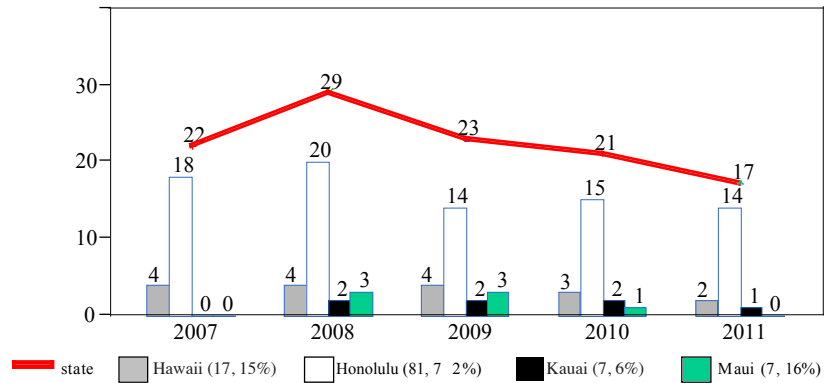


Homicides

Fatal injuries

There were 112 victims of homicide over the 5-year period, with a decreasing trend from 29 in 2008 to 17 in 2011 (Figure 156). The 112 victims died in 111 separate incidents, as only 1 incident claimed more than one life. The figure shows that the majority of victims (72%, or 81) were killed on the island of Oahu. More than half (55%, or 17) of the remaining 31 victims were killed on Hawaii, 7 in Maui County (1 on Lanai, the other 6 on the island of Maui), and 7 on Kauai. There were too few fatalities to compute county-specific rate estimates. 5-year age standardized fatality rates were statistically comparable across all counties, although these comparisons were based on small numbers for all but Honolulu County. The rate for Honolulu County residents (8.8/100,000 residents) was similar to that for residents of all Neighbor Islands (8.4/100,000).

Figure 156. Annual number of homicides among Hawaii residents, by county, 2007-2011.



Most (80%, or 90) of the victims were between 18 and 60 years of age, with a peak in the 35 to 44 year age group (Figure 157). There were also 2 infant victims and another 4 who were under 5 years of age. Males comprised a slight majority of the victims (66, or 59%), although gender was equally distributed among the youngest and oldest victims.

Figure 157. Age and gender distribution of homicide victims in Hawaii, 2007-2011.

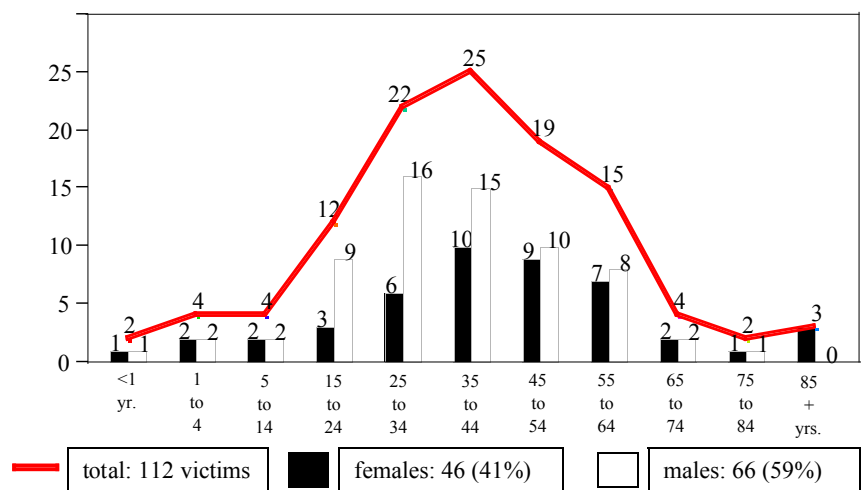
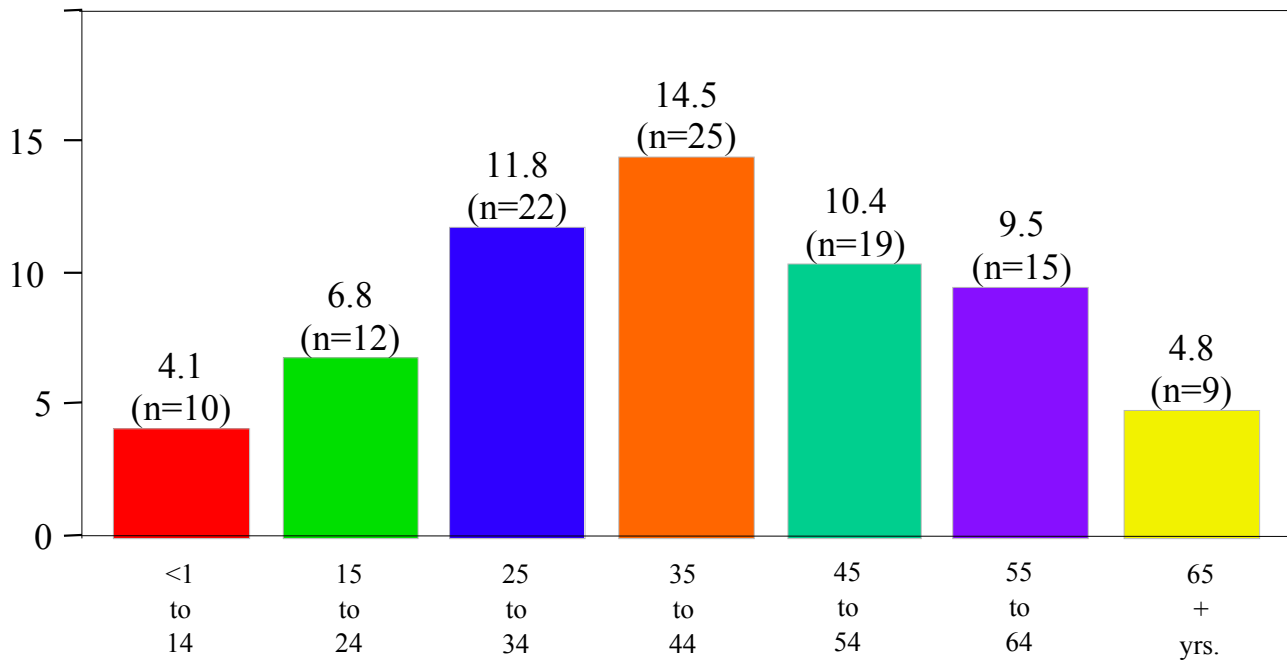


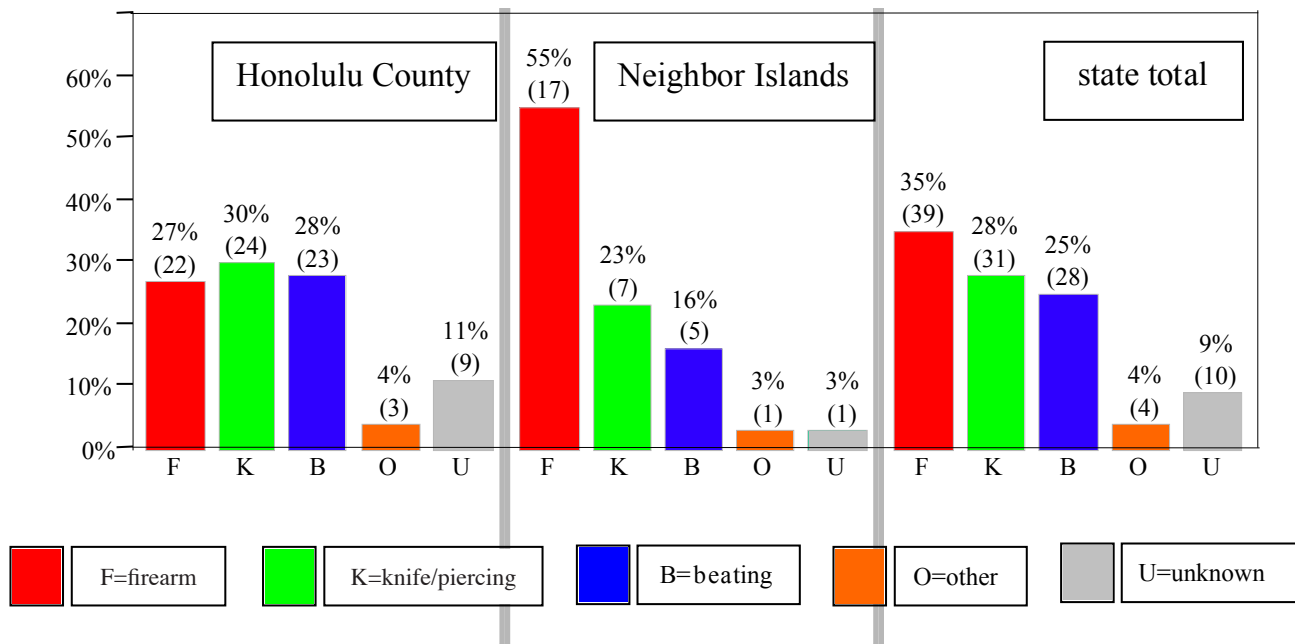
Figure 158 shows the highest 5-year homicide fatality rate was computed for 35 to 44 year-old residents (15 deaths/100,000 residents), significantly higher than the rates for the youngest (under 25 years of age) and oldest (65 years and older) residents. The rates for 25 to 34 year-olds and 45 to 54 year-olds were also significantly higher than the rate for residents under 15 years of age.

Figure 158. Rates (/100,000 residents) of homicide in Hawaii, by age of victim, 2007-2011.



Firearms were the most common means of homicide (35% of victims, followed by stabbings (28%), and physical force or unarmed beatings (25%) (Figure 159). The proportion of murders from firearms was significantly higher among Neighbor Island victims (55%) than residents of Honolulu County (27%). There were no significant differences in mechanism between male and female victims.

Figure 159. Homicides among residents of Hawaii, by mechanism, 2007-2011.



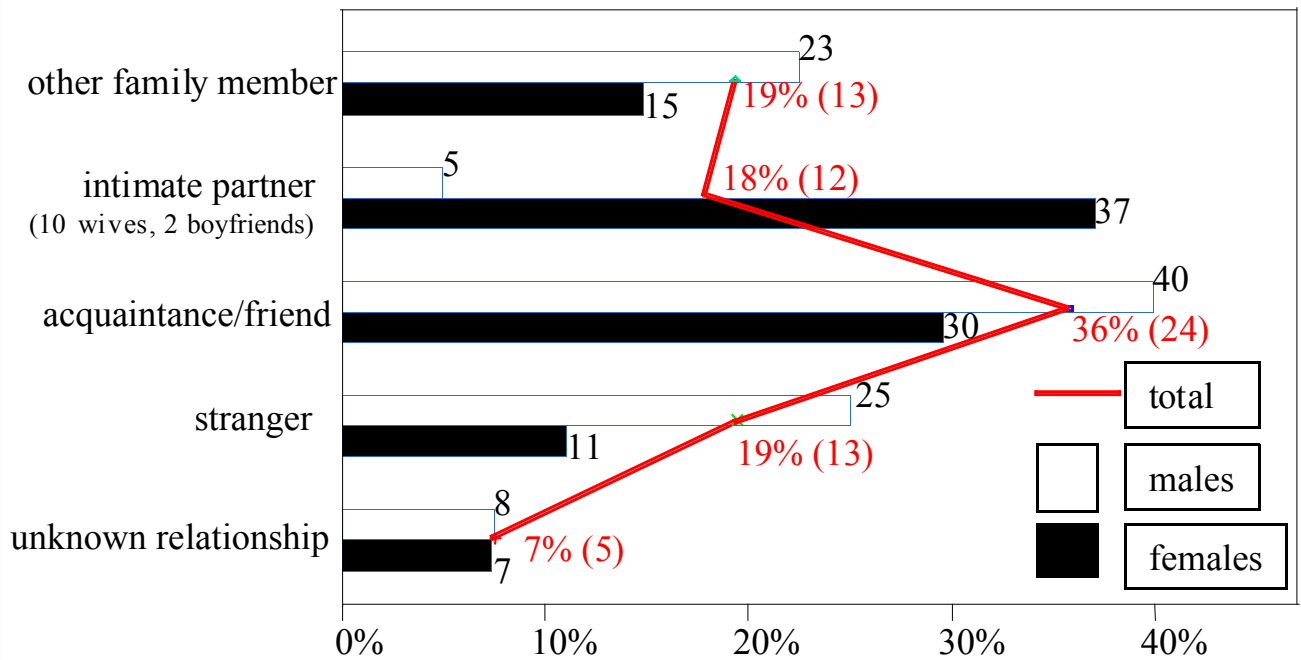
Most (91%, or 67) of the 74 homicides from 2007 to 2009 were linked to Uniform Crime Reports (UCR) to provide additional data on the incident. The following statistics therefore refer only to those 67 deaths that were linked to the UCR data. The proportion of linked records was similar for homicides in Honolulu County (90%), and Neighbor Islands (91%).

According to UCR data, most (73%, or 49) of the 67 victims knew their assailants; only 19% (13) were killed by strangers. (The victim-perpetrator relationship was not known for 5 (7%) of the homicides linked to UCR.) Victims were most commonly killed by someone in their family (37%, or 25) (Figure 160). Family member consisted of roughly equal numbers of intimate partners (12 victims) and “other” family members (13). The 12 intimate partners were mostly (83%, or 10) wives of the perpetrators; there were 2 other victims described as “boyfriends”. “Other” family members included 6 children of the perpetrators,

3 victims killed by in-laws, and 3 others killed by aunts or cousins. All but 1 of the 5 victims who were under 8 years of age were killed by family members. Most (79%, or 19) of the 24 victims were killed by someone they knew outside of their family were killed by an “acquaintance”. Three others were killed by neighbors, 1 by a co-worker, and 1 by a “friend”.

Figure 160 also shows that female victims were more likely to be killed by their intimate partners (37%), than were male victims (5%). Male victims were more likely to be killed by extra-familial acquaintances (40%) or strangers (25%), compared to female victims (26% and 11%, respectively). Victims killed on Neighbor Islands were more likely to have been killed by other family members (40%, vs. 11% for Oahu victims), while Oahu victims were more likely to have been killed by a stranger (26%, vs. 5% for Neighbor Island victims).

Figure 160. Victim-to-assailant relationship for homicides among Hawaii residents, by gender, 2007-2009.



Limited information was available on the circumstances of the murders, as most resulted from “arguments” (40%) or “other” reasons (39%). Five deaths resulted from robberies (including 2 victims who knew their assailants), and 2 from burglaries. Only 1 murder was attributed to the narcotics trade.

Nonfatal injuries

There were no trends in the number of nonfatal injuries from assaults in the state, or within any county (Table 36). Males comprised two-thirds (67%) of the patients treated in EDs and an even greater proportion (89%) of those who were hospitalized. Very few (less than 1%) of the patients under 5 years of age and most (94%) were 15 years or older. More than half (58%) were 15 to 34 years of age. Only 2% were in the senior age range. Honolulu County residents comprised nearly two-thirds (64%) of the patients treated in EDs, and almost three-fourths (72%) of those who were hospitalized.

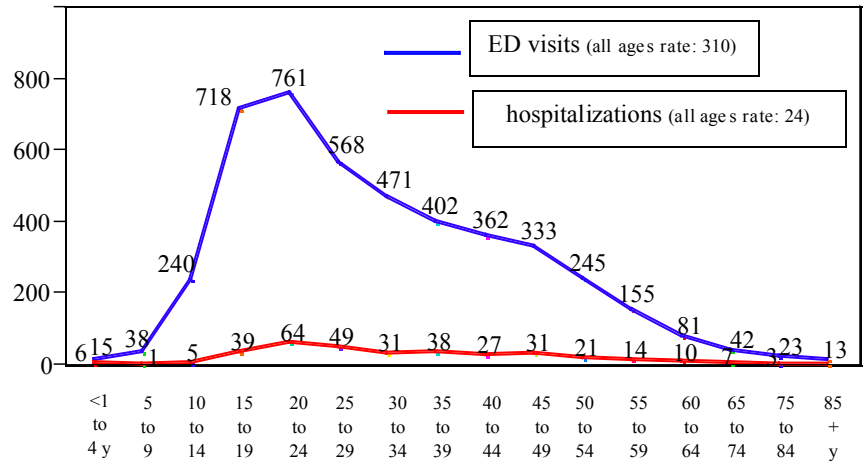
Table 36. Demographic characteristics* of Hawaii residents with nonfatal injuries from assaults.

	ED visits	hospitalizations	total
Year of admission			
2007	4128	321	4449
2008	3985	285	4270
2009	3788	309	4097
2010	3837	311	4148
2011	3943	309	4252
average annual total	3936	307	4243
Patient gender			
Female	1286 (33%)	35 (11%)	1321 (31%)
Male	2651 (67%)	272 (89%)	2923 (69%)
Patient age			
infants	3 (0%)	3 (1%)	6 (0%)
1-4 y	10 (0%)	1 (0%)	11 (0%)
5-14 y	215 (5%)	5 (2%)	220 (5%)
15-24 y	1303 (33%)	92 (30%)	1394 (33%)
25-34 y	974 (25%)	76 (25%)	1050 (25%)
35-44 y	659 (17%)	56 (18%)	715 (17%)
45-54 y	525 (13%)	46 (15%)	572 (13%)
55-64 y	191 (5%)	18 (6%)	209 (5%)
65-74 y	38 (1%)	6 (2%)	44 (1%)
75-84 y	15 (0%)	2 (1%)	17 (0%)
85+ y	4 (0%)	1 (0%)	5 (0%)
County of residence of patient			
Hawaii	743 (19%)	28 (9%)	771 (18%)
Honolulu	2510 (64%)	225 (73%)	2735 (64%)
Kauai	219 (6%)	7 (2%)	226 (5%)
Maui	464 (12%)	47 (15%)	511 (12%)

*Statistics are annual averages over the 2007-2011 period.

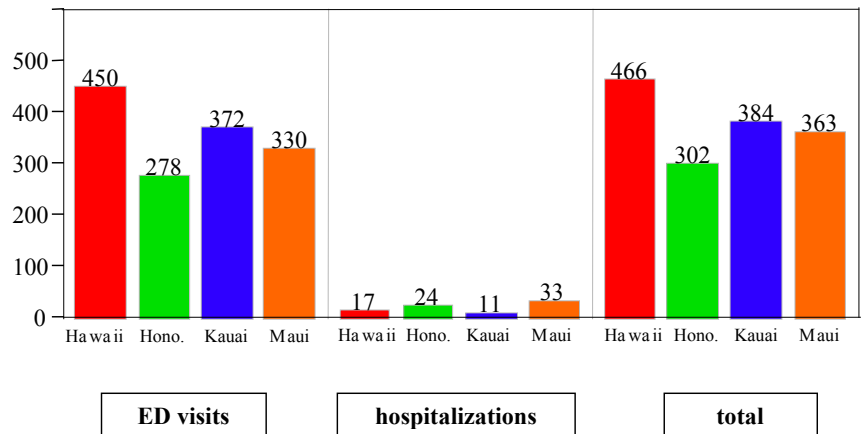
The peak age for rates of both ED visits and hospitalizations was the 15 to 29 year age group, particularly 20 to 24 year-olds (Figure 161). The rates for both types of injuries gradually decreased from this peak over the succeeding age groups. Rates of nonfatal injuries treated in EDs were lowest for the youngest (under 5 years of age) and oldest (75 years and older) residents. Hospitalization rates were slightly elevated among residents under 5 years of age compared to rates for 5 to 14 year-olds (6 vs. 3 hospitalizations/10,000 residents, respectively).

Figure 161. Average annual rates (per 100,000 residents) of hospitalizations and ED visits for nonfatal injuries from assaults in Hawaii, by age of patient, 2007-2011.



The rate for ED visits for residents of Hawaii County was significantly higher than for any other county, while the rate for residents of Honolulu County was significantly lower than any other county (Figure 162). These county differences were also true for all types of injuries (combining both ED visits and hospitalizations). In contrast, the hospitalization rates for residents of Kauai and Hawaii counties were significantly lower than the rates for residents of Honolulu and Maui counties.

Figure 162. Age adjusted annual rates (per 100,000 residents) of nonfatal injuries from assaults, by level of care and county of residence of patient, 2007-2011.



Patients were hospitalized for nearly 5 days on average, with over \$31,000 in charges for each admission (Table 37). Unarmed beatings caused nearly three-quarters (70%) of all injuries, and 61% of those that required hospitalization. Injuries from stabbings (14%) and beatings from blunt objects (11%) were more common among patients who were hospitalized compared to those who were treated in EDs (3% and 8%, respectively). Firearms comprised only a small proportion (2% or less) of either type of injury.

Fractures were the most common type of injury that required hospitalization (53%). Forty-four percent of patients admitted to hospitals had a skull fracture. Internal injuries were also common (28%) among hospitalized patients. Injuries treated in EDs were most commonly contusions or superficial injuries (33%) or open wounds (22%).

Table 37. Clinical characteristics* of Hawaii residents with nonfatal injuries from assaults.

	ED visits	hospitalizations	total
Length of care and financial charges			
Ave. length of stay (days)	1.0	4.8	1.3
Total number of days	3,936	1,487	5,423
Average charge	\$2,122	\$31,617	\$4,155
Total charges	\$8.4 million	\$9.7 million	\$17.6 million
E-code classifications (mechanism of assault)			
blunt object	299 (8%)	34 (11%)	332 (8%)
firearm	9 (0%)	6 (2%)	15 (0%)
stabbing/piercing	111 (3%)	43 (14%)	154 (4%)
unarmed fight or assault	2775 (71%)	187 (61%)	2962 (70%)
other	199 (5%)	6 (2%)	206 (5%)
unspecified	543 (14%)	30 (10%)	573 (13%)
Primary injury diagnosis			
fractures	602 (15%)	163 (53%)	766 (18%)
fracture of skull	391 (10%)	134 (44%)	525 (12%)
vertebral column	8 (0%)	3 (1%)	11 (0%)
ribs, pelvis or trunk	50 (1%)	5 (2%)	55 (1%)
humerus	5 (0%)	1 (0%)	7 (0%)
lower arm or hand	127 (3%)	7 (2%)	134 (3%)
femur	1 (0%)	4 (1%)	5 (0%)
lower leg or foot	20 (0%)	9 (3%)	29 (1%)
sprains and strains	189 (5%)	1 (0%)	189 (4%)
internal injuries	310 (8%)	85 (28%)	395 (9%)
open wound	875 (22%)	38 (13%)	914 (22%)
contusion/superficial	1286 (33%)	4 (1%)	1290 (30%)
other/unspecified	675 (17%)	15 (5%)	690 (16%)
traumatic brain injury (any priority diagnosis)			
traumatic brain injury (any priority diagnosis)	1102 (28%)	125 (41%)	1227 (29%)

*Statistics are annual averages over the 2007-2011 period.

EMS responded to 13,297 nonfatal injuries from assaults among Hawaii residents over the 2007 to 2011 period. (Excluding records for patients with unknown resident status, those who were transferred to other EMS units (to avoid double-counting of injuries), and 52 patients who were described as dead on arrival.) These injuries resulted from 12,651 separate incidents, as most (96%) involved a single victim.

The number of incidents generally increased over the course of the day (starting at 6 a.m.), reaching a broad peak during the 7:31 p.m. to 2:29 a.m. period (48% of the total) (Figure 163). The time distribution was generally later for patients who were transported in “serious” or “critical” condition, compared to those who were released at the scene or transported with minor or moderate injuries. Almost one-third (32%) of the former types of injuries occurred during the midnight to 4:29 a.m. period, compared to 24% of the less serious injuries. Saturdays (19% of injuries) and Sundays (18%) were the most common days of the week; the rest of the days of the week accounted for 12% to 14% of the injuries. The home or residence of the patient was the most common location for the assault (40%), followed by other indoor location or buildings (17%), most commonly “public buildings” (7%), and bars and restaurants (6%). Another 9% were on streets and roadways. (These statistics include 28% of patients who were assaulted in “other” locations.) About 60% of the victims were males, but males accounted for 74% of patients transported in serious or critical condition. Less than 1% (83) of the patients were under 5 years of age; most (88%) were 18 years or older. The peak age group was from 18 to 30 years (38%, or 5030 patients). This age group accounted for nearly half (46%, or 3176) of the 6980 residents who were assaulted during night time hours.

Figure 163. Time distribution of EMS-attended nonfatal injuries from assaults, by injury severity, 2007-2011.

(Horizontal scale indicates time of EMS dispatch, rounded up to nearest hour (military time scale, starting at 6:00am).
Vertical scale indicates percent of all incidents, rounded to nearest whole number.)

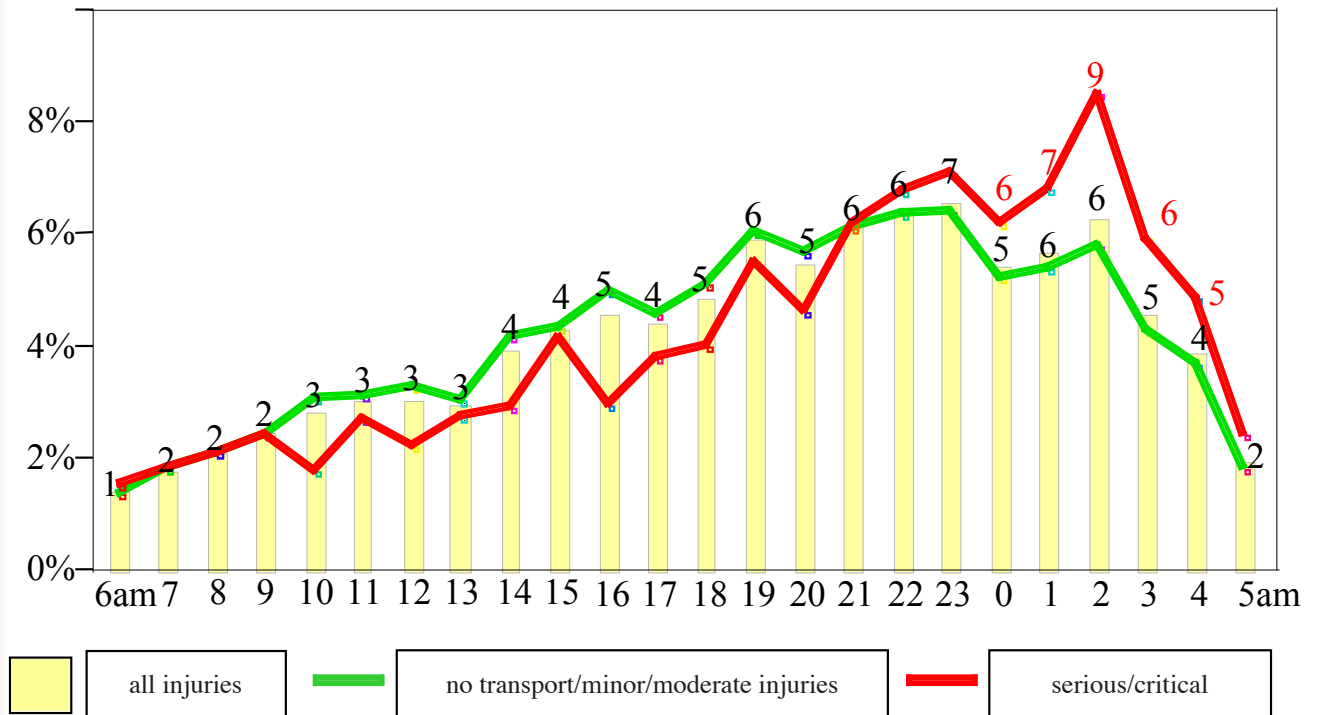
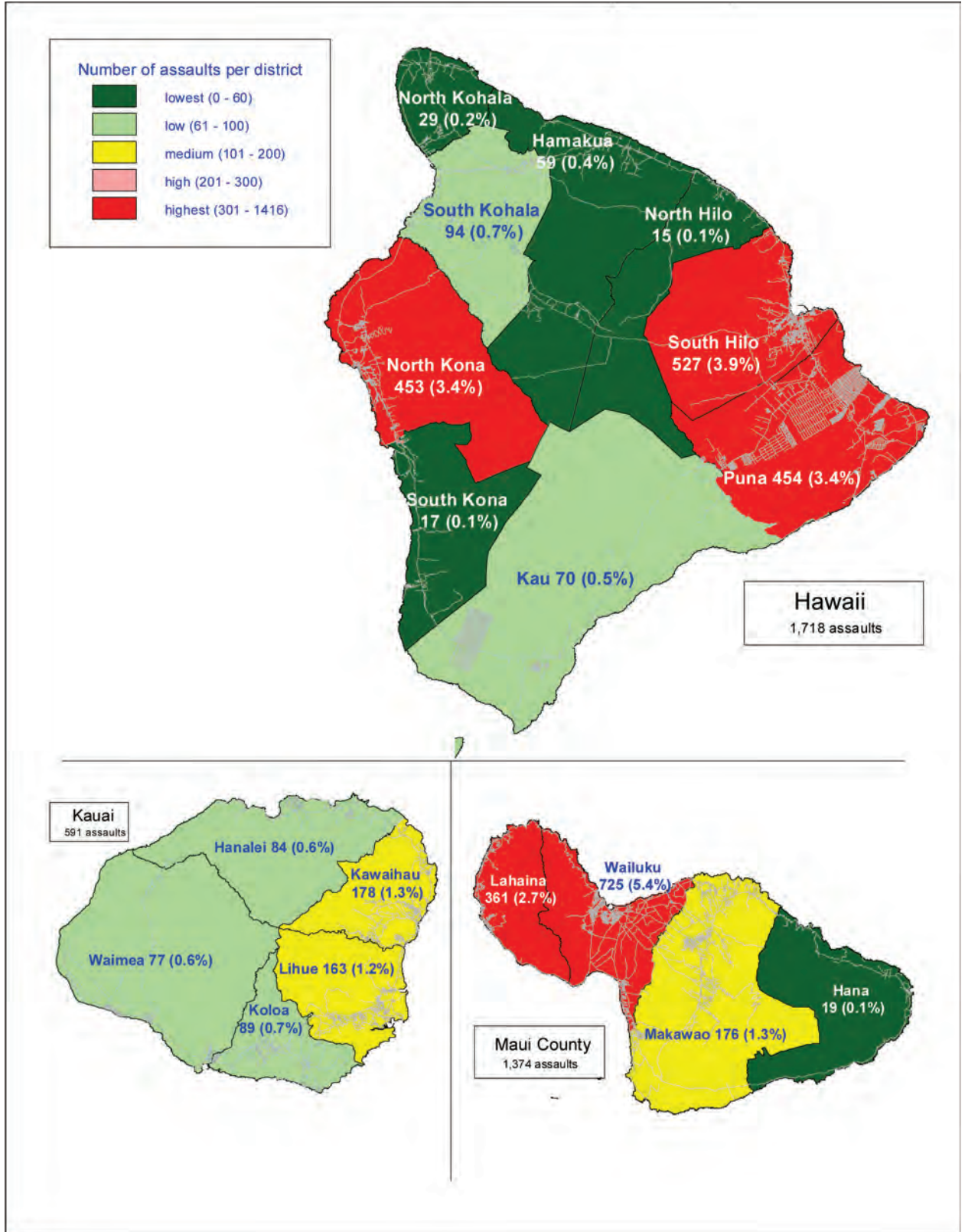


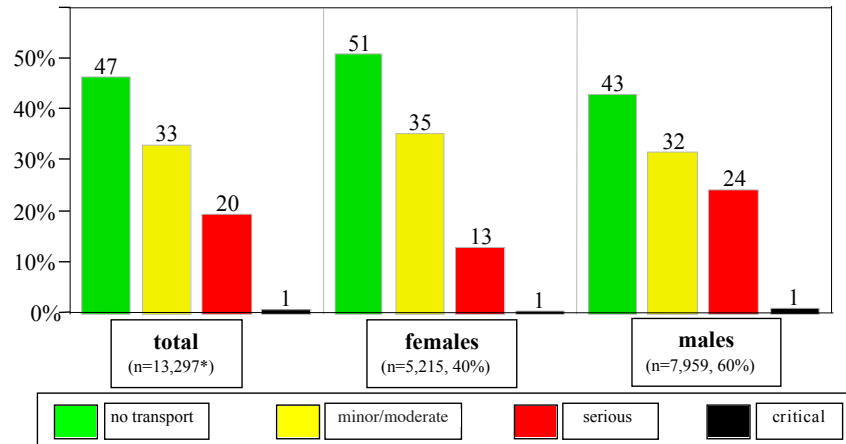
Figure 165. Number of EMS-attended assaults on Neighbor Islands, by district, 2007-2011.

(Percent of all EMS-attended assaults in the state is shown in parentheses.)



About half (47%) of the patients refused EMS transport to hospitals and were released at the scene, although this proportion was significantly lower (43%) among males (Figure 166). Males were significantly more likely to be transported in serious (24%) or critical condition (1.0%), compared to females (13% and 0.6%). Overall, one-fifth (20%) of the injured were transported in serious or critical condition. That proportion was highest among the senior-aged victims (29%), and those who were injured in Kauai (24%) or Hawaii counties (25%).

Figure 166. Distribution of injury severity/transport status of residents treated by EMS personnel for nonfatal injuries from assaults, by gender, 2007-2011.



*Includes 123 patients for whom gender was not recorded.

Probable alcohol use was noted for nearly one-third (29%, or 3901) of the patients (Table 38). This proportion was lowest among patients assaulted on Kauai (15%, vs. 30% for other counties), although the status was unknown for 51% of the Kauai patients (vs. 28% to 33% for the other counties). Average age was comparable between the drinkers and non-drinkers, although the former were more likely to be in the 18 to 30 year age range. The proportion of males among the drinkers was significantly higher than for the other groups. Patients who had consumed alcohol were significantly less likely to be released at the scene, and twice as likely to be transported in serious condition, compared to other patients. The proportion of drinkers who were transported in “critical” condition was significantly higher than that for non-drinkers, but lower than that among whom alcohol status was unknown. Assaults on weekends and during night time hours were also significantly more common among patients who had been drinking than among other patients.

Table 38. Characteristics of patients with EMS-treated nonfatal injuries from assaults, by category of alcohol use, 2007-2011.

	Alcohol use (n=3,901, 29%)	No alcohol use (n=5,035, 38%)	No data/unknown (n=4,361, 33%)
Average age	34 years	34 years	35* years
Ages 18 to 30 years	47%	33%*	36%*
Gender (% male)	75%	53%*	56%*
Disposition			
no transport	34%	52%*	52%*
minor/moderate injuries	35%	33%*	32%*
serious injuries	31%	15%*	15%*
critical injuries	0.8%	0.3%*	1.4%
Weekend assault (Sat/Sunday)	46%	31%*	35%*
Nighttime assault (8 pm - 5 am)	74%	39%*	49%*

*Indicates statistically significant difference between patients who used alcohol vs. other patients.

Trauma Registry data

Nearly half (46%) of the adult-aged (18 years and older) HTR resident patients who were injured by assaults were positive for alcohol, and more than one-third (38%) tested positive for illicit drugs (Figure 167). Alcohol use was significantly greater among patients in the 18 to 30 year age range (51%), compared to older patients (41%), but there was no difference in drug use between the two groups. About three-fourths (76%, or 286) of the 375 drinkers had BAC levels of 0.08% or greater. THC was the most commonly documented drug (19% of the patients), followed by amphetamines (15%) and narcotics (15%). Amphetamine use was more common among patients 31 years and older (18%), compared to those in the 18 to 30 year age group (11%), while THC was more commonly found among the latter (24%, vs 15% among older patients). Considered together, about two-thirds (67%) of the patients tested positive for either alcohol or drugs.

Alcohol use was significantly more likely among the male patients (49%) compared to females (27%), among those injured on weekends (54% vs. 41% for those assaulted on weekdays), and among those assaulted during night time hours (54%, vs. 30% for those injured between 6:31 a.m. and 7:29 p.m.). Alcohol use was not significantly associated with the mortality rate or the likelihood of a discharge to a rehabilitation facility, either among all patients or within the 2 age groups.

Figure 167. Alcohol and/or drug use (percent) among adult-aged residents treated for assaults in the Hawaii Trauma Registry, by age group, 2008-2011.

