Recent Trends in Causes of Spinal Cord Injury

Introduction
The National Spinal Cord Injury Statistical Center offers this data sheet to summarize the causes of injury for persons admitted to the Spinal Cord Injury Model Systems of Care between September 2005 and March 2015. Total number (N) of persons admitted = 6,766.

Vehicular Accidents
26.91% N=1,821  Auto (includes cars, jeeps, trucks, dune buggies, and buses)
6.80% N=460  Motorcycle (includes 2-wheeled, motorized vehicles)
2.78% N=188  Bicycles (includes bicycles, tricycles and unicycles)
1.37% N=93  All-Terrain (includes both 3-wheeled and 4-wheeled)
0.25% N=17  Aircraft (includes fixed-wing and rotating-wing)
0.18% N=13  Snowmobile
0.09% N=6  Boat
0.68% N=46  Other vehicular, unclassified (includes tractor, bulldozer, go-cart, steamroller, train, road grader and forklift)

Falls
5.73% N=388  Fall on same level from slipping, tripping and stumbling
4.55% N=308  Fall from, out of, or through building or structure
4.48% N=303  Fall on and from stairs and steps
2.47% N=167  Fall on and from ladder
2.10% N=142  Other slipping, tripping, stumbling and falls (includes fall from or off toilet, fall in or into shower or empty bathtub, and fall on same level due to stepping on an object)
1.55% N=106  Fall from one level to another
1.37% N=93  Fall from tree
0.75% N=51  Fall from bed
0.71% N=48  Fall on and from scaffolding
0.56% N=38  Fall due to ice and snow
0.56% N=38  Non-Recreational fall, jump or diving into water
0.38% N=26  Fall from chair
0.32% N=22  Intentional self-harm by jumping from a high place
0.31% N=21  Fall from furniture other than chair or bed
0.32% N=22  Other (includes fall from cliff, fall on and from playground equipment, fall on same level due to collision with another person, fall from non-moving wheelchair, and fall while being carried/supported by other person)
0.27% N=18  Unknown type of falls
3.07% N=208  Unspecified falls

Acts of violence
13.01% N=880  Gunshot wounds
0.96% N=65  Person-to-Person (includes assault with a blunt object and falls as a result of being pushed)
0.43% N=30  Other penetrating wounds (includes explosion, stabbing and impalement)
Sports & recreational activities accounted for 568 (8.39%) of spinal cord injuries, which ranks 4th in causes of spinal cord injury.

Sports and Recreation
3.44% N=233  Diving
0.83% N=56  Winter sports (includes sled, snow tube, toboggan, ice hockey, and snowboarding)
0.71% N=48  Surfing (includes body surfing)
0.64% N=43  Snow skiing
0.50% N=34  Horseback riding
0.28% N=19  Football
0.27% N=18  Air sports (includes parachuting, hang gliding and para-sailing)
0.18% N=12  Trampoline
0.25% N=10  Wrestling
0.10% N=7  Gymnastics (includes all gymnastic activities other than trampoline)
0.09% N=6  Rodeo (includes bronco/bull riding)
0.07% N=5  Baseball/Softball
0.07% N=5  Field sports (includes field hockey, lacrosse, soccer, and rugby)
0.07% N=5  Water skiing
0.06% N=4  Basketball and Volleyball
0.04% N=3  Skateboarding
0.01% N=1  Track and field (includes pole vault, high jump, etc.)
0.87% N=59  Unclassified (includes auto racing, glider kite, slide, swimming, bungee jumping, scuba diving, rollerblading, jet-skiing, cheerleading, etc.)

Other
4.70% N=318  Medical/ Surgical complication
1.74% N=118  Hit by falling/ flying object
1.26% N=85  Pedestrian
0.87% N=59  Other unclassified (includes lightning, kicked by an animal, machinery accidents)

580 (8.57%) of spinal cord injuries were a result of other causes.

About the National Spinal Cord Injury Database
The National Spinal Cord Injury (SCI) Database has been in existence since 1973 and captures data from an estimated 13% of new SCI cases in the US. As of March 2015, the database contained information on 30,892 persons who sustained traumatic spinal cord injuries. To assure comparability of data acquired by personnel in various centers, rigid scientific criteria have been established for the collection, management and analysis of information entered into the database. Additional quality control procedures are also in place to further enhance the reliability and validity of the database.

Since its inception, 28 federally funded SCI Model Systems have contributed data to the National SCI Database. There are currently 14 SCI Model Systems contributing data, with an additional 5 subcontract Centers collecting Form II (follow-up) data. For a complete list, go to www.msktc.org/sci/model-system-centers.

About the National Spinal Cord Injury Statistical Center
The National Spinal Cord Injury Statistical Center (NSCISC) is located at the UAB Department of Physical Medicine and Rehabilitation. The NSCISC supports and directs the collection, management and analysis of the National SCI Database. which is the world’s largest and longest SCI research database.

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