

**CALIFORNIA DEPARTMENT OF HEALTH EPICENTER INJURY DATA
ANALYSIS**

**FIVE YEAR ANNUAL AVERAGE HOSPITAL DISCHARGES AND
EMERGENCY ROOM VISITS FOR SKI AND SNOWBOARD RELATED
INJURY CODES**

HOSPITAL ADMISSIONS

| | FALLS FROM SKIS | FALLS FROM SNOW BOARDS | COLLISIONS* | FALLS FROM LIFTS* |
|------------------|-----------------|---------------------------|-------------|----------------------|
| All Injuries | 226 | 216 | 1563 | 5 |
| Traumatic Brain | 13 | 18 | 266 | 1 |
| Spinal Cord | 2 | 2 | 28 | |
| Vertebral Column | 8 | 16 | 45 | |

EMERGENCY ROOM VISITS

| | | | | |
|------------------|------|------|-------|----|
| All Injuries | 2037 | 6013 | 69435 | 38 |
| Traumatic Brain | 201 | 779 | 7561 | 7 |
| Spinal Cord | 4 | 3 | 10 | |
| Vertebral Column | 100 | 292 | 1319 | |

ICD-9 SKI AND SNOW BOARD RELATED INJURY E CODES

E885.3 Fall from skis

E885.4 Fall from snow board

E917.0 Striking against or struck accidentally by objects or persons in sports

E917.5 Striking against or struck accidentally by objects or persons in sports with subsequent fall

E847 Accident involving cable car not on rails

* The ICD-9 codes for these injuries are not specific to skiing and snowboarding. Skiing and snowboarding related injuries are an unspecified subset of these numbers.

ADJUSTED EPICENTER INJURY DATA

5-YEAR AVERAGE ANNUAL SKI AND SNOW BOARD INJURY HOSPITAL DISCHARGES AND EMERGENCY ROOM VISITS

HOSPITAL ADMISSIONS

| | |
|------------------------------------------------|-------------------|
| ANNUAL AVERAGE FROM FALLS (APPENDIX I): | 441 |
| ADJUSTMENT FOR NON-RESIDENTS*: | 128 |
| SUBTOTAL: | 569 |
| ADDITION OF ESTIMATED COLLISIONS** | 63 |
| TOYAL: | <u>632</u> |

EMERGENCY ROOM VISITS

| | |
|------------------------------------------------|---------------------|
| ANNUAL AVERAGE FROM FALLS (APPENDIX 1): | 8040 |
| ADJSUTMENT FOR NON RESIDENTS*: | 2334 |
| SUBTOTAL: | 10374 |
| ADDITION OF ESTIMATED COLLISIONS**: | 1153 |
| TOTAL: | <u>11527</u> |

*The EpiCenter data includes only California residents, According to the California Tourism Website (www.industry.visitcalifornia.com), California Statistics and Trends 2012, 77.5% of California tourist visits are by residents of the state.

**Collisions are estimated in the ski injury literature to represent 10-20% of all accidents (Foot Note 2). Comparative Canadian injury data substantiates these estimates. 10% in is used to be conservative.

FATALITY DATA

The number of fatalities nationwide and in California are quite small compared to the large number of injuries. However, the fatality rate in California appears to be significantly higher than the rate reported by NSAA.

EpiCenter data enables fatality reports from the CDPH Death Statistical Masterfile using ICD-10 codes that include but are not specific to ski and snowboard accidents. The most recent 10-year average of annual deaths reported for all applicable codes is 29. This number is consistent with the approximately 8 to 12 annual deaths that can be documented from public media reporting. Given the 5 to 6 million annual skier days in California (approximately 10% of annual skier days nationwide) the California fatality rate appears to be two to three or more times higher than the average annual fatalities nationwide (40) reported by NSAA.

NSAA Reported Annual Fatality Rate per 1 Million Skier Days: .8

Estimated California Annual Fatality Rate per 1 Million Skier Day: 1.6—2.4

COMPARATIVE CANADIAN ANNUAL SKI INJURY EMERGENCY ROOM VISITS AND HOSPITAL ADMISSIONS

A January 2010 report in the Ontario Injury Compass, (Volume7, Issue 1) documents 11,593 emergency room visits in Ontario in the 2007/2008 fiscal year. The Ontario Snow Resorts Association reports (informal communication) approximately 3.4 million skier days in the 2007/2008 season. These numbers produce an annual emergency room visit rate of 3.4 per 1,000 skier days. Applying this rate to California's 5 to 6 million skier days, results in a projected 17,000-20400 emergency room visits.

The Canadian Institute for Health Information National Trauma Registry reports a five-year average of 2,434 annual hospital admissions per yr. for ski and snow board injuries from 2006/2007 to 2010/2011. Based on a Canadian Ski Council report of approximately 19 million annual skier days, the Canadian ski injury hospital admission rate per 1,000 skier days is .13. Applying this rate to California's 5-6 million skier days, results in a projected range of 650 to 780 ski injury hospital admissions in California.

Note: Canada has a single payer healthcare information database and uses ICD-10 codes specific to ski and snowboard injuries.