Japan Trauma Data Bank
Report 2004-2006

Japan Trauma Care and Research

The Japanese Association for the Surgery of Trauma
(Trauma Registry Committee)
The Japanese Association for Acute Medicine
(Committee for Clinical Care Evaluation)

Sapporo Medical University Hospital
Nikko Memorial Hospital
Sapporo City General Hospital
Hachinohe City Hospital
Kuji Prefectural Hospital
Iwate Medical University Hospital
Aizu Central Hospital
Ohta Nishinouchi Hospital
Tsukuba Medical Center Hospital
Critical Care Center, Saitama Medical University
National Defense Medical College Hospital
Koshigaya Hospital, Dokkyo University School Medicine
Kawaguchi Municipal Medical Center
Saitama Red Cross Hospital
Kimitsu Chuou Hospital
Kameda General Hospital
Chiba Emergency Medical Center
Nippon Medical School Chiba Hokusoh Hospital
Asahi Central Hospital
Funabashi Municipal Medical Center
Metropolitan Bokutoh Hospital
Tokyo Medical and Dental University Hospital
Nihon University Itabashi Hospital
Numazu City Hospital
Ohme Municipal General Hospital
Tokyo Women's Medical University Hospital
Surugadai Nihon University Hospital
Kyorin University Hospital
Nippon Medical School Tama Nagayama Hospital
Nippon Medical School Hospital
National Hospital Organization National Disaster Medical Center
Tokyo Women's Medical University Medical Center East
International Medical Center of Japan
Teikyo University Hospital
Musashino Red Cross Hospital
Health Care Service Management, Nihon University School of Medicine
National Hospital Organization Tokyo Medical Center
Showa General Hospital
Yokohama City Minato Red Cross Hospital
Yokosuka General Hospital Uwamachi
Kitasato University Hospital
Showa University Fujigaoka Hospital
Tokai University Hospital
Yokohama City University Medical Center
Kanto Rosai Hospital
St. Marianna University School of Medicine Hospital
Wakayama Medical University Hospital
Ehime Prefectural Central Hospital

Figure 1A Names of All Hospitals Submitting Data to the JTDB (N=98, part 1)

National Hospital organization Yokohama Medical Center
Showa University Northern Yokohama Hospital
Toyama University Hospital
Toyama Prefectural Central Hospital
Yamanashi Prefectural Central Hospital
Shinshu University Hospital
Saku Central Hospital
Gifu University Hospital
JA Gifu Koseren Chunou Hospital
Seirei Mikatahara General Hospital
Okazaki City Hospital
Social Insurance Chukyo Hospital
Nagoya Ekiseikai Hospital
Aichi Medical University Hospital
Osaka City University Hospital
Kansai Medical University Hospital
Osaka General Medical Center
Osaka University Hospital
Kishiwada Tokushukai Hospital
Kinki University Hospital
Osaka Mishima Emergency Medical Center
Hanwa Memorial Hospital
Osaka Prefectural Senshu Critical Medical Care Center
Kochi Medical Center
Okinawa Prefectural Chubu Hospital

Kansai Rosai Hospital
Public Muraoka Hospital
Toyooka Public Hospital
Hyogo Emergency Medical Center
Kobe University Hospital
Nara Medical University Hospital
Nara Prefectural Nara Hospital
Okayama University Hospital
Chugoku Rosai Hospital
Hiroshima Prefectural Hospital
Yamaguchi University Hospital
Tokushima Prefectural Miyoshi Hospital
Kagawa University Hospital
St. Maria's Hospital
Fukuoka University Hospital
Saiseikai Fukuoka General Hospital
Kokura Memorial Hospital
Kitakyushu General Hospital
Saga Prefectural Hospital Koseikan
Nagasaki Hospital Organization Nagasaki Medical Center
Keiaikai Nagasaki Hospital
Urasoe General Hospital
Shizuoka Red Cross Hospital
Toyohashi Municipal Hospital
Tsuyama Central Hospital Emergency Medical Center

Figure 1B Names of All Hospitals Submitting Data to the JTDB (N=98, part 2)

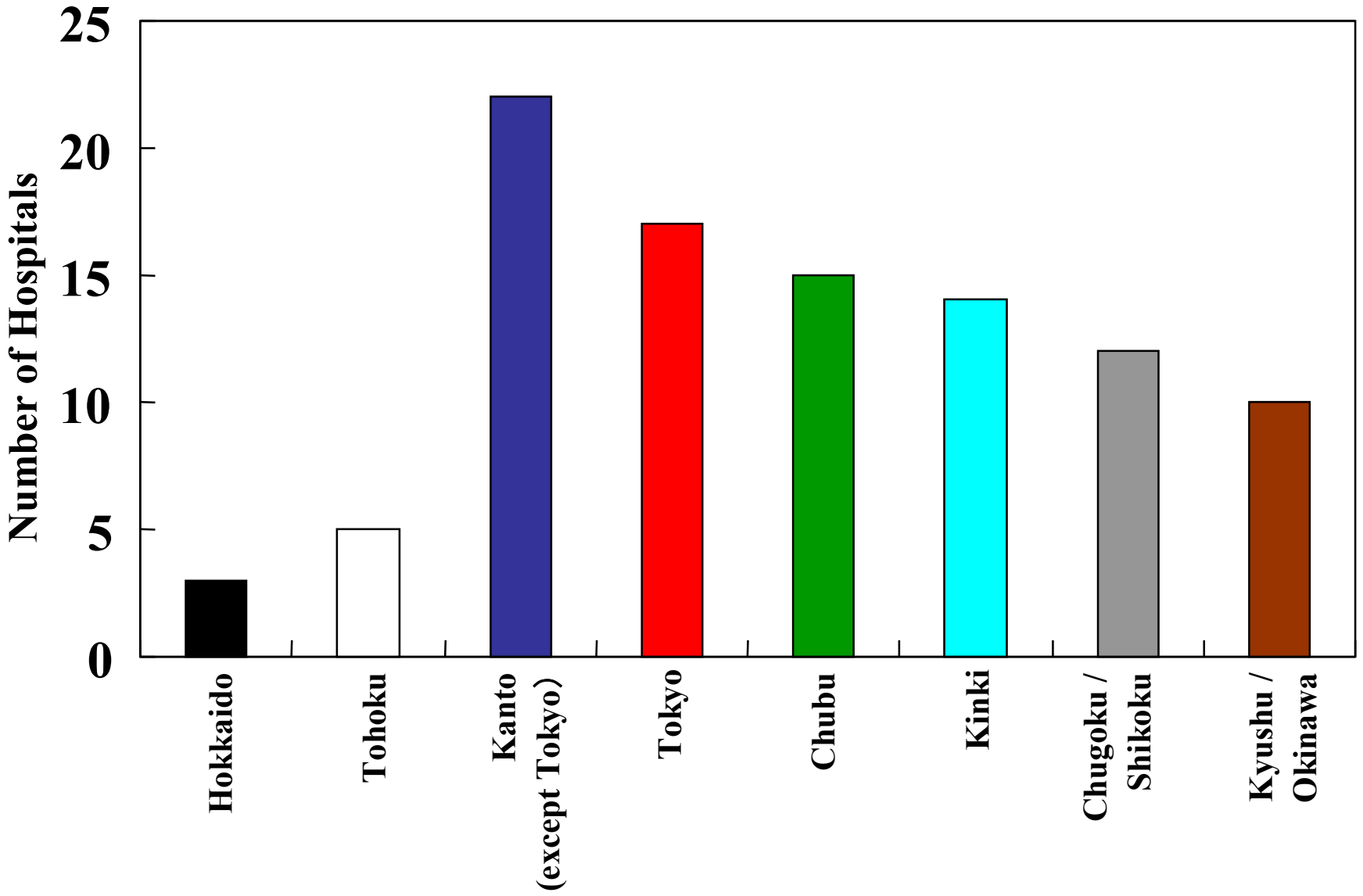


Figure 2 Number of Hospitals Submitting to the JTDB by Region

Figure 3　Number of Patients by Age

Two peaks were seen in the 20's and the 50's.

Figure 4　Patients by Age and Gender

The peak pattern was the same as in Figure 3 in male patients.

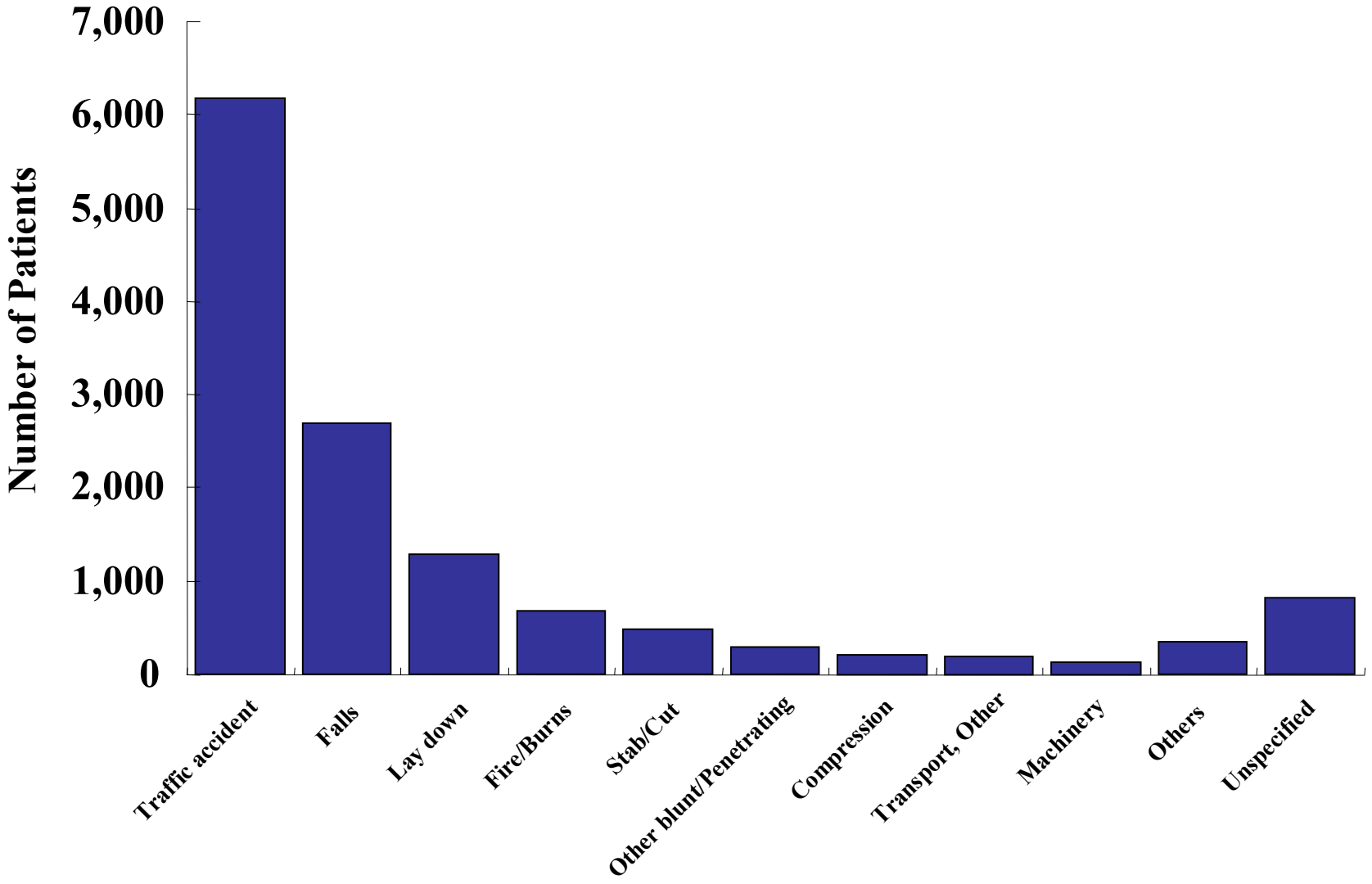


Figure 5 Patients by Mechanism of Injury

Traffic accident includes pedestrian victims.

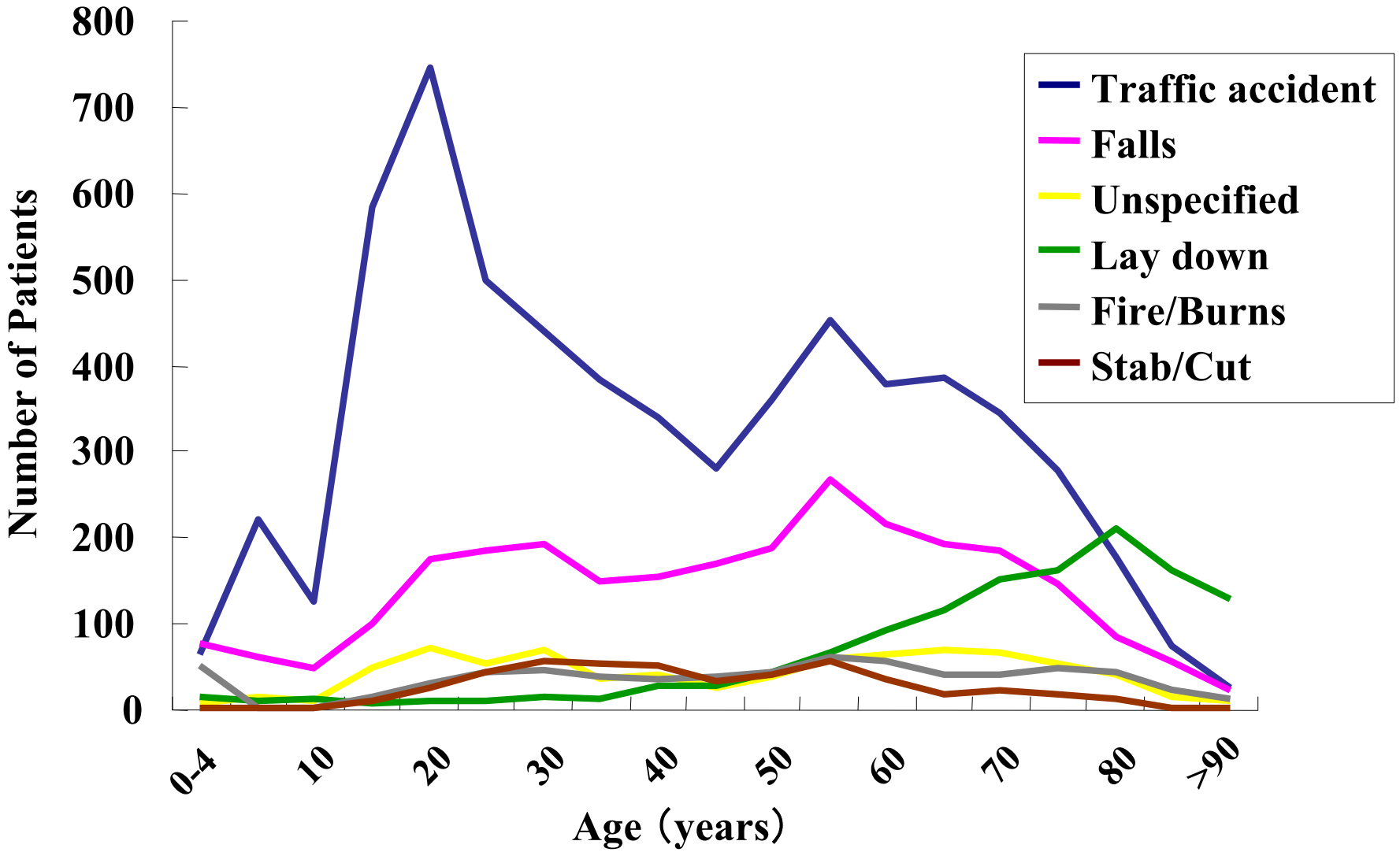


Figure 6　Mechanism of Injury by Age

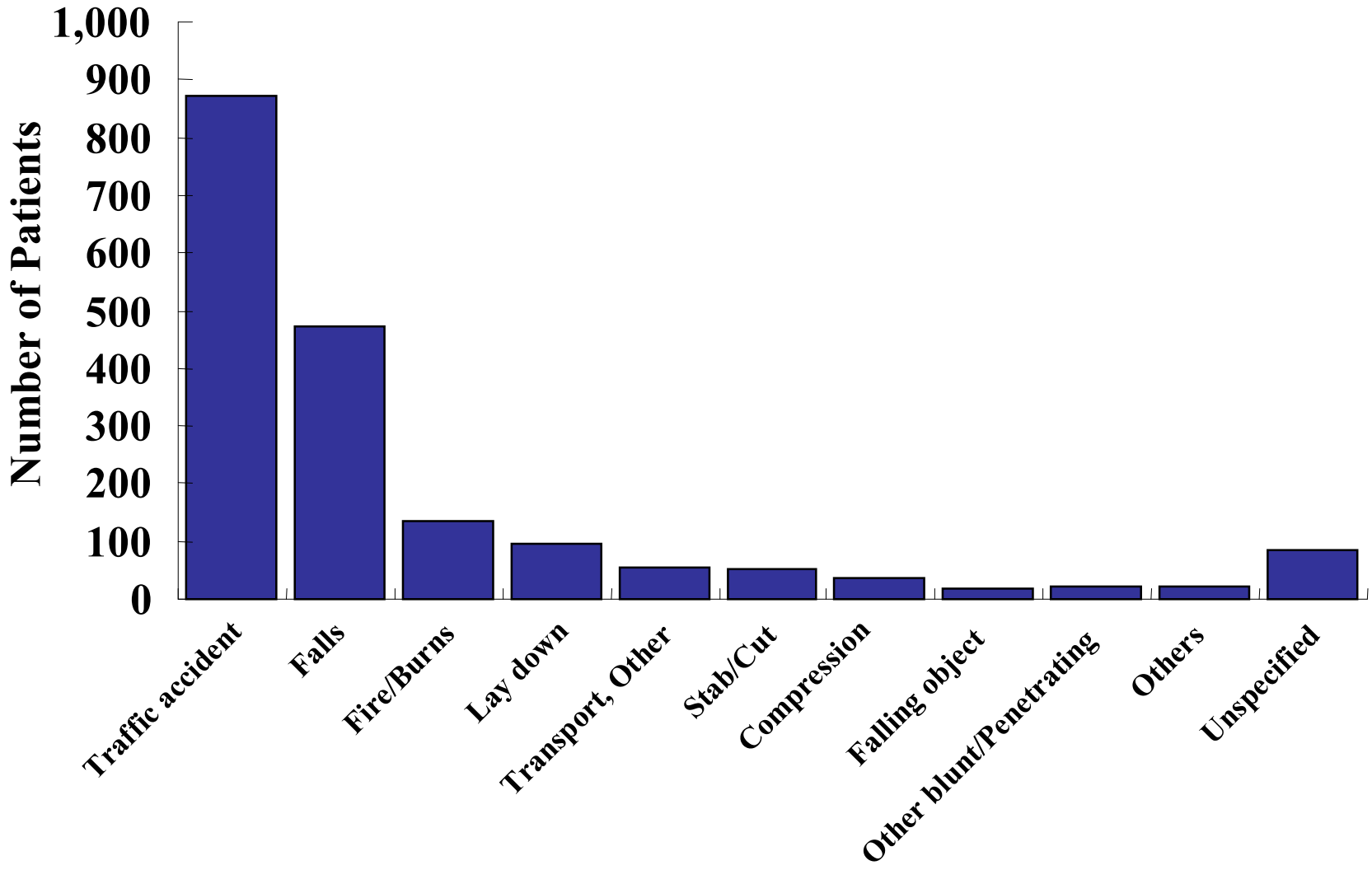


Figure 7　Deaths by Mechanism of Injury

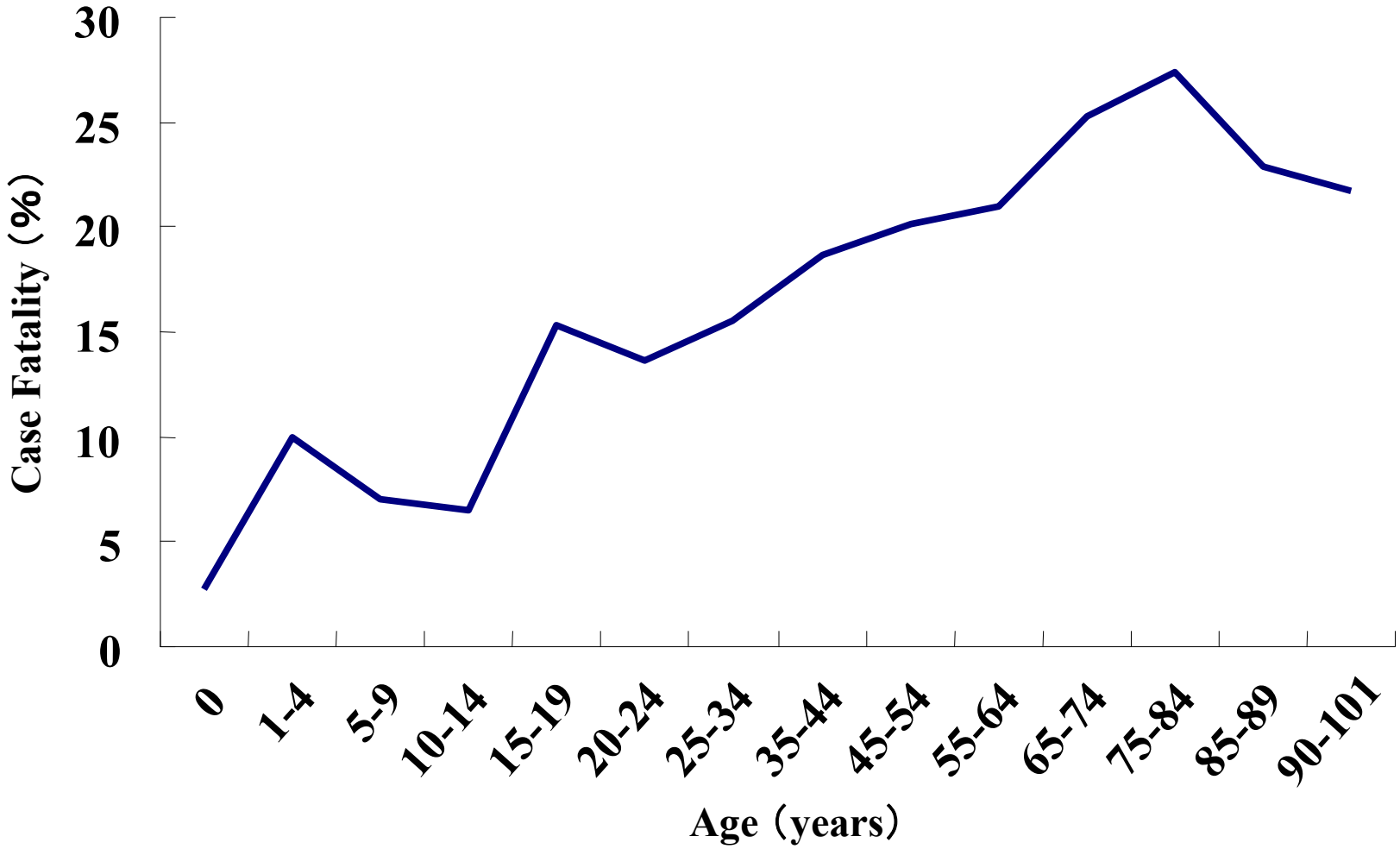


Figure 8 Case Fatality by Age

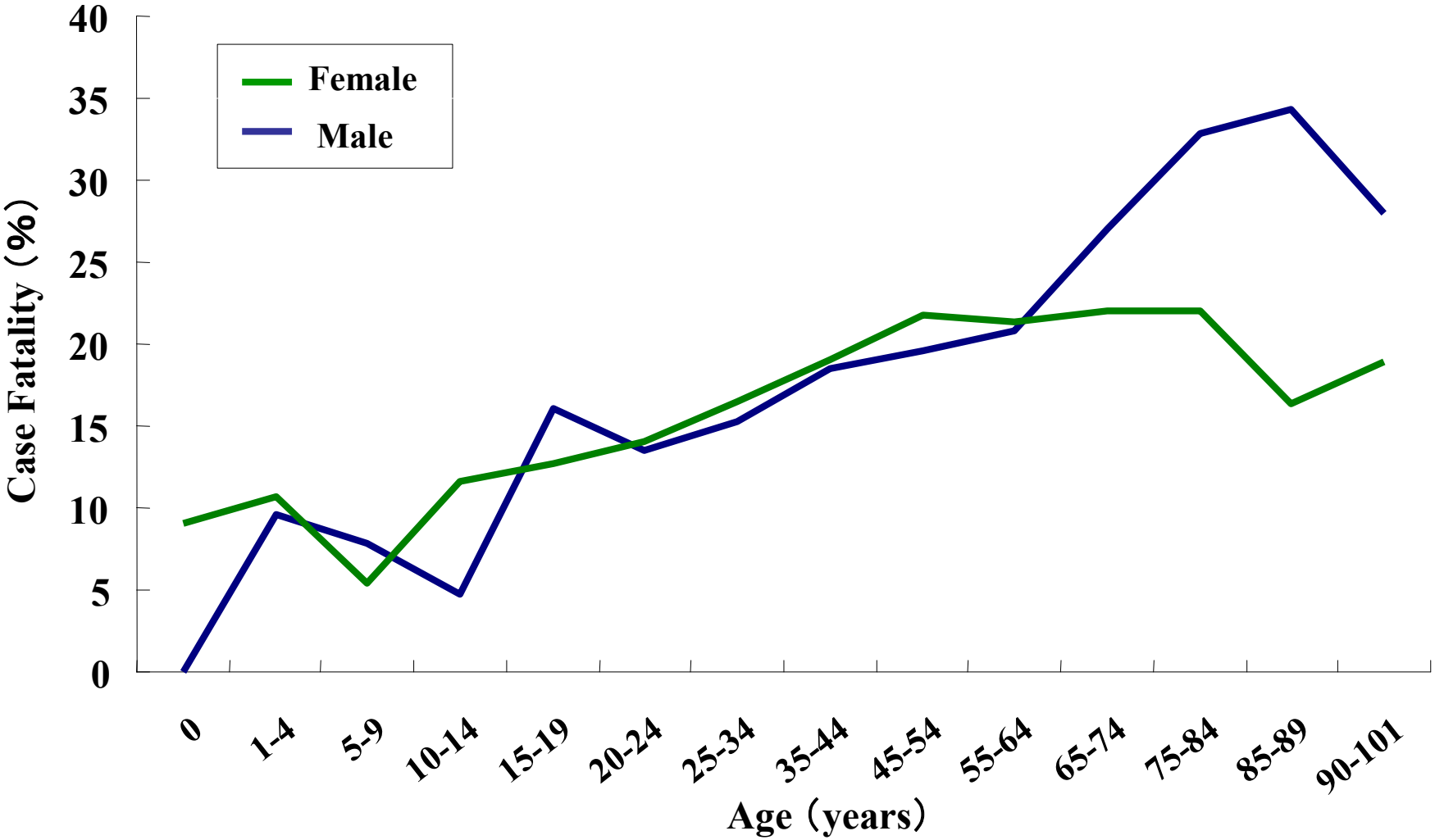


Figure 9　Case Fatality by Age

Case fatality at each age category (Case Fatality = number of deaths divided by the number of patients at each category × 100 by age).

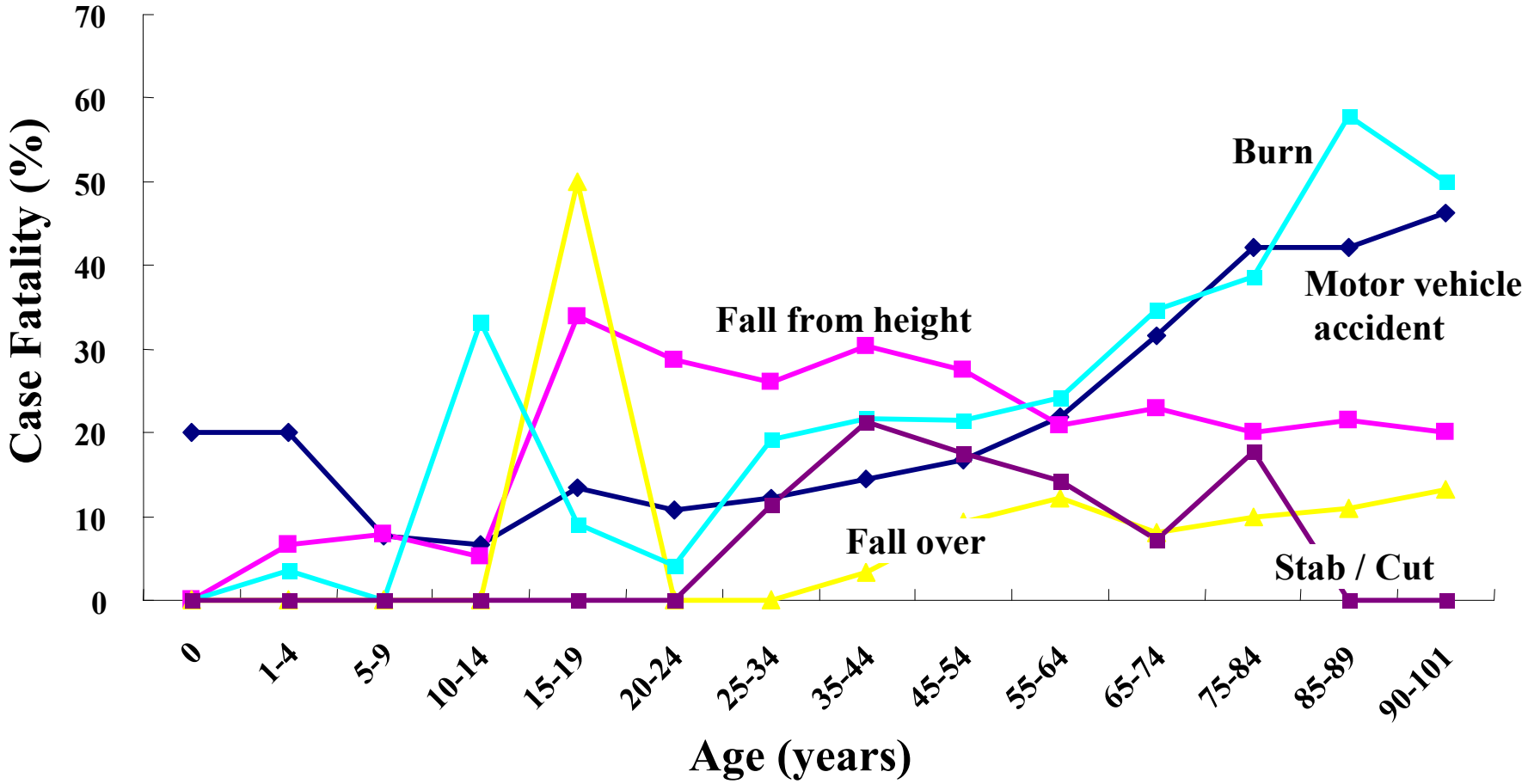


Figure 10 Case Fatality by Injury Mechanism and Age

Case fatality due to motor vehicle accidents and burns increased with age.

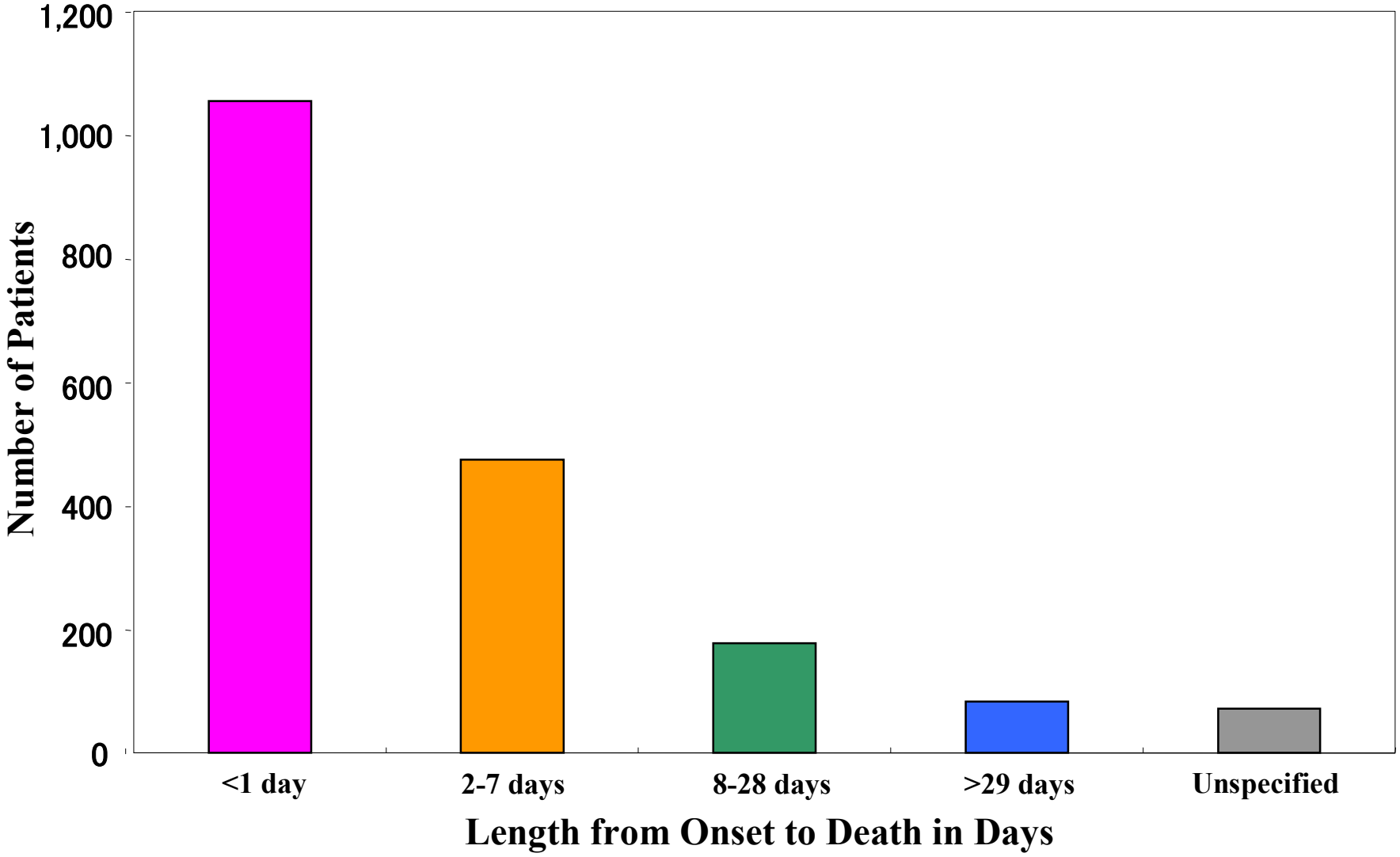


Figure 11A Proportional Distribution of Length from Onset to Fatality
Total N = 1,868

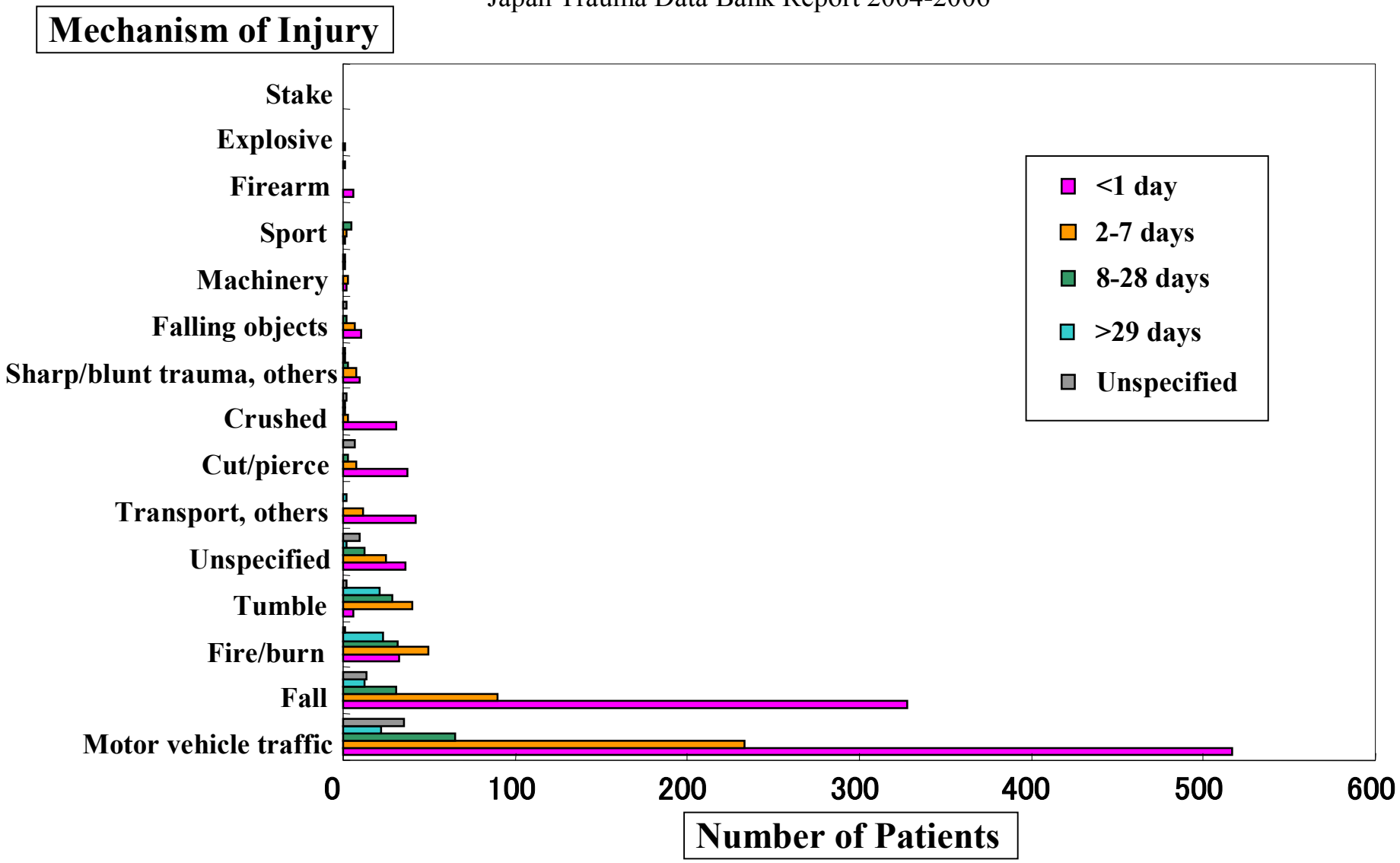


Figure 11B Proportional Distribution of Length from Onset to Fatality (N = 1,868), Grouped by Mechanism of Injury

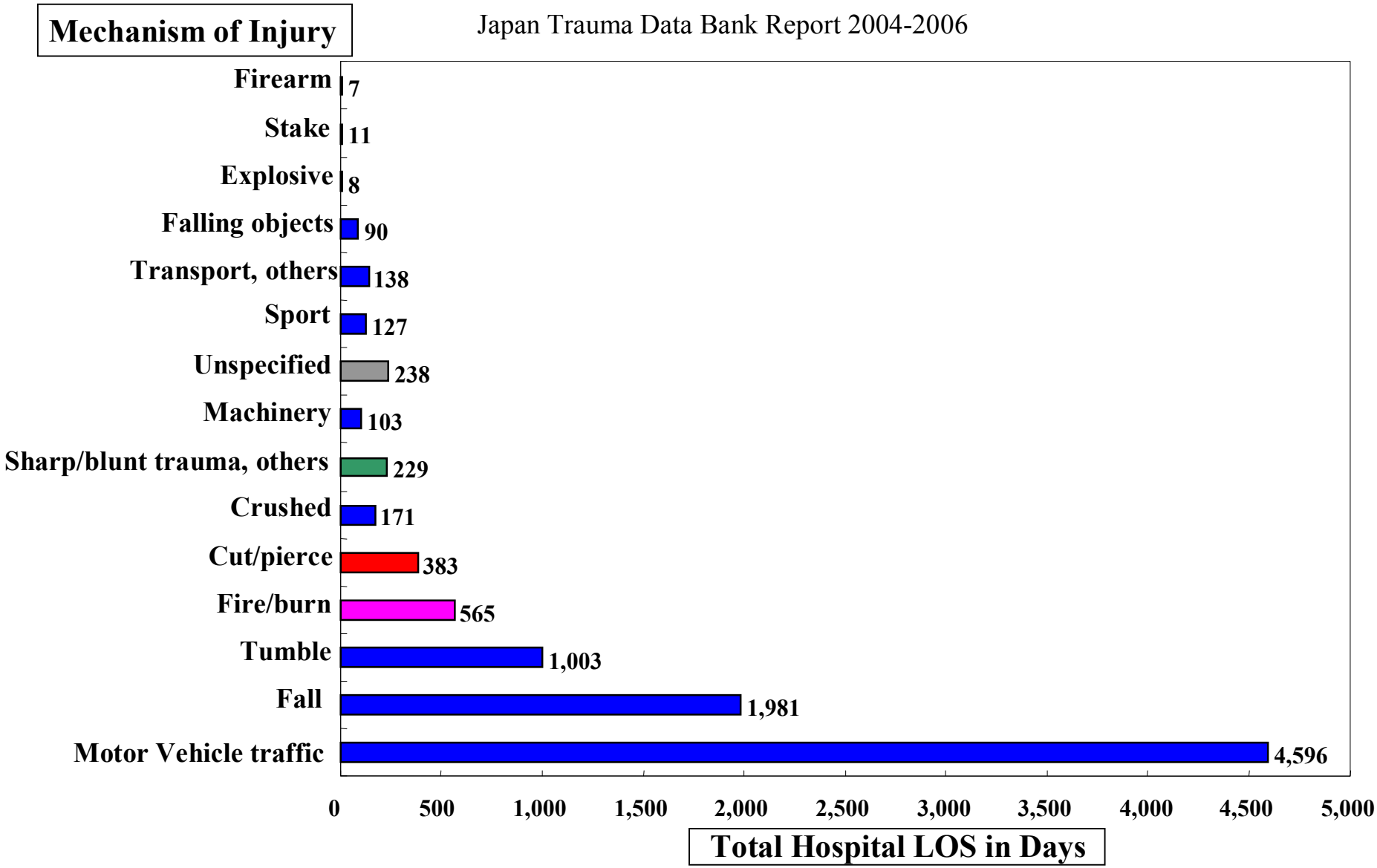


Figure12 Total Hospital LOS by Mechanism of Injury

Proportional distribution of total hospital length of stay, grouped by mechanism

Total N = 9,650; Total hospital LOS of all patients = 233,565 days

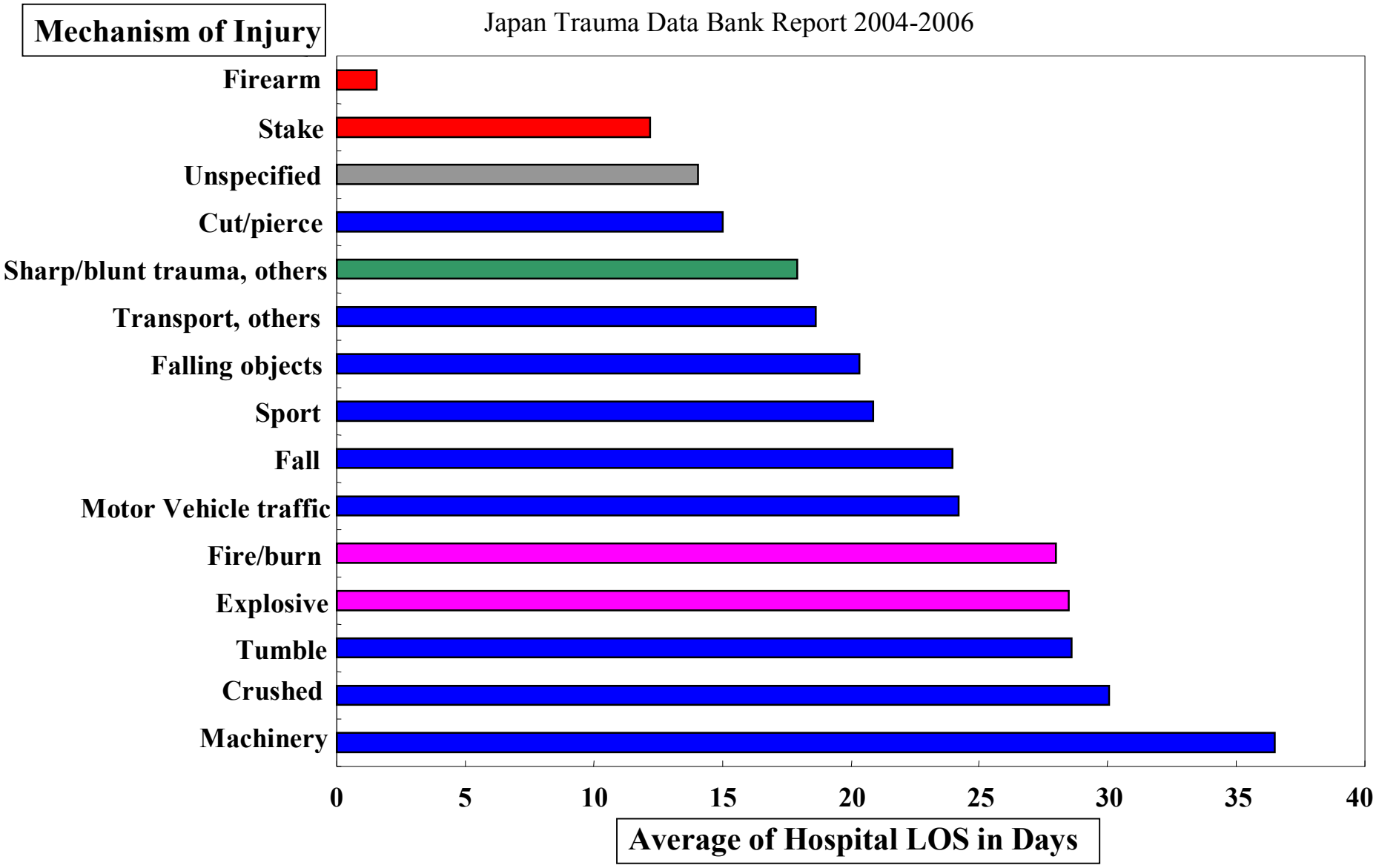


Figure13 Average Hospital LOS by Mechanism of Injury

Average hospital length of stay = total hospital length of stay divided by the number of patients by Mechanism of Injury. Total N = 9,650

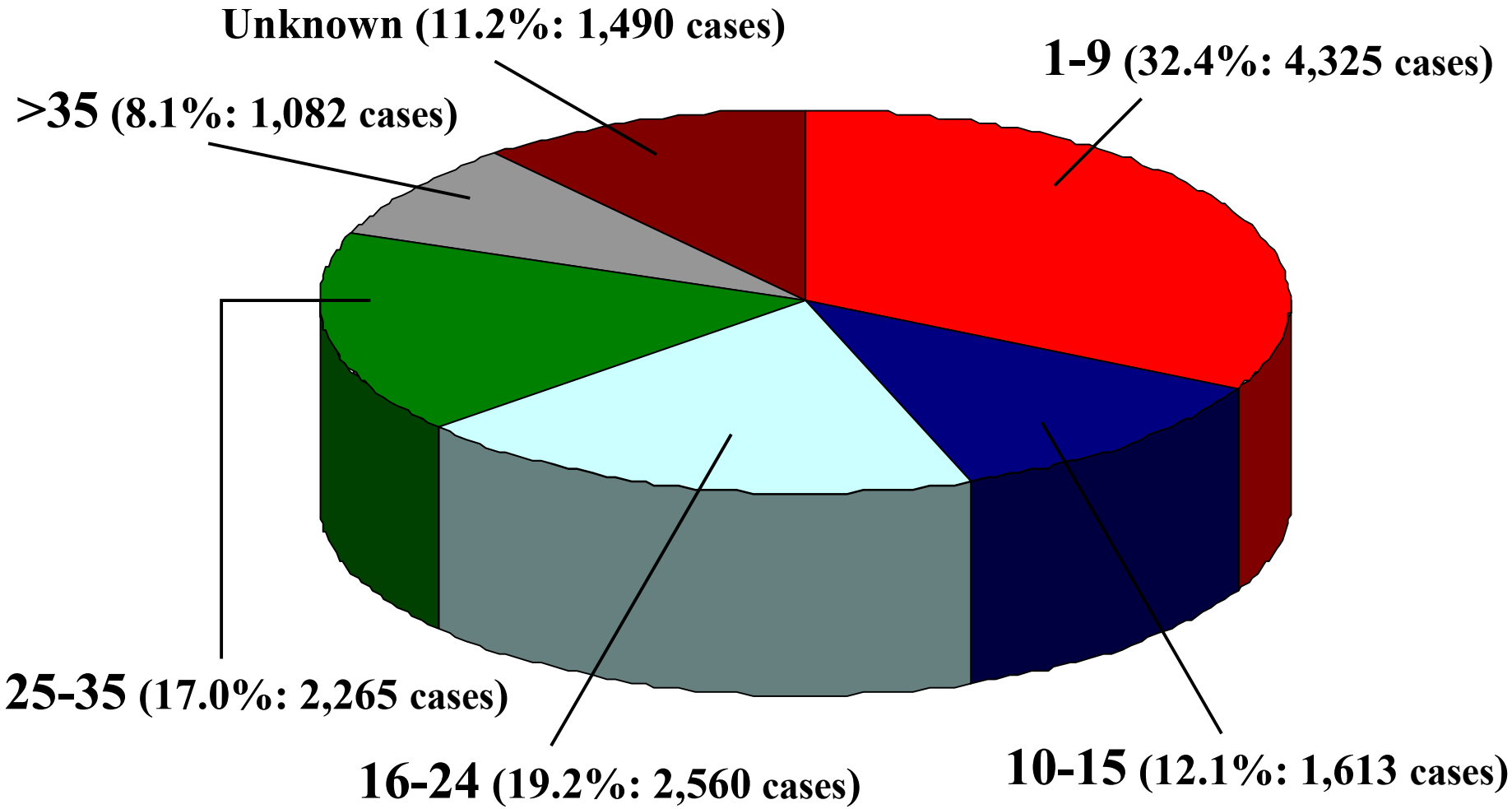


Figure 14 Patients and Injury Severity Score (ISS)

Proportional distribution of patients grouped by categories of the ISS range. Total N=13,335. The number of patients of ISS 1-9 category was the most of all categories.

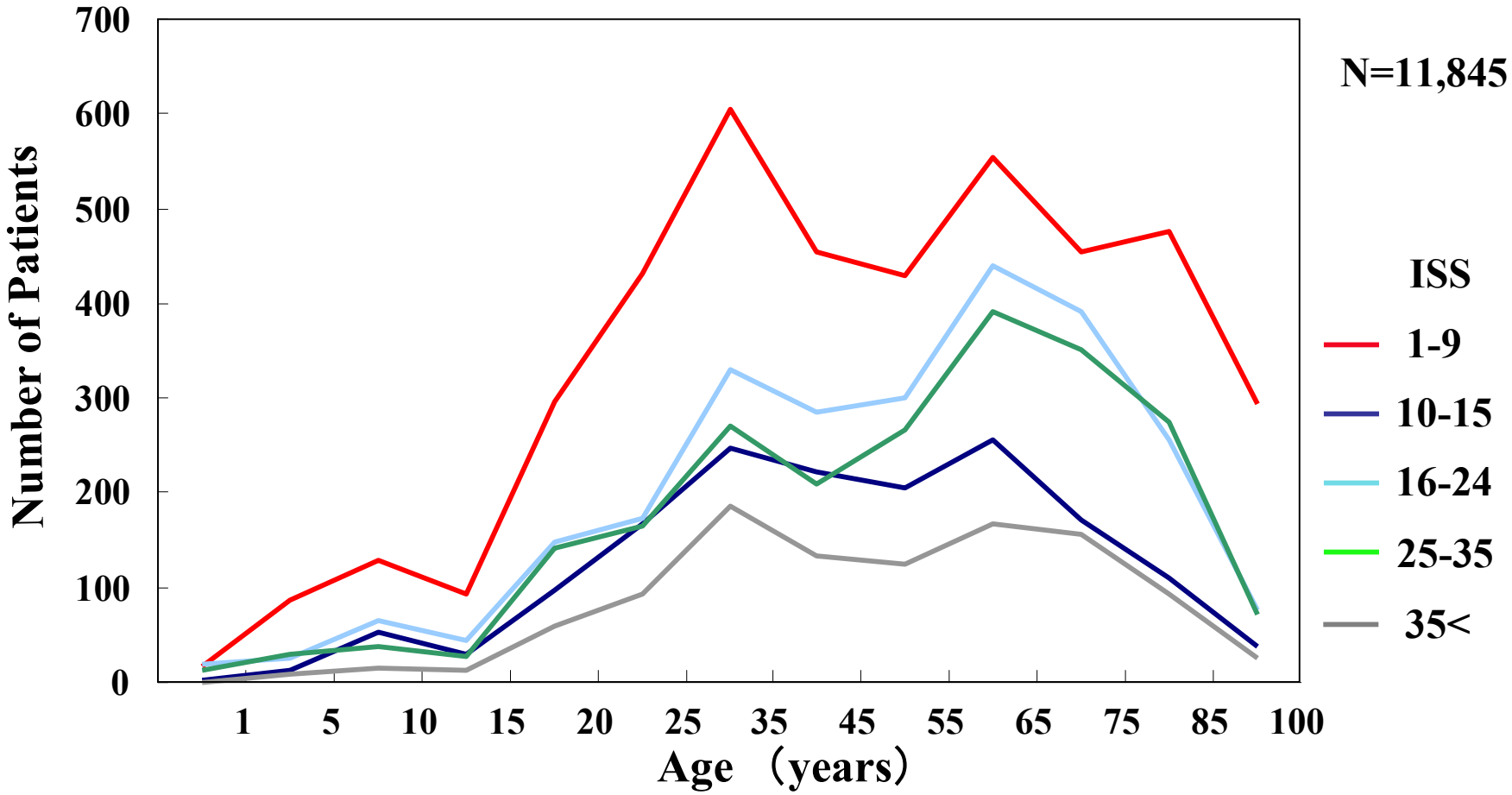


Figure 15　Patients by ISS and Age

Number of injured patients grouped by ISS range, at each age from 0 to 97. Total N=11,845.
Two peaks of the number of patients based on age distribution were seen at 25-34 and 55-64 ages of any ISS categories.

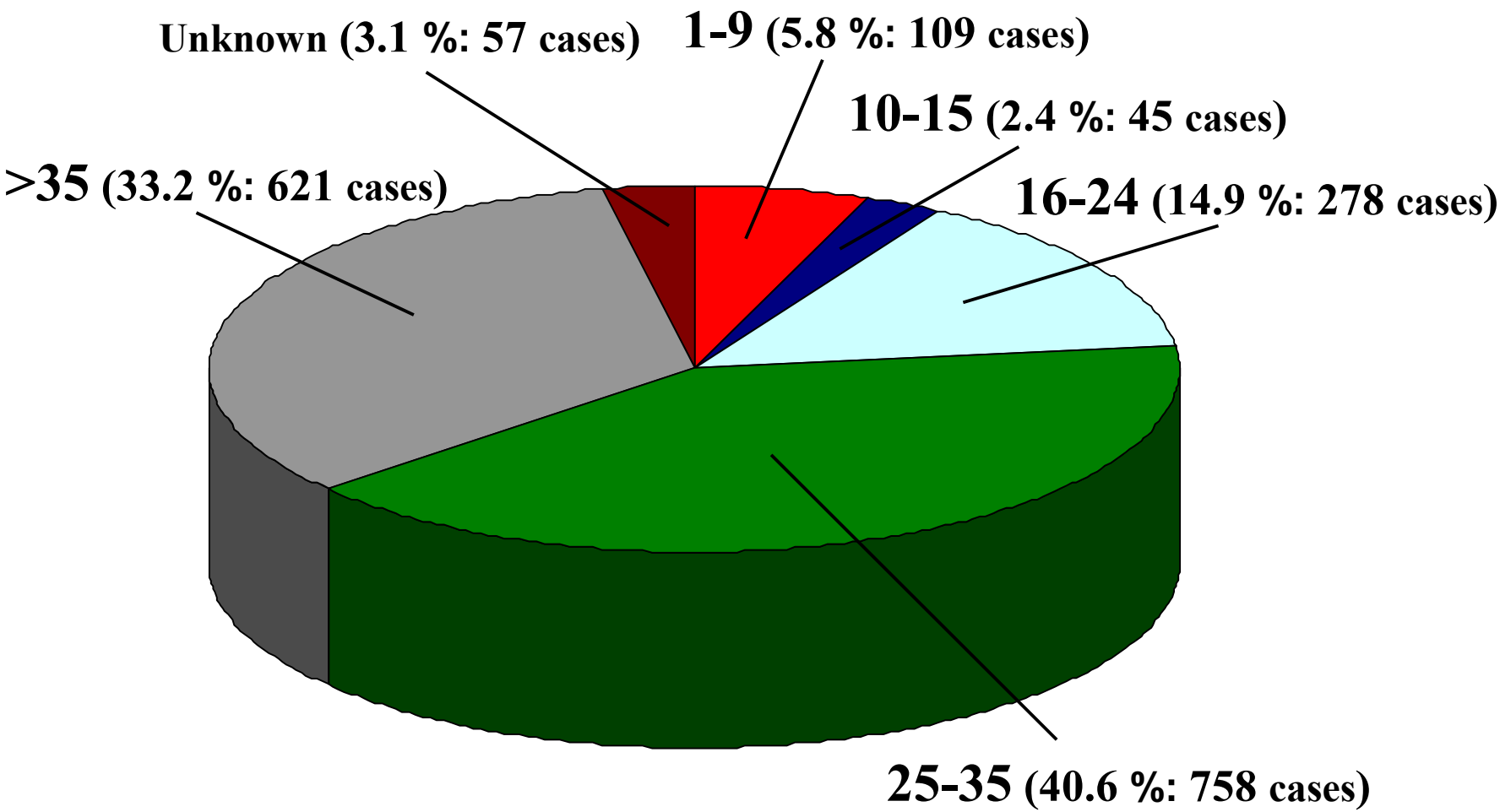


Figure 16A　Deaths and Injury Severity Score (ISS)

Proportional distribution of deaths grouped by categories of ISS range. Total N=1,868. Deaths in ISS 25-35 category were the highest (758 cases: 40.6% of all deaths).

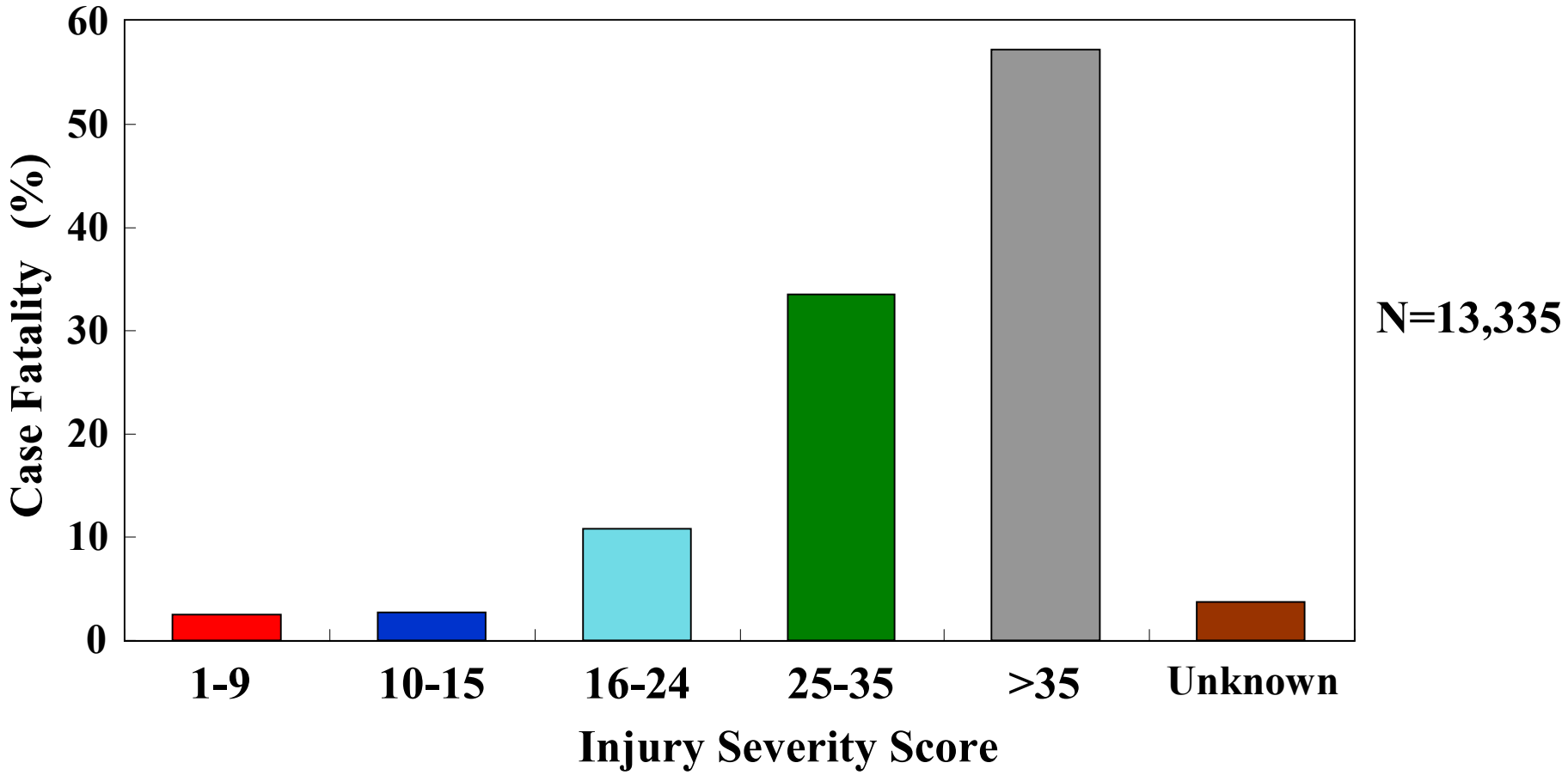


Figure 16B Case Fatality by Injury Severity Score (ISS) Range

Case fatality grouped by ISS range. (Case fatality = number of deaths divided by the number of patients × 100 by ISS range). Case fatality was higher in severe trauma category.

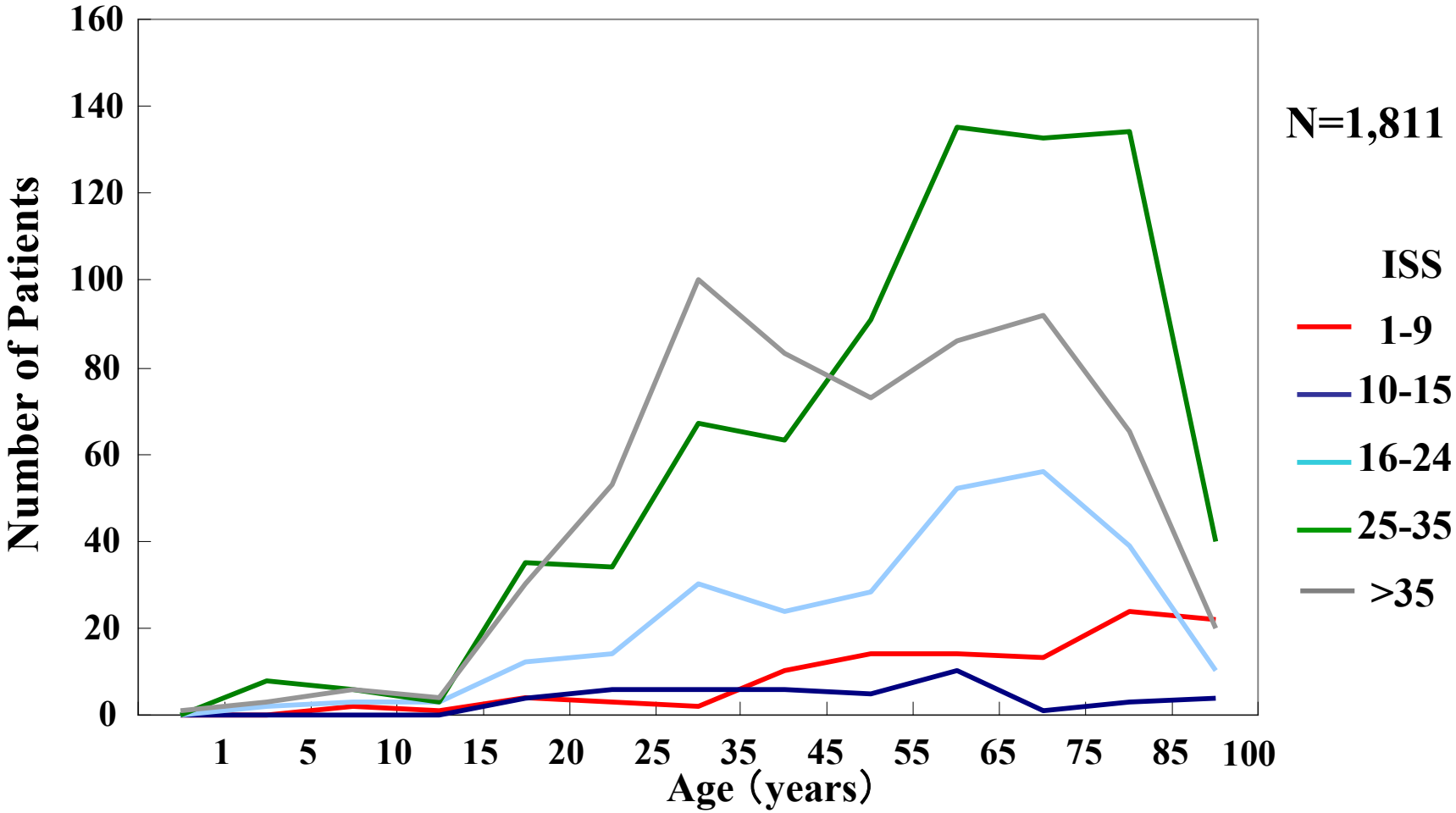


Figure 17 Deaths by ISS and Age

The peak was seen at elderly ages in each ISS 16-24 and ISS 25-35, and the category beyond ISS 35 has two peaks at young and elderly ages.

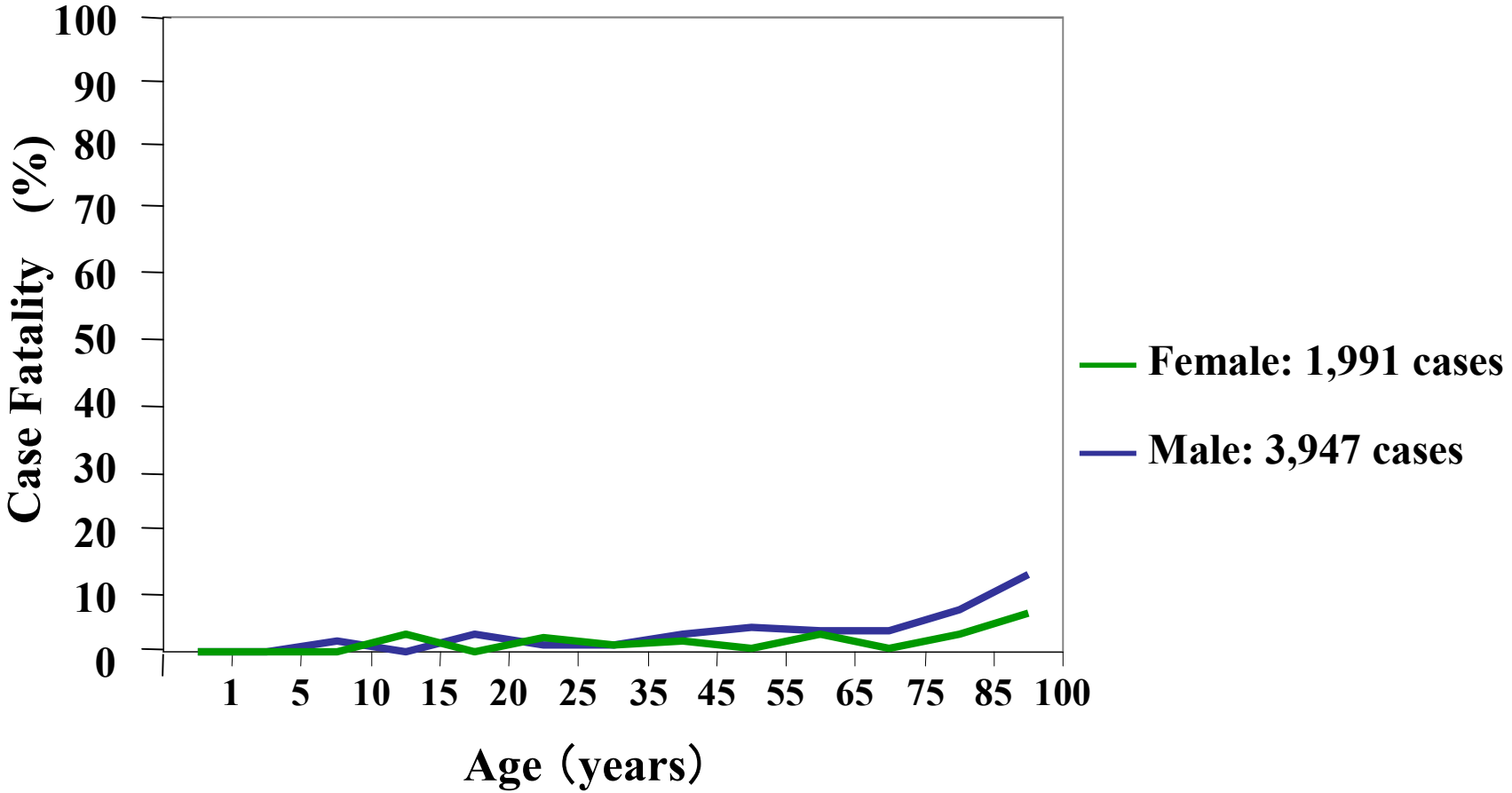


Figure18　Case Fatality by Age and Gender (ISS<=15)

Case fatality for patients with ISS<=15 for males and females at each age category. (Case fatality = number of deaths divided by the number of patients × 100 by age and gender). Total N = 5,938.

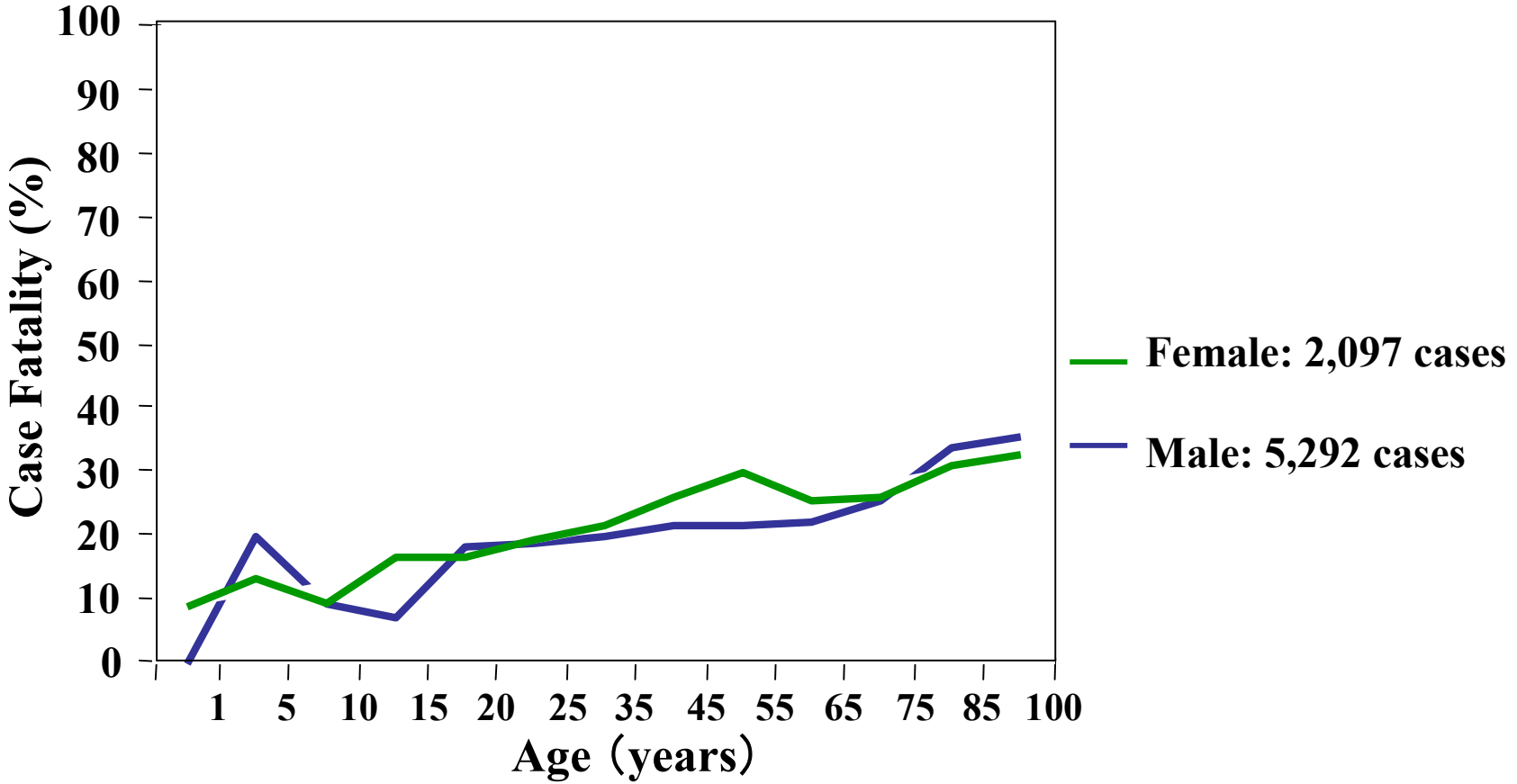


Figure 19　Case Fatality by Age and Gender (ISS>15)

Case fatality for patients with ISS>15 for males and females at each age category. (Case fatality = number of deaths divided by the number of patients × 100 by age and gender). Total N = 7,389.

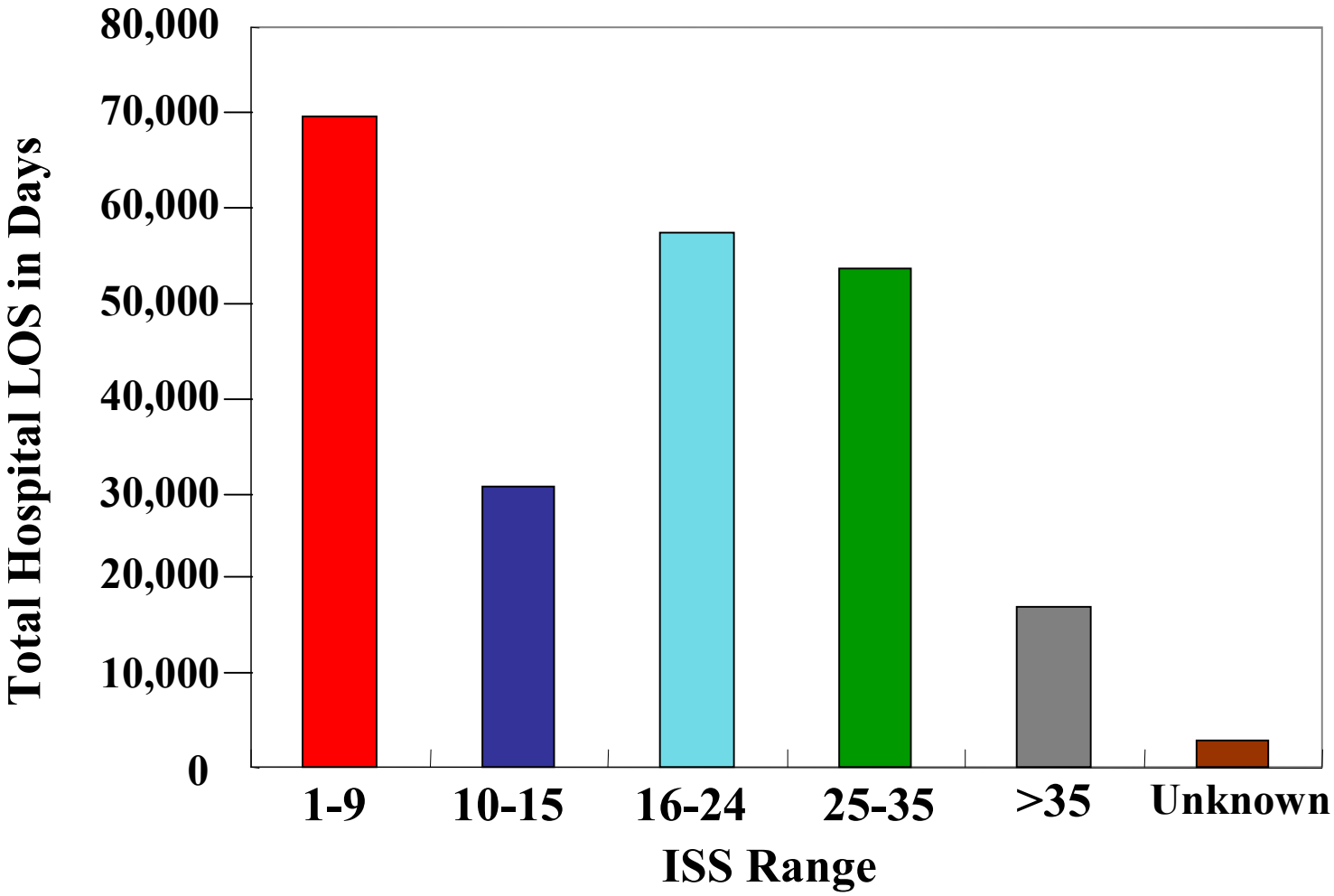


Figure 20A Total Hospital LOS and Injury Severity Score (ISS)

Proportional distribution of total hospital length of stay for patients, grouped by ISS range. Total N = 9,650.

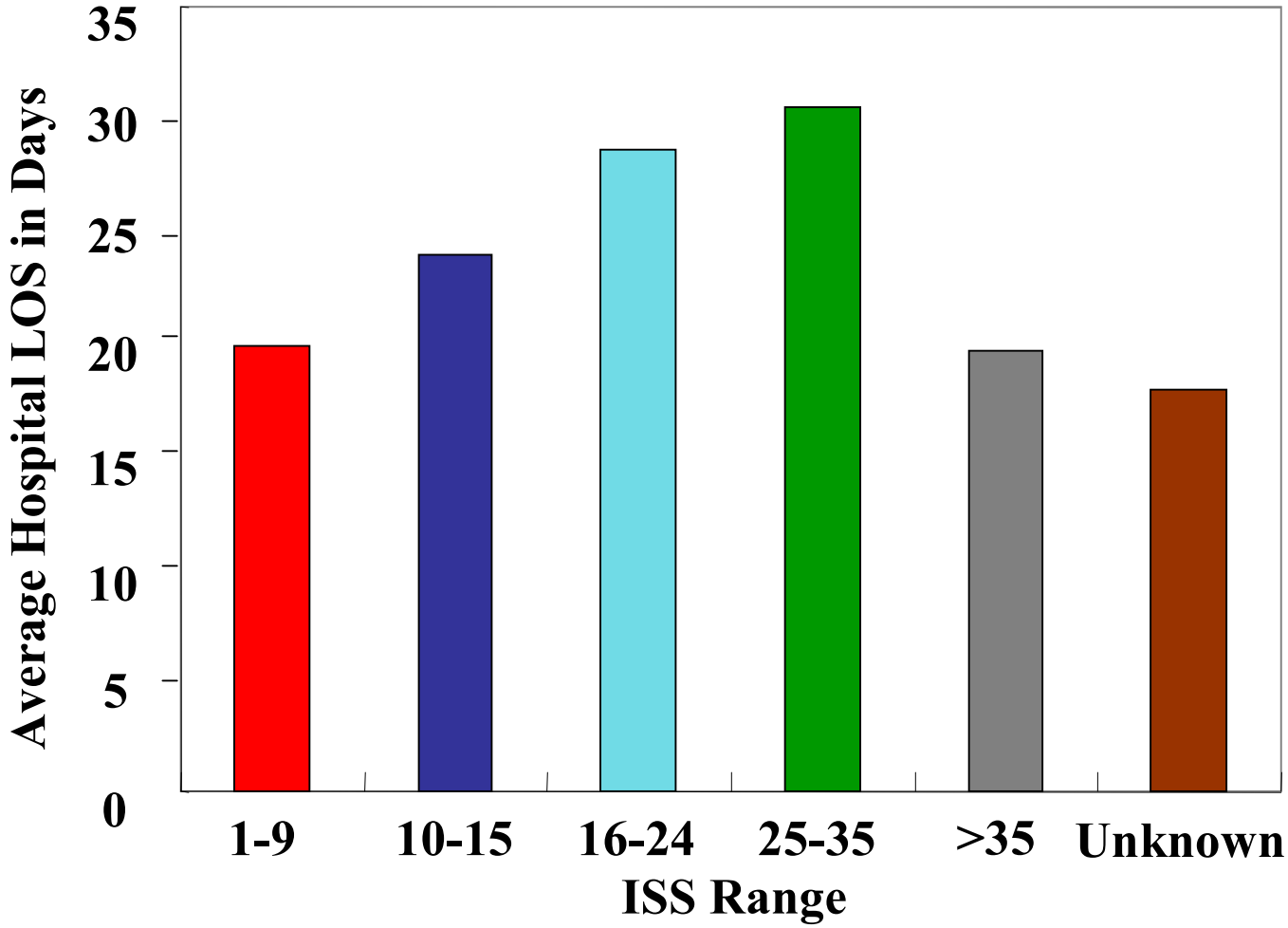


Figure 20B Average Hospital LOS and Injury Severity Score

Average hospital length of stay for each category of ISS range. (Average hospital length of stay = total hospital length of stay for each ISS range divided by the total number of patients). Total N = 9,650.

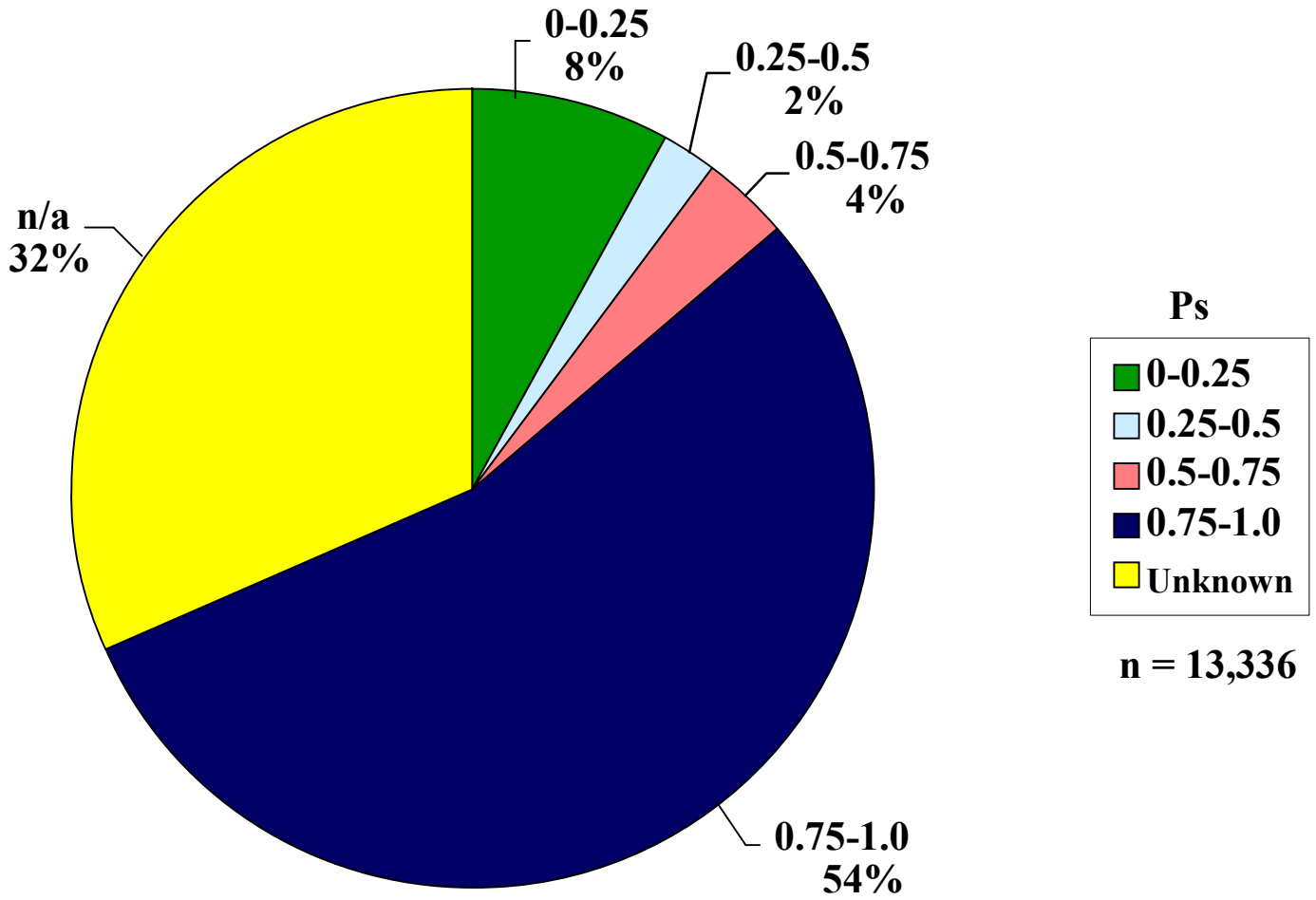


Figure 21 Patients by Probability of Survival (Ps)

Proportional distribution of patients, grouped by each category of Probability of Survival. The Ps category(0.75-1.0) accounted for 54% of all cases. Thirty-two percent of cases were missing at least one variable required to calculate probability of survival.
n/a: not assessed due to missing values

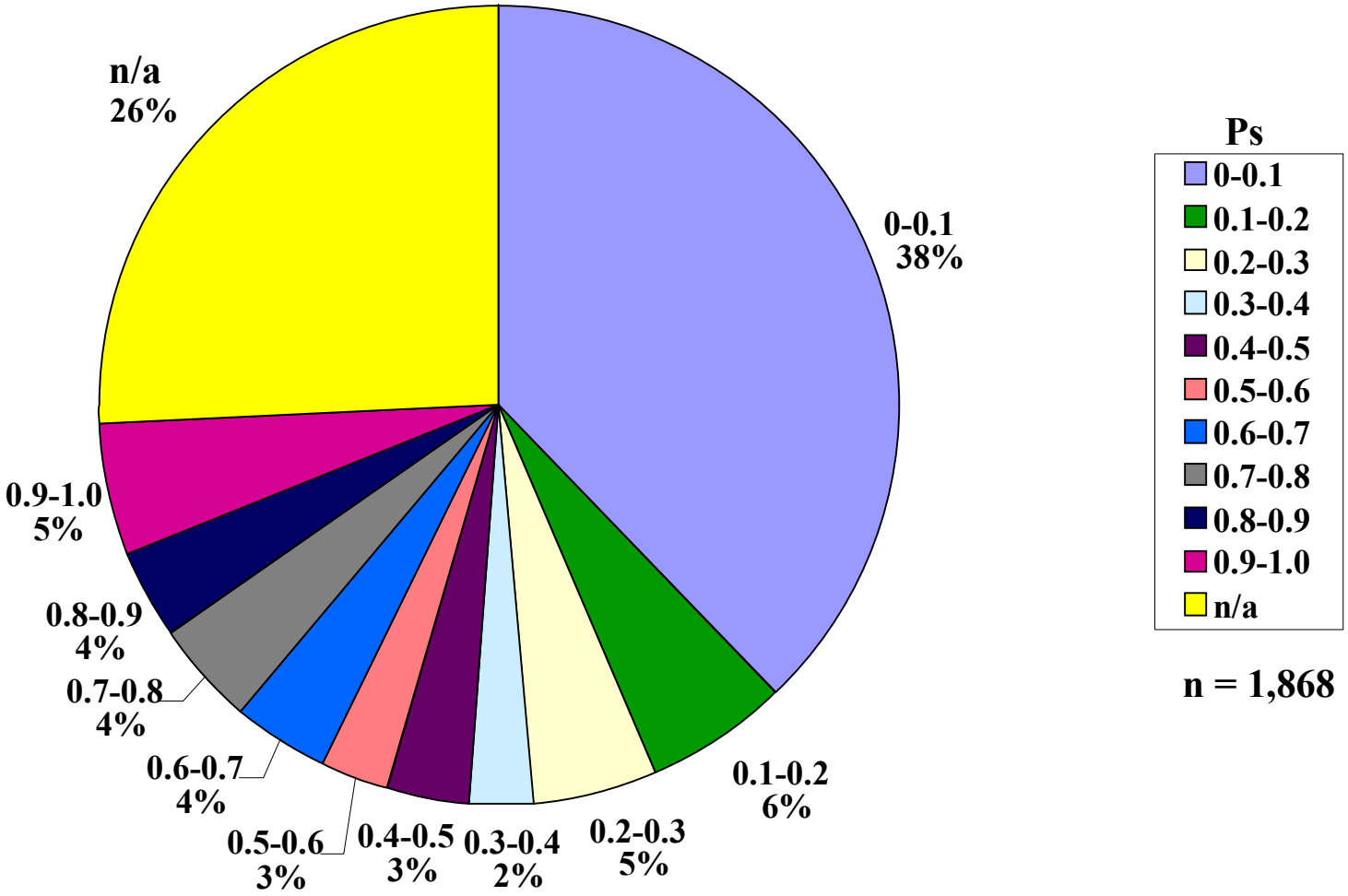


Figure 22A Deaths by Probability of Survival (Ps)

Proportional distribution of deaths, grouped by each category of Probability of Survival.
The lowest Ps category (0-0.1) accounted for 38% of all death cases.
n/a: not assessed due to missing values

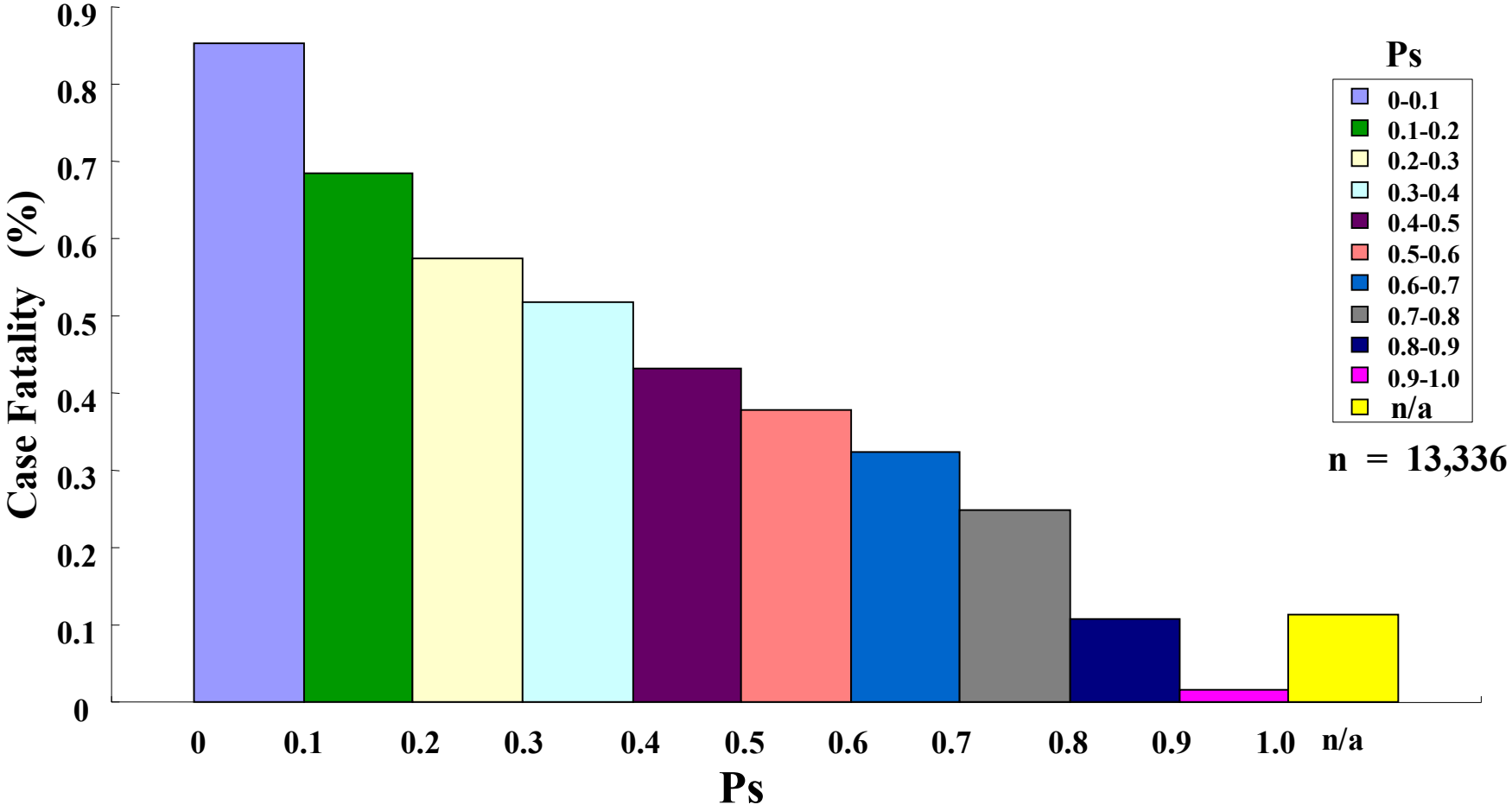


Figure 22B Case Fatality by Probability of Survival (Ps)

Case fatality for each Ps category (Case fatality = number of deaths divided by the number of patients x 100 for each Ps category)

The lowest Ps category (0-0.1) and highest Ps category (0.9-1.0) had the highest fatality 85% and the lowest fatality 1.6%, respectively. The trend that fatality would decrease as Ps increased was observed. n/a: not assessed due to missing values

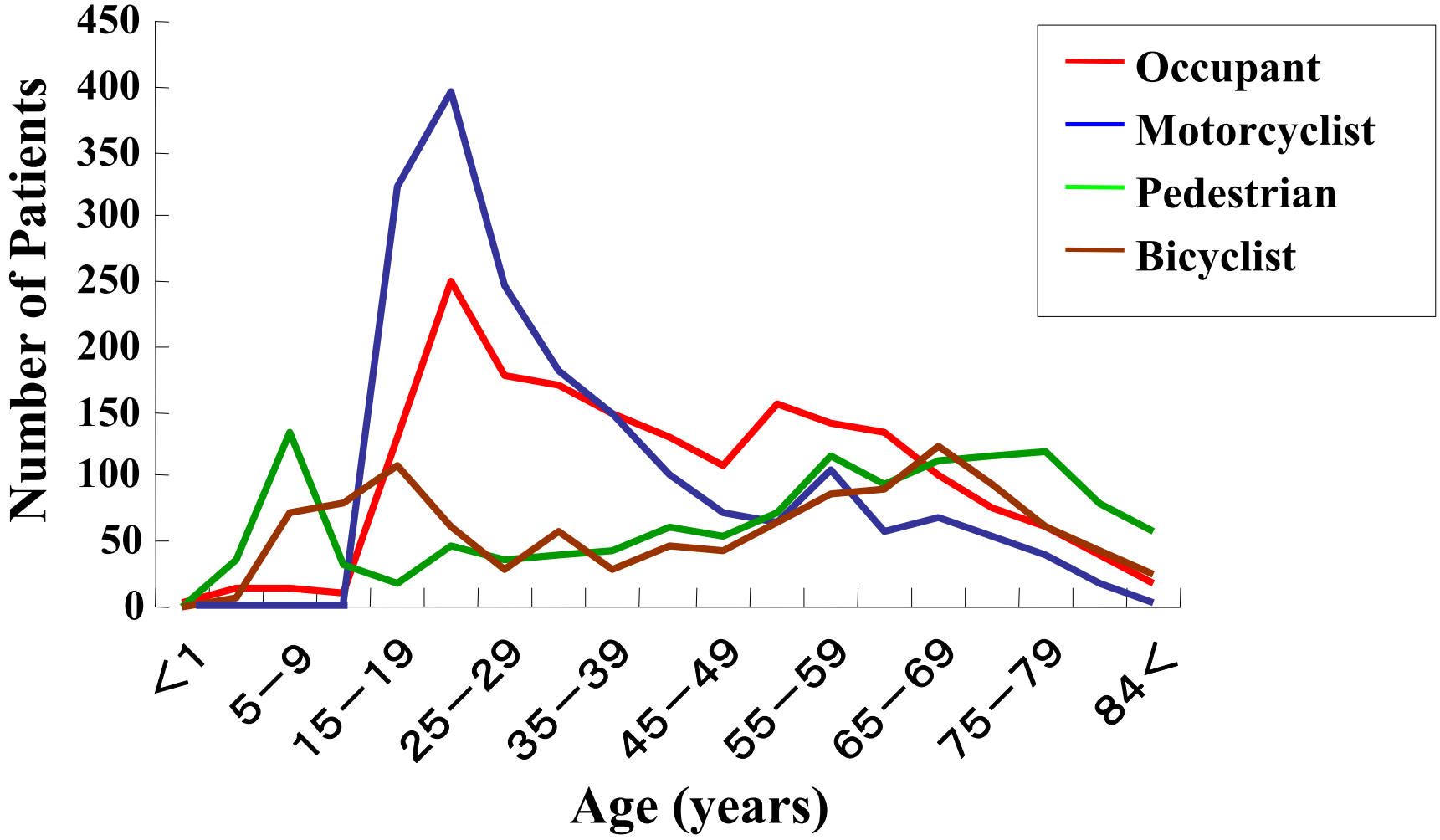


Figure 23 Motor Vehicle Traffic Related Injuries

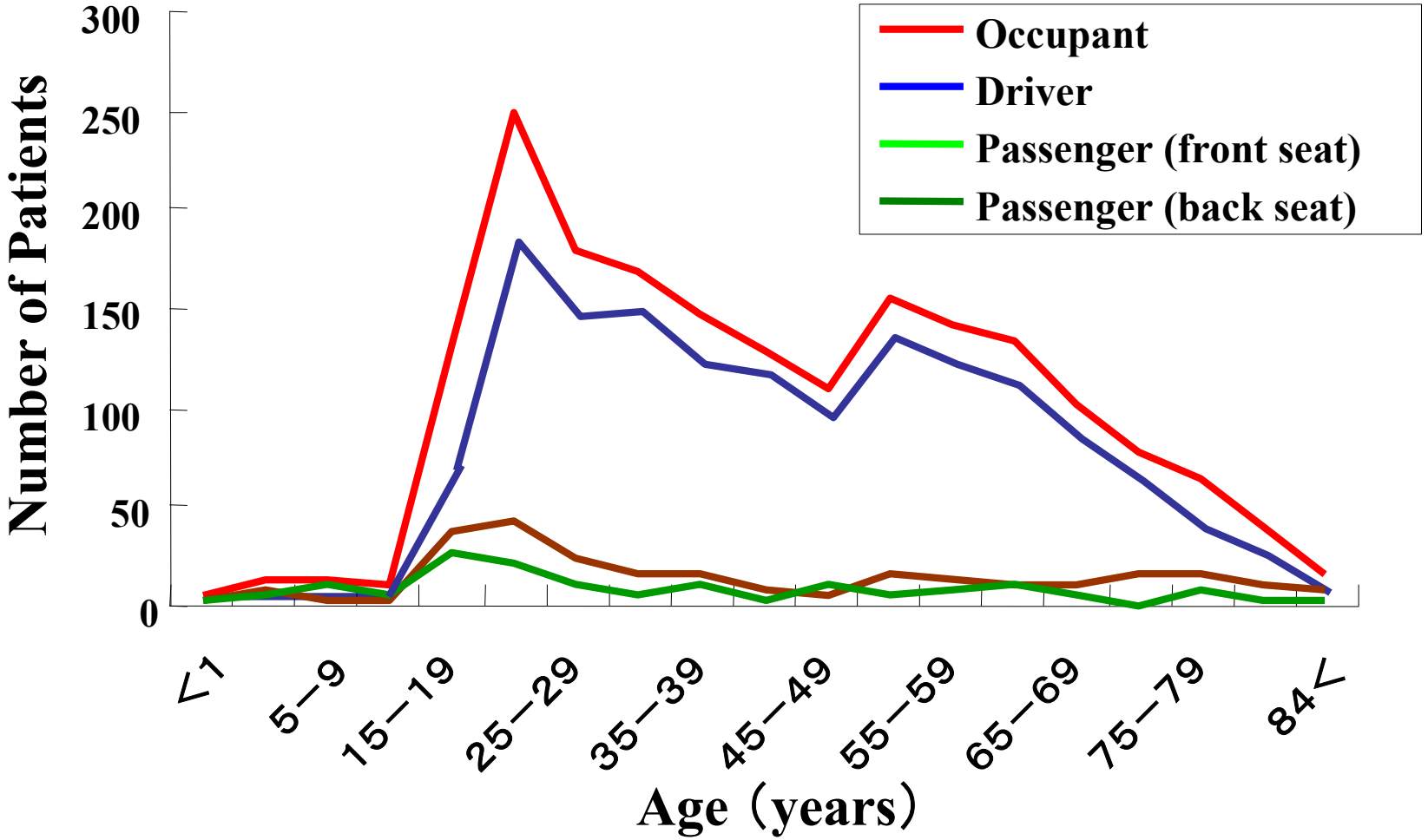


Figure 24　Motor Vehicle Related Injuries – Driver and Passenger by Age

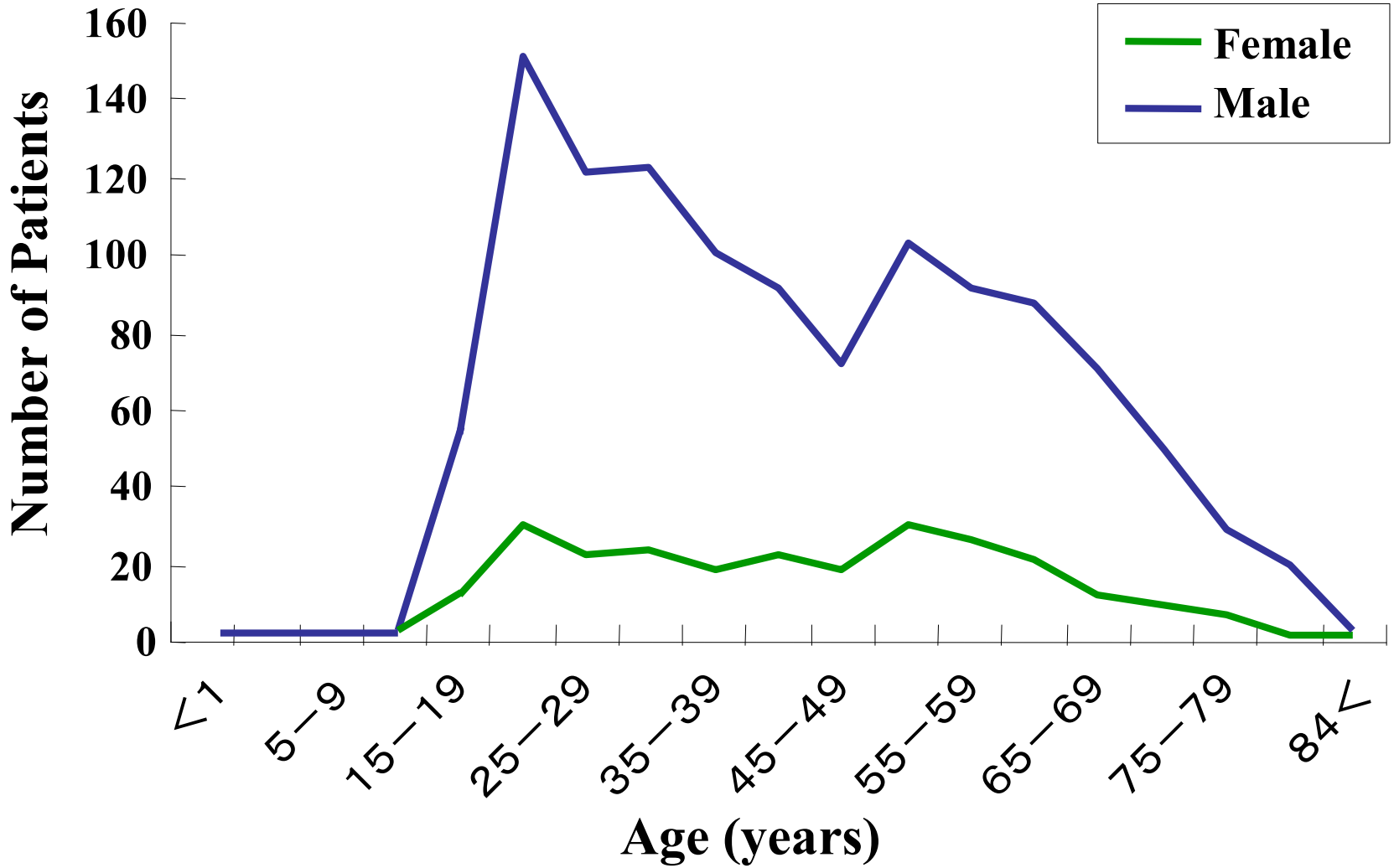


Figure 25 Motor Vehicle Related Injuries – Driver by Gender and Age

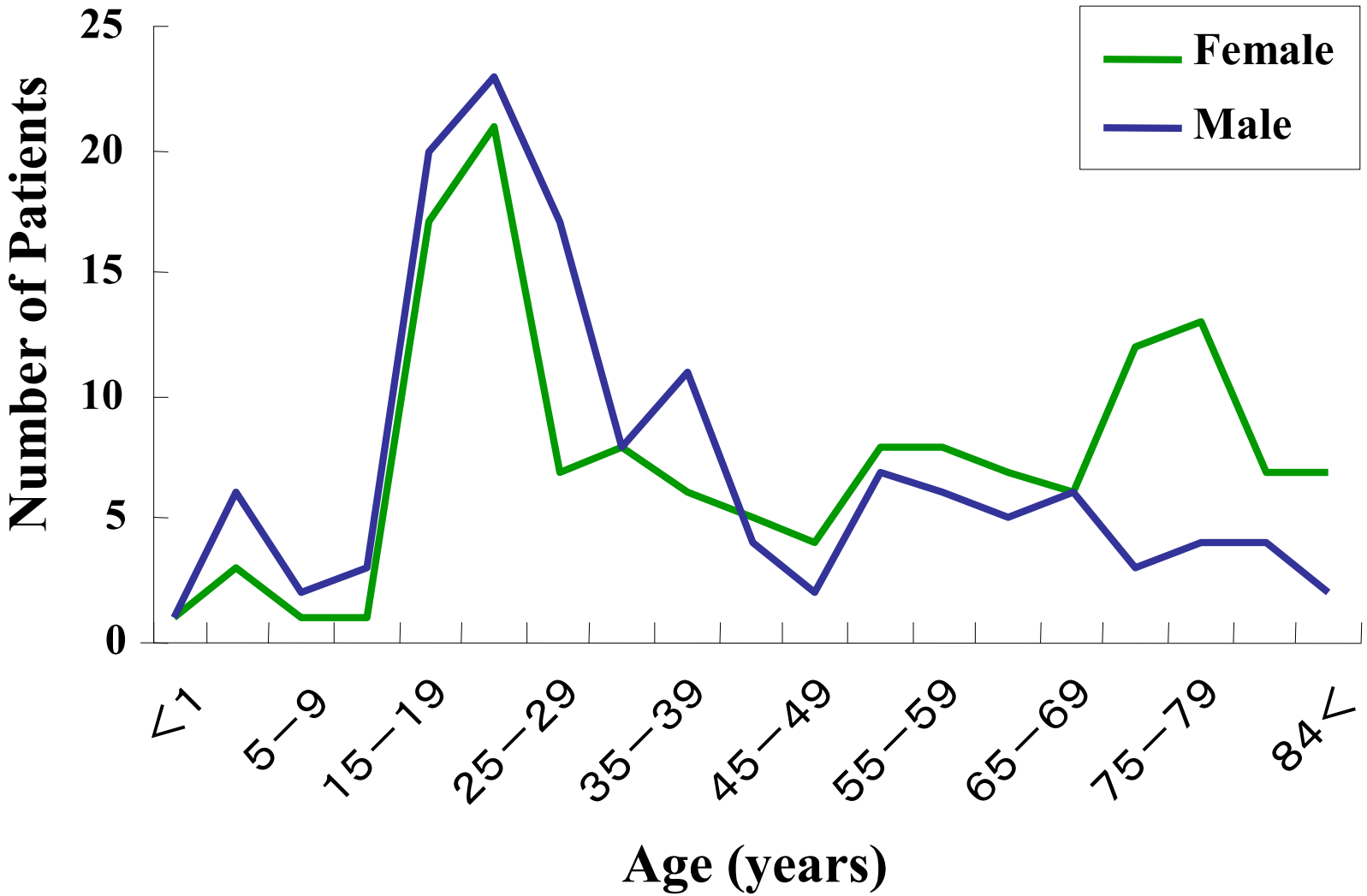
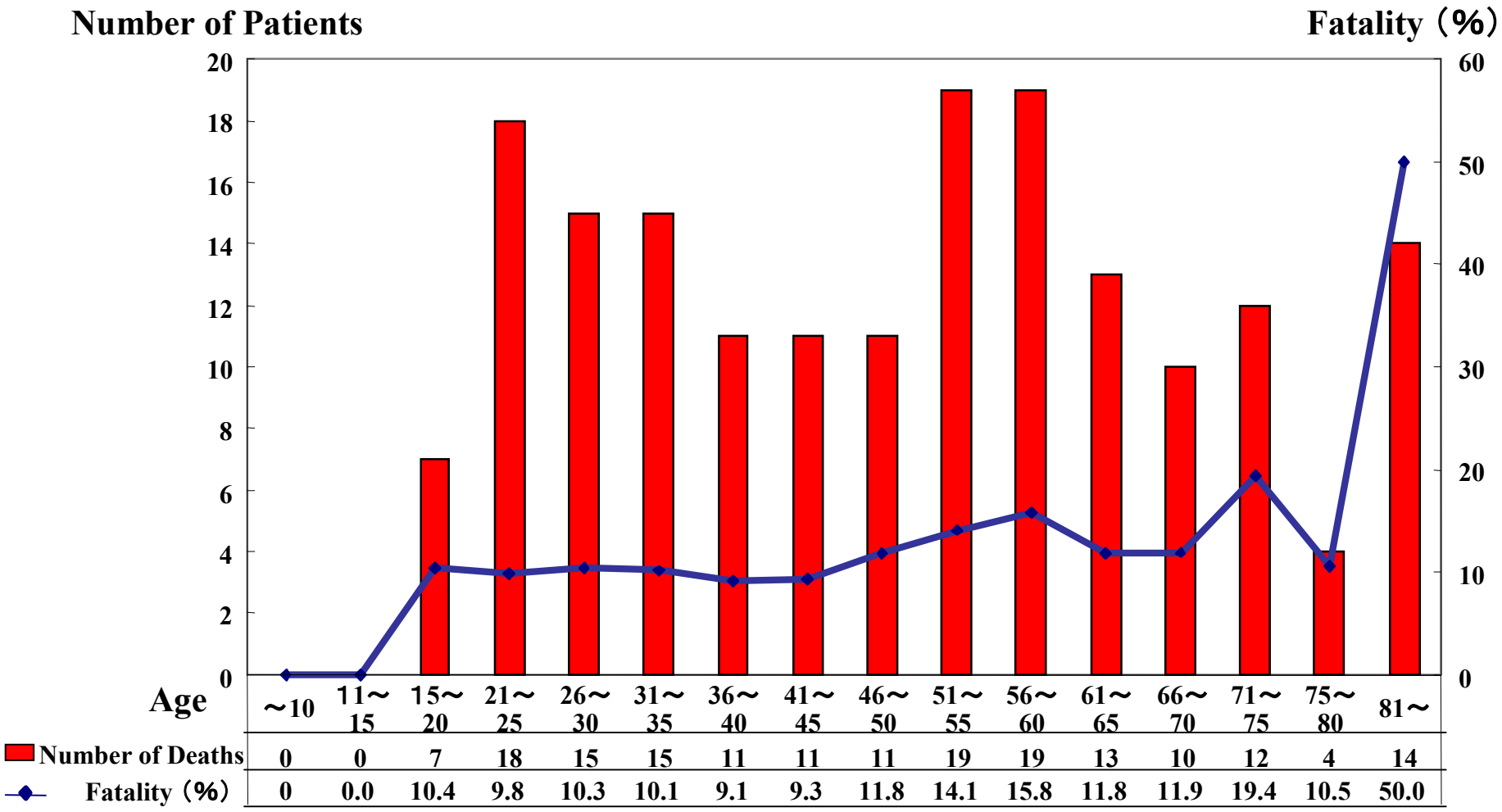
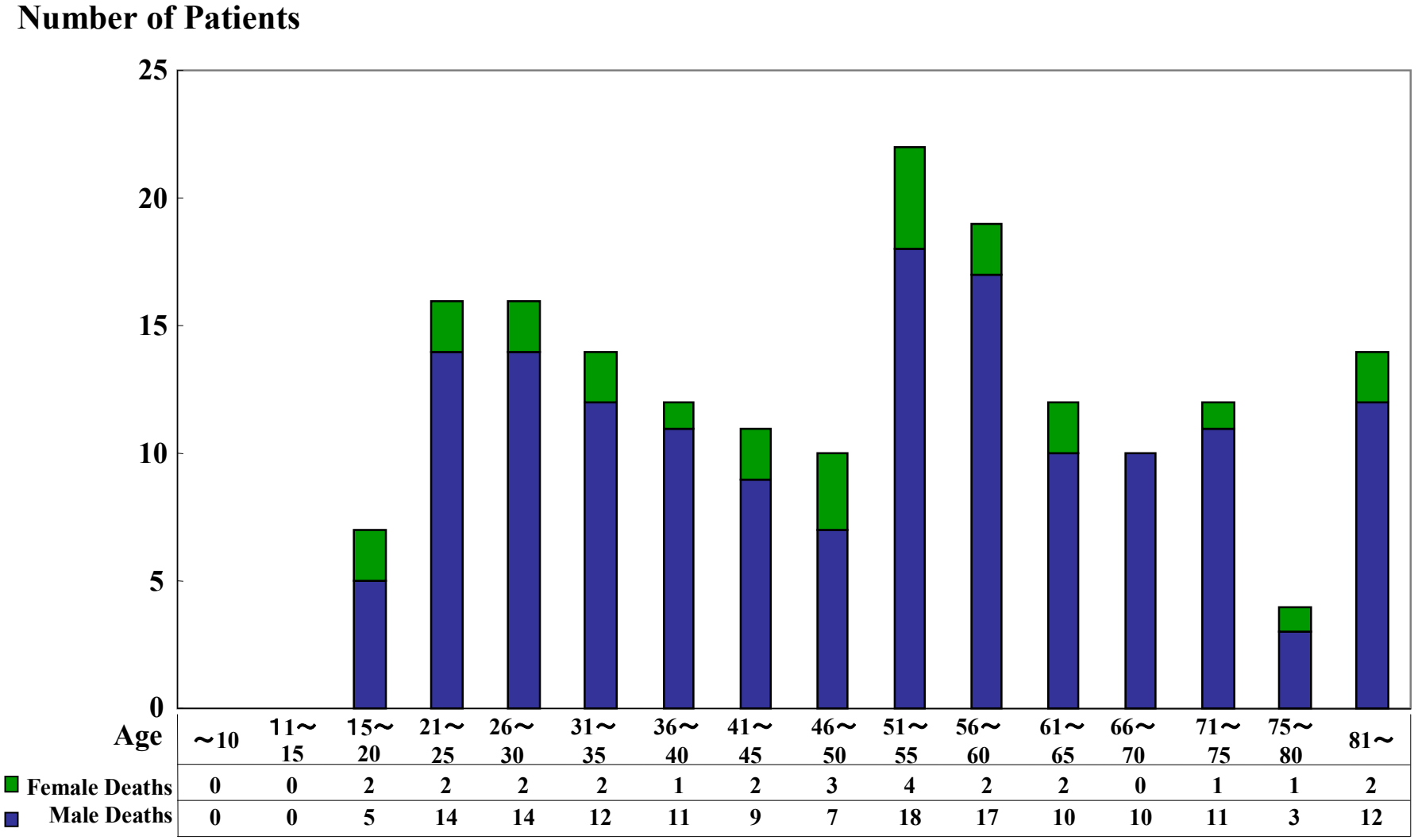


Figure 26 Motor Vehicle Related Injuries – Passenger by Gender and Age



Age	～10	11～15	15～20	21～25	26～30	31～35	36～40	41～45	46～50	51～55	56～60	61～65	66～70	71～75	75～80	81～
Number of Deaths	0	0	7	18	15	15	11	11	11	19	19	13	10	12	4	14
Fatality（%）	0	0.0	10.4	9.8	10.3	10.1	9.1	9.3	11.8	14.1	15.8	11.8	11.9	19.4	10.5	50.0

Figure 27 Number of Deaths and Fatalities of Motor Vehicular Drivers by Age



Age	～10	11～15	15～20	21～25	26～30	31～35	36～40	41～45	46～50	51～55	56～60	61～65	66～70	71～75	75～80	81～
Female Deaths	0	0	2	2	2	2	1	2	3	4	2	2	0	1	1	2
Male Deaths	0	0	5	14	14	12	11	9	7	18	17	10	10	11	3	12

Figure 28 Deaths of Motor Vehicular Drivers by Age and Gender

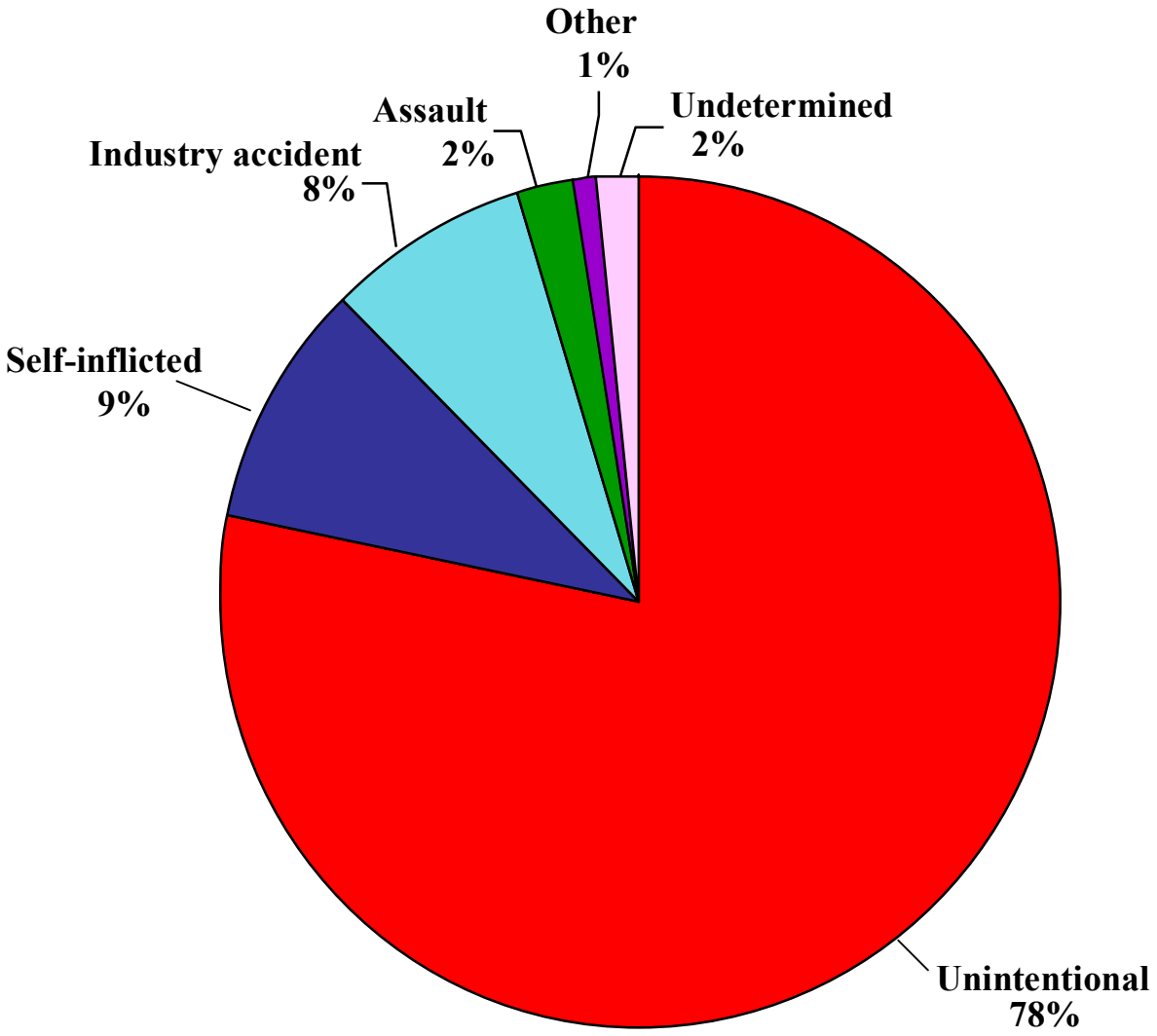


Figure 29 Patients by Intent

Proportional distribution of registered patients, grouped by intent.

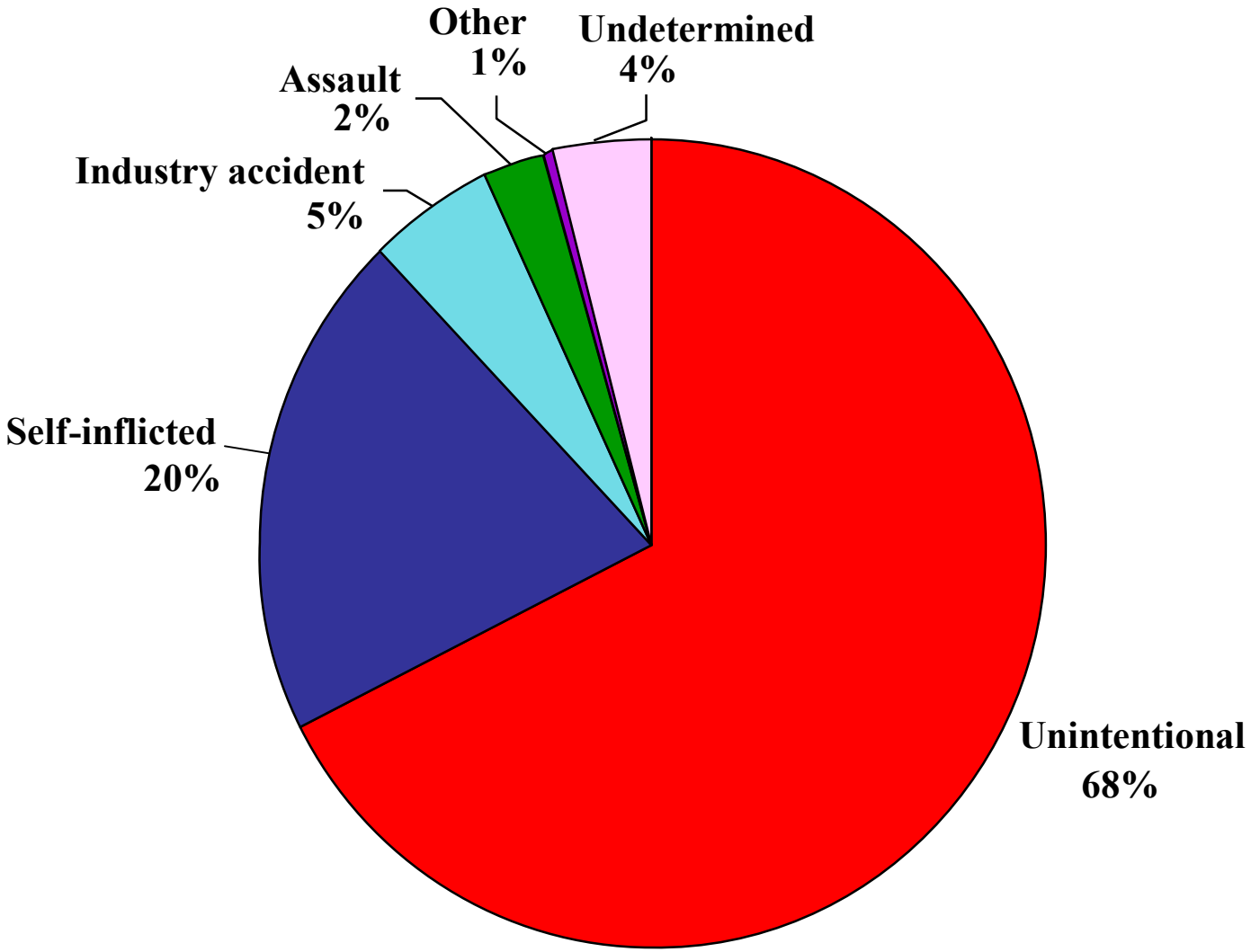


Figure 30 Deaths by Intent

Proportional distribution of deaths, grouped by intent.

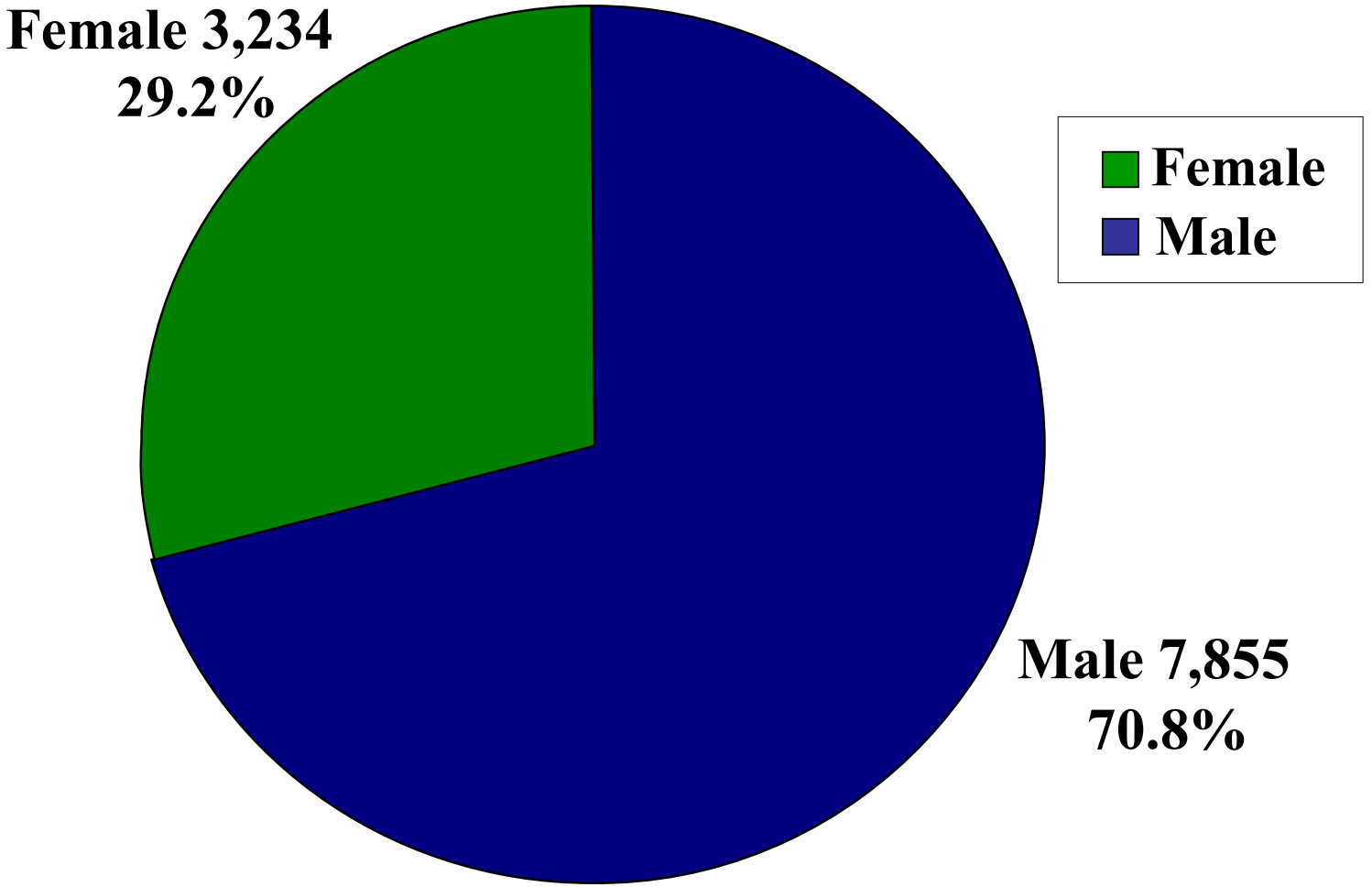


Figure 31 Unintentional Injury and Gender

Does not include cases where age is unknown. Includes cases of industrial accidents.

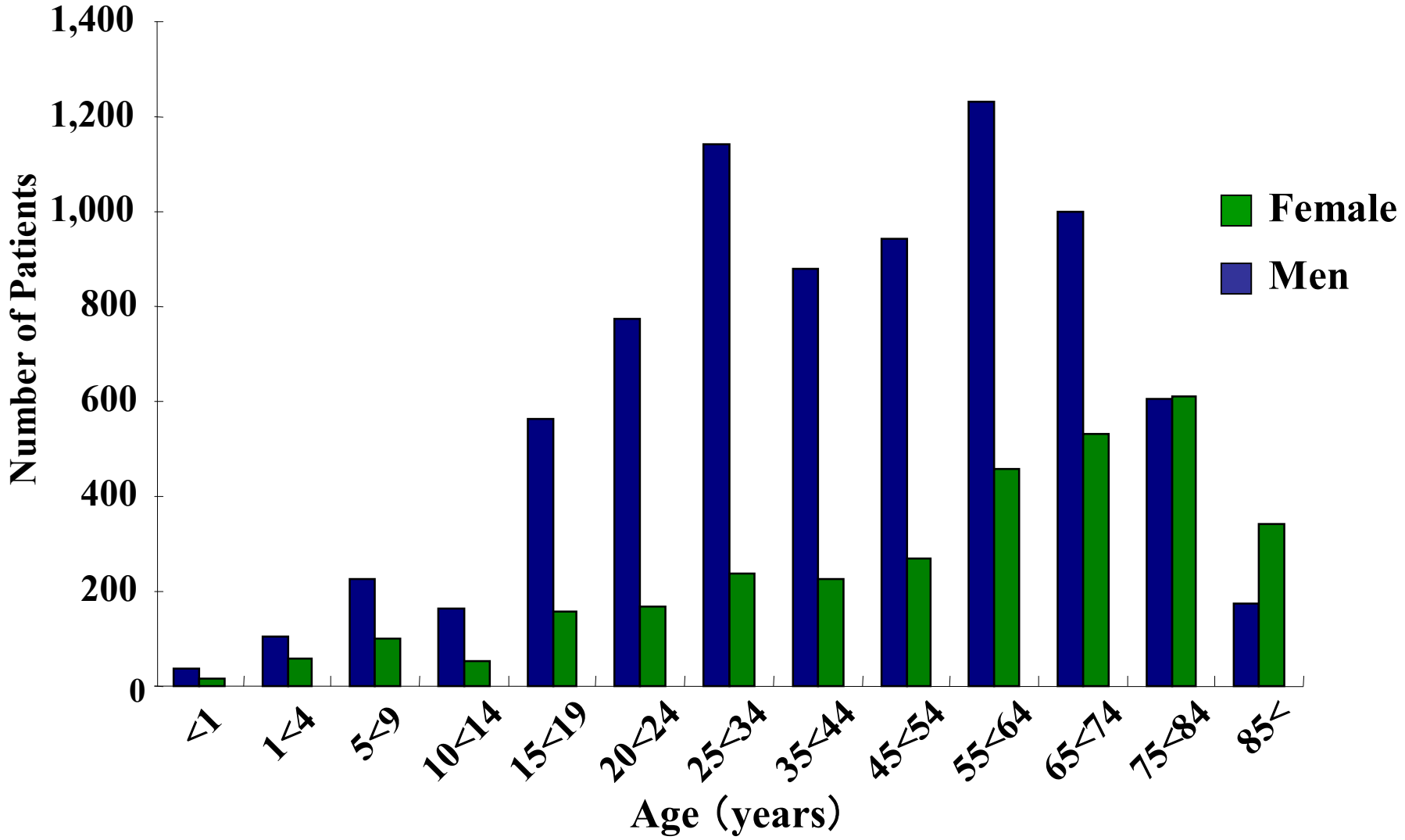


Figure32 Unintentional Injury by Age and Gender

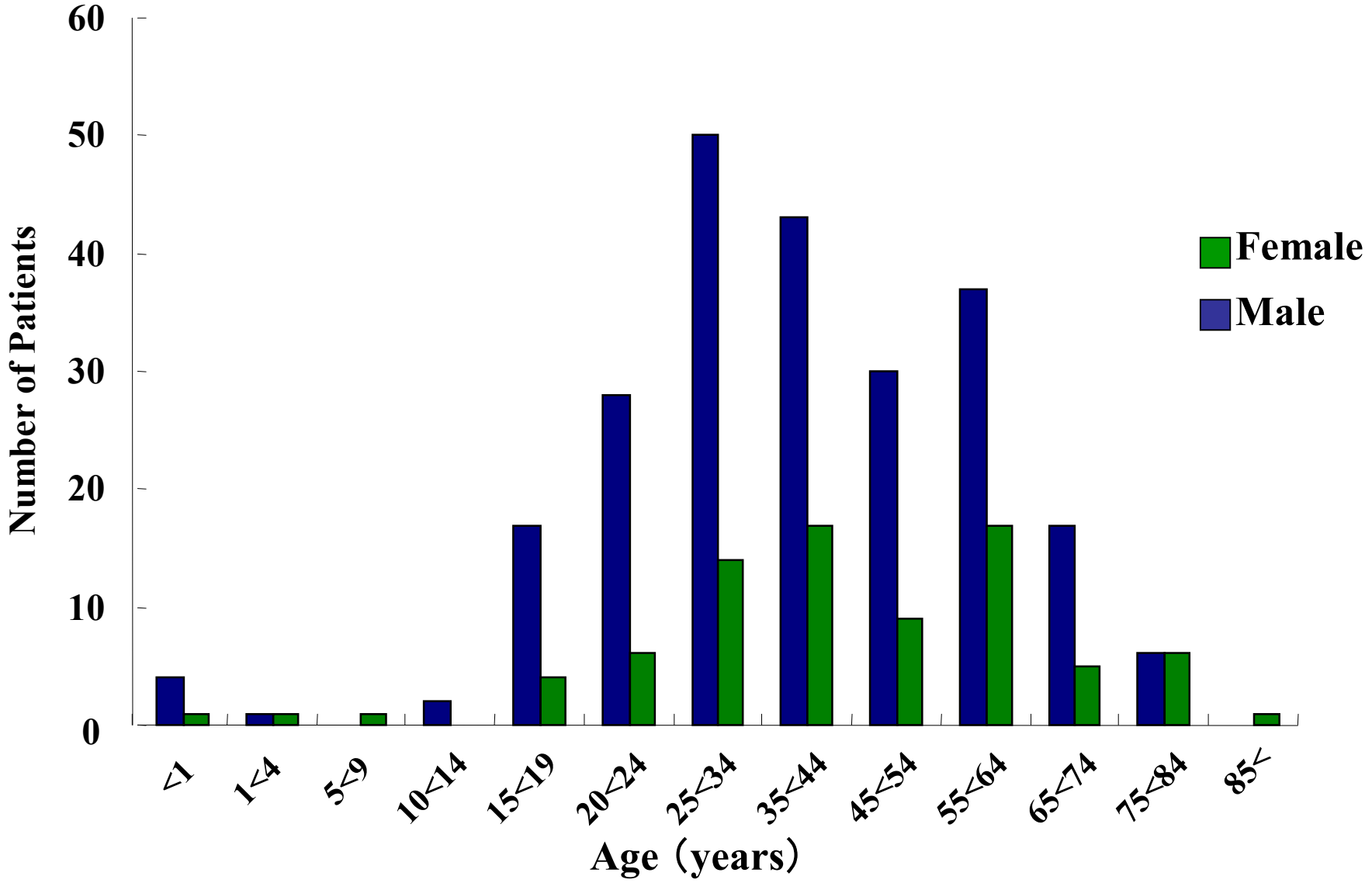


Figure33　Intentional Injury by Age and Gender

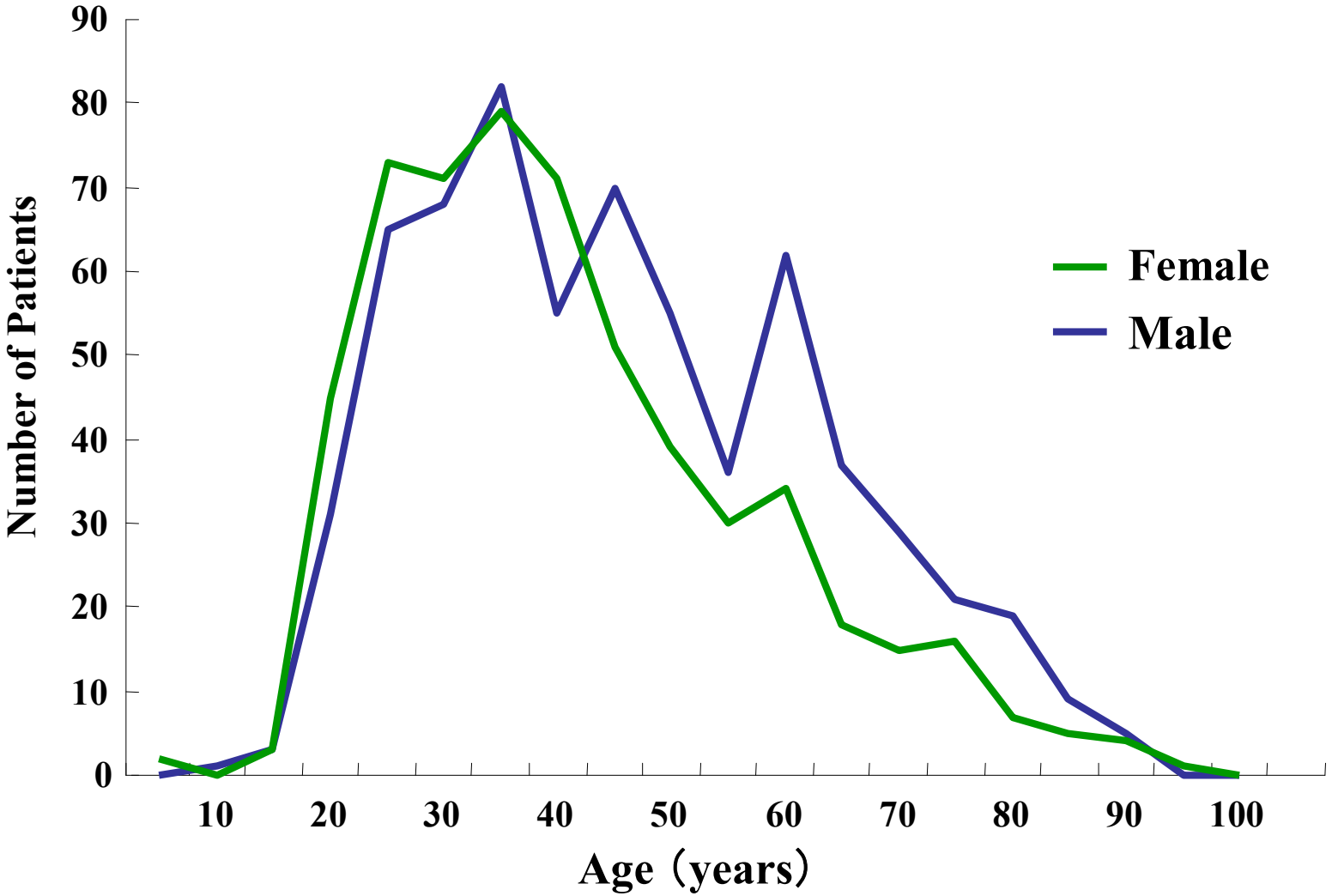


Figure 34 Self-inflicted by Age and Gender

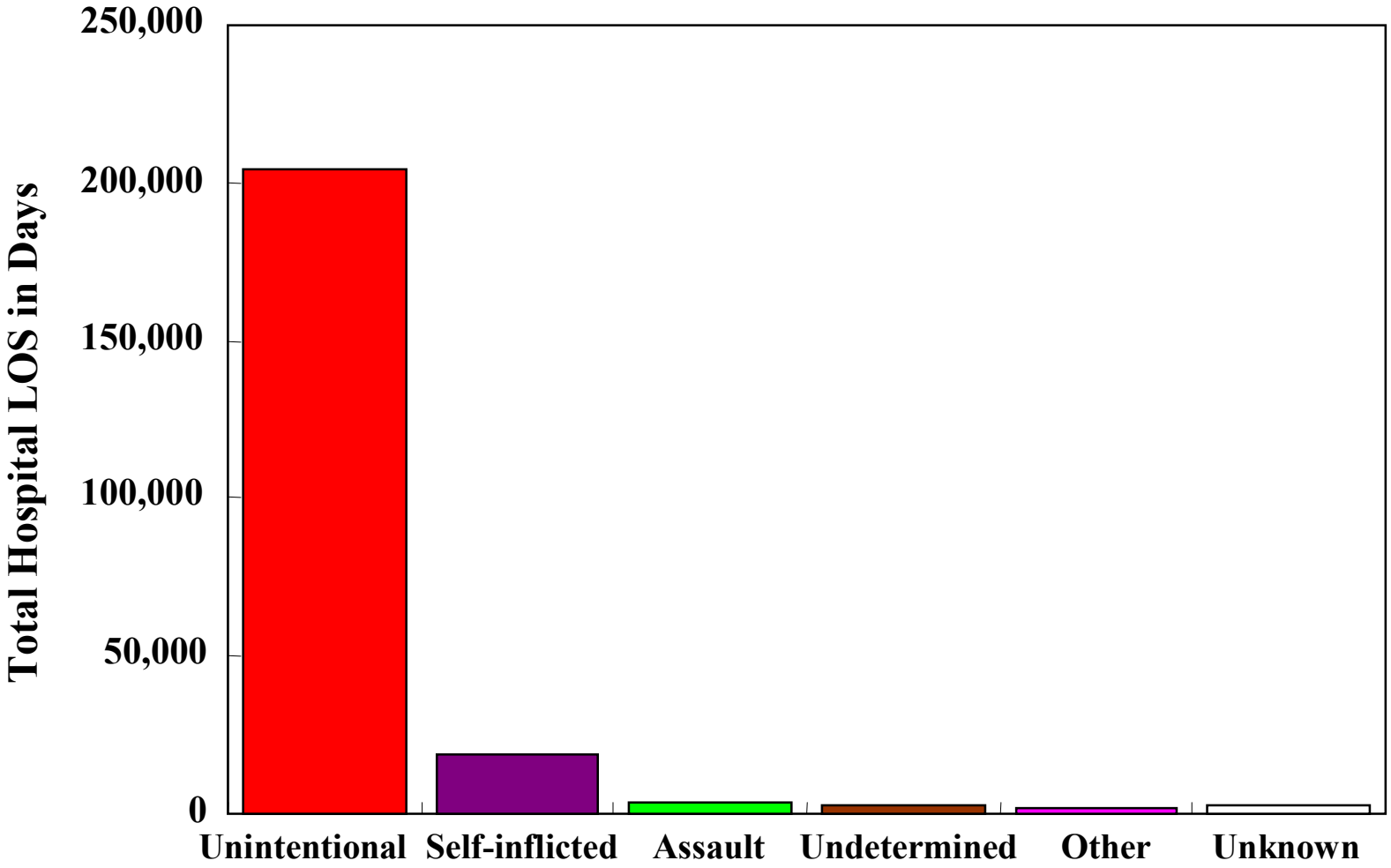


Figure 35A Total Hospital LOS by Intent

Industrial accident was included in the category of "Unintentional".

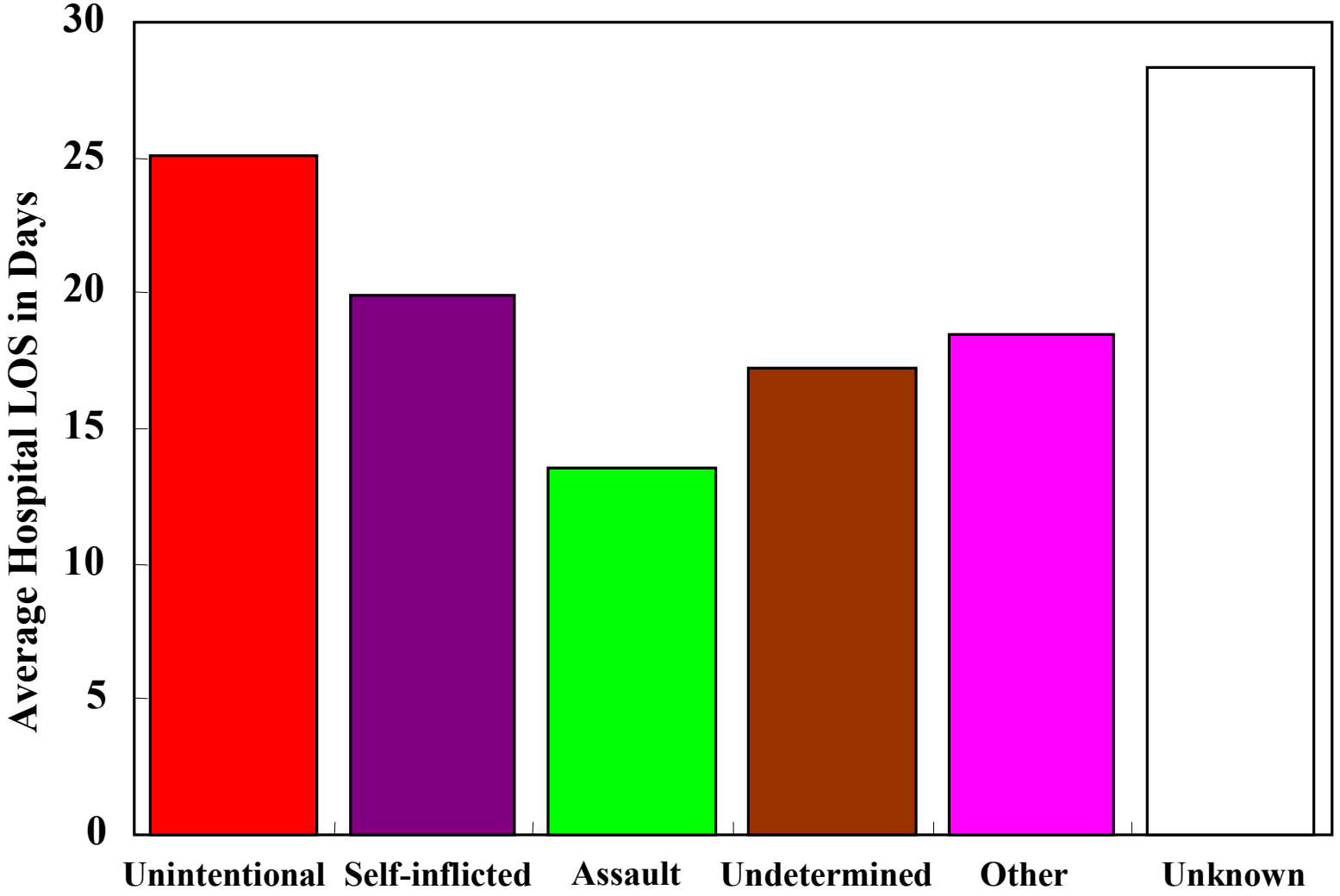


Figure 35B Average Hospital LOS by Intent

Average hospital length of stay in days = total hospital length of stay divided by the number of patients by intent.

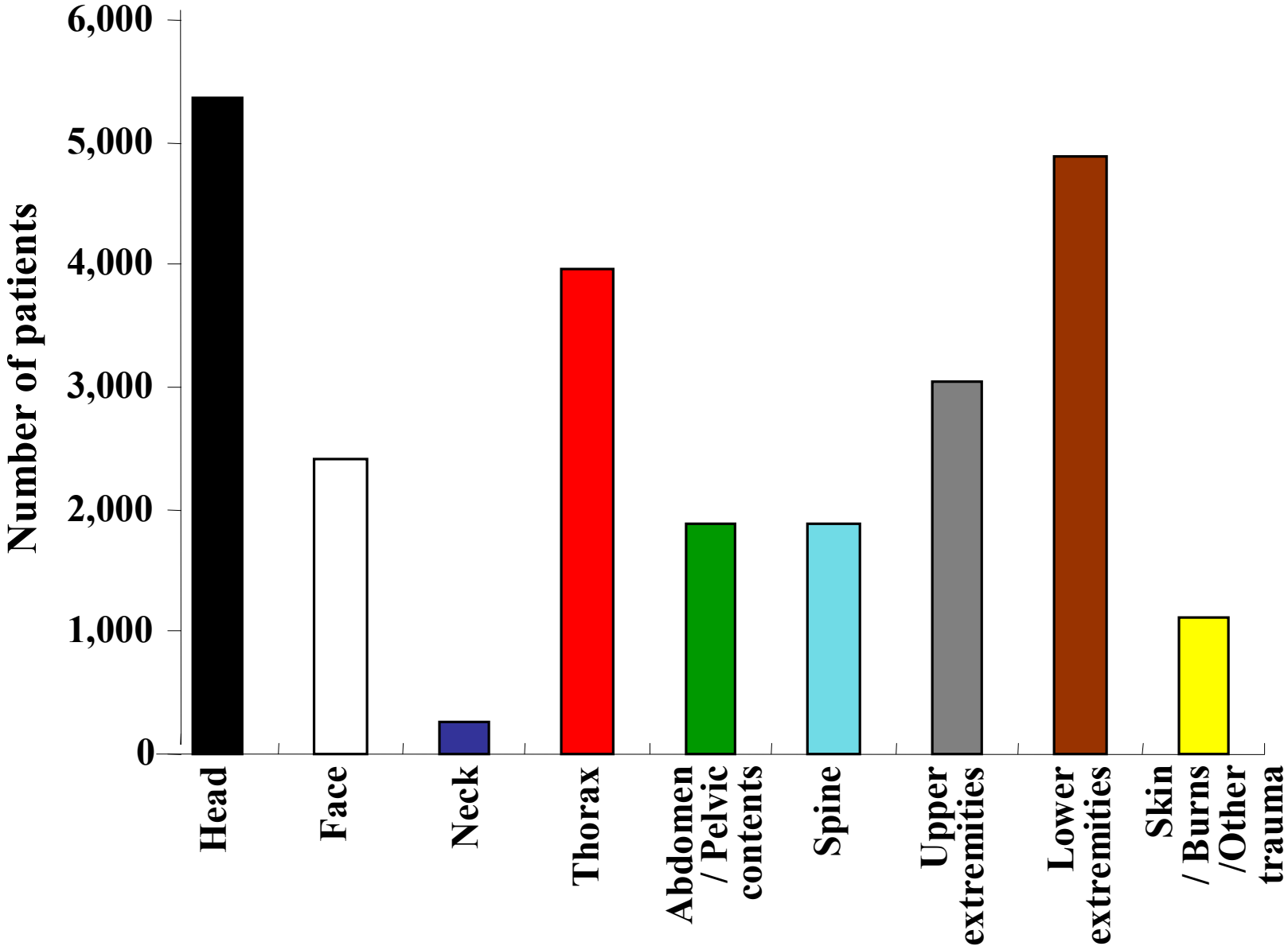


Figure 36 Number of Patients with Injured Body Parts based on AIS

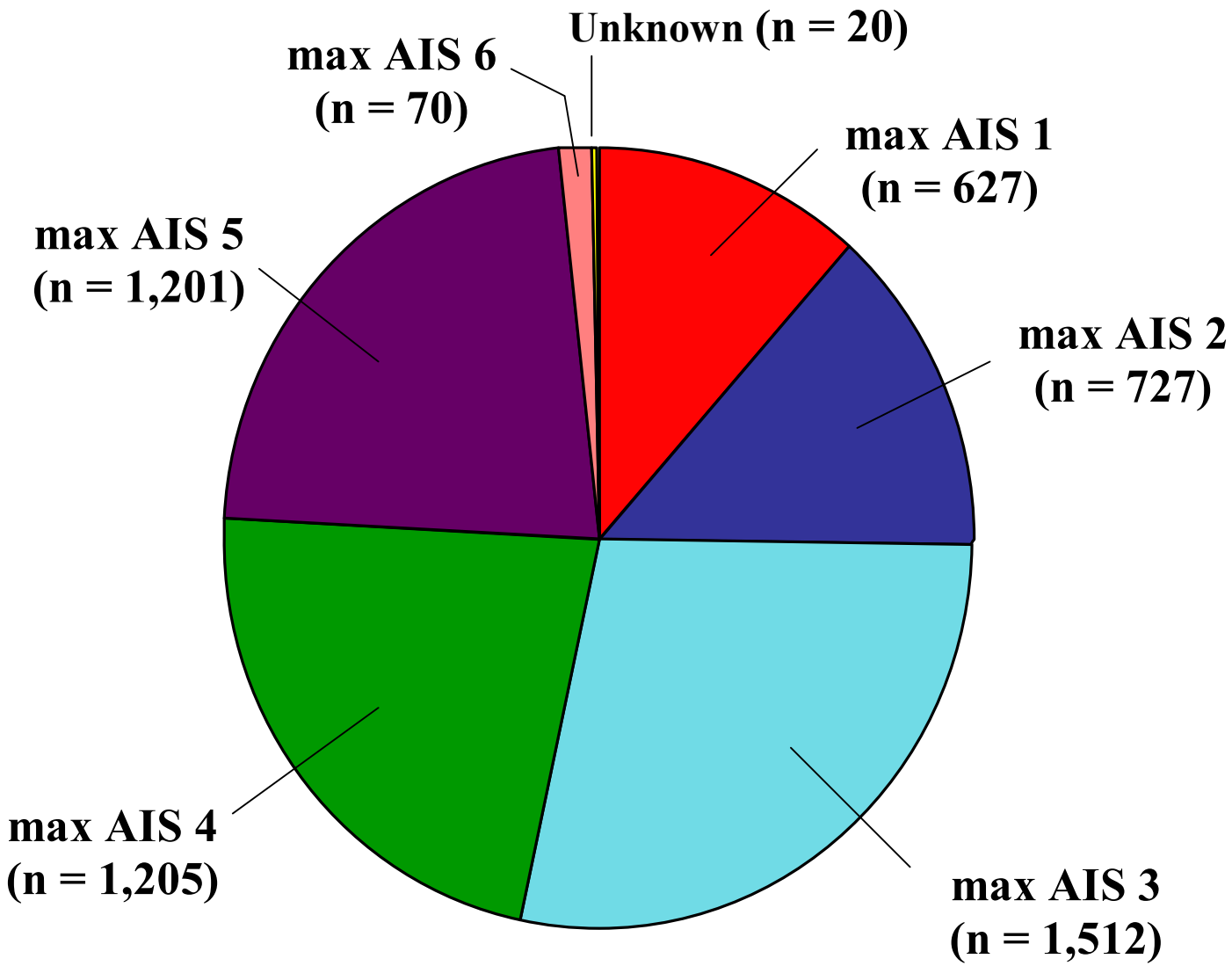


Figure 37-A Head Injury and max AIS Score

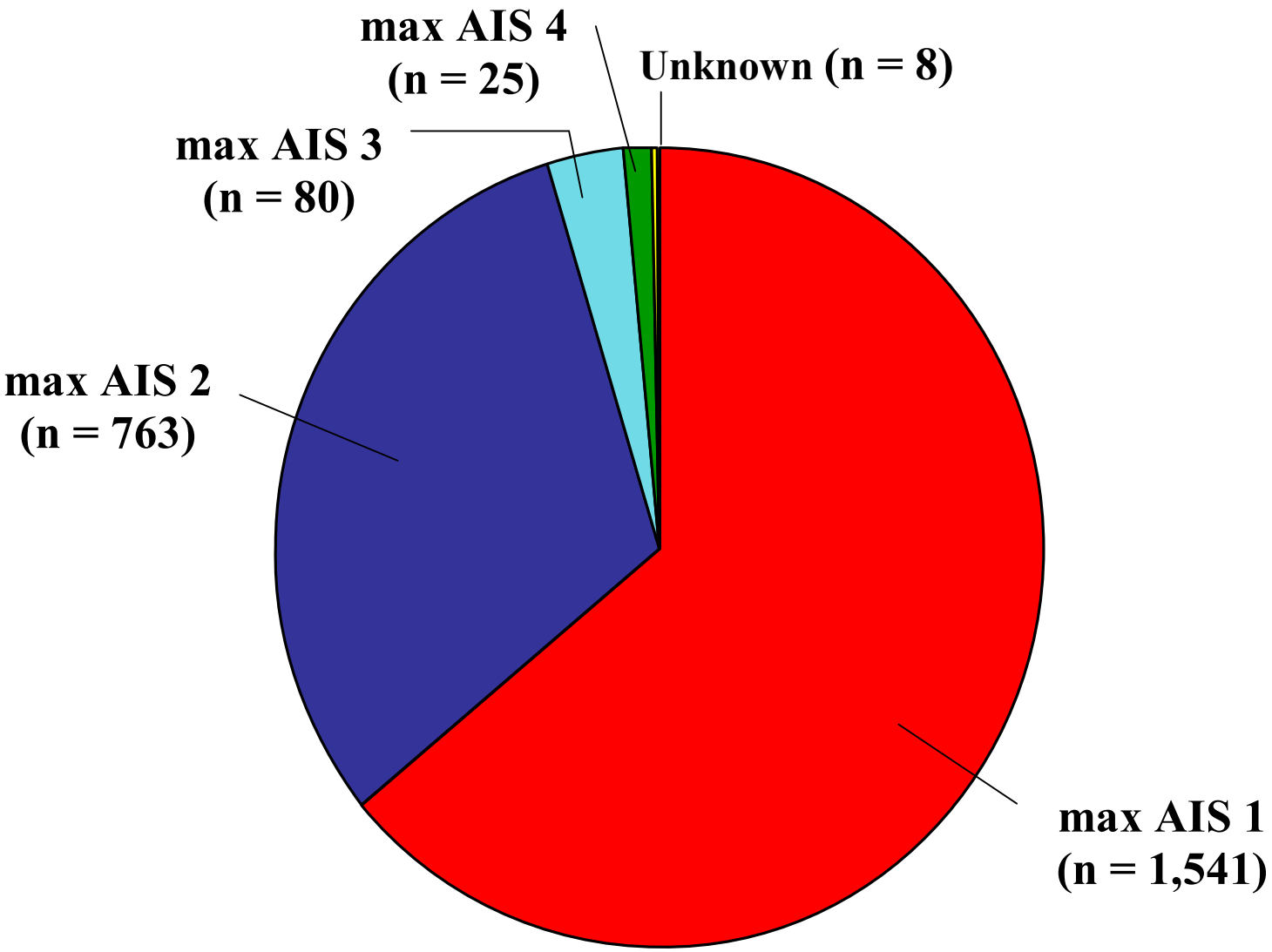


Figure 37-B Facial Injury and max AIS Score

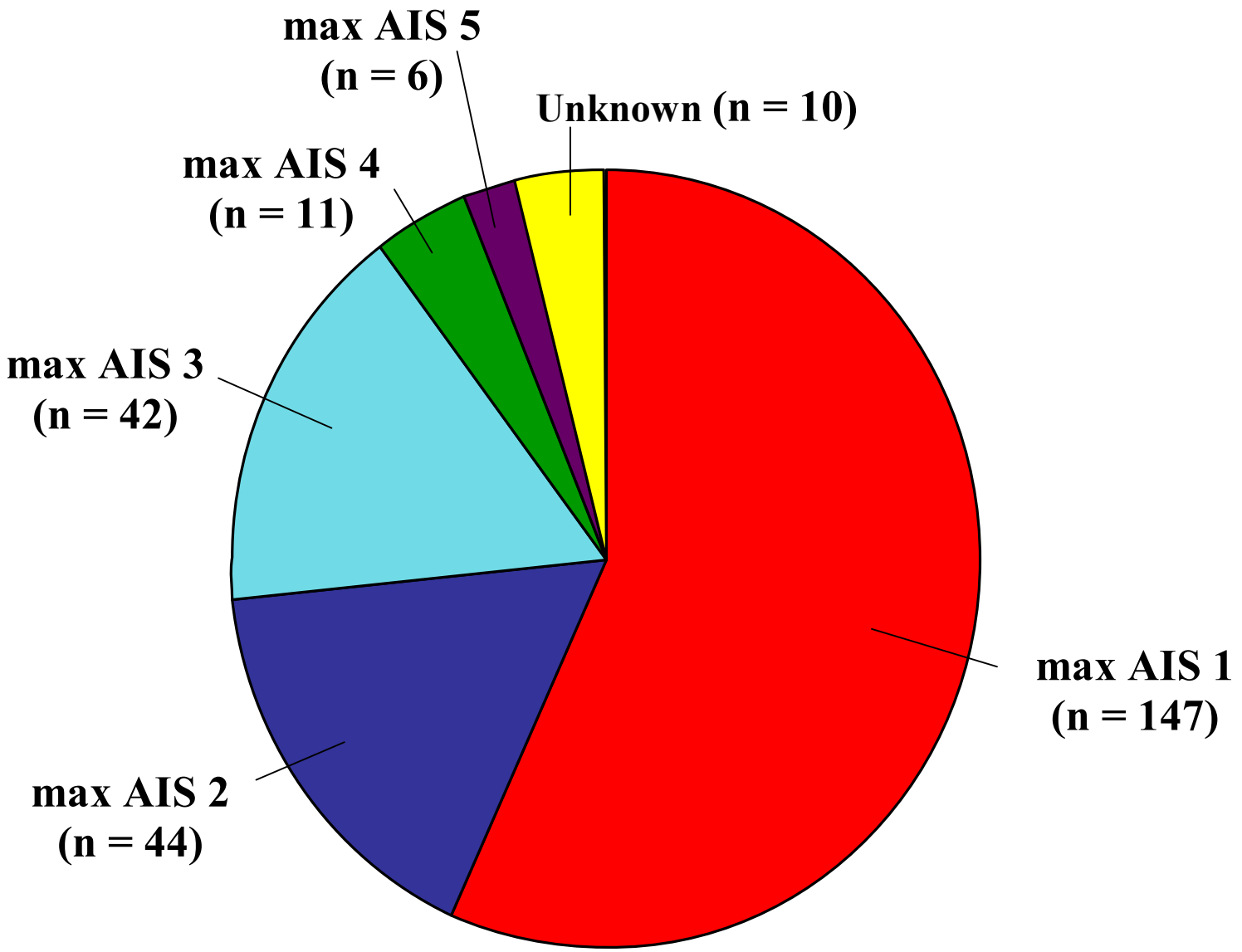


Figure 37-C Neck Injury and max AIS Score

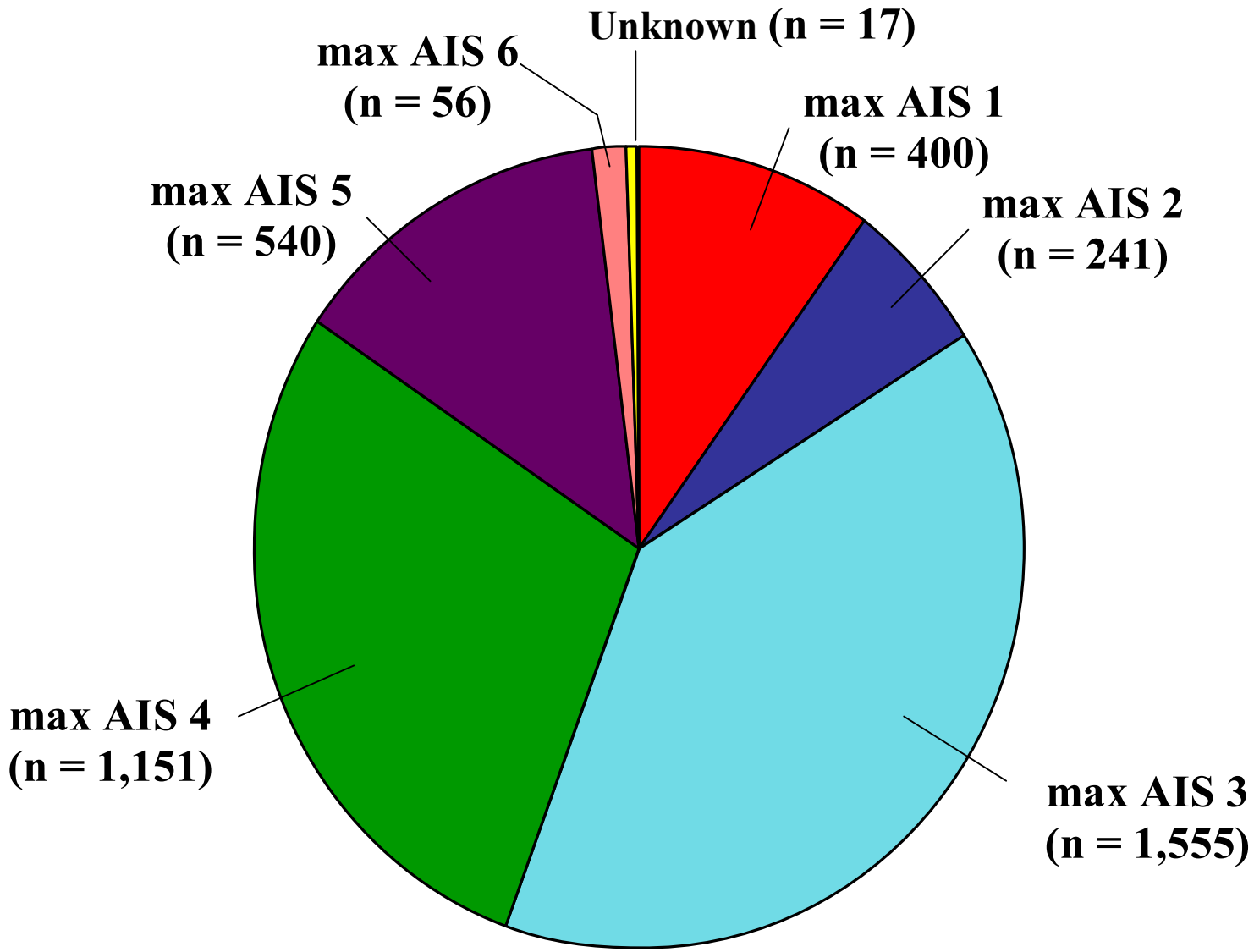


Figure 37-D Thoracic Injury and max AIS Score

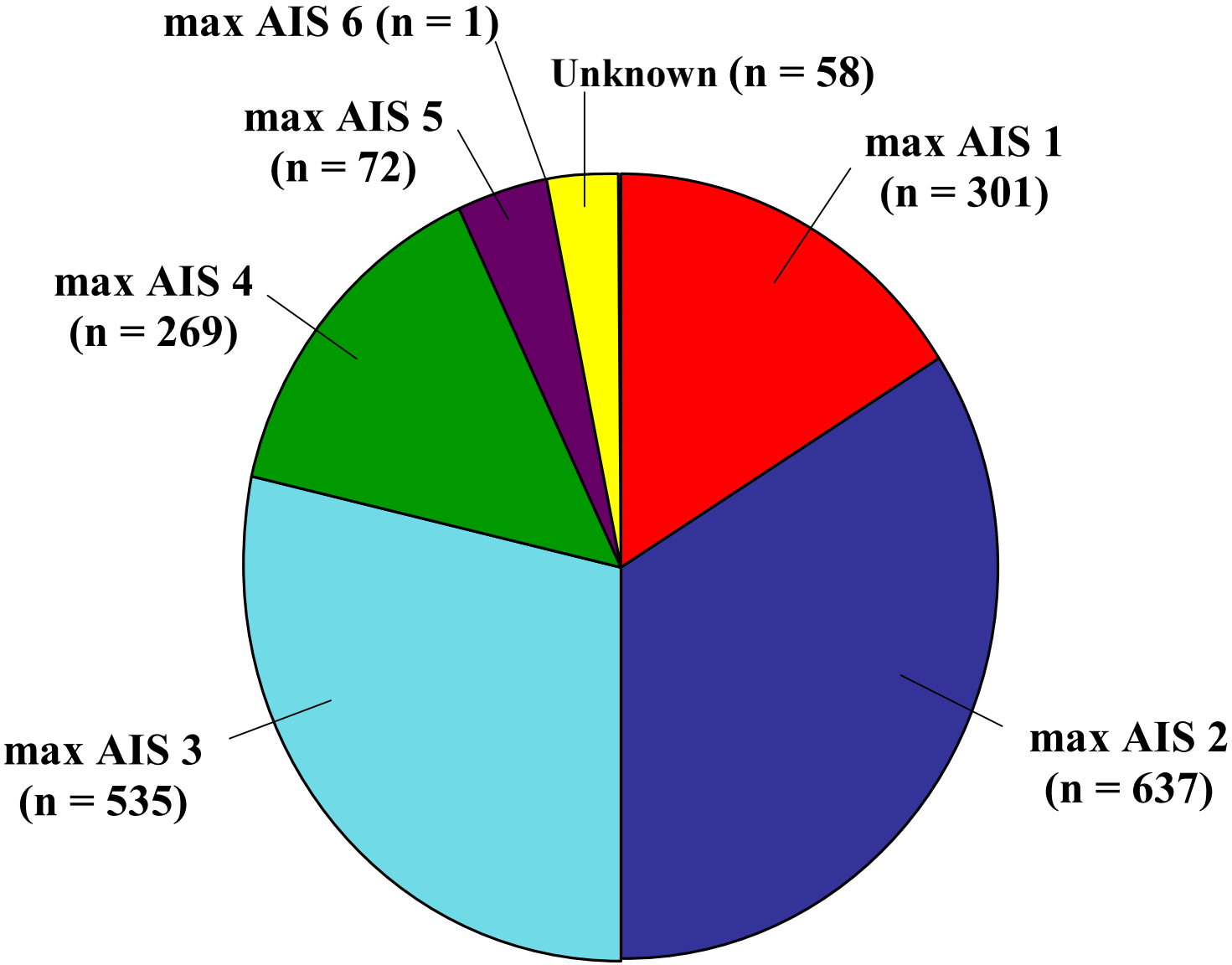


Figure 37-E Injury of Abdomen/Pelvic Contents and max AIS Score

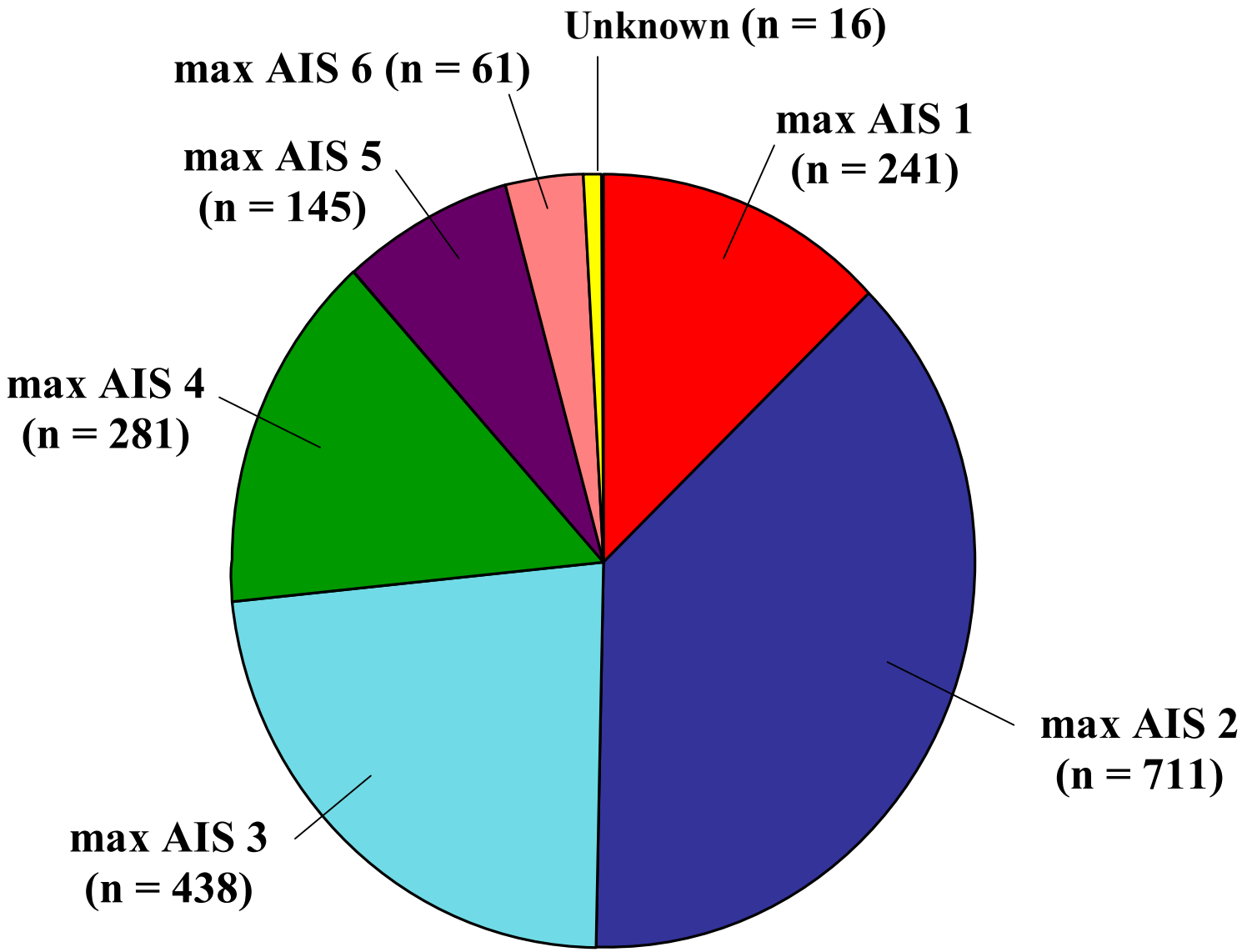


Figure 37-F Spine Injury and max AIS Score

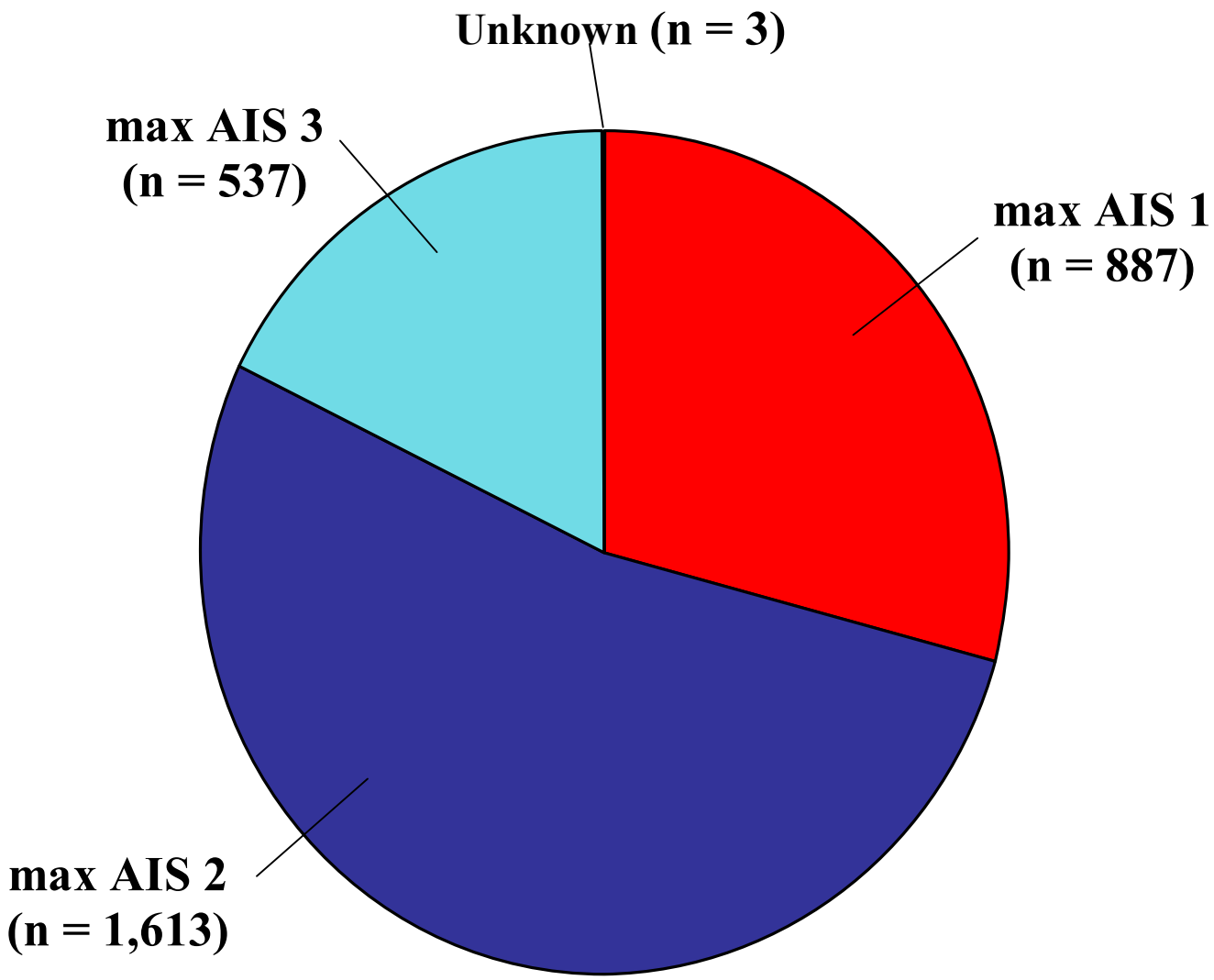


Figure 37-G Injury of Upper Extremities and max AIS Score

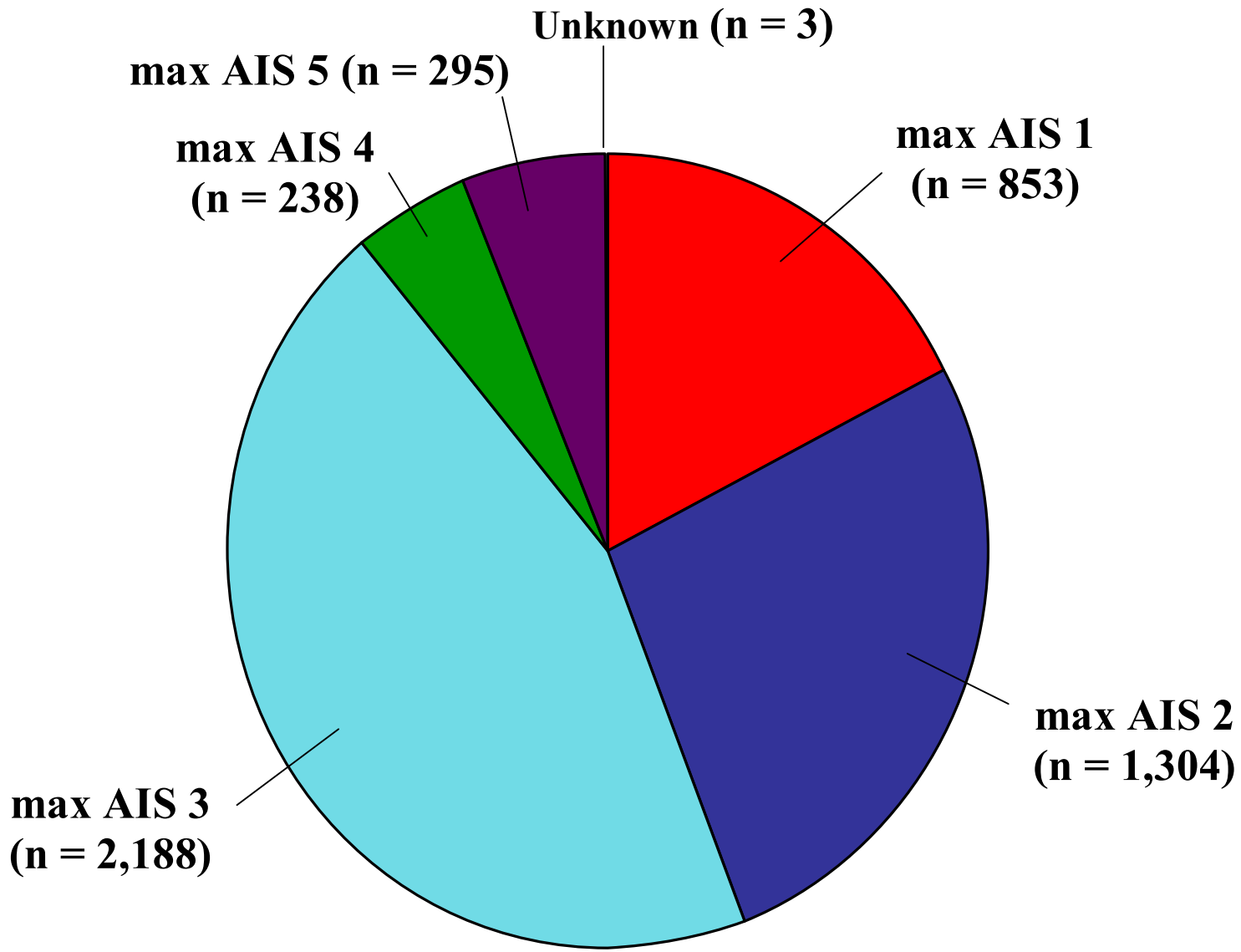


Figure 37-H Injury of Lower Extremities and max AIS Score

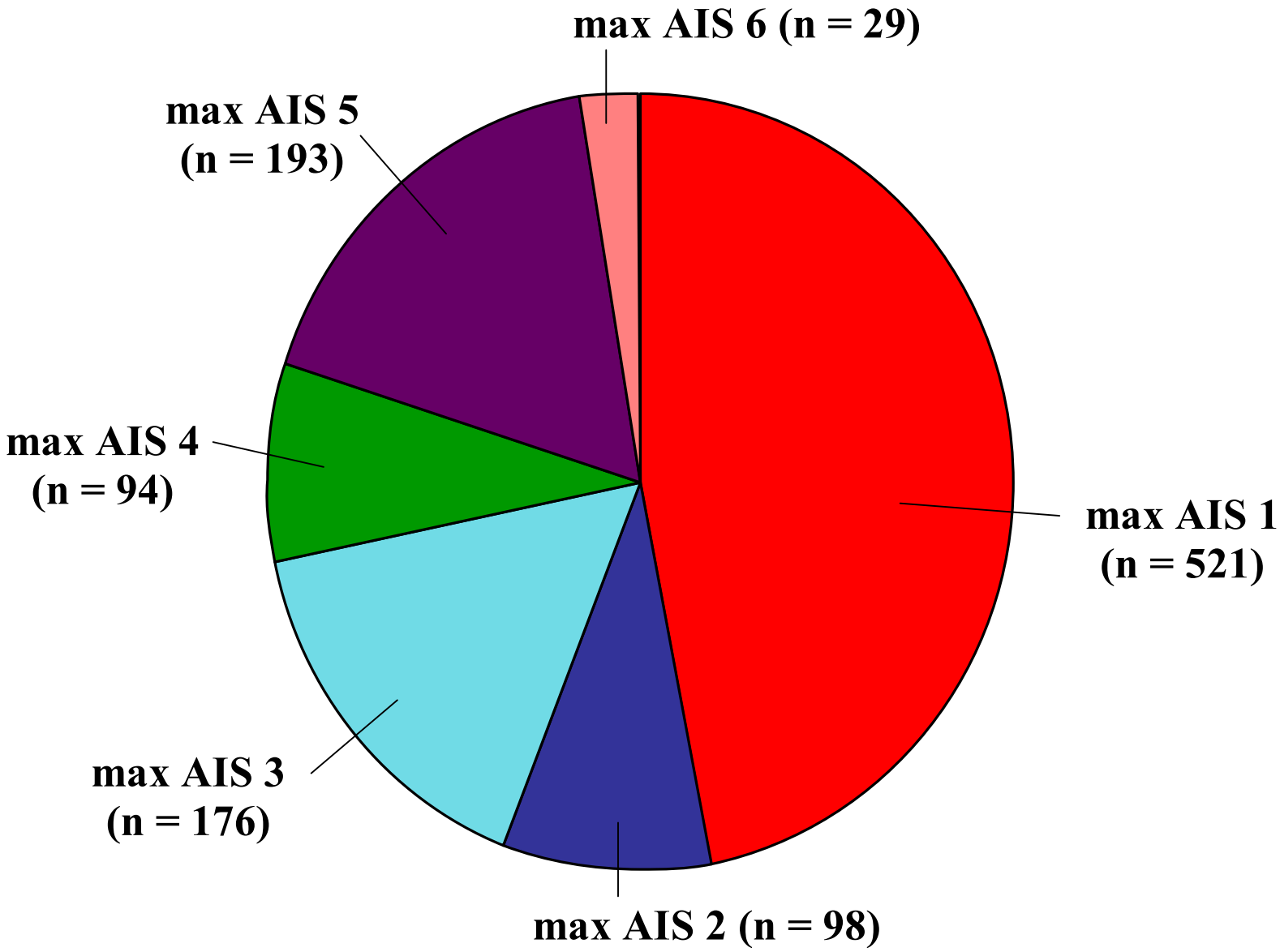


Figure 37-I Skin/Burns/Other Trauma and max AIS Score

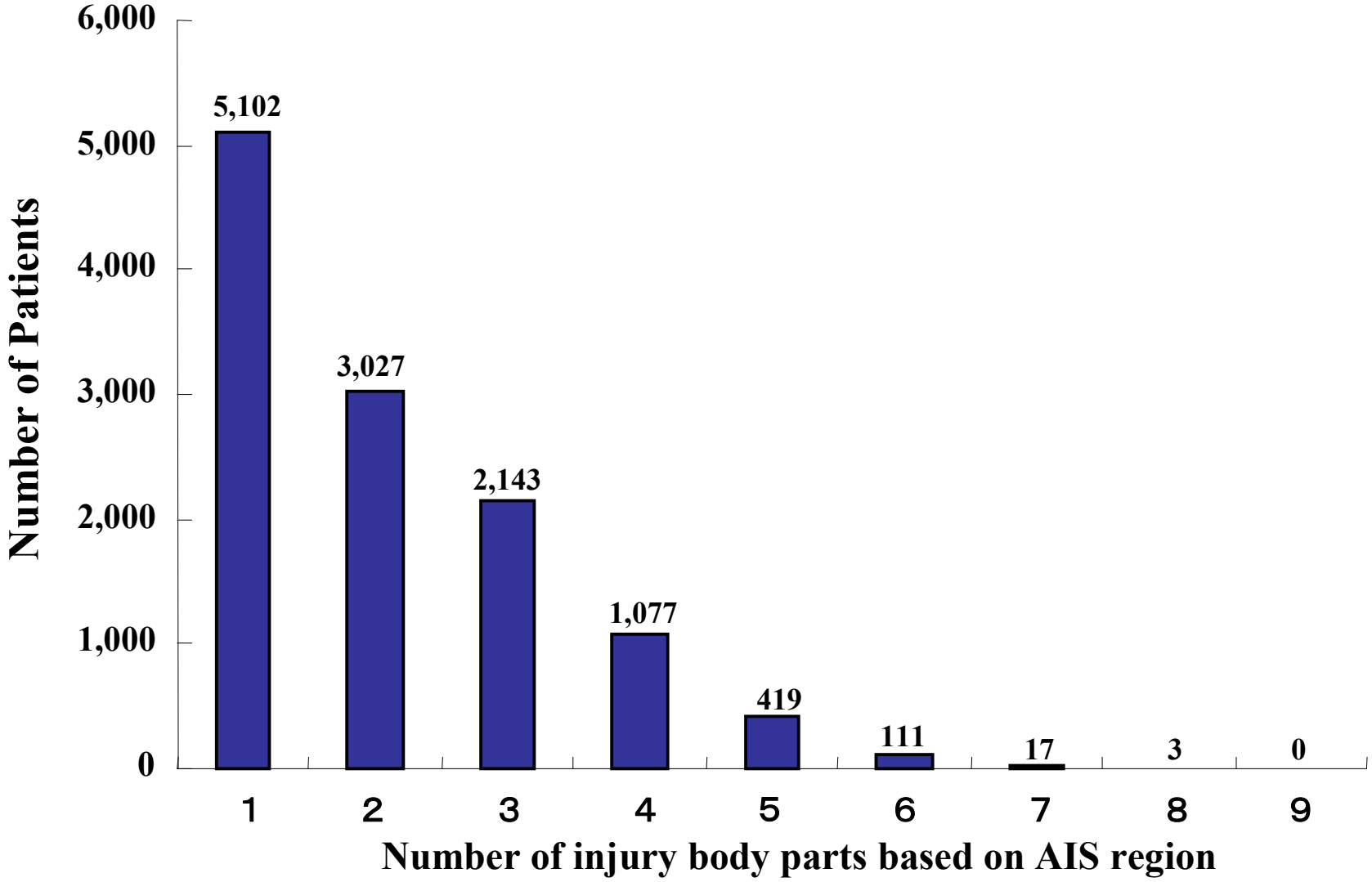


Figure 38 Number of Patients and Injured Body Parts based on AIS

JAPAN TRAUMA DATA BANK REPORT 2004-2006

February 4, 2008

The Japanese Association for Acute Medicine
(Committee for Clinical Care Evaluation)
Trustee: Tohru Aruga, MD
Chairman: Tetsuya Sakamoto, MD

The Japanese Association for the Surgery of Trauma
(Trauma Registry Committee)
Trustee: Junichiro Yokota, MD
Chairman: Daizoh Saitoh, MD

Task Force: **Yuichiro Sakamoto, MD**
Akio Kimura, MD
Hideo Tohira, MD
Munetaka Hayashi, MD
Atsuhiro Fukuda, MD
Takashi Fujita, MD
Tomohiko Masuno, MD
Yasuhumi Miyake, MD
Naoto Morimura, MD
Yoshihiro Yamaguchi, MD
Noriaki Aoki, MD