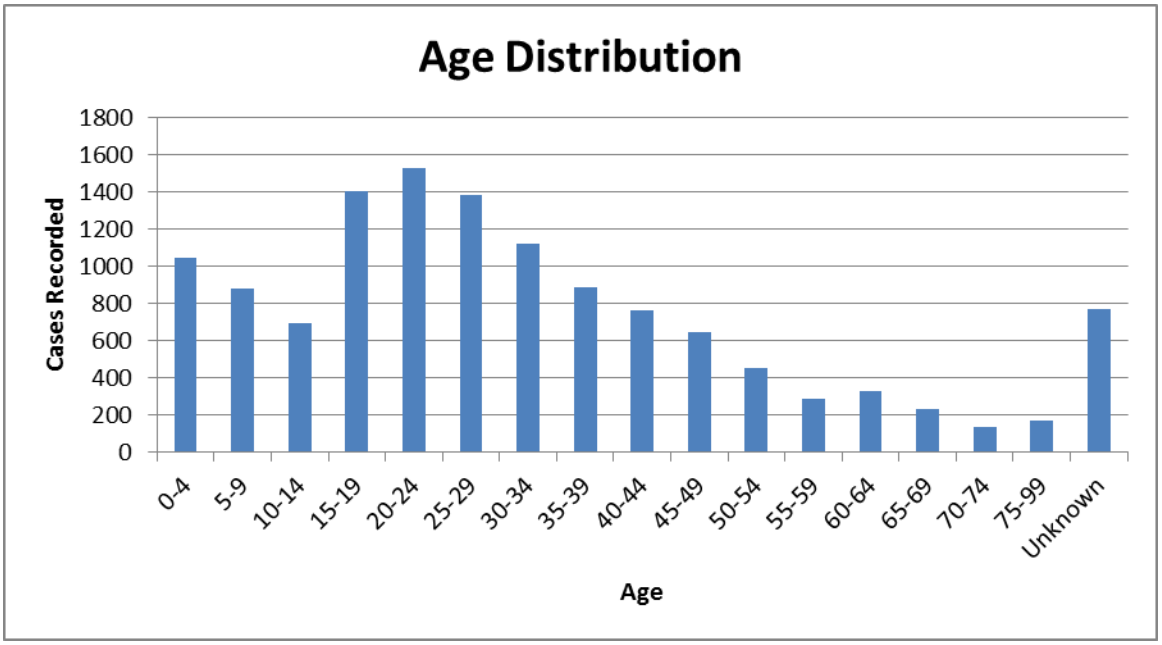


Figure 13 and 14 show the age distribution of fatal injuries during 2014-2015 the most common age group affected was 15-29 also there is important reported deaths related to 0-4 age group.

Figure 15. Age and sex distribution of all fatal injuries, 2014

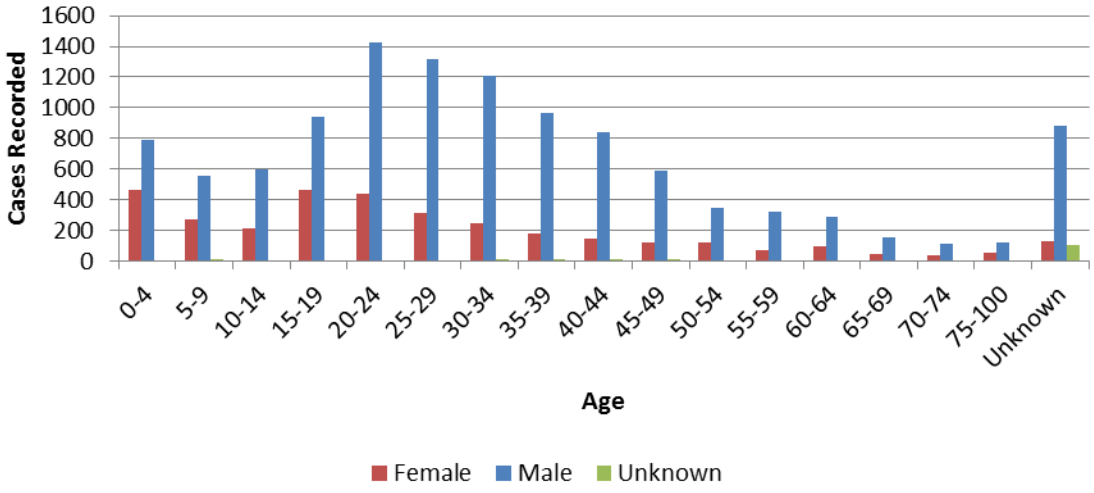


Figure 16. Age and sex distribution of all fatal injuries, 2015

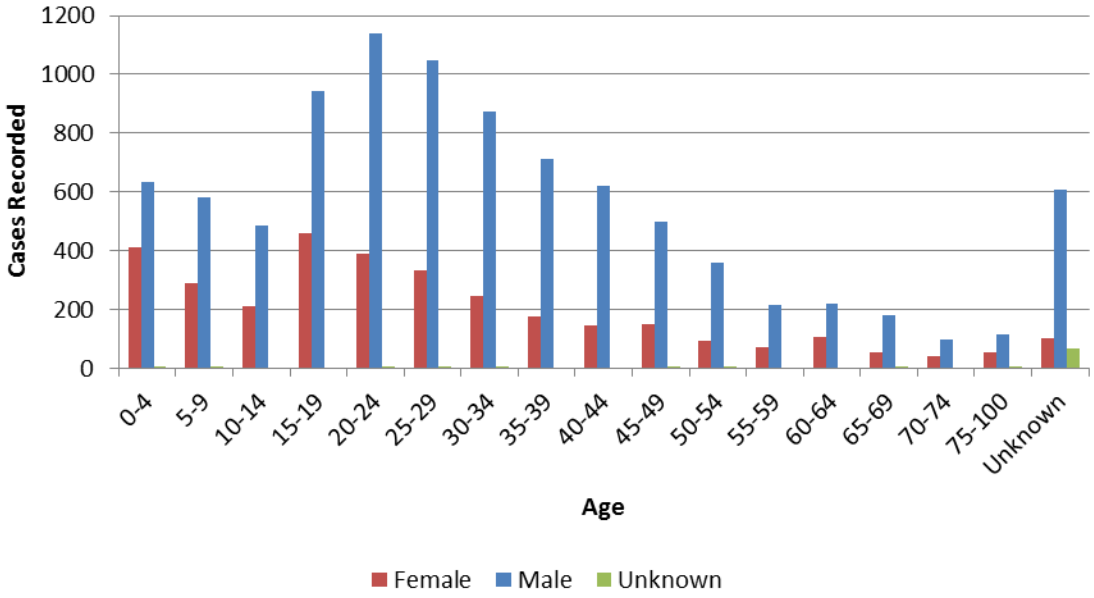


Figure 15 and 16 shows the number of fatal injuries by sex and age within each five year age cohort in 2014-2015. As with non-fatal injuries, males represented a greater proportion of injuries in every age cohort. Injuries disproportionately affected males 15-39 years of age. Similar to previous years, there were also a high number of injuries in the youngest age groups (0-9 years).

2.2 Time Trends, 2013

Figure 17. percent of injuries per month among all fatal injuries by mechanism, 2014

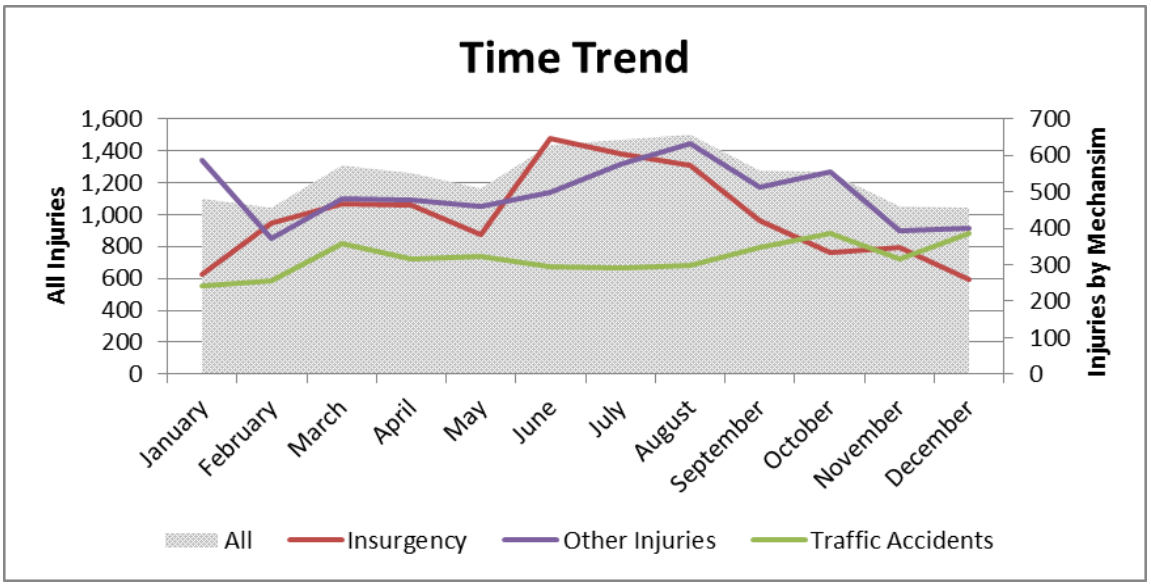


Figure 18. Percent of injuries per month among all fatal injuries by mechanism, 2015

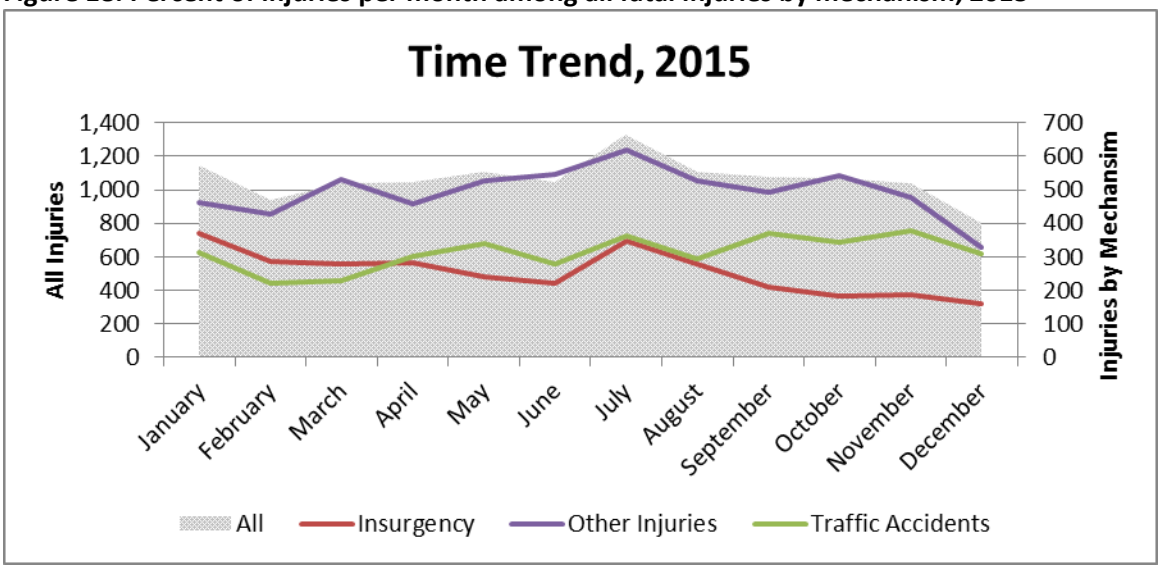


Figure 17 and 18 show the percent of all fatal injuries per month in 2014 and 2015 .unintentional injuries represent the high percent in all months while the insurgency related injuries most common in between July and August , The number of fatalities from traffic accidents remained more stable throughout the year, compared to insurgency activity and other injuries.

Figure 19. Number injuries per month among all fatal injuries by time 2014

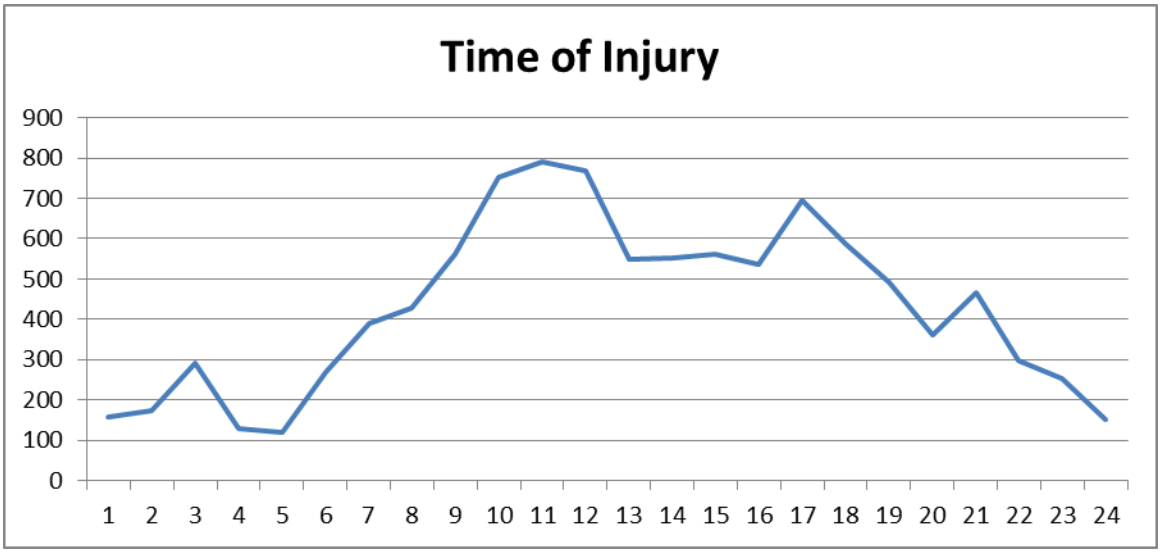


Figure 20. Number injuries per month among all fatal injuries by time 2015

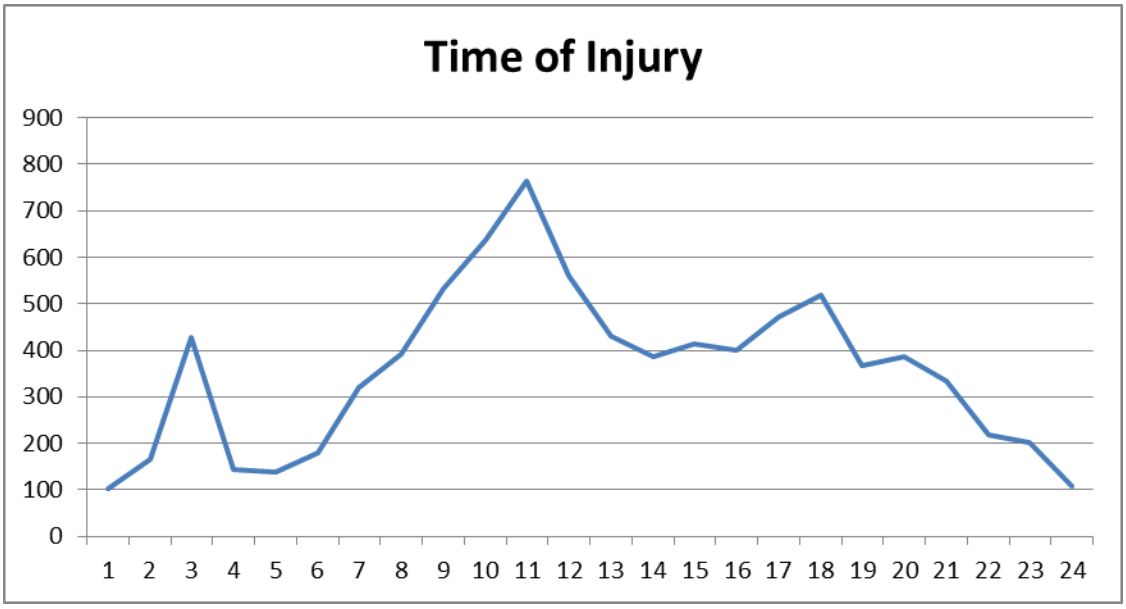


Figure 19 and 20 show the proportion of deaths by time. The data suggest a gradual increase in the number of fatalities reported between 8-14 hour in both two years.

3.3 Distribution of Injuries by Intention

Injuries are classified into six categories by intention— (1)unintentional – road traffic accidents, (2)intentional – insurgency related, (3)intentional – assault, (4)intentional – self-harm, (5)unintentional – other, and (6)unknown intention.

Table 28. Number and percent of injuries by intention among all fatal injuries, 2014

	2014		2015	
	N	%	N	%
Traffic	3,816	25.5	3,745	29.41
Insurgency	5,178	34.6	3,049	23.95
Assault	1,329	8.9	1,190	9.35
Self Harm	463	3.1	460	3.61
Unintentional	3,530	23.6	3,585	28.16
Unknown Intent	629	4.2	704	5.53

Figure 21. Percent of injuries by intention among all fatal injuries, 2014

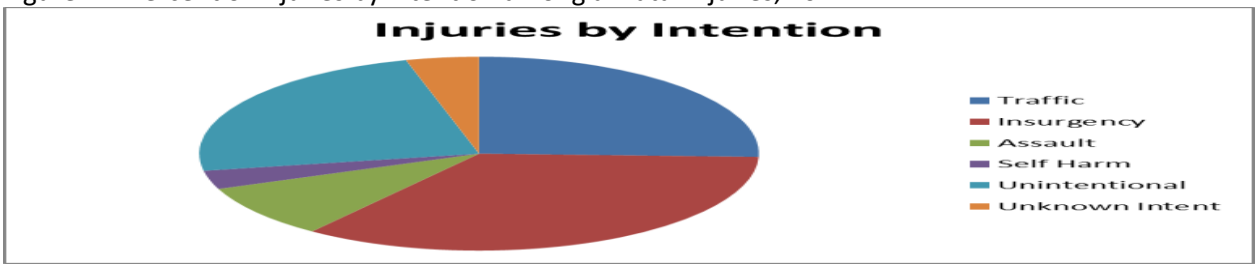


Figure 22. Percent of injuries by intention among all fatal injuries, 2015

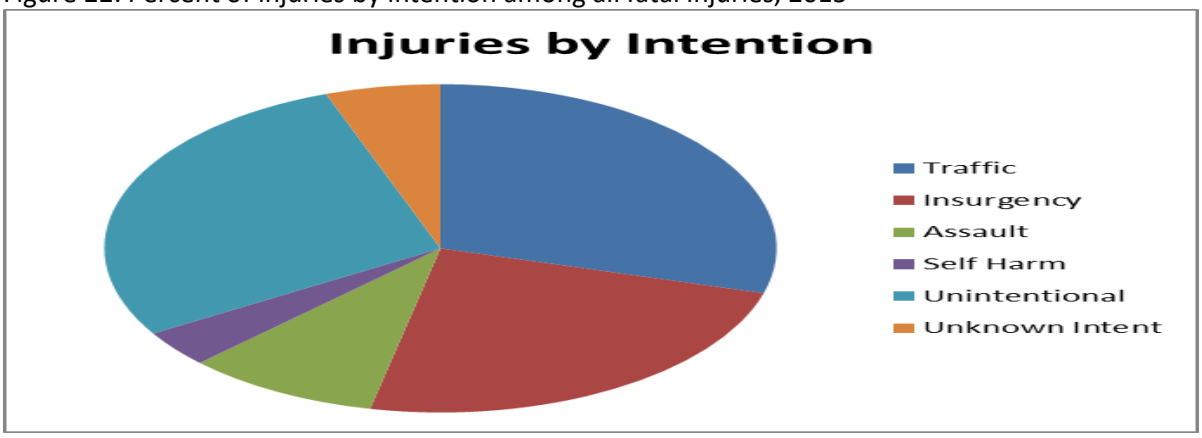


Table 28 and figure 22 show number and percent of all fatal injuries by mechanism in 2014 -2015 .The first two causes of deaths reported from medico-legal offices was insurgency and road traffic in 2014 while first two causes of deaths in 2015 was unintentional and traffic .

Table 29. Number and Percent of injuries by intention among all fatal injuries in 2014, by governorate

	Traffic		Insurgency		Assault		Self Harm		Unintentional		Unknown Intent		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Al-Basra	31	5.2%	200	33.3%	107	17.8%	11	1.8%	169	28.1%	83	13.8%	601	100
Anbar	80	6.2%	1,078	83.0%	27	2.1%	0	0.0%	61	4.7%	53	4.1%	1,299	100
Babil	437	41.9%	126	12.1%	141	13.5%	2	0.2%	335	32.1%	1	0.1%	1,042	100
Baghdad	558	16.7%	1,601	47.8%	472	14.1%	0	0.0%	710	21.2%	7	0.2%	3,348	100
Diwaniyah	169	42.4%	0	0.0%	42	10.5%	16	4.0%	167	41.9%	5	1.3%	399	100
Dohuk	158	24.0%	203	30.9%	37	5.6%	54	8.2%	159	24.2%	46	7.0%	657	100
Dyalah	181	14.6%	865	69.8%	24	1.9%	8	0.6%	157	12.7%	5	0.4%	1,240	100
Erbil	289	35.4%	105	12.9%	82	10.0%	139	17.0%	202	24.7%	0	0.0%	817	100
Karballa	254	52.3%	22	4.5%	44	9.1%	15	3.1%	146	30.0%	5	1.0%	486	100
Kirkuk	217	14.9%	835	57.2%	64	4.4%	37	2.5%	182	12.5%	124	8.5%	1,459	100
Misan	265	34.1%	12	1.5%	64	8.2%	29	3.7%	261	33.5%	147	18.9%	778	100
Muthana	162	42.4%	13	3.4%	20	5.2%	18	4.7%	164	42.9%	5	1.3%	382	100
Najaf	173	42.6%	22	5.4%	3	0.7%	5	1.2%	194	47.8%	9	2.2%	406	100
Sulaimaniya	191	26.1%	68	9.3%	87	11.9%	80	10.9%	262	35.7%	45	6.1%	733	100
ThiQar	353	41.3%	9	1.1%	69	8.1%	46	5.4%	353	41.3%	25	2.9%	855	100
Wassit	298	67.3%	19	4.3%	46	10.4%	3	0.7%	8	1.8%	69	15.6%	443	100
Total	3816	25.5%	5178	34.6%	1329	8.9%	463	3.1%	3530	23.6%	629	4.2%	14945	100

Table 29 present the number and percent of injuries by intention among all fatal injuries in 2014 by governorates.The highest number collected from Baghdad forensic directorate while the lowest number reported from Diwaniyah. Road traffic injuries represent the highest number collected from Baghdad and lowest from Basrah .83% and 69.8% of fatal injuries in Anbar and Dyalah related to insurgency respectively .Self harm represent lowest percent 3.1% of all fatal injuries .

Table 30. Number and Percent of injuries by intention among all fatal injuries in 2015, by governorate

	Traffic		Insurgency		Assault		Self Harm		Unintentional		Unknown Intent		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Al-Basra	19	2.6%	389	53.3%	119	16.3%	6	0.8%	197	27.0%	0	0.0%	730	100
Babil	500	51.1 %	13	1.3%	112	11.4%	9	0.9%	344	35.1%	1	0.1%	979	100
Baghdad	403	13.0 %	1,210	39.0%	295	9.5%	52	1.7%	942	30.3%	202	6.5%	3,104	100
Diwaniyah	187	44.2 %	1	0.2%	49	11.6%	14	3.3%	169	40.0%	3	0.7%	423	100
Dohuk	139	32.1 %	29	6.7%	55	12.7%	33	7.6%	152	35.1%	25	5.8%	433	100
Dyalah	156	16.6 %	598	63.5%	36	3.8%	5	0.5%	136	14.4%	11	1.2%	942	100
Erbil	283	32.9 %	133	15.5%	81	9.4%	159	18.5%	204	23.7%	0	0.0%	860	100
Karballa	250	49.6 %	3	0.6%	51	10.1%	11	2.2%	176	34.9%	13	2.6%	504	100
Kirkuk	163	13.9 %	614	52.5%	40	3.4%	47	4.0%	161	13.8%	145	12.4%	1,170	100
Misan	384	38.3 %	12	1.2%	154	15.4%	14	1.4%	354	35.3%	84	8.4%	1,002	100
Muthana	165	51.9 %	2	0.6%	9	2.8%	11	3.5%	128	40.3%	3	0.9%	318	100
Najaf	168	50.3 %	12	3.6%	0	0.0%	2	0.6%	152	45.5%	0	0.0%	334	100
Sulaimaniya	223	35.2 %	23	3.6%	77	12.2%	55	8.7%	137	21.6%	118	18.6%	633	100
ThiQar	444	49.0 %	7	0.8%	76	8.4%	39	4.3%	320	35.3%	20	2.2%	906	100
Wassit	261	66.1 %	3	0.8%	36	9.1%	3	0.8%	13	3.3%	79	20.0%	395	100
Total	3745	29.4 %	3049	23.9%	1190	9.3%	460	3.6%	3585	28.2%	704	5.5%	12733	100

Table 30 presents the intention of injuries by governorate for all fatal deaths reported in 2015. Insurgency related injuries were responsible for a majority of fatalities in Dyalah and Basrah. Traffic related deaths caused the greatest proportion of deaths in Wassit ,Muthana, Babil and Karballa. The proportion of deaths attributable to assault was less than 10% in all fatal injuries . The proportion of deaths due to self harm was less than 10% in each governorates with the exception of Erbil.

Table 31. Proportion of females and children among all fatal injuries, by intent 2014

	Female	Male	Unknown Sex	Total	Female	Male
	N	N	N	N	%	%
Traffic	774	3,040	2	3,816	20.3	79.7
Insurgency	514	4,575	89	5,178	10.1	89.9
Assault	276	1,048	5	1,329	20.8	79.2
Self Harm	245	218	0	463	52.9	47.1
Unintentional	1,379	2,151	0	3,530	39.1	60.9
Unknown Intent	213	407	9	629	34.4	65.6
Total	3,401	11,439	105	14,945	22.9	77.1

Figure 23. Proportion of females and male among all fatal injuries, by intent 2014

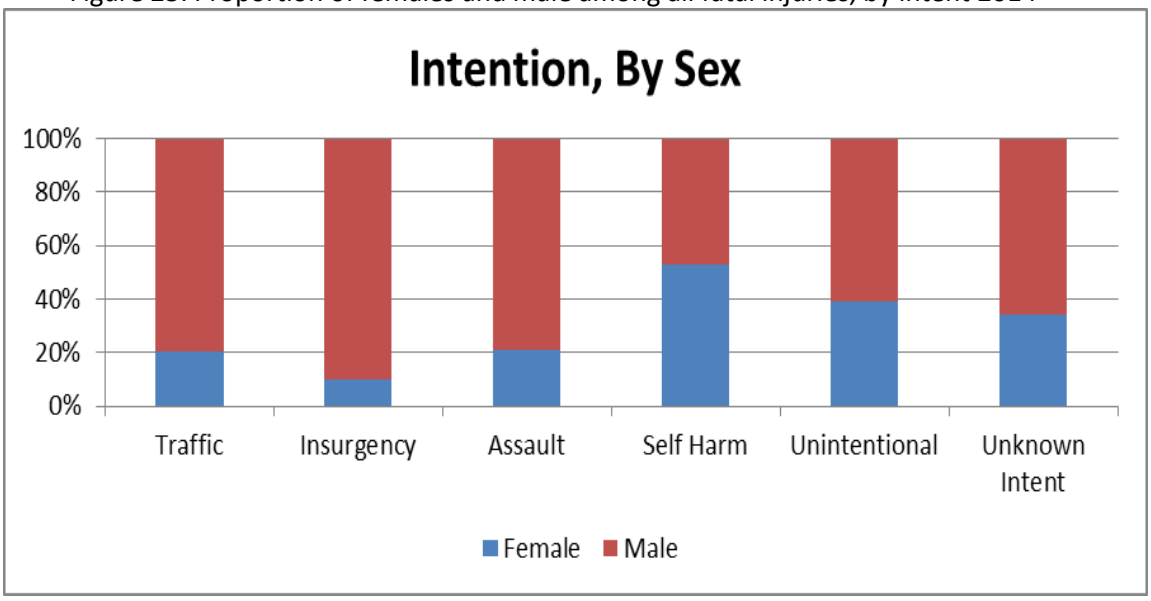


Table 33 and figure 24 show the proportion of female and male among all fatal injuries by intent in 2014 . males represent high proportion in all fatal injuries by intention with exception of self-harm were the female about 52.9%.

Table 32. Proportion of females and children among all fatal injuries, by intent 2015

	Female	Male	Unknown Sex	Total	Female	Male
	N	N	N	N	%	%
Traffic	821	2,923	1	3,745	21.9	78.1
Insurgency	297	2,682	70	3,049	10.0	90.0
Assault	263	925	2	1,190	22.1	77.9
Self Harm	254	205	1	460	55.3	44.7
Unintentional	1,466	2,118	1	3,585	40.9	59.1
Unknown Intent	227	468	9	704	32.7	67.3
Total	3,328	9,321	84	12,733	26.3	73.7

Figure 24. Proportion of females and children among all fatal injuries, by intent 2015

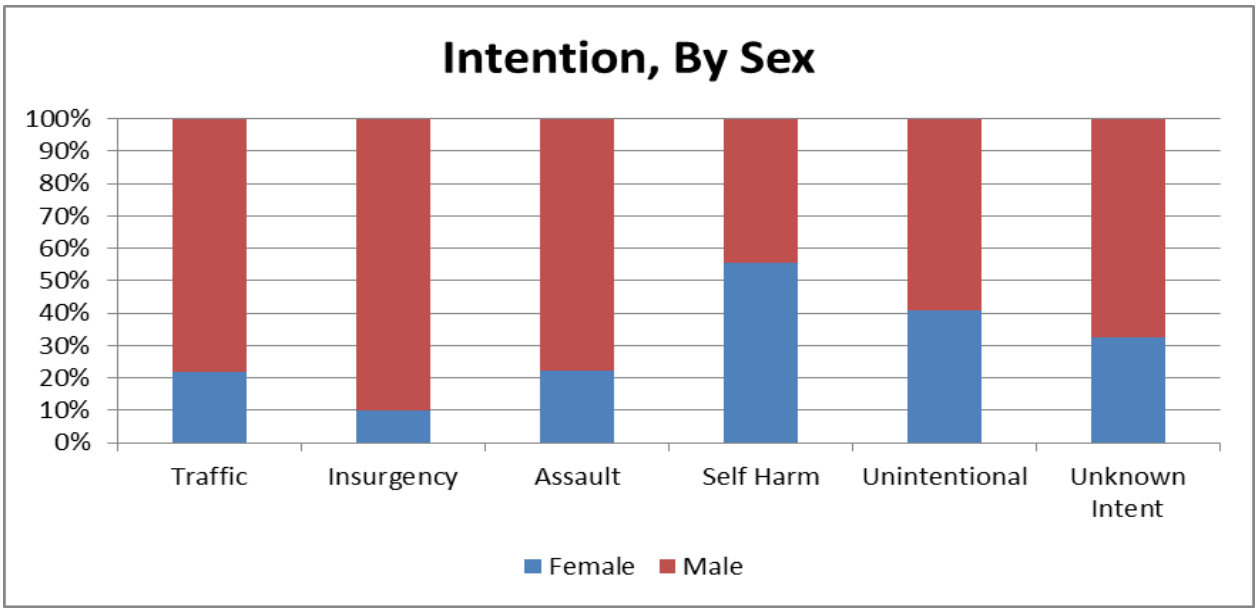


Table 34 and figure 24 show the proportion of female and male among all fatal injuries by intent in 2015 . Males represent high proportion in all fatal injuries by intention with exception of self-harm were the female about 55.3%.

Figure 25. Proportion of adults and children (U18) among all fatal injuries, by intent 2014

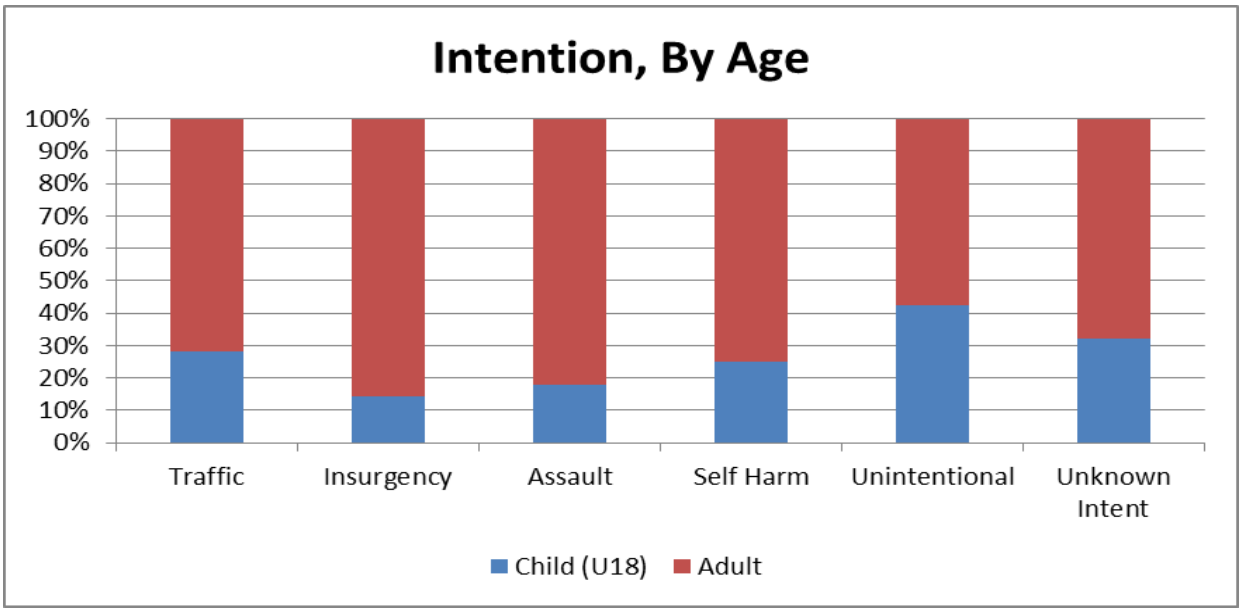


Figure 25 present the proportion of fatal injuries by age of the fatality for the six intent categories. Self-harm was the only intent category for which women represented a majority of injuries (52.9%). Insurgency related injuries involved the smallest proportion of women (6.7%). The proportion of children under 18 years of age was also smallest for insurgency related injuries (6.6%).

3.4 Distribution of Injury by 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 the coroner.

Table 33. Number and percent of injuries by mechanism among all fatal injuries 2014-2015.

	2014		2015	
	N	%	N	%
Traffic	3,816	25.5	3,745	29.4
Explosion (No Gun)	1,989	13.3	944	7.4
Gun Fire (Explosion)	3,189	21.3	2,105	16.5
Gun Fire (Other)	1,114	7.5	873	6.9
Burns	1,488	10.0	1,581	12.4
Electric Injury	994	6.7	1034	8.1
Sharp Objects	172	1.2	214	1.7
Blunt Objects	175	1.2	426	3.3
Animal / Insect Bite	15	0.1	12	0.1
Drowning	862	5.8	805	6.3
Poisoning	15	0.1	20	0.2
Falls	359	2.4	320	2.5
Suffocation	163	1.1	235	1.8
Other	409	2.7	239	1.9
Unknown	185	1.2	180	1.4

Figure 26 .Proportion of injuries by mechanism among all fatal injuries, 2014-2015.

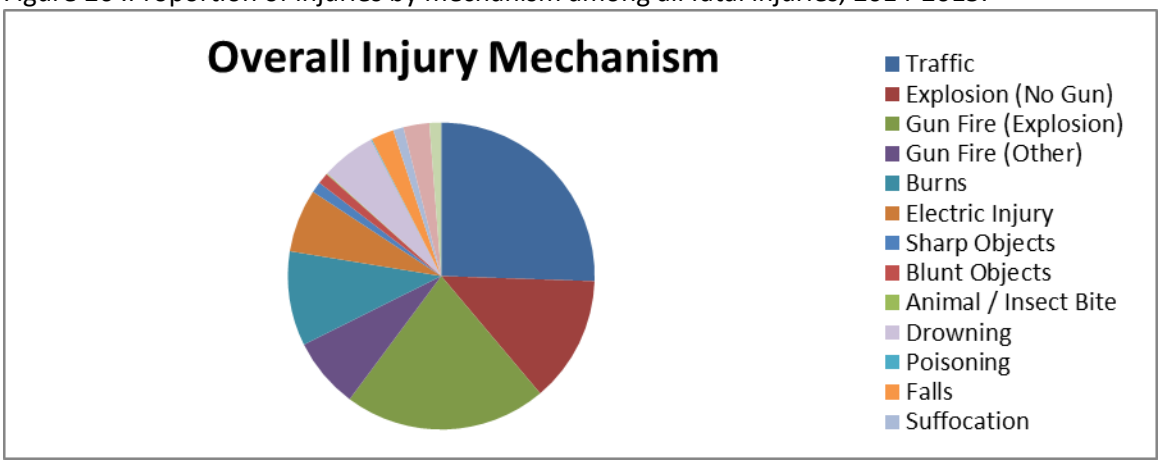


Table 35 and Figure 26 present the number and proportion of injuries by the primary mechanisms of injury. The primary mechanism of fatal injury was traffic, followed by insurgency related gun fire, then burns.

Table 34. Number and percent of injuries by mechanism among fatal injuries by age and sex 2014

	Female	Male	Unknown Sex	Total	Female	Male
	N	N	N	N	%	%
Traffic	774	3,040	2	3,816	20.3	79.7
Explosion (No Gun)	223	1,687	79	1,989	11.7	88.3
Gun Fire (Explosion)	291	2,888	10	3,189	9.2	90.8
Gun Fire (Other)	256	855	3	1,114	23.0	77.0
Burns	1,027	461	0	1,488	69.0	31.0
Electric Injury	240	754	0	994	24.1	75.9
Other/Unknown	590	1,754	11	2,355	25.2	74.8

Table 34 present number and percent of injuries by mechanism among fatal injuries in 2014. Males represent higher proportion of all fatal injuries than females except burn were more common in females 69%.

Table 35. Number and percent of injuries by mechanism among fatal injuries by age and sex 2015

	Female	Male	Unknown Sex	Total	Female	Male
	N	N	N	N	%	%
Traffic	821	2,923	1	3,745	21.9	78.1
Insurgency (No Gun)	68	839	37	944	7.5	92.5
Gun Fire (Insurgency)	229	1,843	33	2,105	11.1	88.9
Gun Fire (Other)	190	679	4	873	21.9	78.1
Burns	1,107	471	3	1,581	70.2	29.8
Electric Injury	254	780	0	1,034	24.6	75.4
Other/Unknown	659	1,786	6	2,451	27.0	73.0

Table 35 presents the number and proportion of fatal injuries by mechanism by age and sex of the fatality. Burns were the only mechanism for which women represent a greater proportion of the injured.

Table 36. Percent of injuries by mechanism among fatal unintentional-traffic injuries, 2014.

	2014		2015	
	N	%	N	%
Pedestrian	1,115	29.2	921	24.6
Car	2,554	66.9	2,655	70.9
Bicycle	18	0.5	7	0.2
Motorcycle	122	3.2	142	3.8
Other	6	0.2	20	0.5
Unknown	1	0.0	0	0.0
Total	3,816	100.0	3,745	100.0

The mechanism of fatal injury for traffic related injuries is presented in Table 36. Non-fatal injuries pedestrians and cars represent more than 90% of victims of traffic related injuries. Other road users (bicycles, motorcycles, other) taken together represent fewer than 5% of victims of fatal injuries related to road traffic.

Table 37. Percent of injuries by mechanism among fatal unintentional-other injuries, 2014-2015

	2014		2015	
	N	%	N	%
Burns	1,204	34.1	1,270	35.4
Electric injury	965	27.3	976	27.2
Drowning	709	20.1	642	17.9
Falls	335	9.5	292	8.2
Blunt Tools	58	1.6	140	3.9
Suffocation	53	1.5	53	1.5
Gun fire	141	4.0	130	3.6
Sharp Tools	10	0.3	11	0.3
Poisoning	12	0.3	10	0.3
Animal/Insect bite	6	0.2	5	0.1
Others	34	1.0	56	1.6
Unknown	3	0.1		
Total	3,530	100	3,585	100

The mechanism of injury for fatal unintentional injuries other than traffic is presented in Table 37. Among unintentional injuries, the largest proportion of injuries are attributable to burns (43.1%), followed by electrical injuries (27.3%) and drownings (20.1%). The distribution of injuries by mechanism in 2015 is similar to 2014.

Table 38. Percent of injuries by mechanism among fatal intentional-assault injuries, 2014-2015.

	2014		2015	
	N	%	N	%
Gunfire (Non-insurgency)	793	59.7	583	49.0
Sharp Tool	157	11.8	195	16.4
Blunt Tool	108	8.1	225	18.9
Suffocation	53	4.0	91	7.7
Burns	50	3.8	28	2.4
Drowning	32	2.4	21	1.8
Poisoning	1	0.1	3	0.3
Electric Injury	11	0.8	15	1.3
Falls	2	0.2	3	0.3
Other	119	9.0	24	2.0
Unknown	3	0.2	2	0.2
Total	1,329	100.0	1,190	100.0

The mechanism of injury for fatal intentional assaults is presented in Table 38. The overwhelming majority of these injuries were caused by gunfire (59.7%) in 2014. The distribution of injuries by mechanism in 2015 is similar to 2014.

Table 39. Percent of injuries by mechanism among fatal intentional-self-harm injuries, 2014.

	2014		2015	
	N	%	N	%
Burns	173	37.4	171	37.2
Gun fire	137	29.6	127	27.6
Drowning	63	13.6	63	13.7
Suffocation	51	11.0	68	14.8
Electric injury	4	0.9	5	1.1
Falls	4	0.9	3	0.7
Sharp Tools	1	0.2	1	0.2
Poisoning	2	0.4	5	1.1
Blunt Tools	0	0.0	2	0.4
Others	26	5.6	13	2.8
Unknown	2	0.4	2	0.4
Total	463	100.0	460	100

The mechanism of injury for fatal intentional self-harm is presented in Table 39. About third of these fatalities were attributed to burns (37.40%),followed by Gunfire (29.6%) and drowning (13.6%). The distribution of injuries by mechanism in 2015 is similar to 2014.

Table 40. Percent of injuries by mechanism among fatal insurgency related injuries, 2014-2015.

	2014		2015	
	N	%	N	%
Gun Fire	3,189	61.6	2,105	69.0
Explosives	1,045	20.2	427	14.0
IED	457	8.8	180	5.9
Suicide Bomb	120	2.3	23	0.8
Car Bomb	239	4.6	235	7.7
Land Mine	7	0.1	9	0.3
UXO	15	0.3	2	0.1
Other	40	0.8	18	0.6
Unknown	66	1.3	50	1.6
Total	5,178	100	3,049	100

The mechanism of injury for fatal insurgency related injuries is presented in Table 40. The majority of these fatalities were attributed to gunfire (61.6%). Explosives, (20.2%), car bombs (4.6%), suicide bombs (2.3%).

3.5 Mass Injury Events

Table 41. Percent of injuries resulting from a mass injury event among all fatal injuries 2014.

	Five or More People Affected		Four or Fewer People Affected		Unknown		Total	
	N	%	N	%	N	%	N	%
Traffic Accidents	244	6.4	3,128	82.0	444	11.6	3,816	100
Insurgency	1,734	33.5	3,304	63.8	140	2.7	5,178	100
Assault	58	4.4	1,128	84.9	143	10.8	1,329	100
Self Harm	3	0.6	458	98.9	2	0.4	463	100
Unintentional	37	1.0	3,153	89.3	340	9.6	3,530	100
Other	4	0.6	616	97.9	9	1.4	629	100
Total	2,080	13.9	11,787	78.9	1,078	7.2	14,945	100

Table 42. Percent of injuries resulting from a mass injury event among all fatal injuries 2015

	Five or More People Affected		Four or Fewer People Affected		Unknown		Total	
	N	%	N	%	N	%	N	%
Traffic Accidents	196	5.2	3,044	81.3	505	13.5	3,745	100
Insurgency	735	24.1	2,272	74.5	42	1.4	3,049	100
Assault	38	3.2	1,039	87.3	113	9.5	1,190	100
Self Harm	0	0.0	450	97.8	10	2.2	460	100
Unintentional	20	0.6	3,215	89.7	350	9.8	3,585	100
Other	9	1.3	678	96.3	17	2.4	704	100
Total	998	7.8	10,698	84.0	1,037	8.1	12,733	100

The proportion of deaths resulting from mass injury events are presented in Table 41 and 42 . Mass injury event is defined as an event that caused five or more injuries. Overall, the proportion of fatal injuries resulting from mass injury events was The proportion of fatal injuries resulting from a mass injury event was highest among insurgency related injuries .

3.6 Place of Injury

Table 43 . Percent of injuries by place among all fatal injuries, 2014

	2014		2015	
	N	%	N	%
Countryside	949	6.35	887	7.0
Home	3,878	25.95	3,629	28.5
Market	66	0.44	47	0.4
Public gathering	815	5.45	127	1.0
Street / Highway	7,025	47.01	6,236	49.0
Workplace	1,116	7.47	719	5.7
Others	823	5.51	910	7.2
Unknown	273	1.83	178	1.4
Total	14,945		12,733	100

Figure 17. Percent of injuries by place among all fatal injuries, 2014

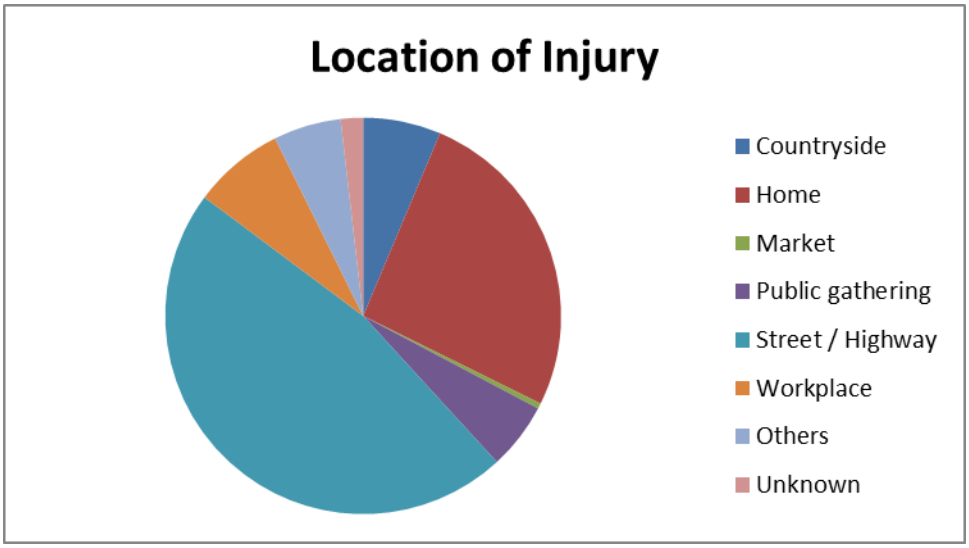
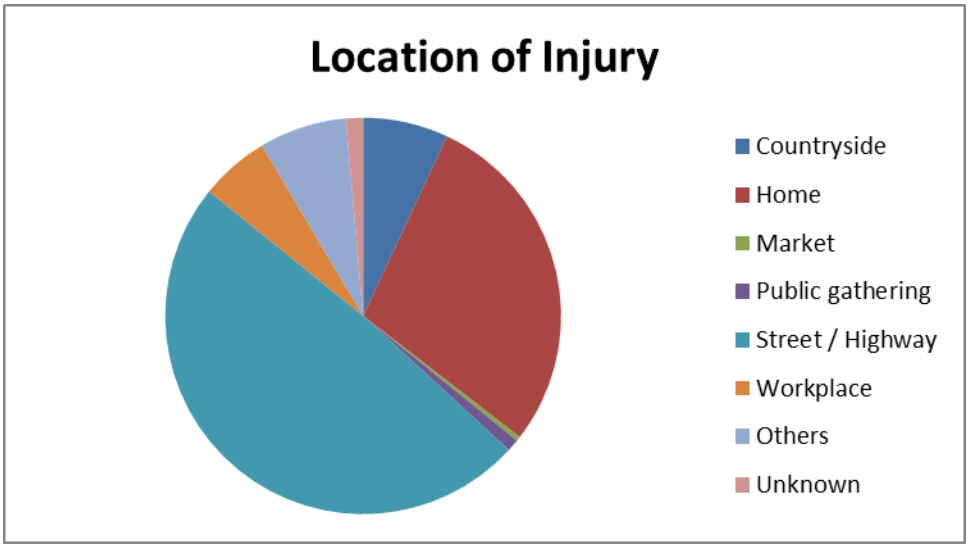


Figure 28. Percent of injuries by place among all fatal injuries, 2015



The place of injuries for all fatal injuries is presented in Table 45 and Figure 28. The most common location of fatal injury was on streets or highways followed by, home and workplace. Public spaces – including markets and public gatherings – were relatively uncommon locations of fatal injuries. For injuries among males, the majority of injuries occurred on streets or highways whereas for females the majority of injuries occurred in the home.

4.Discussion

Non-fatal injury

Iraq Injury surveillance system is very important source to provide information about all fatal and non-fatal injuries in Iraq . Using these information will help decrease the impact of injuries on community. This report reveals that the number of non-fatal injuries was slightly decreasing in 2015 because no data available from Anbar in addition to Mousel and Salaheddin . As in previous years the high proportion of injuries was among adult males about 70% aged from 15-39 year over all health directorates. Road traffic injuries (RTIs) represent the main mechanism of injuries. The most common reported number was from ThiQar followed by Erbil and Baghdad /Rasafa in 2015. However we should follow the road traffic legislations or laws such as reduce speed, belt seat, helmet wearing and other.

According to injury mechanism among all non-fatal injuries the most common cause was road traffic, fall, and sharp object. About 18% of all non-fatal injuries received pre hospital medical care. We should concentrate and reinforce trauma care system to decrease severity and complications of injuries. Pedestrian remain the highest proportion of road traffic injuries. The home, street and high way reveal more than 80% of all non-fatal injuries. Nearly 10% of all non-fatal injuries reached to hospital by ambulance and about 70% received treatment and sent home.

Fatal injuries

The highest number of deaths was collected from Baghdad forensic directorate during 2014-2015. As non-fatal injuries, adult males represented more than 70% of all deaths. The common age group was 15-39 year. The data suggest a gradual increase in number of fatalities reported in the day between 8-14 hour .According to intention the main cause of fatal injuries was insurgency related injuries followed by road traffic injuries .In 2014 the highest number by intention among all fatal injuries were collected from Baghdad, Anbar , Dyalah and Kirkuk while in 2015, Baghdad, Kirkuk and Dyalah reported majority of injury deaths. The mortality rate in 2014 was 41.5/100000 while in 2015 was 34.5/100000 population.

The report reveals that the main cause of death by mechanism in all governorates was traffic, gun fire followed explosion and burn. According to mechanism, males represent higher proportion of all fatal injuries than females except burn were more common in females .

Regarding unintentional- traffic injuries, pedestrian and cars represent more than 90% of victims of traffic related injuries. Among The mechanisms of injury for fatal unintentional injuries other than traffic the largest proportion of

injuries are attributed to burns 43.1% followed by electrical injury 27% and drowning 20.1% .The most common causes of fatal injuries by assaults was gunfire, sharp object and blunt object .In insurgency related injury the main cause was gun fire and explosive.

The report reveals that the proportion of deaths resulting from mass events was 13.9% and highest among insurgency in both years. The most common location of fatal injury was on street or high ways, Home and workplace.

4.1 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:** the security situation in Iraq deteriorated. Monitoring and supervision by the national team was therefore not feasible in some of the governorates with greatest insecurity. Insecurity also resulted in delays in sending data or silent sites as well.
- **Limited Data/ Variables:** The current surveillance form is intentionally short to limit the burden on the health system. Information on the nature 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.
- **Data Quality:** During the initial analysis, collaborators identified several data quality issues. The data set had many duplicate records (records that had identical data for all variables). The number of duplicates declined between 2014 and 2015
- **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 are 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.
- **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.

4.2 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 will be reporting 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 have 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 receive 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.
- **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. Annexes

5.1 Injury Surveillance Form – Arabic

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

A	معلومات عن المؤسسة الصحية		ردهات الطوارئ 1 ?		الطب العدلي 2 ?	
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 ? 9غير معروف	B3	العمر ___ سنوات	
B4	عنوان المريض/الحالة (المحافظة) _____	B5	رقم شهادة الوفاة _____	B6	تاريخها __/__/____	
C	سلسلة الوصول					
C1	تاريخ الإصابة __/__/____	? 9غير 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 24 ساعة	? 3 أكثر من 24 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 (اختر 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 5 أو أكثر في الحادثة	? 1 نعم	? 2 لا	? 9 غير معروف
D3	القصد	? 1 مقصودة من قبل الآخرين	? 2مقصودة من قبل المصاب	? 3 عرضية من قبل الآخرين
		? 4عرضية 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 سكني	? 5 السوق	? 6 الريف أو المزرعة
		? 8 أخرى	? 9 غير معروف	
D6	الإجراء الأولي للمريض في ردهة الطوارئ	? 1تمت المعالجة و أرسل إلى المنزل		
		? 2 خرج على مسؤوليته الخاصة	? 3 ادخل المستشفى	? 4متوفى عند الوصول
		? 5توفي 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 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 فجّر اللغم أو القذيفة المتروكة؟	□ 1 عبث (لاحظ المادة)	□ 2 حادث عرضي عن طريق اللمس أو التخطي عليها (لم يلاحظ المواد)	
		□ 8 أخرى	□ 9 غير معروف	
E4	من فجّر المتفجّر؟	□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 ذلك لتوحيد 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 المليء و المصادقة.

٥- يملأ حقل A من قبل مسؤول البرنامج.

٦- (B) المقصود ب (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 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 ألغام و ١.٧ مواد قابلة للانفجار يجب مليء حقل E

١٣- (D1 ١.٢) عبارة - انفجار- تتضمن كل الانفجارات غير معروفة السبب و المقذوفات عن بعد مثل صواريخ ، هاونات، طائرات أو أي مقذوف آخر.

١٤- (D1 ٢.٨) أخرى يقصد بها آلية حدوث الإصابة مما لم يذكر أعلاه مثل (عربة دفع، حيوان، قطار أو غيرها).

١٥- (D5) تجمع سكني 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 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*.**