Complete Public Version of

THE 2011 ANNUAL STATISTICAL REPORT

for the

SPINAL CORD INJURY MODEL SYSTEMS

This is a publication of the National Spinal Cord Injury Statistical Center, Birmingham, Alabama,
which is funded by grant number H133A060039
from the National Institute on Disability and Rehabilitation Research,
Office of Special Education and Rehabilitative Services, U.S. Department of Education.

The opinions contained in this publication are those of the grantee
and do not necessarily reflect those of the U.S. Department of Education.

~~This page intentionally left blank~~

Contents

Part I

The National Spinal Cord Injury Statistical Center Activities October 2009 – October 2011

The present National Spinal Cord Injury Statistical Center (NSCISC) grant application was officially approved and funded with a start date of October 1, 2006 and a termination date of September 30, 2011. This progress report focuses on the activities that have occurred during year five and also briefly summarizes the activities which took place during the first four years of the current grant cycle.

National SCI Statistical Center

In 1983, the University of Alabama at Birmingham's Department of Rehabilitation Medicine received federal grant funds to establish a national SCI data center. The UAB operation succeeded the National Spinal Cord Injury Data Research Center that served the Model SCI Care Systems Project between 1973 and 1981. Today, UAB's National Spinal Cord Injury Statistical Center (NSCISC) supervises and directs the collection, management and analysis of the world's largest spinal cord injury database. Organizationally, UAB's SCI Statistical Center is at the hub of a network of 14 federally-sponsored regional Model Spinal Cord Injury Care Systems located at major medical centers throughout the United States. In each of these settings, SCI Care System personnel collect and submit acute, rehabilitation and follow-up (viz. annual, long-term post-discharge) data on SCI patients who received care in the "System" following injury.

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. Moreover, the NSCISC staff has developed quality control procedures that further enhance the reliability and validity of the database.

Model SCI Systems

Presently there are 14 systems and 7 subcontractors sponsored by the National Institute on Disability and Rehabilitation Research, Office of Special Education and Rehabilitative Services, U.S. Department of Education:

Current Model Systems:

- **Alabama**
  University of Alabama at Birmingham SCI Care System -- UAB Spain Rehabilitation Center
  Birmingham, AL (205) 934-3283
- **Colorado**
  Rocky Mountain Regional SCI System -- Craig Hospital
  Englewood, CO (303) 789-8220
- **Georgia**
  Georgia Regional SCI System - Shepherd Center
  Atlanta, GA (404) 352-2020

- **Illinois**
  Midwest Regional SCI Care System -- Rehabilitation Institute of Chicago
  Chicago, IL (312) 238-0764
- **Massachusetts**
  New England Regional SCI Center -- Boston University Medical Center
  Boston, MA (866) 607-1804
- **Michigan**
  University of Michigan SCI Model System -- University of Michigan Medical Center
  Ann Arbor, MI (734) 763-0971
- **New Jersey**
  Northern New Jersey SCI System -- Kessler Institute for Rehabilitation
  West Orange, NJ (973) 243-3576
- **New York**
  Mount Sinai SCI Model System -- Mt. Sinai Medical Center
  New York, NY (212) 659-9340
- **Ohio**
  Northeast Ohio Regional SCI System
  Cleveland, OH (216) 778-7202
- **Pennsylvania**
  - Regional SCI System of Delaware Valley -- Thomas Jefferson University Hospital Philadelphia, PA (215) 955-6579
  - University of Pittsburgh Model System on Spinal Cord Injury - University of Pittsburgh Pittsburgh, PA (412) 232-7949
- **Texas**
  Texas Regional SCI System – TIRR Memorial Hermann
  Houston, TX (713) 799-5023
- **Washington**
  Northwest Regional SCI System -- University of Washington
  Seattle, WA (206) 616-2183
- **Washington, DC**
  National Capital SCI Model System -- National Rehabilitation Hospital
  Washington, D.C. (202) 877-1694

Subcontract Model Systems:

These seven systems are subcontracted to submit follow-up data and are also former model systems.

- **Arizona**
  - St. Joseph's Medical Center
    Phoenix, AZ (602) 746-9179

- **California**
  - Los Amigos Research and Education Institute
    Downey, CA (562) 401-7541
  - Santa Clara Valley Medical Center
    San Jose, CA (408) 885-2383 or 1-800-352-1956
- **Missouri**
  - Columbia, Missouri (collected by NSCISC (205) 934-3283)

- **New York**
  - NYU, Department of Rehabilitation Medicine
    New York (212) 263-0844

- **Virginia**
  - Medical College of Virginia
    Richmond, VA (804) 628-0277
  - Fishersville, Virginia (collected by NSCISC (205) 934-3283)

Former and Non-participating SCI Systems

Data from currently non-participating SCI systems (Columbus, Ohio; Detroit, Michigan; Miami, FL; Milwaukee, Wisconsin; New Orleans, Louisiana; and Rochester, New York) have been included.

For more information:
National Spinal Cord Injury Statistical Center
www.nscisc.uab.edu

Spinal Cord Injury Information Network
www.spinalcord.uab.edu

National Institute on Disability and Rehabilitation Research
www.ed.gov/about/offices/list/osers/nidrr

NSCISC Web Site

The NSCISC public information webpage (https://www.nscisc.uab.edu) contains National SCI Database information, Frequently Asked Questions, and other publications. Other spinal cord injury related documents are located at the Spinal Cord Information Network (www.spinalcord.uab.edu).

SCI Facts and Figures at a Glance

The SCI Facts and Figures at a Glance was last updated in February 2012 and available at https://www.nscisc.uab.edu/public_content/annual_stat_report.aspx . The SCI Facts and Figures at a Glance January 2010 was published in the Journal of Spinal Cord Medicine 2010;33(1):101 and 2010;33(3):341. Both English and Spanish versions are available for download from the NSCISC web site. These reports summarize demographic and high interest variables, such as cause of injury, occupational status, lifetime costs and life expectancy by categorical level of injury. Historic Facts and Figures at a Glance have been archived and are available on the web.

Public versions of the NSCISC Annual Reports

The 2004, 2005, 2006, 2007, 2008, 2009, and 2010 Annual Statistical Reports are available to the public by request and is available on the NSCISC web site. Stratifications of the data by SCIMS have been removed from this report so that only aggregate information is available.

NSCISC Data Collection Information

The NSCISC objectives, history, data collection forms and syllabus can be found and downloaded from the NSCISC website. Previous versions of the data collection forms and syllabus are also available.

Publications

The NSCISC encourages the use of the database and is willing to provide any assistance necessary to those who conduct research using the SCIMS database. The NSCISC has a procedure for researchers to get access to de-identified datasets, go to the NSCISC website for details. The NSCISC also appreciates being notified of any ongoing work and publications that involve the use of the NSCISC database. A list of Journal articles based in whole or in substantial part on the SCIMS database appears in previous annual and semiannual reports. Citations for the latest journal articles and book chapters are as follows:

1. Burns SP, Kaufman RP, Mack CD, Bulger E. Cost of spinal cord injuries caused by rollover automobile crashes. **Inj Prev** 2010;16:74-78.
2. Arango JC, Ketchum J, Francis K, Lewis A, Premuda P, Wehman P, Kreutzer J. Race, ethnicity, and employment outcomes 1, 5, and 10 years after spinal cord injury: a longitudinal analysis. **PM&R** 2010;2:901-910.
3. Qu H, Shewchuk RM, Chen Y, Richards JS. Evaluating the quality of acute rehabilitation care for patients with spinal cord injury: an extended Donabedian model. **Q Manage Health Care** 2010;19(1):47-61.
4. DeVivo MJ. Epidemiology of spinal cord injury. In: Lin VW, ed. **Spinal Cord Medicine. Second Edition**. New York, NY: Demos Medical Publishing, 2010;78-84.

5. DeVivo MJ. Model spinal cord injury systems of care. In: Lin VW, ed. **Spinal Cord Medicine. Second Edition.** New York, NY: Demos Medical Publishing, 2010;1059-1062.
6. Krause JS, Saunders LL, Staten D. Race-ethnicity, education, and employment after SCI. **Rehabil Counsel Bull** 2010;53:78-86.
7. Arango-Lasprilla JC, Ketchum JM, Francis K, Premuda P, Stejskal T, Kreutzer J. Influence of race/ethnicity on divorce/separation 1, 2, and 5 years post spinal cord injury. **Arch Phys Med Rehabil** 2009;90:1371-1378.
8. McClure LA, Boninger ML, Oyster ML, Williams S, Houlihan B, Lieberman JA, Cooper RA. Wheelchair repairs, breakdown, and adverse consequences for people with traumatic spinal cord injury. **Arch Phys Med Rehabil** 2009;90:2034-2038.

Status of the National SCI Database

This report includes all data submitted to the NSCISC by December 2, 2011 concluding the 2006 – 2011 funding cycle. As of December 2011, the National SCI Database contained information on 28,450 Form I patients and 104,975 Form II records successfully collected by phone, in-person, chart review or surveyed by mail as shown in **Table 1**. Records with no collected data (those Lost to Follow-up) are not included in this table. The combined total of Registry, Form I and Form II records in the National SCI Database is 145,386 records.

Table 2 presents the total number of follow-up records in the database for each post-injury year, by system. Totals do not include the Form II records that are coded "Lost to Follow-up".

Increase in the Number of Records: Tables 3 – 5

Table 3 reports the increase of records in the database since the last annual report data submission (October 2010), the number of Registry participants have increased by 504, Form I increased by 897, and Form II numbers increased by 1,298 (excluding Lost to Follow-up).

Since the beginning of the 2006-2011 funding cycle, the number of Registry records has increased by 2,061 cases, the number Form I records has increased by 3,706, and a total of 10,128 Form IIs (excluding Lost to Follow-up) were added to the database **(Table 4)**. The "Other" category has an increase of 4 records from a previously funded Model System. These records did not pass QC checks at their first submission and were not converted to the Core Dataset until they were updated and re-entered into the database during this current 2006-2011 funding cycle.

Table 5 presents the total number of Form I patients who were admitted to the system since October 2006 and the percentage of these patients who were admitted the day of or the day following the injury (classified as Day-1s). This information is provided since the new reporting procedures implemented in November 1995 resulted in a substantial number of additional variables to be collected on patients who enter the system the day of or the day following the injury.

Nationally, 37.3 percent of patients admitted since 2006 are day-1 admissions. System percentages range from 74.6 percent to 2.2 percent.

Patients by Year of Injury: Tables 6 – 8

The number of patients entered into the National SCI Database by both years of injury and individual SCI Care System are depicted in **Tables 6 - 8**. These tables represent Registry, Form I, and Form I Day-1 records. Again, data for non-funded, non-Form II systems are included in "Other".

Since December 1981, funding was suspended for the National SCI Data Research Center (NSCIDRC) in Phoenix, AZ. Its successor, the UAB-SCI Data Management Service, did not initiate formal operations until March 1, 1983. The decline in patients entered into the database in both 1981 and 1982 is undoubtedly the result of this interruption. The decline in patients enrolled in the National SCI Database since 1984 is the result of fewer systems being funded by NIDRR than in previous years.

Table 6 represents the number of Registry participants enrolled by System by year of injury. The data reflects historical changes in the Model Systems program. In 1987, criteria for enrollment in the National Database were changed by restricting eligibility to patients admitted to the system within 60 days of injury (the previous criterion was 1 year) and more narrowly defining system catchment areas. Because of this restriction, an additional Registry form was created to collect limited demographic data on those patients who no longer meet eligibility requirements for full data collection.

Variations in Form I patient enrollment is primarily due to three factors: number of funded centers, change in eligibility criteria, and size of funded systems (**Table 7**). The number of funded centers changed in 1985, 1990, 2000, and 2006 (see chart) due to NIDDR's competitive selection of centers. Eligibility criteria changed in 1987, restricting Form I enrollment, then in 2000, the eligibility criteria were changed to reflect pre-1987 requirements. For a detailed list, see Syllabus Table 2 (page 3) for major eligibility criteria changes and Table 1 (page 2) for specific center involvement in data collection.

Years	1985-1990	1990-1995	1995-2000	2000-2006	2006-2011
# of Centers	13	13	18	16	14

Date of Injury and Date of Admit to System have been collected since 1973. **Table 8** reflects the Form I Day-1 admissions since then. New reporting procedures were implemented in 1995 leading to a substantial number of additional variables collected on patients who entered the system within 24 hours of injury.

Cause of Death: Table 9

All survival analyses in this report use the Collaborative SCI Survival Study database maintained at the NSCISC. This database contains considerably more patients than the National SCI Database and much longer follow-up on individual patients through use of the Social Security Administration, Equifax, and the National Death Index (NDI). It includes Form I and Registry patients as well as other patients treated at Model Systems who are not in the National SCI Database. This is also the database that was used to produce the chapter on long-term survival and causes of death that was included in the book Spinal Cord Injury: Clinical Outcomes from

the Model Systems. Therefore, these data represent an update of the 1992 estimates provided in that book chapter as well as an update of the 2010 Annual Report.

Primary cause of death for the 11,119 deceased patients in the Collaborative SCI Survival Study appears in **Table 9.** Only persons injured since 1973 and treated at a Model System within 1 year of injury were included in this analysis. The number of deaths with unknown causes is high because NDI searches for causes of death have only been conducted through 2007. Recently, information on causes of death for deaths occurring in 2008 and 2009 has become available through the NDI, and the NSCISC is preparing to acquire that information. As a result, there are still 1,943 persons whose primary cause of death is unknown, and these were not included in the calculation of any percentages. The assumption is that unknown causes of death will be distributed the same way as known causes. These deaths of unknown causes are almost always persons who died after discharge. Therefore, causes of death that are more likely to occur after discharge, such as diseases of the genitourinary system, neoplasms, and accidents, suicides and homicides may be somewhat underestimated proportionately.

Diseases of the respiratory system were the leading cause of death (66.9% of these were cases of pneumonia). The second leading cause of death was infective and parasitic diseases. These were usually cases of septicemia (88.6%) and were usually associated with decubitus ulcers, urinary tract or respiratory infections. Also included in this category were 71 cases of AIDS (6.6%). Hypertensive and ischemic heart disease ranked third, followed by neoplasms. Specific locations of neoplasms included lung (232 cases, 26.8%); followed by bladder (80 cases, 9.2%); colon/rectum (75 cases, 8.7%); prostate (53 cases, 6.1%); and breast (38 cases, 4.4%). Other heart disease ranked fifth; however, these were often unexplained heart attacks (40.4%, ICD9CM code 427.5), that usually do not represent a true underlying cause of death. Rather, they reflect the relatively poor quality of cause of death data and reporting practices on many death certificates of SCI patients. Hence, mortality from other heart disease is probably overestimated.

Unintentional injuries were the sixth leading cause of death followed by diseases of the digestive system, cerebrovascular disease and diseases of pulmonary circulation (92.2% of which were cases of pulmonary emboli). These deaths usually occurred prior to first definitive discharge. Suicide was the tenth leading cause of death, followed by diseases of the genitourinary system and symptoms and ill-defined conditions.

It should be noted that the categories of unintentional injuries, suicides, and homicides do not include any persons dying from multiple injuries sustained during the original accident. However, they do include persons involved in fatal events following discharge. If the 94 cases of subsequent trauma of uncertain nature were divided proportionately between unintentional injuries, suicides, and homicides, then an additional 56 unintentional injuries, 29 suicides, and 9 homicides took place, which would still make unintentional injuries the sixth leading cause of death but make suicide the eighth leading cause of death.

Long Term Survival: Tables 10 – 11

Table 10 presents cumulative survival for the entire National SCI Database. Data from currently non-participating systems are included in the national table.

Patients were considered Withdrawn Alive: 1.) if a follow-up form (Form II) for 2010 or later was submitted indicating the patient was known to be alive, 2.) if the patient's follow-up was discontinued due to neurologic recovery or transfer to another SCI Care System, or 3.) if Social Security Death Index searches performed in 2011 did not indicate a reported death. The proportion of patients dying in each post-injury year ranged from 4.51 percent in year one to 1.45 percent in year 10. Annual death rates for those who survived the first post-injury year average 2.33 percent and increase over time as the population ages.

The cumulative 20- and 30-year survival rates for patients with spinal cord injury were 68.28 and 52.78 percent, respectively. However, because of the high proportion of losses to follow-up, as well as the known underreporting of spinal cord injury fatalities occurring shortly after injury, this information should be interpreted with caution. It is likely some patients were lost to follow-up because they died. Therefore, these annual mortality rates may be underestimated.

Life Expectancy: Tables 12 – 13

Life expectancies for SCI patients by age at injury (in 5-year intervals) and neurologic level and extent of lesion appear in **Table 12**. All persons injured since 1973 and admitted within 1 year of injury who survived at least 24 hours after injury and who were included in the collaborative SCI survival study database were included in this analysis. Comparable figures for persons who survive the first post-injury year, by current age, appear in **Table 13**. For each neurologic category the observed number of deaths was compared to an expected number of deaths based on observed length of follow-up and 1997 age-sex-race-specific mortality rates for the general U.S. population using methods outlined in detail by Smart and Sanders [1]**.** The year 1997 was chosen because it was roughly the mid-year of follow-up for the SCI population. All follow-up data through 2011 were used.

The purpose of reporting these life expectancies is to document continuing progress attributable in large part to the Model System program. Life expectancies remain substantially below normal, particularly for persons with tetraplegia and ventilator-dependency.

Figures in these tables are generally not appropriate for use in assessing life expectancy of individual persons because they are not specific enough for that task. At minimum, important prognostic factors that should be considered in determining an individual life expectancy include age, exact neurologic level of injury (particularly among persons with tetraplegia), ASIA impairment scale, length of survival that has already occurred post-injury, and to a lesser extent, etiology of injury, gender and race[2]. Significant co-morbidities (cancer, heart disease, diabetes, etc.) should also be considered when present[3]. Methods for estimating life expectancy that are used by the NSCISC are detailed in two recent articles by Strauss et al. and DeVivo[3, 4].

Form II Follow-up: Tables 14 – 16

Category of follow-up care (**Table 14**) divides data collection into five categories: system appointment, interview only, lost, future follow-up not required, and unknown. Out of 126,838 records, 50.5 percent of participants came into the System for an appointment during the follow-up window (18 months). Variations in 'system appointments' between systems is distinct, ranging from 30.1 percent to 65.3 percent. 'Future Follow-up Not Required' is for those patients

who achieve Minimal Deficit. Minimal Deficit is defined as no significant motor, bladder or bowel, or neurologic impairment. For these participants, Form II follow-up is not required, but systems may choose to continue interviews.

Reason for Lost variable was added to the database in January 1998 (by the Follow-up Tracking Committee) to document the reasons follow-up data are not obtainable for those patients whose Category of Follow-up Care is "Lost". This variable includes the "Other" category to determine if expanded coding categories will be needed in the future. The Follow-up Tracking Committee's conditions for the "unable to contact" category are: 1) there must have been at least 6 attempts (on different days and times of the day) to contact a person by phone after obtaining a current phone number; and, 2) if unable to contact by phone, a survey requesting data should be mailed to the patient. In 2010, the Tracking Committee deleted the first requirement (schedule patient for clinic evaluation). Once a Form II is submitted as Lost, future follow-up is still pursued but no additional Form II coded Lost is required at next follow-up if that patient is still Lost. Therefore, the percentage does not appropriately reflect lost to follow-up rate. It simply indicates how many Form IIs are being coded Lost and does not include data for analyses.

Nationally, "unable to contact" was the reason most participants are coded "Lost" ranging from 62.0 percent in year 35 to 78.3 percent in year 10 (**Table 15**). The number of patients withdrawing consent has begun to increase in subsequent post-injury years as a consequence of the HIPAA guidelines that require the re-consenting of patients for future follow-up interviews. In 2007, the Refused/Withdrawn code was separated into two codes to allow participants a choice to refuse this interview (and be contacted next cycle) or to withdraw from the study and not be contacted again unless re-consented. Identity Unknown code was included in 2009 to be used by Centers with a break in funding to identify participants whose identity is no longer available due to the break in funding.

Table 16 presents a system analysis of how interviews were conducted; this variable has been collected since 1996. Analysis was done on required follow-up years only (1, 2, 5, 10, etc.). Nationally, 9.3 percent of all interviews are conducted in person and system percentages ranged from 1.1 percent to 67.7 percent. Of the 26,669 records, 70.2 percent were done by phone with system percentages ranging from 32.3 percent to 90.1 percent. Self-Administered (mailed) interviews were done 8.5 percent of the time with system percentages ranging from 0% to 28.0 percent. Nationally, 7.8 percent of all interviews used a combination of the methods (i.e., in-person, by phone and/or by mail) with system percentages ranging from 0.0 percent to 35.9 percent. The interview method was unknown for 1.2 percent for all records.

Descriptive Analysis of the National SCI Database

Introduction

The tables presented in this report are based on a descriptive analysis of most of the variables in the National SCI Database. For most of the Form I variables, each system has been provided with tables reflecting its own patient population. The Form II variables, however, are primarily analyzed by anniversary year of follow-up and presented in a national aggregate format. The narrative for each table is restricted to analysis of national aggregate data and intersystem variability within the database.

Since 1995 revised Form II reporting procedures require submission of Form IIs for all patients only in post-injury years 1, 2, 5, 10, and every 5 years thereafter. Beginning in October 2000, Form II data collection was no longer required at year 2 with one exception. That is, if a patient was still hospitalized for his/her initial hospital care during the first anniversary year, the year 2 (but not year 1) follow-up would be required. For this reason, there has been a significant decrease in the numbers of records in all the other post-injury years. Therefore, most of the Form II analyses are restricted only to post-injury years 1, 2, 5, 10, 15, 20, 25, 30, and 35.

Lost and Unknown Categories

Since differential losses to follow-up may mask time trends within the data, patients who are lost are not included in the tables depicting post-discharge data. The underlying assumption is made that patients who are lost to follow-up will be distributed proportionately across categories in the same way as successfully followed patients.

Data classified as unknown represent those patients who are being followed but for whom that specific information is unavailable. Therefore, a high proportion of unknowns indicate unusual data collection difficulties.

Statistical Measures

Data of a categorical nature are presented as frequency and percentage. For continuous variables, the central tendency is measured by mean or median as appropriate. In some tables, the standard deviation (S.D.) is used to measure the dispersion about the population mean (i.e., how closely individual patient values cluster around the mean). If data are normally distributed, 95 percent of all observed values will fall within 1.96 standard deviations of the mean.

Age at Injury: Tables 17 – 19

The cumulative frequency distribution of age at injury is depicted in **Table 17**. Four patients were less than one year old while one was 99 years old. The most common age of injury was 19 years. Nearly a quarter of all injuries occurred between the ages of 17 and 22 years (24.9%), and nearly half of all injuries occurred between the ages of 16 and 30 (49.9%), while 10.8 percent of

all injuries occurred at age 60 or older. Some descriptive statistics for the age at injury distribution are shown in **Table 18**. Mean age for all patients was 34.2 years (S.D. = 16.6). The mean age for all patients in the database ranged from a low of 30.3 to a high of 48.4.

Table 19 reflects a consistent trend toward older age at time of injury. The mean age at injury has increased from 28.7 years between 1973-1979 to 41.0 years in 2005-2011. This trend reflects in large part a similar trend in the average age of the United States population. However, underlying changes in age-specific spinal cord injury incidence rates, changing locations of model systems, and changing referral patterns to model systems may also be contributing to the trend toward older age at injury for persons in the NSCISC database.

Sex: Table 20

The number of spinal cord injury patients by gender is shown in **Table 20**. Overall, 80.6 percent of all reported spinal cord injuries occurred among males.

There was very little variability among systems with regard to the composition of the patient populations by gender. Among systems, the proportion of male patients ranged from a low of 75.5 percent to a high of 85.8 percent.

Race: Tables 21 – 25

The number of spinal cord injury patients by system and race is shown in **Table 21**. There was substantial variability among systems: the proportion of white patients ranges from 41.1 percent, to 90.6 percent, while the proportion of African Americans ranged from 3.1 to 53.8 percent. The highest proportion of Native American Indians (11.7%) occurred and the highest proportion of patients of Asian descent was 6.1%. High percentages of unknowns (5.9%) in the Race variable are due to a database conversion process that occurred in 1995. When Hispanic Origin variable was added, all persons coded Spanish in the race variable were converted to "Yes, Hispanic origin" in this variable, and their race was then changed to "Unknown". For those who were not coded Spanish in the race variable, the "No" code was inserted in this variable and their original race code was retained. This data conversion process resulted in high percentages of records coded "unknown" in this race variable.

A very significant trend over time was reported in the racial distribution of persons enrolled in the national database between 1973 and 1998[5]. During 1973 through 1979 (Table 24), 76.8 percent of persons enrolled in the database were white, 14.2 percent were African American, 1.9 percent were Native American Indian, and 0.9 percent were Asian. However, after 2005, only 66.0 percent of persons enrolled in the database were white, while 26.2 percent were African American, 0.9 percent were Native American, 2.1 percent were Asian, and 3.0 percent were classified as "other" races. This trend is due in very small part to trends in the United States general population. Periodic changes in the identities of participating Model Systems, changes in eligibility criteria for inclusion into the National SCI Database, and changes in referral patterns to Model Systems are also partly responsible for this racial trend. However, the trend is so large that changes in underlying race-specific SCI incidence rates are also likely.

It should not be inferred from these data that the incidence of spinal cord injury was higher among whites than non-whites. On the contrary, most patients were white because whites

comprise by far the largest segment of the United States population. In fact, other studies have demonstrated conclusively that the spinal cord injury incidence rate was highest among non-whites[6].

Overall, 9.2 percent of respondents endorse Hispanic Origin (**Table 22**). By system, it ranges from 0.0 percent to 20.4 percent out of a total of 28,450 records.

Table 23 depicts Hispanic Origin by Race, 7.8 percent of Native Americans, 3.6 percent of Asians, 3.2 percent of Caucasians, and 1.0 percent of African Americans endorsed Hispanic Origin.

Looking at trends over years in racial groups (**Table 24**), there is an increase in African American (range from 14.2% in 1973-1979 to 26.2% in 2005-2011). Also, there is a slight increase in Asian/Pacific Islander (from 0.9% in 1973-1979 to 2.1% in 2005-2011) while Caucasian percentages decreased from 76.8 percent in the 1970s to 66.0 percent in 2005-2011.

Trends in Hispanic Origin by year of injury (**Table 25**) show a 6.9 percent increase in Hispanic participation (1973-1979, 5.9% to 1990-1994, 12.8%). The most current time frame (2005-2011) shows a decrease in Hispanic Origin (8.3%) since the 1990s.

Etiology: Tables 26 – 32

Table 26 ranks the national causes of injuries and then separates by sex. For males and females, the three leading causes of spinal cord injury were the same: auto accidents, falls, and gunshot wounds.

Among males, diving accidents ranked fourth followed by motorcycle accidents. However, for females, medical/surgical complications ranked fourth and diving accidents ranked fifth.

Significant gender differences are evident in five etiologies: auto accidents (29.7% for males, 49.0% for females); motorcycle accidents (6.9% males, 2.1% females); diving accidents (7.1% males, 2.5% females); hit by falling objects (3.4% males, 0.6% females) and medical/surgical complications (2.0% male, 5.0% females).

It should be noted that the ATV/ATC category was created in October 1986; before that time, injuries resulting from these vehicles were coded as either Motorcycle or Other Vehicle. While some systems have converted pre-1986 data where possible, this conversion was not mandatory. Therefore, the number of injuries resulting from ATV/ATC accidents is most probably underreported.

Tables 27 – 32 group etiology categories.

> 'Vehicular' accidents include auto accidents in jeeps, trucks, dune buggies, and buses; Motorcycle accidents in 2-wheeled, motorized vehicles including mopeds and motorized dirt bikes; Boats; Fixed-wing aircraft; Rotating wing aircraft; Snowmobiles; Bicycles (includes tricycles and unicycles); All-terrain vehicles (ATV) and all-terrain cycles (ATC) – includes both 3-wheeled and 4-wheeled

vehicles; Other vehicular, unclassified: tractors, bulldozers, go-carts, steamrollers, trains, road graders, forklifts.

'Violence' includes: Gunshot wounds; All other penetrating wounds (stabbing, impalement); Person-to-person contact: being hit with a blunt object, falls as a result of being pushed (as an act of violence); Explosions: bomb, grenade, dynamite, or gasoline.

'Sports' includes: Diving, Football, Trampoline, Snow skiing, Water skiing, Wrestling, Baseball/softball, Basketball, volleyball; Surfing: includes body surfing; Horseback riding; Gymnastics: includes all gymnastic activities other than, trampoline, break-dancing; Rodeo: includes bronco/bull riding; Track and field: pole vault, high jump, etc.; Field sports: field hockey, lacrosse, soccer, and rugby; Hang gliding; Air sports: parachuting, para-sailing; Winter sports: sled, snow tube, toboggan, ice hockey, snow- boarding; Skateboarding; Unclassified: auto racing, glider kite, slide, swimming, bungee jumping, scuba diving, roller-blading, jet-skiing, cheerleading, etc.

'Other' encompasses all other and unclassified injuries including unforeseen medical events.

Grouped etiology appears in **Table 27**. Overall, Vehicular Accidents ranked first in the National SCI Database (42.6%) and first in all systems except three systems where Falls ranked first.

Falls ranked second nationally (21.2%) and second for all systems except four systems; in two systems, Vehicular Accidents ranked second (29.1% and 33.5%, respectively) most frequent etiology. Violence ranked third nationally (17.6%) and second in three systems.

Grouped etiology by age at injury is depicted in **Table 28**. Vehicular Accidents were the leading cause of spinal cord injury up to 45 years of age, then are tied at ages 46-60 (37.9%). After age 60, Falls were the leading cause of SCI. Sports, Violence and Vehicular Accidents declined proportionately while Falls increased with advancing age.

Table 29 depicts grouped etiology by sex. Vehicular Accidents, Violence and Sports differ across sex. Females are more likely to be injured by a vehicular accident (53.4% females, 40.1% males), but violence and sports are more likely the cause of male injuries (19.0% and 11.5% for males, 12.1% and 5.6% for females).

Table 30 depicts grouped etiology by race. Vehicular accidents were the leading cause of injuries across races except for African Americans, where violence was the leading cause. Falls are stable across races, ranging from 17.2 percent to 25.0 percent.

Table 31 shows grouped etiology by Hispanic origin. Vehicular accidents and Violence share the most common cause of injuries for those with Hispanic origin (35.2 and 33.8% respectively) compared to those with non-Hispanic origin who were injured by vehicular accidents (43.6%) versus violence (15.9%).

Vehicular Accidents ranked as the leading cause of SCI through all time periods (**Table 32**). Falls ranked second through all time periods except from 1990 to 1994 when Violence ranked second. There was a steady increase in the percentage of SCI due to Violence from 13.3 percent

prior to 1980 to 28.9 percent from 1990 to 1994. A concomitant decrease in the percentage of SCI due to Sports-related activities from 14.4 to 7.6 occurred over this same time period. The percentage of SCI due to Vehicular Accidents also decreased from 46.9 percent to 36.3 percent. There has been a significant decline in SCI due to violence and an increase in injuries due to vehicular accidents and falls since 1994. These trends may be due in part to changing locations of model systems, changing referral patterns to model systems, changes in underlying incidence rates, aging of the population, or a combination of these factors.

Work Relatedness: Table 33

This variable was added to the database in October 2000 and only records entered after January 1, 2001 are included in Table 33. Of the 7,948 available records, 9.5 percent had a work related spinal cord injury. Center percentages working at time of injury range from 1.5 to 13.9. Data for one system is missing because they were not a funded Model System at the time this variable was collected.

Marital Status: Tables 34 - 36

Marital status at injury by system is depicted in **Table 34**. It is not surprising, given the young age at which most injuries occur, that over half the participants in the database were single (never married, 51.7%). Substantial intersystem variability was noted, from 38.1 percent to 60.1 percent, while the percentage of divorced patients ranged from 4.2 percent to 16.1 percent.

Table 35 shows a steady increase in Married (from 31.4% in year 1 to 48.1% in year 35) and Divorced (from 10.8% in year 1 to 24.7% in year 25) categories across years. Overall, 46.3 percent reported 'single, never married' (ranging from 51.2% in year 2 to 27.5% in year 35).

Change in Marital Status reflects all changes since the last Form II (or since Form I if no Form II Marital Status) with a known Marital Status (**Table 36**). If a year 1 Form II has marital status, and the year 5 Form II is lost, then the year 10 Form II reflects any marital change since the year 1 Form II. Separations are ignored. Codes 'Divorced + Married', 'Widowed + Married', 'Divorced + Widowed + Married' may be in any order. 'No Change' was reported in the first year for 92.5 percent of participants. Over all years, 'No Change' was reported for 87.0 percent of records. Marriage was reported for 4.5 percent of records with ranges from 1.9 percent in year 1 to 7.6 percent in year 35.

Level of Education: Tables 37 - 38

The highest level of formal education completed at time of injury by system appears in **Table 37**. Over half (59.4% excluding 'Other') of the participants were at least high school graduates at time of injury, whereas 85.7 percent were at least 19 years of age at injury and would normally be expected to have completed high school. Approximately one-tenth (9.0%) had an eighth grade education or less, whereas only 1.9 percent were less than 15 years of age at injury and would normally be expected to have an eighth grade education or more.

The proportion of patients with an eighth grade education or less ranged from 1.8 percent to 16.5 percent. Overall, 6.6 percent of the participants had an unknown level of education, suggesting some systems are having substantial difficulty collecting this information.

In **Table 38**, level of education by post injury year is shown. Over the years, 73.9 percent (excluding 'Other') do complete at least a High School education (67.4% at year 1 and 92.3% at year 35).

Occupational Status & Job Census Code: Table 39 - 42

Occupational Status tables review the primary occupational, educational or training status of the patient at the time of injury. Since these sub-categories are not mutually exclusive, the primary occupational, educational or training status is selected on the basis of the injured person's opinion.

Occupational Status at the time of injury by system is shown in **Table 39**. Nationally, 57.1 percent of patients were reportedly working at the time of injury. Among systems, this was the most common occupational status reported ranging from 67.1 percent to 45.2 percent.

The national rankings for the other most commonly reported occupational status categories ranked in order as follows: Unemployed (15.8%), Student (15.3%), and Retired (6.7%).

Table 40 shows a defined increase in working respondents over the years (from 11.7% in year 1 to 35.7% and 33.0% in years 25 and 30). Other categories with an increase are Retired and Other, whereas Unemployed decreases over the years (from 55.3% in year 1 to 26.3% in year 35).

Job Census Code **Tables 41 and 42** reflect data entered into the database since January 1, 2001. At injury, respondents reported 'not working' 40.4 percent. The second most reported category was 'precision, production, craft and repair' at 11.5 percent. There was very little variability across systems. Table 42 shows 'executive' and 'professional' categories increased over years (from 2.9% and 4.1% at year 1 to 9.5% and 14.1% at year 35).

Veteran Status & VA Healthcare Services Used: Table 43 - 44

Veteran status analysis was run on Form I records entered after January 1, 2001. This variable documents whether or not the participant is a veteran of the United States military forces (i.e., Air Force, Army, Coast Guard, Marine Corp or Navy) and eligible for health care benefits. There are several categories of service ranging from Service Connected SCI (SCI happened while on duty); Service Connected, Not SCI (injured on duty but for a condition other than SCI); or Non-Service Connected (SCI did not happen during duty, but eligible for benefits). **Table 43** analysis includes records entered since January 1, 2001, when the variable was added. Most Form I participants are not eligible for VA benefits (89.6%).

VA Healthcare Services variable documents up to 5 entries of VA healthcare services received since last follow-up. VA Services are recorded if received since the last Form II with known VA services, so data collection time spans may be longer than 5 years. If this is a Year 1 Form II,

services received since the onset of the spinal cord injury are documented. VA Services are analyzed if entered into the database since October 31, 2000. Percentages may add up to more than 100 because some patients used more than one VA healthcare service. **Table 44** shows 2,257 records were eligible for VA Services, but did not use any services. Those not eligible for services (16,284, 83.6%) were included to get a snapshot of totals. The most common VA Service was Pharmacy (2.5%).

Place of Residence: Table 45 - 46

Place of residence at discharge by system is shown in **Table 45**. Most patients (87.1%) were discharged to a private residence. The proportion of patients discharged to a private residence ranged from 64.5 percent to 94.8 percent.

Table 46 shows place of residence across years. By far, private residence is most common with an overall 93.0 percent living in a private home (from 91.4% in year 1 to 97.3% in year 35). Nursing home residences decrease from 3.8 percent in year 1 to 1.1 percent in year 35.

Days Hospitalized: Tables 47 - 51

Median Days hospitalized is grouped by Year of injury for days from injury to system admit, days spent in acute care, and days spent in rehab. **Table 47** depicts median days from injury to system admission by Year of injury. Median days from injury to system admission were at the peak of 20 days in 1973 - 1979 and since that time, have declined steadily. A change in eligibility criteria implemented in January 1987 has resulted in a decrease in median days from injury to system admit. The eligibility criteria allowed only patients admitted to the system within 60 days of injury to be entered into the National SCI Database. In 2000, eligibility criteria resumed the previous standards (allowing injuries within one year of admit). For the current year grouping (2005-2011) one system has the largest median duration from injury to system admit (19 days) and 7 systems have a median of 1 day from injury to system admit.

Database revisions in November 1995 resulted in the separation of the single length of stay variable into acute and rehab lengths of stay. Length of stay data in records present at that time were separated based on formulas involving days from injury to rehabilitation and total days hospitalized, with all short-term discharge days applied to rehabilitation.

The next four tables include records for those patients who were admitted to the system within 1 day of their injury (Day 1s), therefore, the resulting statistics (Tables 48-51) reflect lengths of stay for patients treated entirely within the respective SCI Care Systems. **Table 48** reflects median days spent in acute care for 11,738 records. The median for all year groupings is 16.0 days; the current year grouping (2005-2011) is 11.0 days with a range from 17.0 to 8.0. **Table 49** shows the median days in rehab for 11,545 records as 57.0 days. The range has shown a steady and significant decline from a high of 98.0 days (1973-1979) to the current low of 37.0 days (2005-2011). For the current year grouping the high is 75.0 days and the low of 24.0 days.

Tables 50 and 51 reflect Syllabus changes in October 1987 which separated patients with minimal deficits from patients who were neurologically normal. These categories (Paraplegia,

Minimal Deficit and Tetraplegia, Minimal Deficit) normally have few patients; however, the numbers are even smaller because it was not mandatory for systems to convert pre-1987 data.

Table 50 depicts median days hospitalized in the acute care unit where patients with neurologically complete cervical injuries had longer acute stays than patients with neurologically incomplete cervical injuries. Median days hospitalized in the system's acute care unit for persons with neurologically complete tetraplegia ranged from 30.0 days (1980-1984) to 21.0 (2005-2011). For those with neurologically incomplete paraplegia, the comparable range was from 22.0 days in 1973-1979 to 10.0 days in 2005-2011.

Likewise, **Table 51** depicts median days hospitalized in the rehab unit where patients with neurologically complete cervical injuries had longer rehab stays than patients with neurologically incomplete cervical injuries. Median days hospitalized in the system's rehab unit for persons with neurologically complete tetraplegia ranged from 142.0 in 1973-1979 to 58.0 in 2005-2011 while for those with neurologically incomplete paraplegia, the comparable range was from 68.0 days in 1973-1979 to 29.0 days in 2005-2011.

Neurological Level at Discharge: Tables 52 - 55

These 4 tables separate the level of injury at discharge by cervical, thoracic, lumbar and sacral levels of injury. To determine a single neurologic level of injury, the most rostral (highest) sensory & motor level, left and right at discharge was used. Percentages on all four tables are calculated on total of all levels (cervical, thoracic, lumbar and sacral = 27,006 records).

Overall, 53.6 percent of patients had cervical lesions at discharge, 35.4 percent had thoracic lesions, and 10.6 percent had lumbar lesions and 0.4 percent had sacral lesions. Close to half (45.8%) of the patients in the database were discharged with cervical lesions at C5 (15.4%), C4 (14.6%), C6 (10.6%) or C7 (5.2%). The next most common levels of lesion at discharge was T12 (6.5%) and L01 (5.0%).

Neurological Categories: Tables 56 - 59

Neurologic Category at discharge is separated into paraplegia complete and incomplete and minimal deficit, tetraplegia complete and incomplete and minimal deficit. Both minimal deficit groups were added in 1987 and retrospective updates were allowed but not required.

Table 56 shows neurologically incomplete tetraplegia ranked first for level of injury at time of discharge (30.9%), followed by neurologically complete paraplegia (25.1%), neurologically complete tetraplegia (19.8%), and neurologically incomplete paraplegia (18.6%).

Neurologic categories at discharge by grouped etiology (see page 13) are depicted in **Table 57**. Neurologically incomplete tetraplegia ranked first in all etiologies except Violence and Other. Neurologically complete paraplegia ranked first (42.7%) for spinal cord injuries resulting from Violence. Neurologically incomplete paraplegia ranked first in Other (which includes medical settings). Interestingly, 86.0 percent of all Sports injuries resulted in tetraplegia, while 68.6 percent of all Violence resulted in paraplegia.

The neurological category at discharge grouped by year of injury is depicted in **Table 58**. The number of persons with neurologically incomplete injuries at discharge decreased from 1990-1994, most likely due to the proportionate increase in SCIs that are secondary to gunshot wounds since SCIs due to gunshot wounds are usually neurologically complete. Since 1994, the percentage of incomplete tetraplegia injuries has once again increased as the percentage of injuries due to violence has declined. Both tetraplegia complete and paraplegia complete injuries have declined since the 1970's (25.3% and 27.7% respectively) to current levels in 2005-2011 (14.7% and 20.2%, respectively).

Table 59 neurologic data was collected from only those participants who completed a clinical System neurologic exam. This exam can be collected from 6 months prior to the one year anniversary to six months after the anniversary. Neurologically incomplete tetraplegia ranked first at first year exam (23.0%), followed by neurologically complete paraplegia (21.0%), neurologically complete tetraplegia (15.5%), and neurologically incomplete paraplegia (15.1%).

ASIA Impairment Scale: Tables 60 – 65

The ASIA Impairment Scale, formerly known as the Frankel Grade, attempts to quantify the degree of residual neurologic function. These six tables separate ASIA Impairment Scale by admit to rehab and discharge, cervical level, thoracic level, lumbar level, and sacral levels.

Table 60 depicts ASIA Impairment Scale at discharge. Complete (A) injuries at discharge are the largest category (44.8%) and the second largest category is Functional Motor Incomplete (D) (28.5%). Two system have the highest rates of Complete (A) injuries (57.6% and 56.2%, respectively), whereas, two systems have the highest rates of Functional Motor Incomplete (D) (47.1% and 43.4%, respectively).

ASIA Impairment Scale at admit to acute, admit to rehab and discharge from the system appears in **Table 61** (for day-1s only). Admit to rehab neuro data collection began October 31, 2000, accordingly, admit to rehab column is from a smaller 'known value' sample. There was a decline from acute admit to system discharge in three out of the four categories (Complete (A), Sensory Complete (B), and Non-functional Motor Incomplete (C)). There was an increase in Functional Motor Incomplete (D), from 17.9% at acute admit to 30.8% at system discharge.

ASIA Impairment Scale by neurologic level of lesion at discharge appears in **Tables 62-64**. Among persons with high cervical (C1-C4), low cervical (C5-C8), high thoracic (T1-T6) and low thoracic (T7-T12) lesions, neurologically complete (A) lesions ranked first. Lumbar lesions were more likely to be functional motor incomplete (D).

Table 65 depicts ASIA Impairment Scale for each system at the first anniversary from the injury. This data requires a System exam and can be collected from 6 months prior to the one year anniversary to six months after the anniversary. Of the ASIA exams completed, 36.5 percent are neurologically Complete (A) and 22.9 percent are Functional Motor Incomplete (D).

ASIA Motor Index Scores: Tables 66 - 67

The ASIA Motor Index Score is a measure of motor function ranging from 0 to 100 used to document neurologic recovery. The ASIA Motor Index Score was added in 1986 and data collection at admit to rehab was added in 1993. This data requires a System exam and can be collected from 6 months prior to the one year anniversary to six months after the anniversary.

Mean ASIA Motor Index Scores (Day 1s only) at acute admit, admit to rehab and first definitive system discharge appear in **Table 66**. The mean score increased from 42.7 at system admission to 46.7 at rehab admission and to 54.4 at discharge. A similar trend was observed at all systems. This analysis uses data entered since October 1993.

Table 67 shows the mean ASIA Motor Index Scores (55.4) at one year post-injury. There are a total of 4,916 records reported since October 1993.

Functional Independence Measure Scores: Tables 68 - 70

Functional status of patients at system discharge and gain in function from rehabilitation admit to system discharge are important measures of the quality of care provided by Model Systems. The instrument chosen by the Model Systems to assess functional status is the Functional Independence Measure (FIM) introduced in 1986 by the Task Force to Develop a Uniform Data System (UDS) for Medical Rehabilitation. Although the complete FIM consists of 18 items, only the motor items are currently documented in the national SCI database. The FIM Total Motor Score has 13 units as the lowest possible score and 91 units as the highest possible score (representing the most independent level of motor function). Items include feeding, grooming, bathing, dressing upper and lower body, toileting, bladder and bowel control, transfer to bed or chair, toilet, tub or shower, locomotion and stair climbing. Prior to inclusion in the national database, a pilot study of inter-rater reliability of Model System FIM data was conducted by Dr. Gale Whiteneck and co-workers at the Rocky Mountain Regional Spinal Cord Injury Care System. The results of the pilot study were presented to the Project Directors who determined that the reliability of the FIM was sufficient to warrant inclusion in the database. Form I required FIM data after October 1988, and Form II required FIM data after February 1996. FIM data is not collected from those less than six years old.

To date, complete FIM data at both rehabilitation admission and system discharge have been reported for over 14,624 patients enrolled in the national SCI database. Mean FIM Total Motor Scores at rehabilitation admission and system discharge are displayed in **Table 68**. Rehab and discharge scores show very little variability between systems. The mean rehab admit score is 25.8 and the mean discharge score is 55.4.

Mean FIM Total Motor Score by neurologic level and extent of lesion appear in **Table 69**. Mean FIM Total Motor Score at rehabilitation admission ranged from 41.4 units for persons with incomplete paraplegia-minimal deficit to 15.0 units for those with complete tetraplegia. Mean FIM Total Motor Score at system discharge ranged from 78.9 units to 28.8 units.

Mean FIM Total Motor Score by Year post-injury is depicted in **Table 70**. Mean FIM totals are similar across systems, ranging from 65.5 units in year 5 to 61.7 units in year 35, with an average of 63.4 units across all years.

Respirator Use: Tables 71 - 72

These tables document the use of mechanical ventilation to sustain respiration. In October 2000, data collection of respirator use during system hospitalization was deleted and the data are now collected at the time of System rehab admit and at the time of system discharge. The database collects three different categories of mechanical ventilator use: 1. Yes, limited, short-term use for pulmonary complications; 2. Yes, ventilator-dependent or ventilator use requiring a weaning process; 3. Yes, phrenic nerve stimulator. These three groups have been combined into the mechanical ventilator (Respirator Use) required category.

Tables 71a and 71b separate paraplegia from tetraplegia level lesions. Of the patients with paraplegia level lesions admitted to the System rehab, 6.6 percent required respirator assistance and most of those were discharged with no respirator use (only 0.6% required respirator use at discharge). Table 71b shows 21.2 percent of the persons with tetraplegia required the use of a mechanical respirator at the time of admission to rehab whereas only 6.1 percent were discharged requiring a respirator. Intersystem variability in the proportion of persons with tetraplegia who required the use of a respirator at system rehab admit was substantial, ranging from 0.0 percent to 37.9 percent. The proportion of those with tetraplegia who were discharged respirator dependent also varied considerably, ranging from 0.0 percent to 18.0 percent. This variability may be partly attributed to the facilities lack of access to equipment necessary to rehab ventilator patients.

Table 72 shows the proportion of patients who required the use of a mechanical respirator at one year post-injury. Only 3.5 percent of tetraplegia group required respirator use and 0.2 percent of the paraplegia group still required the respirator.

Method of Bladder Management: Tables 73 - 76

These tables represent the primary method of bladder management being used at discharge and year post injury. In November 1995, new categories (codes 2, 3, 4, 7, 8 and 9) were added. Therefore, the absence of data in those categories is not surprising and as a result, the tables must be interpreted cautiously.

Tables 73 and 74 show Method of Bladder Management by system at system discharge separated by gender. The most common discharge categories for men were ICP (with or without an external collector) (43.4%), followed by normal micturition (16.7%) and condom catheter drainage (13.2%). Most females were discharged with ICP (40.2%) as well, followed by indwelling catheterization (28.9%) and normal micturition (20.4%). There is intersystem variation in bladder management. For example, suprapubic cystostomy is used more often in one system than the other systems, regardless of gender.

Tables 75 and 76 show Bladder Management by year post-injury separated by gender. Because of increasingly short rehabilitation lengths of stay, many males have not yet completed the intermittent catheterization program and graduated to the use of condom catheter drainage before discharge. This trend is reflected by the decline in ICP at Year 1 and Year 5 (33.0% and 27.3%, respectively) with concomitant increase in condom usage (19.3% and 24.6%, respectively), as

compared with method of bladder management at discharge. The gradual decrease in normal micturition over time may be the results from aging or individuals being increasingly less likely to return for follow-up. The high percentages of individuals with suprapubic cystostomies after year 20 is the result of the presence of a high proportion of records from one system in which this is a very common method of management.

Re-hospitalizations: Tables 77 - 79

These variables document all rehospitalizations in all hospitals (i.e., system and non-system) that occurred during the previous 12 months with respect to the date of the interview. Cause of re-hospitalization was added in March 2001.

Tables 77 and 78 show total number of rehospitalizations and mean total days by post-injury year. By far, the majority of patients reported no rehospitalization across all years. Percentages range from 59.9 percent in year 2 to 74.0 percent in year 25. The System's average mean total days rehospitalized for year 1 is 24.7 and for year 30 it is 20.4 days. Year 1 mean days hospitalized ranges from 12.1 days to 33.0 days and year 30 ranges from 3.7 days to 25.9 days.

Diseases of the genitourinary system were the leading cause of re-hospitalization during most post-injury years (47.9% across all years). Disease of the skin was the second most common cause of rehospitalization (30.1% across all years). Other, respiratory, digestive, circulatory and musculoskeletal diseases or conditions were also relatively common causes of re-hospitalization (**Table 79**). Relatively high percentages of "other unclassified" causes suggest that additional categories may need to be identified for this variable. Percentages may total more than 100 because each patient may endorse up to eight re-hospitalizations and reasons.

Self-Perceived Health Status: Tables 80 - 81

"In general, would you say that your health is excellent, very good, good, fair or poor?" is question 1 from the Short Form Health Survey (SF-36). It was added to the database in 1995. "*Compared to a year ago, how would you rate your health in general now?"* is question 2 from the Short Form Health Survey (SF-36). If the interview is done at year 1, then the time frame is 'since rehab discharge' instead of 'Compared to a year ago'. This variable was added in May 1998. These questions are not collected from patients less than 18 years old.

Table 80 depicts patient's perception of their current health by post-injury year. At the year 1 interview, participants are asked to rate their health 'since rehab discharge'. At year 1, most patients endorsed 'Good' (31.3%) versus the fewest patients endorsed 'Poor' (5.2%). 'Excellent' and 'Very good' endorsements increase slightly as the years post-injury increase (from 10.2% in year 1 to 13.4% in year 35; and 20.2% in year 1 to 28.5% in year 30, respectively) and the percentage of 'Unknown/not done/under 18' decrease.

Most patients' perception of the improvement of their health is seen as 'much better' or 'somewhat better' at year one (33.3% and 21.9%, respectively). At year 5 and after, there is a increase in reporting a 'Somewhat worse' health, from 7.6% in year 1 to 20.2% in year 35 (**Table 81**). As in the previous table, 'unknown/not done/under 18' decrease as the years increase.

Satisfaction With Life: Table 82

This table reflects the mean Total Score which measures the concept of life satisfaction based on the patient's responses to these five statements. "*1. In most ways my life is close to my ideal. 2. The conditions of my life are excellent. 3. I am satisfied with my life. 4. So far I have gotten the important things I want in life. 5. If I could live my life over, I would change almost nothing."* Response options are: Strongly Disagree (1), Disagree (2), Slightly Disagree (3), Neither Agree or Disagree (4), Slightly Agree (5), Agree (6), or Strongly Agree (7). Total Score ranges from 5 to 35; higher scores imply more satisfaction with life and scores between 20 and 24 are average.

Only records entered into the database after 1995 and participants whose age was 18 or older, were used in this analysis. Overall, mean life satisfaction total score ranged from 18.3 at year 1 to 23.9 at year 35. Year 35 scores range from 19.6 to 26.9.

CHART: Tables 83 - 86

The Craig Handicap Assessment and Reporting Technique (CHART) is a widely used questionnaire useful in measuring societal participation for persons with disabilities. The CHART was added to the national database in November 1995. It is administered at follow-up to individuals whose current age is 18 years or older. From 1995 to October 2000, the version of the CHART that was used in the database consisted of 26 questions and five subscales (physical independence, mobility, occupation, social integration, and economic self-sufficiency). In 2000, the version of the CHART that is included in the database was changed to the short form of the CHART that consists of only 20 questions and includes a sixth subscale (cognitive independence). The CHART data collected from 1996 through 2000 were converted to the short form of the CHART by the NSCISC so that all CHART data in the database are in the same format. In 2006, the CHART was further reduced to 15 questions and four subscales by removing the economic self-sufficiency questions and subscale, and the cognitive independence subscale. The following tables show the mean score of four subscales: physical independence, mobility, occupation, and social integration. Each subscale score is capped at 100, and scores of less than 100 imply the presence of a handicap.

Table 83 depicts the mean CHART physical independence subscale score by year post-injury for each model system. The mean physical independence score increases over time from 70.0 in year 1 to 87.4 in year 35. However, there is considerable intersystem variability in physical independence scores. For example, in year 1, mean physical independence scores range from 52.9 to 85.1.

Table 84 depicts the mean CHART mobility subscales score by year post-injury for each model system. The mean mobility score shows very little intersystem variability or variability across years. For example, in the first post-injury year, mean mobility scores range from 68.9 to 79.7.

Table 85 depicts the mean CHART occupation subscale score by year post-injury for each model system. The mean occupation score increases over time from 49.1 in the first post-injury year to 67.7 in post-injury year 35. However, there is considerable intersystem variability in

occupation scores. For example, in the first post-injury year, mean occupation scores range from 37.1 to 62.0. Although the occupation subscale includes other activities besides competitive employment, the trend over time in this subscale score is consistent with many previous studies of return to work after spinal cord injury that have shown a gradual increase in the employment rate over time.

Table 86 depicts the mean CHART social integration subscale by year post-injury. There is very little intersystem variability or changes across years in social integration scores. For example, in the first post-injury year, mean social integration scores range from 80.7 to 92.4. Across years, the range is from 85.3 (year 2) to 88.3 (year 20).

Patient Health Questionnaire - 9: Tables 87 - 88

The PHQ consists of 9 questions reflecting the frequency of problems associated with possible depression of persons plus a tenth question reflecting the overall level of difficulty caused by these problems. Each of the nine questions is scored from 0 (no problem) to 3 (nearly every day). Major depressive syndrome is defined as scoring a 2 or 3 on at least one of the first two questions and scoring at least a 2 on a total of at least 5 of the nine questions. Other depressive syndrome is defined as scoring a 2 or 3 on at least one of the first two questions and scoring a 2 or 3 on two to four of the nine questions. Also the severity of depression score is calculated as the sum of the scores from the nine PHQ questions. The PHQ-9 was required for Form II collection after March 1, 2001.

Table 87 depicts the frequency and percentage of persons with major and other depressive syndrome post-injury year. The percentage of persons with major depressive syndrome ranges from 11.9 in post-injury year 2 to 5.2 in post-injury year 20. The percentage of persons with other depressive syndrome ranges from 10.6 in post-injury year 2 to 6.7 in post-injury year 20. The percentage of persons with no depressive syndrome ranges from 61.0 in post-injury year 2 to 80.4 in post-injury year 25.

Table 88 depicts the mean severity of depression score by post-injury years. This analysis includes records with scores of zero. Overall, mean depression severity scores decreased slightly over time, ranging from 6.2 in post-injury year 2 to 3.7 in post-injury year 20.

Alcohol Use: Tables 89 - 92

These three items are required after March 1, 2001: *Have you ever drank alcohol (yes/no), During the past month, how many days per week did you drink any alcoholic beverages such as beer, wine, wine coolers or liquor, on the average?(valid range:1 – 7), On the days you drank (during the past month), about how many drinks did you drink, on the average?(valid range: 0-87); How many times during the past month have you drank more than 5 drinks at any one occasion?* Tables 90, 91, and 92 exlude those who have never drank alcohol.

Table 89 shows the percentage of persons who reported drinking any alcoholic beverage, either currently or in the past, ranges from 50.6 in post injury year 1 to 85.9 in post injury year 35.

Unknown decreases from 12.8 percent in year 1 to 1.5 percent in year 35. Similar trends are reflected in all four alcohol questions.

Most persons who were drinkers reported alcohol use two or fewer days per week throughout all follow-up years (**Table 90**). 'Drinking 7 Days per week' increases from 2.2% in year 2 to 7.9% in year 30.

When asked the question, *'On the days you drank (during the past month), about how many drinks did you drink, on the average'* over 30 percent of respondents replied drinking 'one' or 'two' drinks across all years. There is a trend to increase endorsement of 'none' across years, ranging from 25.4 percent in year 2 to 43.7 percent in year 35 (**Table 91**).

At year 1, 61.3 percent of respondents did not endorse any time in the past month of having more than 5 drinks at one occasion (**Table 92**). That percentage increases across years to 88.6 percent in year 35.

Pain: Tables 93 - 94

The severity of pain score is measured on a 0 to 10 scale and asks the participant to rate the past 4 weeks' usual level of pain. Data is required after March 1, 2001. **Table 93** depicts mean pain severity score. 'Usual Pain' did not vary over time, staying between 4.1 and 4.6 across years. There was also not much intersystem variability in the reporting of pain severity scores.

Table 94 reflects responses to the question of the degree to which pain interfered with work or usual routine. This is a variable from the SF-12 that was added to the NSCISC database in May 1998. It was retained in the NSCISC database along with the self-reported rating of overall health when the remainder of the SF-12 was dropped from the database in September 2000.

Overall, most persons who reported that they had pain also reported that the pain either did not interfere with work or that it interfered only a little bit. Pain Interference was reported as 'Not at all' for 19.7% at year 1 to a high of 32.5% at year 25, then decreases at year 30 and 35 (30.0 and 28.6). Slightly over 20 percent of persons reported Moderate to Quite a bit of interference with work/routine across all post-injury years.

Ambulation: Tables 95 - 98

These three variables were added May 1, 2004 and reflect the yes/no responses of these three questions: *Are you able to walk (with or without mobility aid) for 150 feet in your home? Are you able to walk (with or without mobility aid) for one street block outside? Are you able to walk (with or without mobility aid) up one flight of steps?*

Tables 95-97 reflect ambulation ability by year post-injury. Among 4,205 participants who were interviewed at year 1, 35.1% reported that they can walk for 150 feet at home, 30.5% can walk for one street block outside the home, and 30.4% can walk up one flight of stairs. The gradual

decrease in ambulation ability over post-injury years may be the result of aging or as ambulation improves return to systems for follow-up decreases.

Table 98 reflects the types of mobility aids most often used by patients by years post-injury. Percentages may equal more than 100 because some participants used more than one mobility aid (up to five entries per record is possible). Overall, 65.2 percent of responses were coded as not applicable, that is the case for those who are non-ambulatory and respond negatively to all three questions in tables 95 - 97. No mobility aid was reported by 10.4 percent of patients, while a straight cane was the most commonly used aid, reported by 7.8 percent of patients. Only 0.9 percent of patients reported use of an "other" aid, suggesting the categories established for this variable are adequate.

Wheelchair Use: Tables 99 - 100

Variables in Tables 99 and 100 were added in May 2004. **Table 99** reflects the participants who use wheelchairs or scooters over 40 hours per week by year post-injury. There is a trend for use of wheelchairs to increase over the years, from 56.6 percent in year 1 to 82.4 percent in year 35. The increase may be the result of aging or as ambulation improves return to systems for follow-up decreases. **Table 100** identifies the most common type of wheelchair is 'manual' in all years (40.5%), but power chairs increase over the years from 20.6 percent in year 1 to 34.4 percent in year 35.

Technology Use: Tables 101 – 105

The next five tables describe variables that are required after May 1, 2004.

Table 101 reflects computer use by patients by post-injury year. Overall, 42.3 percent of respondents use a computer only at home, 23.0 percent use a computer both at home and away, 3.2 percent use a computer outside the home, and 24.1 percent do not use a computer.

Table 102 reflects internet or email usage by patients by post-injury year. This includes the use of electronic devices that access the internet or email. Out of 14,483 participants, 68.2 percent use a computer. Of computer users (9,878), 95.8% access internet or email at least monthly. Daily internet or email access increases across years from 42.4 percent in year 1 to 67.2 percent in year 35.

Table 103 shows ownership of a modified vehicle. Across all years, almost half (46.2%) report owning a modified vehicle. There is a trend for that percentage to increase across years, from 24.3 percent in year 1 to 72.9 percent in year 35. The most common type of modified vehicle owned by participants or their families is a van used by 27.7 percent. The second most frequent vehicle is the car (12.3%).

Table 104 includes participants with no vehicle. Almost one quarter (23.8%) of the respondents transfer into their vehicle to drive. Another 6.9 percent drive from their wheelchairs, and 15.5 percent own a modified vehicle but does not drive.

Table 105 reflects cell phone usage by post-injury year. Cell phone usage across years shows little variation, from 68.8 percent in year 1 to 75.6 percent in year 35. Overall, 70.3 percent used a cell phone.

Table 1. Forms entered into the National SCI Database as of December 2, 2011.

	Registry	Form I	Form II	Total
Total	11,961	28,450	104,975	145,386

Form II excludes 'Lost to Follow-up' records.

Table 2. Number of Form IIs by post-injury year.

Post-Injury Year															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Total	21,221	12,951	9,530	8,123	11,235	5,892	5,041	4,161	3,444	6,017	2,118	1,565	1,121	885	3,853

Post-Injury Year																
	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	35	Total
Total	488	343	258	191	2,790	50	24	14	19	2,123	6	5	7	9	1,229	262	104,975

Form II excludes 'Lost to Follow-up' records.

Table 3. Increase in the number of records in the National SCI Database Between October 2, 2010 and December 2, 2011.

	Registry	Form I	Form II	Total	% of Total
Total	504	897	1,298	2,699	100.00

Form II excludes 'Lost to Follow-up' records.

Table 4. Number of New Records entered into the National SCI Database for 2006-2011 funding cycle.

	Registry	Form I	Form II	Total
Total	2,061	3,706	10,128	15,895

Form II excludes Lost to Follow-up (Category of Care=5)
'Other' has an increase of 4 records from a previously funded Model System. These records did not pass QC checks at their first submission and were not converted to the Core Dataset until they were updated and re-entered into the database during this current 2006-2011 funding cycle.

Table 5. Percentage of Day-1 Admissions (for Form I Patients Admitted to a System for 2006-2011 funding cycle).

	Total Number of Form Is Entered	% day-1 admissions
Total	3,706	37.3

'Other' denotes all centers that are not funded for the 2006-2011 funding cycle. These records did not pass QC checks at their first submission and were not converted to the Core Dataset until they were updated and re-entered into the database during the 2006-2011 funding cycle.

Table 6. Number of Registry Patients by Year of Injury.

	Year of Injury													
	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total	73	488	437	481	522	508	553	564	561	619	570	585	610	574

Table 6. Number of Registry Patients by Year of Injury.

	Year of Injury												
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	Total
Total	445	508	478	358	374	454	404	386	370	392	417	230	11,961

'Other' denotes all centers that are not funded for the 2006-2011 funding cycle.
Two systems do not have any Registry participants.

Table 7. Number of Form I Patients by Year of Injury.

	Year of Injury											
	1973	**1974**	**1975**	**1976**	**1977**	**1978**	**1979**	**1980**	**1981**	**1982**	**1983**	**1984**
Total	223	401	579	684	822	848	1,005	1,130	818	749	1,155	1,098

Table 7. Number of Form I Patients by Year of Injury.

	Year of Injury													
	1985	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**
Total	976	931	662	628	645	597	705	650	654	689	638	736	754	729

Table 7. Number of Form I Patients by Year of Injury.

	Year of Injury													
	1999	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**Total**
Total	767	674	717	723	694	636	657	685	779	787	697	699	429	28,450

- *'Other' denotes all centers that are not funded for the 2006-2011 funding cycle.*
- *Enrollment criteria changed in 1987 and 2000.*

Table 8. Number of Form I Day-1 Admissions by Year of Injury.

	Year of Injury													
	1973	**1974**	**1975**	**1976**	**1977**	**1978**	**1979**	**1980**	**1981**	**1982**	**1983**	**1984**	**1985**	**1986**
Total	73	103	178	196	238	229	293	359	262	221	463	434	330	429

Table 8. Number of Form I Day-1 Admissions by Year of Injury.

	Year of Injury												
	1987	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**
Total	378	348	359	382	412	388	394	376	351	410	400	406	397

Table 8. Number of Form I Day-1 Admissions by Year of Injury.

	Year of Injury												
	2000	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**	**2011**	**Total**
Total	323	357	350	290	267	281	288	277	290	249	266	181	12,228

'Other' denotes all centers that are not funded for the 2006-2011 funding cycle.
Enrollment criteria changed in 1987 and 2000.

Table 9. Primary Cause of Death.

ICD9CM Codes	Primary Cause of Death	n	%
460-519	Diseases of the respiratory system	2,007	21.9
000-139	Infective and parasitic diseases	1,075	11.7
400-414	Hypertensive and ischemic heart disease	881	9.6
140-239	Neoplasms	867	9.4
420-429	Other heart disease	832	9.1
E800-E949	Unintentional injuries	618	6.7
520-579	Diseases of the digestive system	450	4.9
430-438	Cerebrovascular disease	345	3.8
415-417	Disease of pulmonary circulation	334	3.6
E950-E959	Suicides	322	3.5
580-629	Diseases of the genitourinary system	279	3.0
780-799	Symptoms and ill-defined conditions	247	2.7
240-279	Endocrine, nutritional, metabolic and immunity disorders	217	2.4
320-389	Diseases of the nervous system and sense organs	183	2.0
440-448	Diseases of the arteries, arterioles, and capillaries	117	1.3
E960-E969	Homicides	105	1.1
E980-E989	Subsequent trauma of uncertain nature (unintentional/suicide/homicide)	94	1.0
290-319	Mental disorders	81	0.9
710-739	Diseases of the musculoskeletal system and connective tissue	64	0.7
280-289	Diseases of blood and blood-forming organs	27	0.3
451-459	Diseases of veins, lymphatics, and other diseases of the circulatory system	19	0.2
740-759	Congenital anomalies	11	0.1
E970-E979	Legal intervention	1	0.1
Residual	All others	0	0.0
	Total known causes of death	**9,176**	
	Total unknown causes of death	**1,943**	
	Total deaths	**11,119**	

Table 10. Cumulative Survival – National

Years Post Injury	(1) Patients Entered	(2) Withdrawn Alive	(3) Lost	(4) Dead	(5) Effective Number Exposed	(6) Proportion Dead	(7) Proportion Surviving	(8) Cumulative Survival at End of Interval
0 - 1	44,118	1,797	5,374	1,827	40,532.5	0.0451	0.9549	0.9549
1 - 2	35,120	892	1,944	772	33,702.0	0.0229	0.9771	0.9331
2 - 3	31,512	182	537	524	31,152.5	0.0168	0.9832	0.9174
3 - 4	30,269	92	313	498	30,066.5	0.0166	0.9834	0.9022
4 - 5	29,366	175	499	453	29,029.0	0.0156	0.9844	0.8881
5 - 6	28,239	479	904	412	27,547.5	0.0150	0.9850	0.8748
6 - 7	26,444	483	423	432	25,991.0	0.0166	0.9834	0.8603
7 - 8	25,106	405	353	415	24,727.0	0.0168	0.9832	0.8458
8 - 9	23,933	390	243	379	23,616.5	0.0160	0.9840	0.8322
9 - 10	22,921	272	319	327	22,625.5	0.0145	0.9855	0.8202
10 - 11	22,003	479	560	376	21,483.5	0.0175	0.9825	0.8059
11 - 12	20,588	551	277	304	20,174.0	0.0151	0.9849	0.7937
12 - 13	19,456	559	155	327	19,099.0	0.0171	0.9829	0.7801
13 - 14	18,415	627	73	308	18,065.0	0.0170	0.9830	0.7668
14 - 15	17,407	577	153	317	17,042.0	0.0186	0.9814	0.7526
15 - 16	16,360	697	239	268	15,892.0	0.0169	0.9831	0.7399
16 - 17	15,156	708	71	281	14,766.5	0.0190	0.9810	0.7258
17 - 18	14,096	682	41	266	13,734.5	0.0194	0.9806	0.7117
18 - 19	13,107	636	36	258	12,771.0	0.0202	0.9798	0.6974
19 - 20	12,177	632	63	247	11,829.5	0.0209	0.9791	0.6828
20 - 21	11,235	643	88	212	10,869.5	0.0195	0.9805	0.6695
21 - 22	10,292	580	44	206	9,980.0	0.0206	0.9794	0.6557
22 - 23	9,462	533	30	233	9,180.5	0.0254	0.9746	0.6390
23 - 24	8,666	549	17	207	8,383.0	0.0247	0.9753	0.6232
24 - 25	7,893	448	56	176	7,641.0	0.0230	0.9770	0.6089
25 - 26	7,213	570	204	187	6,826.0	0.0274	0.9726	0.5922
26 - 27	6,252	591	64	157	5,924.5	0.0265	0.9735	0.5765
27 - 28	5,440	554	28	154	5,149.0	0.0299	0.9701	0.5593
28 - 29	4,704	403	15	126	4,495.0	0.0280	0.9720	0.5436
29 - 30	4,160	378	84	114	3,929.0	0.0290	0.9710	0.5278
30 - 31	3,584	701	145	91	3,161.0	0.0288	0.9712	0.5126
31 - 32	2,647	476	36	73	2,391.0	0.0305	0.9695	0.4970
32 - 33	2,062	380	11	53	1,866.5	0.0284	0.9716	0.4829
33 - 34	1,618	405	6	65	1,412.5	0.0460	0.9540	0.4606
34 - 35	1,142	324	23	40	968.5	0.0413	0.9587	0.4416
35 - 36	755	314	13	22	591.5	0.0372	0.9628	0.4252
36 - 37	406	226	1	12	292.5	0.0410	0.9590	0.4077
37 - 38	167	167	0	0	83.5	0.0000	1.0000	0.4077
Total	44,118	19,557	13,442	11,119				

Table 10. Cumulative survival - National.

(1) Number of individuals alive at start of interval.
(2) Number of individuals alive at start of interval ineligible for further follow-up due to study termination.
(3) Number of individuals lost to follow-up (survival status was unknown) during the interval.
(4) Number of individuals dying during the interval.
(5) Number of individuals exposed to risk of dying in interval [patients entered - 0.5 * (withdrawn alive + lost)].
(6) Conditional probability of death during the interval (dead / effective number exposed).
(7) Conditional probability of surviving the interval (1 - proportion dead).
(8) Cumulative survival rate (previous cumulative survival * proportion surviving present interval).

Table 12. Life expectancy for SCI persons surviving at least 24 hours post-injury.

Age At Injury	Life Expectancy (Years)					
		Not Ventilator Dependent				Ventilator Dependent
		Motor Functional	Paraplegia	Tetraplegia		
	No SCI	Any Level *AIS-D*		C5-C8	C1-C4	Any Level
10 years	68.6	61.8	54.2	48.8	44.2	24.0
15 years	63.7	56.9	49.3	44.0	39.4	19.7
20 years	58.8	52.1	44.8	39.6	35.3	16.8
25 years	54.1	47.6	40.5	35.6	31.5	14.8
30 years	49.4	43.0	36.1	31.4	27.5	12.5
35 years	44.6	38.4	31.7	27.2	23.6	10.0
40 years	39.9	33.8	27.4	23.2	19.7	7.5
45 years	35.4	29.4	23.4	19.4	16.2	5.4
50 years	30.9	25.2	19.6	15.9	13.0	3.8
55 years	26.7	21.3	16.1	12.8	10.3	2.6
60 years	22.5	17.5	12.8	10.0	7.8	1.6
65 years	18.6	14.0	9.9	7.4	5.7	0.9
70 years	15.0	10.8	7.3	5.3	3.9	0.3
75 years	11.7	7.9	5.0	3.4	2.4	<0.1
80 years	8.8	5.6	3.2	2.0	1.2	<0.1

Table 12. Life expectancy for SCI persons surviving at least 24 hours post injury.
[Values for persons with no SCI are from the 2007 U.S. Life Tables for the general population.]

Table 13. Life expectancy for SCI persons surviving at least 1 year post-injury.

Current Age	Life Expectancy (Years)					
		Not Ventilator Dependent				Ventilator Dependent
		Motor Functional	Paraplegia	Tetraplegia		
	No SCI	Any Level *AIS-D*		C5-C8	C1-C4	Any Level
10 years	68.6	62.1	54.8	49.7	45.9	32.9
15 years	63.7	57.2	49.9	44.9	41.1	28.3
20 years	58.8	52.5	45.4	40.5	36.9	24.8
25 years	54.1	47.9	41.0	36.4	33.0	21.9
30 years	49.4	43.3	36.6	32.2	28.9	18.7
35 years	44.6	38.7	32.2	28.0	24.9	15.4
40 years	39.9	34.1	27.9	23.9	21.0	12.3
45 years	35.4	29.7	23.8	20.0	17.3	9.5
50 years	30.9	25.5	20.0	16.5	14.1	7.2
55 years	26.7	21.5	16.4	13.3	11.2	5.4
60 years	22.5	17.7	13.2	10.4	8.6	3.8
65 years	18.6	14.2	10.2	7.8	6.3	2.5
70 years	15.0	11.0	7.5	5.6	4.4	1.4
75 years	11.7	8.1	5.2	3.7	2.7	0.6
80 years	8.8	5.7	3.4	2.2	1.5	<0.1

Table 13. Life expectancy for SCI persons surviving at least 1 year post injury.
[Values for persons with no SCI are from the 2007 U.S. Life Tables for the general population.]

Table 14. Category of Follow-up Care.

Category of Follow-up Care						
n(%)	System Appt	Interview Only	Lost	Future Follow-up Not Required	Unknown	Total
Total	64,055 (50.5)	38,891 (30.7)	21,863 (17.2)	1,711 (1.3)	318 (0.3)	126,838

'Future Follow-up Not Required'= Form IIs coded 8 (Minimal Deficit).

Table 15. Reasons for Lost by Post-Injury Year.

	Post-Injury Year n(%)								
Reason for Lost	1	2	5	10	15	20	25	30	35
Refused/Withdrew Consent	101 (8.2)	32 (12.1)	97 (6.5)	64 (4.9)	53 (5.6)	56 (6.3)	39 (4.6)	8 (1.7)	0 (0.0)
Incarcerated	31 (2.5)	11 (4.2)	32 (2.1)	15 (1.1)	23 (2.4)	10 (1.1)	6 (0.7)	2 (0.4)	1 (1.1)
Unable to contact	871 (70.3)	177 (67.0)	1,144 (76.8)	1,027 (78.3)	705 (75.0)	649 (72.9)	611 (71.6)	335 (71.0)	57 (62.0)
Other	119 (9.6)	40 (15.2)	107 (7.2)	92 (7.0)	75 (8.0)	111 (12.5)	52 (6.1)	35 (7.4)	16 (17.4)
Patient Refusal	40 (3.2)	0 (0.0)	37 (2.5)	42 (3.2)	30 (3.2)	24 (2.7)	59 (6.9)	27 (5.7)	9 (9.8)
Withdrew Consent	77 (6.2)	2 (0.8)	72 (4.8)	71 (5.4)	54 (5.7)	37 (4.2)	86 (10.1)	65 (13.8)	9 (9.8)
ID Unknown Due to Break in Funding	1 (0.1)	0 (0.0)	3 (0.2)	8 (0.6)	5 (0.5)	120 (11.9)	193 (18.5)	345 (42.2)	18 (16.4)
Unknown	0 (0.0)	2 (0.8)	1 (0.1)	0 (0.0)	0 (0.0)	3 (0.3)	0 (0.0)	0 (0.0)	0 (0.0)
Total	1,240	264	1,493	1,319	945	1,010	1,046	817	110

Only Form IIs where Category of Care=5 (Lost to Follow-up).
Required for Form IIs entered into the database since February 1, 1998.
In February 2007, Refused/Withdrawn Consent code is invalid; Withdrew Consent and Patient Refusal codes were added.
In February 2009, Identity Unknown code was added for Centers to identify records with no personal identifiers due to the break in funding.

Table 16. How was the interview conducted.

	How was interview conducted						
n(%)	In Person	By Phone	Self Admin (mail)	Combo	Not Done, N/A	Unkn	Total
Total	2,488 (9.3)	18,733 (70.2)	2,267 (8.5)	2,079 (7.8)	790 (3.0)	312 (1.2)	26,669

Form IIs entered into the database since March 1, 1996 and only required interview years (1, 5, 10…)
Code 4 (combo) added in 1998.

Table 17. Age at Injury: Frequency Distribution.

Age	Freq-uency	Percent	Cumulative Percent
<1	4	0.01	0.01
1	13	0.05	0.06
2	10	0.04	0.10
3	19	0.07	0.16
4	21	0.07	0.24
5	16	0.06	0.29
6	20	0.07	0.36
7	16	0.06	0.42
8	18	0.06	0.48
9	20	0.07	0.55
10	33	0.12	0.67
11	15	0.05	0.72
12	36	0.13	0.85
13	102	0.36	1.21
14	207	0.73	1.94
15	392	1.38	3.32
16	757	2.66	5.98
17	1065	3.75	9.73
18	1290	4.54	14.27
19	1309	4.61	18.88
20	1168	4.11	22.99
21	1154	4.06	27.05
22	1078	3.79	30.85
23	988	3.48	34.32
24	936	3.29	37.62
25	870	3.06	40.68
26	796	2.80	43.48
27	747	2.63	46.11
28	701	2.47	48.58
29	709	2.50	51.08
30	619	2.18	53.26
31	608	2.14	55.40
32	596	2.10	57.49
33	487	1.71	59.21
34	431	1.52	60.73
35	486	1.71	62.44
36	474	1.67	64.11
37	437	1.54	65.64
38	454	1.60	67.24
39	402	1.42	68.66
40	385	1.36	70.01
41	395	1.39	71.40
42	360	1.27	72.67
43	365	1.28	73.95
44	362	1.27	75.23
45	359	1.26	76.49
46	314	1.11	77.60
47	323	1.14	78.73
48	340	1.20	79.93
49	319	1.12	81.05
50	299	1.05	82.11
51	256	0.90	83.01
52	274	0.96	83.97
53	267	0.94	84.91
54	262	0.92	85.83
55	243	0.86	86.69
56	254	0.89	87.58
57	245	0.86	88.45
58	224	0.79	89.24
59	204	0.72	89.95
60	228	0.80	90.76
61	215	0.76	91.51
62	192	0.68	92.19
63	160	0.56	92.75
64	167	0.59	93.34
65	138	0.49	93.83
66	164	0.58	94.40
67	161	0.57	94.97
68	138	0.49	95.46
69	118	0.42	95.87
70	100	0.35	96.22
71	108	0.38	96.60
72	83	0.29	96.90
73	100	0.35	97.25
74	81	0.29	97.53
75	93	0.33	97.86
76	76	0.27	98.13
77	86	0.30	98.43
78	62	0.22	98.65
79	71	0.25	98.90
80	51	0.18	99.08
81	43	0.15	99.23
82	37	0.13	99.36
83	38	0.13	99.49
84	24	0.08	99.58
85	27	0.10	99.67
86	25	0.09	99.76
87	17	0.06	99.82
88	16	0.06	99.88
89	11	0.04	99.92
90	8	0.03	99.94
91	4	0.01	99.96
92	4	0.01	99.97
93	1	<0.01	99.98
94	2	0.01	99.98
95	2	0.01	99.99
97	1	<0.01	99.99
98	1	<0.01	100.00
99	1	<0.01	100.00

Excludes 42 records reporting unknown age

Table 18. Age at Injury: Descriptive Statistics.

Age at Injury					
	N	Mean	Standard Deviation	Minimum	Maximum
Total	28,408	34.2	16.6	<1	99

Excludes 42 records reporting unknown age.

Table 19. Trend in Age by Year of Injury.

Year of Injury	N	Mean	Standard Deviation	Minimum	Maximum
1973-1979	4,561	28.7	14.1	1	88
1980-1984	4,950	30.5	14.7	1	90
1985-1989	3,842	32.3	15.8	<1	92
1990-1994	3,295	33.7	16.0	1	97
1995-1999	3,624	36.4	17.0	<1	98
2000-2004	3,444	37.6	16.7	4	90
2005-2011	4,692	41.0	18.2	<1	99
Total	28,408	34.2	16.6	<1	99

Excludes 42 records reporting unknown age.

Table 20. Sex of Spinal Cord Injury Patients.

	Sex		
n(%)	Male	Female	Total
Total	22,902 (80.6)	5,505 (19.4)	28,407

Excludes 43 records reporting unknown sex.

Table 21. Race of Spinal Cord Injury Patients.

	Racial Group						
n(%)	Caucasian	African American	Native American	Asian	Other	Unknown	Total
Total	19,117 (67.2)	6,471 (22.7)	268 (0.9)	474 (1.7)	440 (1.5)	1,680 (5.9)	28,450

High percentages of unknowns are mainly due to database conversion process in 1995 (see page 12).

Table 22. Hispanic Origin.

	Hispanic Origin			
n(%)	No	Yes	Unknown	Total
Total	25,565 (89.9)	2,628 (9.2)	257 (0.9)	28,450

Table 23. Hispanic Origin by Race.

	Racial Group						
Hispanic Origin n(%)	Caucasian	African American	Native American	Asian	Other	Unknown	Total
Not of Hispanic Origin	18,410 (96.3)	6,329 (97.8)	246 (91.8)	456 (96.2)	119 (27.0)	5 (0.3)	25,565
Hispanic Origin	616 (3.2)	65 (1.0)	21 (7.8)	17 (3.6)	318 (72.3)	1,591 (94.7)	2,628
Unknown	91 (0.5)	77 (1.2)	1 (0.4)	1 (0.2)	3 (0.7)	84 (5.0)	257
Total	19,117 (67.2)	6,471 (22.7)	268 (0.9)	474 (1.7)	440 (1.5)	1,680 (5.9)	28,450

High percentages of unknowns are mainly due to a database conversion process in 1995 (see page 12).

Table 24. Trend in Race by Year of Injury.

	Year of Injury							
Racial Group n(%)	**1973-1979**	**1980-1984**	**1985-1989**	**1990-1994**	**1995-1999**	**2000-2004**	**2005-2011**	**Total**
Caucasian	3,505 (76.8)	3,525 (71.2)	2,488 (64.8)	1,804 (54.7)	2,252 (62.1)	2,418 (70.2)	3,125 (66.0)	19,117
African American	648 (14.2)	873 (17.6)	957 (24.9)	958 (29.1)	981 (27.1)	814 (23.6)	1,240 (26.2)	6,471
Native American	88 (1.9)	65 (1.3)	29 (0.8)	15 (0.5)	17 (0.5)	11 (0.3)	43 (0.9)	268
Asian/Pacific Islander	42 (0.9)	61 (1.2)	55 (1.4)	62 (1.9)	83 (2.3)	71 (2.1)	100 (2.1)	474
Other, Unclassified	16 (0.4)	17 (0.3)	10 (0.3)	47 (1.4)	111 (3.1)	98 (2.8)	141 (3.0)	440
Unknown	263 (5.8)	409 (8.3)	303 (7.9)	409 (12.4)	180 (5.0)	32 (0.9)	84 (1.8)	1,680
Total	4,562	4,950	3,842	3,295	3,624	3,444	4,733	28,450

Table 25. Trend in Hispanic Origin by Year of Injury.

	Year of Injury							
Hispanic Origin n(%)	**1973-1979**	**1980-1984**	**1985-1989**	**1990-1994**	**1995-1999**	**2000-2004**	**2005-2011**	**Total**
Not of Hispanic Origin	4,289 (94.0)	4,540 (91.7)	3,534 (92.0)	2,856 (86.7)	3,121 (86.1)	2,993 (86.9)	4,232 (89.4)	25,565
Hispanic Origin	271 (5.9)	408 (8.2)	307 (8.0)	421 (12.8)	398 (11.0)	430 (12.5)	393 (8.3)	2,628
Unknown	2 (0.0)	2 (0.0)	1 (0.0)	18 (0.5)	105 (2.9)	21 (0.6)	108 (2.3)	257
Total	4,562	4,950	3,842	3,295	3,624	3,444	4,733	28,450

Table 26. Etiology of Spinal Cord Injury by Sex.

Rank	Etiology	Males n (%)	Females n (%)	Total n (%)
1	Auto accident	6,803 (29.7)	2,697 (49.0)	9,501 (33.5)
2	Fall	4,886 (21.4)	1,134 (20.6)	6,020 (21.2)
3	Gunshot wound	3,919 (17.1)	551 (10.0)	4,470 (15.7)
4	Diving	1,618 (7.1)	138 (2.5)	1,756 (6.2)
5	Motorcycle accident	1,582 (6.9)	115 (2.1)	1,697 (6.0)
6	Hit by falling/flying object	783 (3.4)	35 (0.6)	818 (2.9)
7	Medical/surgical complication	466 (2.0)	273 (5.0)	739 (2.6)
8	Pedestrian	341 (1.5)	124 (2.3)	465 (1.6)
9	Bicycle	347 (1.5)	39 (0.7)	386 (1.4)
10	Person-to-person contact	217 (0.9)	64 (1.2)	281 (1.0)
11	Other unclassified	233 (1.0)	24 (0.4)	257 (0.9)
12	All other penetrating wounds	191 (0.8)	51 (0.9)	242 (0.9)
13	Other vehicular	159 (0.7)	17 (0.3)	176 (0.6)
14	All-terrain vehicle (ATV) and all-terrain cycle (ATC)	149 (0.7)	24 (0.4)	173 (0.6)
15	Snow skiing	127 (0.6)	14 (0.3)	141 (0.5)
16	Football	140 (0.6)	0 (0.0)	140 (0.5)
17	Horseback riding	68 (0.3)	71 (1.3)	139 (0.5)
18	Winter sports	111 (0.5)	26 (0.5)	137 (0.5)
19	Surfing: includes body surfing	112 (0.5)	4 (0.1)	116 (0.4)
20	Other sport	89 (0.4)	19 (0.3)	108 (0.4)
21	Fixed-wing aircraft	66 (0.3)	28 (0.5)	94 (0.3)
22	Wrestling	84 (0.4)	2 (<0.1)	86 (0.3)
23	Trampoline	54 (0.2)	8 (0.1)	62 (0.2)
24	Gymnastics	32 (0.1)	19 (0.3)	51 (0.2)
25	Snowmobile	39 (0.2)	5 (0.1)	44 (0.2)
26	Field sports	39 (0.2)	2 (<0.0)	41 (0.1)
27	Hang gliding	33 (0.1)	2 (<0.1)	35 (0.1)
28	Rotating wing aircraft	30 (0.1)	2 (<0.1)	32 (0.1)
29	Water skiing	30 (0.1)	1 (<0.1)	31 (0.1)
30	Boat	20 (0.1)	10 (0.2)	30 (0.1)
31	Air sports	29 (0.1)	1 (<0.1)	30 (0.1)
32	Baseball/softball	22 (0.1)	1 (<0.1)	23 (0.1)
33	Rodeo	22 (0.1)	0 (0.0)	22 (0.1)
34	Explosion	13 (0.1)	1 (<0.1)	14 (< 0.1)
35	Basketball/volleyball	13 (0.1)	0 (0.0)	13 (<0.1)
36	Track and field	6 (<0.1)	0 (0.0)	6 (<0.1)
37	Skateboard	5 (<0.1)	0 (0.0)	5 (<0.1)

Excludes 70 records with unknown Sex and/or unknown Etiology.

Table 27. Grouped Etiology.

	Etiology						
n(%)	Vehicular	Violence	Sports & Recreation	Falls	Other	Unkn	Total
Total	12,133 (42.6)	5,007 (17.6)	2,942 (10.3)	6,020 (21.2)	2,279 (8.0)	69 (0.2)	28,450

Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30 (see page 13).

Table 28. Grouped Etiology by Age at Injury.

	Age at Injury						
Etiology n(%)	<15	16-30	31-45	46-60	61-75	76-99	Total
Vehicular Accidents	352 (37.4)	6,555 (46.2)	2,952 (44.7)	1,536 (37.9)	596 (29.5)	141 (23.2)	12,132
Violence	215 (22.8)	3,359 (23.7)	1,085 (16.4)	287 (7.1)	54 (2.7)	7 (1.2)	5,007
Sports	225 (23.9)	2,034 (14.3)	465 (7.0)	169 (4.2)	46 (2.3)	3 (0.5)	2,942
Falls	75 (8.0)	1,509 (10.6)	1,502 (22.8)	1,535 (37.9)	1,005 (49.8)	394 (64.8)	6,020
Other	75 (8.0)	720 (5.1)	590 (8.9)	520 (12.8)	315 (15.6)	59 (9.7)	2,279
Unknown	0 (0.0)	10 (0.1)	7 (0.1)	5 (0.1)	2 (0.1)	4 (0.7)	28

Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30 (see page 13).
Excludes 42 records reporting unknown age.

Table 29. Grouped Etiology by Sex.

	Sex		
Etiology n(%)	Male	Female	Total
Vehicular Accidents	9,195 (40.1)	2,937 (53.4)	12,132
Violence	4,340 (19.0)	667 (12.1)	5,007
Sports	2,634 (11.5)	308 (5.6)	2,942
Falls	4,886 (21.3)	1,134 (20.6)	6,020
Other	1,823 (8.0)	456 (8.3)	2,279
Unknown	24 (0.1)	3 (0.1)	27
Total	22,902 (80.6)	5,505 (19.4)	28,407

Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78;Falls=code 30 (see pg 13)
Excludes 43 records reporting unknown sex.

Table 30. Grouped Etiology by Racial Group.

	Racial Group						
Etiology n(%)	**Caucasian**	**African American**	**Native American**	**Asian**	**Other**	**Unknown**	**Total**
Vehicular Accidents	9,300 (48.6)	1,788 (27.6)	158 (59.0)	209 (44.1)	179 (40.7)	499 (29.7)	12,133
Violence	1,277 (6.7)	2,836 (43.8)	33 (12.3)	82 (17.3)	94 (21.4)	685 (40.8)	5,007
Sports	2,586 (13.5)	195 (3.0)	13 (4.9)	28 (5.9)	21 (4.8)	99 (5.9)	2,942
Falls	4,286 (22.4)	1,225 (18.9)	46 (17.2)	109 (23.0)	110 (25.0)	244 (14.5)	6,020
Other	1,652 (8.6)	422 (6.5)	18 (6.7)	44 (9.3)	36 (8.2)	107 (6.4)	2,279
Unknown	16 (0.1)	5 (0.1)	0 (0.0)	2 (0.4)	0 (0.0)	46 (2.7)	69
Total	19,117	6,471	268	474	440	1,680	28,450

Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30 (see page 13).

Table 31. Grouped Etiology by Hispanic Origin.

	Hispanic Origin			
Etiology n(%)	**No**	**Yes**	**Unknown**	**Total**
Vehicular Accidents	11,135 (43.6)	926 (35.2)	72 (28.0)	12,133
Violence	4,068 (15.9)	887 (33.8)	52 (20.2)	5,007
Sports	2,772 (10.8)	158 (6.0)	12 (4.7)	2,942
Falls	5,496 (21.5)	463 (17.6)	61 (23.7)	6,020
Other	2,072 (8.1)	191 (7.3)	16 (6.2)	2,279
Unknown	22 (0.1)	3 (0.1)	44 (17.1)	69
Total	25,565	2,628	257	28,450

Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30 (see pg 13).

Table 32. Trend in Grouped Etiology by Year of Injury.

	Year of Injury							
Etiology n(%)	**1973-1979**	**1980-1984**	**1985-1989**	**1990-1994**	**1995-1999**	**2000-2004**	**2005-2011**	**All Years**
Vehicular Accidents	2,141 (46.9)	2,237 (45.2)	1,620 (42.2)	1,197 (36.3)	1,450 (40.0)	1,635 (47.5)	1,853 (39.2)	12,133
Violence	605 (13.3)	792 (16.0)	723 (18.8)	952 (28.9)	764 (21.1)	478 (13.9)	693 (14.6)	5,007
Sports	655 (14.4)	705 (14.2)	390 (10.2)	249 (7.6)	254 (7.0)	302 (8.8)	387 (8.2)	2,942
Falls	752 (16.5)	836 (16.9)	796 (20.7)	659 (20.0)	846 (23.3)	792 (23.0)	1,339 (28.3)	6,020
Other	406 (8.9)	377 (7.6)	311 (8.1)	235 (7.1)	305 (8.4)	232 (6.7)	413 (8.7)	2,279
Unknown	3 (0.1)	3 (0.1)	2 (0.1)	3 (0.1)	5 (0.1)	5 (0.1)	48 (1.0)	69
Total	4,562	4,950	3,842	3,295	3,624	3,444	4,733	28,450

Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30 (see pg 13).

Table 33. Work Relatedness.

	Injury Related To Work			
n(%)	**No**	**Yes**	**Unknown**	**Total**
Total	7,083 (89.1)	752 (9.5)	113 (1.4)	7,948

Form Is entered to the database since January 1, 2001.

Table 34. Marital Status at Time of Spinal Cord Injury.

	Marital Status at Injury							
n(%)	**Single**	**Married**	**Divorced**	**Separated**	**Widowed**	**Other**	**Unkn**	**Total**
Total	14,707 (51.7)	9,160 (32.2)	2,636 (9.3)	978 (3.4)	716 (2.5)	38 (0.1)	215 (0.8)	28,450

Table 35. Marital Status by Post-Injury Year.

	Post-Injury Year									
Marital Status n(%)	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**All Years**
Single	10,667 (50.3)	6,633 (51.2)	5,195 (46.2)	2,494 (41.4)	1,472 (38.2)	958 (34.3)	683 (32.2)	368 (29.9)	72 (27.5)	28,542 (46.3)
Married	6,655 (31.4)	3,838 (29.6)	3,555 (31.6)	1,973 (32.8)	1,300 (33.7)	1,001 (35.9)	790 (37.2)	489 (39.8)	126 (48.1)	19,727 (32.0)
Divorced	2,302 (10.8)	1,473 (11.4)	1,731 (15.4)	1,143 (19.0)	839 (21.8)	671 (24.1)	524 (24.7)	299 (24.3)	53 (20.2)	9,035 (14.6)
Separated	774 (3.6)	494 (3.8)	329 (2.9)	161 (2.7)	91 (2.4)	59 (2.1)	41 (1.9)	20 (1.6)	1 (0.4)	1,970 (3.2)
Widowed	495 (2.3)	270 (2.1)	251 (2.2)	153 (2.5)	96 (2.5)	71 (2.5)	70 (3.3)	42 (3.4)	7 (2.7)	1,455 (2.4)
Other, unclassified	24 (0.1)	8 (0.1)	12 (0.1)	3 (0.0)	4 (0.1)	1 (0.0)	0 (0.0)	2 (0.2)	0 (0.0)	54 (0.1)
Unknown	304 (1.4)	235 (1.8)	162 (1.4)	90 (1.5)	51 (1.3)	29 (1.0)	15 (0.7)	9 (0.7)	3 (1.1)	898 (1.5)
Total	21,221	12,951	11,235	6,017	3,853	2,790	2,123	1,229	262	61,681

Table 36. Change in Marital Status by Post-Injury Year.

	Post-Injury Year n(%)									
Change in Marital Status n(%)	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**All Years**
No Change	5,340 (92.5)	201 (91.0)	3,045 (86.0)	2,166 (84.4)	1,701 (85.1)	1,605 (84.4)	1,620 (82.8)	1,028 (83.6)	220 (84.0)	16,926 (87.0)
Divorce	140 (2.4)	7 (3.2)	199 (5.6)	127 (5.0)	90 (4.5)	93 (4.9)	86 (4.4)	50 (4.1)	6 (2.3)	798 (4.1)
Marriage	109 (1.9)	7 (3.2)	164 (4.6)	152 (5.9)	112 (5.6)	113 (5.9)	136 (6.9)	65 (5.3)	20 (7.6)	878 (4.5)
Widowed	23 (0.4)	2 (0.9)	24 (0.7)	24 (0.9)	14 (0.7)	11 (0.6)	25 (1.3)	10 (0.8)	3 (1.1)	136 (0.7)
Divorce + Marriage (any order)	16 (0.3)	2 (0.9)	29 (0.8)	33 (1.3)	36 (1.8)	41 (2.2)	58 (3.0)	46 (3.7)	7 (2.7)	268 (1.4)
Widowed + Marriage (any order)	0 (0.0)	0 (0.0)	6 (0.2)	3 (0.1)	4 (0.2)	3 (0.2)	5 (0.3)	8 (0.7)	1 (0.4)	30 (0.2)
Divorce, Marriage + Widowed (any order)	5 (0.1)	0 (0.0)	1 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.1)	4 (0.3)	1 (0.4)	13 (0.1)
Other	33 (0.6)	0 (0.0)	26 (0.7)	15 (0.6)	6 (0.3)	7 (0.4)	8 (0.4)	7 (0.6)	0 (0.0)	102 (0.5)
Unknown	107 (1.9)	2 (0.9)	47 (1.3)	45 (1.8)	35 (1.8)	29 (1.5)	17 (0.9)	11 (0.9)	4 (1.5)	297 (1.5)
Total	5,773	221	3,541	2,565	1,998	1,902	1,957	1,229	262	19,448

Form IIs entered into the database since January 1, 2001.

Table 37. Highest Level of Education at Time of Injury.

	Education Level									
n(%)	8th Grade or Less	9th – 11th Grade	High School or GED	Assoc	Bachs	Masters	Doc-torate	Other	Unkn	Total
Total	2,574 (9.0)	6,809 (23.9)	13,730 (48.3)	643 (2.3)	1,897 (6.7)	442 (1.6)	269 (0.9)	208 (0.7)	1,878 (6.6)	28,450

Table 38. Highest Level of Education Completed by Post-Injury Year.

	Post-Injury Year n(%)									
Education Level (BEducLvl)	1	2	5	10	15	20	25	30	35	All Years
8th Grade or Less	1,621 (7.6)	1,060 (8.2)	665 (5.9)	308 (5.1)	125 (3.2)	74 (2.7)	49 (2.3)	35 (2.8)	9 (3.4)	3,946 (6.4)
9th through 11th Grade	4,710 (22.2)	2,735 (21.1)	1,650 (14.7)	781 (13.0)	398 (10.3)	246 (8.8)	136 (6.4)	59 (4.8)	8 (3.1)	10,723 (17.4)
High School/GED	11,209 (52.8)	7,356 (56.8)	6,416 (57.1)	3,065 (50.9)	1,948 (50.6)	1,261 (45.2)	977 (46.0)	533 (43.4)	105 (40.1)	32,870 (53.3)
Associate Degree	647 (3.0)	262 (2.0)	534 (4.8)	428 (7.1)	317 (8.2)	288 (10.3)	210 (9.9)	124 (10.1)	28 (10.7)	2,838 (4.6)
Bachelors Degree	1,647 (7.8)	849 (6.6)	1,224 (10.9)	897 (14.9)	663 (17.2)	553 (19.8)	459 (21.6)	288 (23.4)	66 (25.2)	6,646 (10.8)
Masters Degree	422 (2.0)	201 (1.6)	281 (2.5)	243 (4.0)	210 (5.5)	199 (7.1)	189 (8.9)	122 (9.9)	32 (12.2)	1,899 (3.1)
Doctorate Degree	222 (1.0)	95 (0.7)	128 (1.1)	105 (1.7)	77 (2.0)	82 (2.9)	65 (3.1)	51 (4.1)	9 (3.4)	834 (1.4)
Other, Unclassified	216 (1.0)	68 (0.5)	140 (1.2)	93 (1.5)	59 (1.5)	56 (2.0)	20 (0.9)	8 (0.7)	2 (0.8)	662 (1.1)
Unknown	527 (2.5)	325 (2.5)	197 (1.8)	97 (1.6)	56 (1.5)	31 (1.1)	18 (0.8)	9 (0.7)	3 (1.1)	1,263 (2.0)
Total	21,221	12,951	11,235	6,017	3,853	2,790	2,123	1,229	262	61,681

Table 39. Occupational Status at Time of Injury.

	Occupational Status at Injury (APrLvlSt)									
n(%)	Work	Home-Maker	OJT	Work Shop	Retired	Student	Unem-ployed	Other	Unkn	Total
Total	16,257 (57.1)	557 (2.0)	80 (0.3)	18 (0.1)	1,907 (6.7)	4,359 (15.3)	4,499 (15.8)	383 (1.3)	390 (1.4)	28,450

Occupational Status 'Other' includes those on medical or disability leave.
OJT = on the job training.

Table 40. Occupational Status by Post-Injury Year.

Occupational Status (BPrLvlSt)	Post-Injury Year n(%)									
	1	2	5	10	15	20	25	30	35	All Years
Working	2,493 (11.7)	1,721 (13.3)	2,315 (20.6)	1,687 (28.0)	1,218 (31.6)	982 (35.2)	758 (35.7)	405 (33.0)	86 (32.8)	11,665 (18.9)
Homemaker	381 (1.8)	307 (2.4)	237 (2.1)	149 (2.5)	80 (2.1)	48 (1.7)	35 (1.6)	20 (1.6)	9 (3.4)	1,266 (2.1)
On-the-Job Training	30 (0.1)	25 (0.2)	16 (0.1)	7 (0.1)	2 (0.1)	3 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	83 (0.1)
Sheltered Workshop	12 (0.1)	11 (0.1)	4 (0.0)	7 (0.1)	1 (0.0)	0 (0.0)	2 (0.1)	0 (0.0)	0 (0.0)	37 (0.1)
Retired	1,296 (6.1)	648 (5.0)	786 (7.0)	462 (7.7)	299 (7.8)	210 (7.5)	227 (10.7)	207 (16.8)	60 (22.9)	4,195 (6.8)
Student	3,427 (16.1)	2,774 (21.4)	1,844 (16.4)	454 (7.5)	149 (3.9)	80 (2.9)	32 (1.5)	10 (0.8)	4 (1.5)	8,774 (14.2)
Unemployed	11,732 (55.3)	6,768 (52.3)	5,241 (46.6)	2,801 (46.6)	1,782 (46.2)	1,213 (43.5)	836 (39.4)	397 (32.3)	69 (26.3)	30,839 (50.0)
Other, Unclassified	1,286 (6.1)	350 (2.7)	543 (4.8)	324 (5.4)	251 (6.5)	217 (7.8)	212 (10.0)	179 (14.6)	32 (12.2)	3,394 (5.5)
Unknown	564 (2.7)	347 (2.7)	249 (2.2)	126 (2.1)	71 (1.8)	37 (1.3)	21 (1.0)	11 (0.9)	2 (0.8)	1,428 (2.3)
Total	21,221	12,951	11,235	6,017	3,853	2,790	2,123	1,229	262	61,681

Occupational Status "Other" includes those on medical or disability leave

Table 41. Job Census Code at Time of Injury.

Job Census Code (AJobCd)									
n(%)	Executive, Admin, Managerial	Professions	Techs and related support	Sales	Admin support	Private House- hold	Protective services	Service, except protective and household	Farming, forestry, and fishing
Total	408 (5.1)	632 (8.0)	228 (2.9)	267 (3.4)	260 (3.3)	20 (0.3)	118 (1.5)	457 (5.7)	171 (2.2)

Table 41. Job Census Code at Time of Injury.

Job Census Code (AJobCd)								
n(%)	Precision production, craft, and repair	Machine operators, assemblers, and inspectors	Transport and material moving	Handlers, equipment cleaners, helpers, and laborers	Military occupations	N/A, Not Working	Unknown	Total
Total	911 (11.5)	192 (2.4)	303 (3.8)	421 (5.3)	14 (0.2)	3,209 (40.4)	337 (4.2)	7,948

Form Is entered to the database since January 1, 2001.

Table 42. Job Census Code by Post-Injury Year.

	Post-Injury Year n(%)								
Job Census Code (BJobCnCd)	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**
Executive, Administrative, and Managerial	168 (2.9)	2 (0.9)	148 (4.2)	137 (5.3)	127 (6.4)	152 (8.0)	154 (7.9)	95 (7.7)	25 (9.5)
Professional specialty	234 (4.1)	9 (4.1)	205 (5.8)	215 (8.4)	209 (10.5)	236 (12.4)	262 (13.4)	168 13.7)	37 (14.1)
Technicians and related support	47 (0.8)	1 (0.5)	51 (1.4)	47 (1.8)	38 (1.9)	34 (1.8)	48 (2.5)	31 (2.5)	6 (2.3)
Sales	84 (1.5)	3 (1.4)	90 (2.5)	82 (3.2)	56 (2.8)	43 (2.3)	41 (2.1)	20 (1.6)	6 (2.3)
Administrative support including clerical	67 (1.2)	4 (1.8)	95 (2.7)	95 (3.7)	73 (3.7)	86 (4.5)	99 (5.1)	47 (3.8)	5 (1.9)
Private Household	2 (0.0)	0 (0.0)	0 (0.0)	3 (0.1)	1 (0.1)	4 (0.2)	1 (0.1)	0 (0.0)	0 (0.0)
Protective service	13 (0.2)	0 (0.0)	8 (0.2)	4 (0.2)	7 (0.4)	7 (0.4)	6 (0.3)	3 (0.2)	0 (0.0)
Service, except protective and household	41 (0.7)	1 (0.5)	48 (1.4)	35 (1.4)	23 (1.2)	17 (0.9)	10 (0.5)	4 (0.3)	1 (0.4)
Farming, forestry, and fishing	18 (0.3)	0 (0.0)	12 (0.3)	9 (0.4)	11 (0.6)	9 (0.5)	16 (0.8)	9 (0.7)	1 (0.4)
Precision production, craft, and repair	60 (1.0)	3 (1.4)	40 (1.1)	38 (1.5)	34 (1.7)	26 (1.4)	30 (1.5)	16 (1.3)	3 (1.1)
Machine operators, assemblers, and inspectors	16 (0.3)	1 (0.5)	18 (0.5)	7 (0.3)	7 (0.4)	10 (0.5)	5 (0.3)	4 (0.3)	1 (0.4)
Transportation and material moving	10 (0.2)	0 (0.0)	12 (0.3)	7 (0.3)	4 (0.2)	9 (0.5)	6 (0.3)	4 (0.3)	0 (0.0)
Handlers, equipment cleaners, helpers, and laborers	16 (0.3)	0 (0.0)	7 (0.2)	11 (0.4)	4 (0.2)	3 (0.2)	7 (0.4)	2 (0.2)	0 (0.0)
Military occupations	2 (0.0)	0 (0.0)	2 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.1)	0 (0.0)	0 (0.0)
N/A, Not Working	4,824 (83.6)	190 (86.0)	2,720 (76.8)	1,806 (70.4)	1,352 (67.7)	1,215 (63.9)	1,240 (63.4)	813 (66.2)	174 (66.4)
Unknown	171 (3.0)	7 (3.2)	85 (2.4)	69 (2.7)	52 (2.6)	51 (2.7)	31 (1.6)	13 (1.1)	3 (1.1)
Total	5,773	221	3,541	2,565	1,998	1,902	1,957	1,229	262

Form IIs entered to the database since January 1, 2001.

Table 43. Veteran Status at Time of Injury.

	Veteran Status						
n(%)	**Not a Veteran**	**Yes, Service Connected SCI**	**Yes, Service Connected, Not SCI**	**Yes, Non-Service Connected**	**Yes, Service Connection Unknown**	**Unkn**	**Total**
Total	7,119 (89.6)	172 (2.2)	30 (0.4)	299 (3.8)	109 (1.4)	219 (2.8)	7,948

Form Is entered to the database since January 1, 2001.

Table 44. VA Healthcare Services used by Post-Injury Year.

	Post-Injury Year n(%)									
VA Healthcare Services Used	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**All Years**
None	745 (12.9)	23 (9.9)	364 (10.3)	319 (12.4)	219 (11)	187 (9.8)	203 (10.4)	157 (12.8)	40 (15.3)	2,257 (11.6)
Pharmacy	103 (1.8)	5 (2.1)	104 (2.9)	56 (2.2)	34 (1.7)	47 (2.5)	69 (3.5)	59 (4.8)	12 (4.6)	489 (2.5)
Prosthetics, orthotics, wheelchairs	47 (0.8)	1 (0.4)	47 (1.3)	32 (1.2)	17 (0.9)	29 (1.5)	39 (2)	36 (2.9)	6 (2.3)	254 (1.3)
SCI Center	65 (1.1)	1 (0.4)	64 (1.8)	35 (1.4)	18 (0.9)	34 (1.8)	38 (1.9)	31 (2.5)	5 (1.9)	291 (1.5)
Non-SCI Center	39 (0.7)	1 (0.4)	27 (0.8)	16 (0.6)	12 (0.6)	12 (0.6)	18 (0.9)	14 (1.1)	2 (0.8)	141 (0.7)
SCI Outpatient Clinic	68 (1.2)	3 (1.3)	59 (1.7)	40 (1.6)	19 (1)	32 (1.7)	52 (2.7)	43 (3.5)	7 (2.7)	323 (1.7)
N/A, Not a Veteran	4,774 (82.4)	197 (84.5)	2,995 (84.6)	2,136 (83.2)	1,711 (85.6)	1,620 (85.1)	1,651 (84.4)	996 (81)	204 (77.9)	16,284 (83.6)
Unknown	113 (2)	7 (3)	62 (1.8)	47 (1.8)	30 (1.5)	31 (1.6)	15 (0.8)	9 (0.7)	5 (1.9)	319 (1.6)
Total	5,792	233	3,541	2,566	2,000	1,903	1,957	1,229	262	19,483

Percentages may total more than 100% because some participants used more than one VA healthcare service.
Participants may report up to 5 services since last Form II follow-up.
Form IIs entered into the database since October 31, 2000.

Table 45. Place of Residence at Discharge.

	Place of Residence at Discharge										
n (%)	**Private**	**Hospital**	**Nursing Home**	**Group Living**	**Correctional Institution**	**Hotel Motel**	**Deceased**	**Other**	**Homeless**	**Unkn**	**Total**
Total	24,792 (87.1)	462 (1.6)	1,823 (6.4)	393 (1.4)	47 (0.2)	79 (0.3)	690 (2.4)	22 (0.1)	14 (0.0)	128 (0.4)	28,450

Table 46. Place of Residence by Post-Injury Year.

	Post-Injury Year n(%)									
Residence	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**All Years**
Private Residence	19,388 (91.4)	11,828 (91.3)	10,523 (93.7)	5,736 (95.3)	3,710 (96.3)	2,703 (96.9)	2,062 (97.1)	1,188 (96.7)	255 (97.3)	57,393 (93.0)
Hospital	117 (0.6)	69 (0.5)	23 (0.2)	5 (0.1)	3 (0.1)	2 (0.1)	4 (0.2)	1 (0.1)	0 (0.0)	224 (0.4)
Nursing Home	815 (3.8)	390 (3.0)	310 (2.8)	153 (2.5)	67 (1.7)	45 (1.6)	33 (1.6)	27 (2.2)	3 (1.1)	1,843 (3.0)
Group Living Situation	292 (1.4)	275 (2.1)	166 (1.5)	41 (0.7)	19 (0.5)	8 (0.3)	4 (0.2)	2 (0.2)	1 (0.4)	808 (1.3)
Correctional Institution	33 (0.2)	19 (0.1)	14 (0.1)	7 (0.1)	6 (0.2)	3 (0.1)	1 (0.0)	0 (0.0)	0 (0.0)	83 (0.1)
Hotel/Motel	43 (0.2)	14 (0.1)	5 (0.0)	1 (0.0)	1 (0.0)	1 (0.0)	0 (0.0)	0 (0.0)	1 (0.4)	66 (0.1)
Other, Unclassified	18 (0.1)	7 (0.1)	1 (0.0)	1 (0.0)	1 (0.0)	2 (0.1)	0 (0.0)	1 (0.1)	0 (0.0)	31 (0.1)
Homeless	7 (0.0)	4 (0.0)	4 (0.0)	0 (0.0)	1 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	16 (0.0)
Unknown	508 (2.4)	345 (2.7)	189 (1.7)	73 (1.2)	45 (1.2)	26 (0.9)	19 (0.9)	10 (0.8)	2 (0.8)	1,217 (2.0)
Total	21,221	12,951	11,235	6,017	3,853	2,790	2,123	1,229	262	61,681

Table 47. Median Days from Injury to Admission by Year of Injury.

	Year of Injury median (n)							
	1973-1979	**1980-1984**	**1985-1989**	**1990-1994**	**1995-1999**	**2000-2004**	**2005-2011**	**All Years**
Total	20.0 (4,562)	15.0 (4,950)	2.0 (3,842)	1.0 (3,295)	1.0 (3,624)	5.0 (3,444)	8.0 (4,733)	6.0 (28,450)

Eligibility criteria changed in 1987 & 2000 .

Table 48. Median Days Hospitalized in the System's Acute Care Unit by Year of Injury. (Day-1s only)

	Year of Injury median (n)							
	1973-1979	**1980-1984**	**1985-1989**	**1990-1994**	**1995-1999**	**2000-2004**	**2005-2011**	**All Years**
Total	24.0 (1,224)	23.0 (1,626)	19.0 (1,747)	15.0 (1,875)	13.0 (1,901)	13.0 (1,578)	11.0 (1,787)	16.0 (11,738)

In 1995, variable 'Length of Stay' was separated (see page 17).

Table 49. Median Days Hospitalized in the System's Rehab Unit by Year of Injury. (Day-1s only)

	Year of Injury median (n)							
	1973-1979	1980-1984	1985-1989	1990-1994	1995-1999	2000-2004	2005-2011	All Years
Total	98.0 (1,198)	86.0 (1,645)	73.0 (1,742)	58.0 (1,840)	44.0 (1,904)	42.0 (1,450)	37.0 (1,766)	57.0 (11,545)

Table 50. Median Days Hospitalized in the System's Acute Care Unit by Year of Injury and Neurologic Level and Extent of Injury. (Day-1s only)

	Year of Injury median (n)							
Neurologic Impairment	1973-1979	1980-1984	1985-1989	1990-1994	1995-1999	2000-2004	2005-2011	All Years
Paraplegia, incomplete	22.0 (219)	22.0 (325)	18.0 (381)	13.0 (379)	12.0 (363)	10.5 (274)	10.0 (388)	14.0 (2,329)
Paraplegia, complete	23.0 (327)	22.0 (401)	19.0 (408)	16.0 (513)	13.0 (483)	15.0 (354)	13.0 (361)	17.0 (2,847)
Paraplegia, minimal deficit	0.0 (0)	10.0 (7)	13.0 (29)	10.0 (72)	12.5 (40)	11.0 (25)	11.0 (13)	11.0 (186)
Tetraplegia, incomplete	24.0 (323)	22.0 (509)	18.0 (542)	15.0 (484)	10.0 (546)	11.0 (479)	10.0 (676)	15.0 (3,559)
Tetraplegia, complete	27.0 (313)	30.0 (348)	24.0 (319)	26.0 (323)	24.0 (313)	24.0 (263)	21.0 (225)	25.0 (2104)
Tetraplegia, minimal deficit	23.0 (3)	11.0 (5)	11.5 (42)	9.0 (77)	7.0 (59)	8.5 (38)	8.0 (13)	9.0 (237)
Normal, minimal deficit	19.0 (36)	18.0 (24)	12.0 (13)	10.0 (8)	10.0 (8)	9.0 (18)	12.0 (9)	15.0 (116)
Unknown	15.0 (3)	23.0 (7)	27.0 (13)	18.0 (19)	18.0 (89)	16.0 (127)	11.0 (102)	15.0 (360)
Total	24.0 (1,224)	23.0 (1,626)	19.0 (1,747)	15.0 (1,875)	13.0 (1,901)	13.0 (1,578)	11.0 (1,787)	16.0 (11,738)

Para & Tetra minimal deficit categories were added in 1987. Some records have been updated. Neurologic impairment at discharge was used as the basis of comparison.

Table 51. Median Days Hospitalized in the System's Rehab Unit by Year of Injury and Neurologic Level and Extent of Injury. (Day-1s only)

	Year of Injury median (n)							
Neurologic Impairment (ANCatDis)	**1973-1979**	**1980-1984**	**1985-1989**	**1990-1994**	**1995-1999**	**2000-2004**	**2005-2011**	**All Years**
Paraplegia, incomplete	68.0 (219)	63.0 (322)	57.0 (394)	43.0 (379)	31.0 (364)	30.0 (270)	29.0 (393)	42.0 (2,341)
Paraplegia, complete	84.0 (347)	72.0 (423)	63.0 (429)	52.0 (523)	39.0 (493)	42.0 (339)	39.0 (369)	55.0 (2,923)
Paraplegia, minimal deficit	0.0 (0)	19.0 (7)	33.0 (28)	27.0 (67)	19.5 (42)	19.5 (22)	13.5 (12)	22.0 (178)
Tetraplegia, incomplete	104.0 (333)	95.0 (526)	85.0 (548)	74.5 (466)	51.0 (545)	44.0 (468)	37.0 (683)	61.0 (3,569)
Tetraplegia, complete	142.0 (293)	121.0 (349)	112.0 (293)	99.0 (309)	71.0 (327)	66.0 (243)	58.0 (217)	99.0 (2,031)
Tetraplegia, minimal deficit	0.0 (0)	41.0 (5)	22.0 (41)	25.0 (79)	14.0 (59)	23.5 (30)	15.0 (9)	22.0 (223)
Normal, minimal deficit	38.5 (6)	43.0 (9)	10.0 (5)	12.5 (8)	10.0 (9)	15.0 (11)	15.0 (6)	15.5 (54)
Unknown	0.0 (0)	88.0 (4)	87.5 (4)	30.0 (9)	31.0 (65)	36.0 (67)	42.0 (77)	37.0 (226)
Total	98.0 (1,198)	86.0 (1,645)	73.0 (1,742)	58.0 (1,840)	44.0 (1,904)	42.0 (1,450)	37.0 (1,766)	57.0 (11,545)

Para & Tetra minimal deficit categories were added in 1987. Some records have been updated.
Neurologic impairment at discharge was used as the basis of comparison.

Table 52. Neurologic Level at Discharge - Cervical Lesions.

Cervical Neurologic Level										
n(% of all lesions)	**C01**	**C02**	**C03**	**C04**	**C05**	**C06**	**C07**	**C08**	**Cervcl Unkn Level**	**Sub-total**
Total	220 (0.8)	488 (1.8)	814 (3.0)	3,952 (14.6)	4,147 (15.4)	2,865 (10.6)	1,409 (5.2)	505 (1.9)	67 (0.2)	14,467 (53.6)

To determine a single neurologic level, the most rostral (highest) sensory & motor level, left & right at discharge was used for analysis.
(%) are calculated on Total of all levels (Cervical, Thoracic, Lumbar, Sacral).

Table 53. Neurologic Level at Discharge - Thoracic Lesions.

	Thoracic Neurologic Level													
n(% of all lesions)	T01	T02	T03	T04	T05	T06	T07	T08	T09	T10	T11	T12	Thorc Unkn Level	Sub-total
Total	399 (1.5)	334 (1.2)	534 (2.0)	1,060 (3.9)	740 (2.7)	781 (2.9)	560 (2.1)	754 (2.8)	519 (1.9)	1,115 (4.1)	977 (3.6)	1,757 (6.5)	29 (0.1)	9,559 (35.4)

To determine a single neurologic level, the most rostral (highest) sensory & motor level, left & right at discharge was used for analysis.
(%) are calculated on Total of all levels (Cervical, Thoracic, Lumbar, Sacral).

Table 54. Neurologic Level at Discharge - Lumbar Lesions.

	Lumbar Neurologic Level						
n(% of all lesions)	L01	L02	L03	L04	L05	Lumbar, Unkn Level	Subtotal
Total	1,347 (5.0)	679 (2.5)	490 (1.8)	232 (0.9)	109 (0.4)	9 (0.0)	2,866 (10.6)

To determine a single neurologic level, the most rostral (highest) sensory & motor level, left & right at discharge was used for analysis.
(%) are calculated on Total of all levels (Cervical, Thoracic, Lumbar, Sacral).

Table 55. Neurologic Level at Discharge – Sacral Lesions.

	Sacral Neurologic Level						
n(% of all lesions)	S01	S02	S03	S04	S05	Sacral - Unkn Level	Sub-total
Total	55 (0.2)	30 (0.1)	6 (0.0)	11 (0.0)	11 (0.0)	1 (0.0)	114 (0.4)

To determine a single neurologic level, the most rostral (highest) sensory & motor level, left & right at discharge was used for analysis.
(%) are calculated on Total of all levels (Cervical, Thoracic, Lumbar, Sacral).

Table 56. Neurologic Category at Discharge.

	ANCatDis								
n(%)	Para Incomp	Para Comp	Para MinDef	Tetra Incomp	Tetra Comp	Tetra Min-Def	Norm, MinDef	Unkn	Total
Total	5,294 (18.6)	7,132 (25.1)	313 (1.1)	8,798 (30.9)	5,619 (19.8)	398 (1.4)	174 (0.6)	722 (2.5)	28,450

Para & Tetra minimal deficit categories were added in 1987. Some records have been updated.

Table 57. Neurologic Category at Discharge by Grouped Etiology.

	Neurologic Category at Discharge								
Etiology n(%)	**Para Incomp**	**Para Comp**	**Para MinDef**	**Tetra Incomp**	**Tetra Comp**	**Tetra MinDef**	**Norm, MinDef**	**Unkn**	**Total**
Vehicular Accidents	1,996 (16.5)	3,059 (25.2)	99 (0.8)	3,891 (32.1)	2,587 (21.3)	177 (1.5)	72 (0.6)	252 (2.1)	12,133
Violence	1,212 (24.2)	2,140 (42.7)	82 (1.6)	670 (13.4)	760 (15.2)	35 (0.7)	11 (0.2)	97 (1.9)	5,007
Sports	176 (6.0)	168 (5.7)	15 (0.5)	1,368 (46.5)	1,120 (38.1)	41 (1.4)	19 (0.6)	35 (1.2)	2,942
Falls	1,193 (19.8)	1,172 (19.5)	89 (1.5)	2,312 (38.4)	863 (14.3)	124 (2.1)	57 (0.9)	210 (3.5)	6,020
Other	714 (31.3)	591 (25.9)	28 (1.2)	545 (23.9)	282 (12.4)	21 (0.9)	15 (0.7)	83 (3.6)	2,279
Unknown	3 (4.3)	2 (2.9)	0 (0.0)	12 (17.4)	7 (10.1)	0 (0.0)	0 (0.0)	45 (65.2)	69
Total	5,294 (18.6)	7,132 (25.1)	313 (1.1)	8,798 (30.9)	5,619 (19.8)	398 (1.4)	174 (0.6)	722 (2.5)	28,450

Para & Tetra minimal deficit categories were added in 1987. Some records have been updated.
Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30 (see page 13).

Table 58. Trend in Neurologic Category at Discharge by Year of Injury.

	Year of Injury							
Neurologic Category	**1973-1979**	**1980-1984**	**1985-1989**	**1990-1994**	**1995-1999**	**2000-2004**	**2005-2011**	**Total**
Paraplegia, incomplete	805 (17.6)	948 (19.2)	802 (20.9)	642 (19.5)	636 (17.5)	555 (16.1)	906 (19.1)	5,294
Paraplegia, complete	1,265 (27.7)	1,231 (24.9)	961 (25.0)	946 (28.7)	973 (26.8)	800 (23.2)	956 (20.2)	7,132
Paraplegia, minimal deficit	0 (0.0)	19 (0.4)	50 (1.3)	97 (2.9)	56 (1.5)	52 (1.5)	39 (0.8)	313
Tetraplegia, incomplete	1,282 (28.1)	1,599 (32.3)	1,197 (31.2)	821 (24.9)	1,027 (28.3)	1,123 (32.6)	1,749 (37.0)	8,798
Tetraplegia, complete	1,155 (25.3)	1,085 (21.9)	733 (19.1)	626 (19.0)	683 (18.8)	640 (18.6)	697 (14.7)	5,619
Tetraplegia, minimal deficit	4 (0.1)	13 (0.3)	62 (1.6)	116 (3.5)	89 (2.5)	63 (1.8)	51 (1.1)	398
Normal	45 (1.0)	38 (0.8)	16 (0.4)	13 (0.4)	19 (0.5)	24 (0.7)	19 (0.4)	174
Unknown	6 (0.1)	17 (0.3)	21 (0.5)	34 (1.0)	141 (3.9)	187 (5.4)	316 (6.7)	722
Total	4,562	4,950	3,842	3,295	3,624	3,444	4,733	28,450

Para & Tetra minimal deficit categories were added in 1987. Some records have been updated.

Table 59. Neurologic Impairment Category at One Year Post-Injury.

	Neurologic Category								
n(%)	Para Incomp	Para Comp	Para MinDef	Tetra Incomp	Tetra Comp	Tetra MinDef	Norm, MinDef	Unkn	Total
Total	3,197 (15.1)	4,463 (21.0)	270 (1.3)	4,875 (23.0)	3,279 (15.5)	310 (1.5)	263 (1.2)	4,564 (21.5)	21,221

Para & Tetra minimal deficit categories were added in 1987. Some records have been updated.

Table 60. ASIA Impairment Scale at Discharge.

	ASIA Impairment Scale						
n(%)	Complete (A)	Sensory Only (B)	Motor Non-func-tional (C)	Motor Functional (D)	Recovered (E)	Unknown	Total
Total	12,751 (44.8)	2,982 (10.5)	3,397 (11.9)	8,108 (28.5)	174 (0.6)	1,038 (3.6)	28,450

Table 61. ASIA Impairment at Admit, Rehab Admit, and System Discharge *(Day 1s Only).*

ASIA Impairment Scale n(%)	Admit	Rehab Admit	System Discharge
Complete (A)	5,662 (46.3)	1,331 (10.9)	5,218 (42.7)
Sensory Incomplete (B)	1,518 (12.4)	410 (3.4)	1,200 (9.8)
Non-functional Motor Incomplete (C)	1,773 (14.5)	596 (4.9)	1,415 (11.6)
Functional Motor Incomplete (D)	2,189 (17.9)	827 (6.8)	3,771 (30.8)
Recovered (E)	0 (0.0)	1 (<0.1)	119 (1.0)
Unknown	1,086 (8.9)	9,063 (74.1)	505 (4.1)
Total	12,228	12,228	12,228

Rehab admit data was required after October 31, 2000.

Table 62. ASIA Impairment Scale by Neurologic Level at Discharge- Cervical.

	Neurologic Level at Discharge									
ASIA Impairment Scale n(%)	**C01**	**C02**	**C03**	**C04**	**C05**	**C06**	**C07**	**C08**	**Unkn Cervic**	**Total**
Complete (A)	108 (49.1)	209 (42.8)	310 (38.1)	1,606 (40.6)	1,509 (36.4)	1,117 (39.0)	497 (35.3)	152 (30.1)	17 (25.4)	5,525
Sensory Incomplete (B)	9 (4.1)	30 (6.1)	68 (8.4)	445 (11.3)	535 (12.9)	477 (16.6)	219 (15.5)	80 (15.8)	6 (9.0)	1,869
Non-functional Motor Incomplete (C)	25 (11.4)	56 (11.5)	128 (15.7)	596 (15.1)	500 (12.1)	339 (11.8)	168 (11.9)	54 (10.7)	7 (10.4)	1,873
Functional Motor Incomplete (D)	77 (35.0)	187 (38.3)	296 (36.4)	1,271 (32.2)	1,563 (37.7)	904 (31.6)	505 (35.8)	215 (42.6)	19 (28.4)	5,037
Unknown	1 (0.5)	6 (1.2)	12 (1.5)	34 (0.9)	40 (1.0)	28 (1.0)	20 (1.4)	4 (0.8)	18 (26.9)	163
Total	220 (1.5)	488 (3.4)	814 (5.6)	3,952 (27.3)	4,147 (28.7)	2,865 (19.8)	1,409 (9.7)	505 (3.5)	67 (0.5)	14,467

Table 63. ASIA Impairment Scale by Neurologic Level at Discharge - Thoracic.

	Neurologic Level at Discharge													
ASIA Impairment Scale n(%)	**T01**	**T02**	**T03**	**T04**	**T05**	**T06**	**T07**	**T08**	**T09**	**T10**	**T11**	**T12**	**Unkn Thorc**	**Total**
Complete (A)	221 (55.4)	243 (72.8)	424 (79.4)	812 (76.6)	589 (79.6)	586 (75.0)	410 (73.2)	566 (75.1)	409 (78.8)	823 (73.8)	673 (68.9)	763 (43.4)	13 (44.8)	6,532
Sensory Incomplete (B)	49 (12.3)	31 (9.3)	37 (6.9)	85 (8.0)	51 (6.9)	67 (8.6)	48 (8.6)	54 (7.2)	27 (5.2)	52 (4.7)	81 (8.3)	183 (10.4)	2 (6.9)	767
Non-functional Motor Incomplete (C)	41 (10.3)	20 (6.0)	34 (6.4)	71 (6.7)	36 (4.9)	45 (5.8)	31 (5.5)	50 (6.6)	29 (5.6)	96 (8.6)	106 (10.8)	302 (17.2)	2 (6.9)	863
Functional Motor Incomplete (D)	86 (21.6)	39 (11.7)	36 (6.7)	89 (8.4)	61 (8.2)	81 (10.4)	69 (12.3)	80 (10.6)	52 (10.0)	138 (12.4)	111 (11.4)	495 (28.2)	4 (13.8)	1,341
Unknown	2 (0.5)	1 (0.3)	3 (0.6)	3 (0.3)	3 (0.4)	2 (0.3)	2 (0.4)	4 (0.5)	2 (0.4)	6 (0.5)	6 (0.6)	14 (0.8)	8 (27.6)	56
Total	399 (4.2)	334 (3.5)	534 (5.6)	1,060 (11.1)	740 (7.7)	781 (8.2)	560 (5.9)	754 (7.9)	519 (5.4)	1,115 (11.7)	977 (10.2)	1,757 (18.4)	29 (0.3)	9,559

Table 64. ASIA Impairment Scale by Neurologic Level at Discharge - Lumbar.

	Neurologic Level at Discharge						
ASIA Impairment Scale n(%)	**L01**	**L02**	**L03**	**L04**	**L05**	**Unkn Lumbar**	**Total**
Complete (A)	330 (24.5)	80 (11.8)	72 (14.7)	10 (4.3)	10 (9.2)	1 (11.1)	503
Sensory Incomplete (B)	144 (10.7)	79 (11.6)	51 (10.4)	17 (7.3)	9 (8.3)	0 (0.0)	300
Non-functional Motor Incomplete (C)	331 (24.6)	118 (17.4)	104 (21.2)	23 (9.9)	9 (8.3)	0 (0.0)	585
Functional Motor Incomplete (D)	526 (39.0)	396 (58.3)	252 (51.4)	177 (76.3)	81 (74.3)	5 (55.6)	1,437
Unknown	16 (1.2)	6 (0.9)	11 (2.2)	5 (2.2)	0 (0.0)	3 (33.3)	41
Total	1,347 (47.0)	679 (23.7)	490 (17.1)	232 (8.1)	109 (3.8)	9 (0.3)	2,866

Table 65. ASIA Impairment at One Year Post-Injury.

	ASIA Impairment Scale						
n(%)	Complete (A)	Sensory Incomplete (B)	Non-functional Motor Incomplete (C)	Functional Motor Incomplete (D)	Recovered (E)	Unknown	Total
Total	7,742 (36.5)	1,650 (7.8)	1,653 (7.8)	4,859 (22.9)	263 (1.2)	5,054 (23.8)	21,221

Table 66. ASIA Motor Scores Total (Mean) at Acute Admit, Rehab Admit and System Discharge (Day 1s Only).

Mean (n)	ASIA Motor Score Totals		
	Acute Admit	Rehab Admit	System Discharge
Total	42.7 (4,787)	46.7 (5,273)	54.4 (5,464)

Form Is entered to the database since October 1, 1993.
Motor Scores range from 0 to 100.

Table 67. ASIA Motor Score Total at Year One.

Mean (n)	ASIA Motor Score Total Year 1
Total	55.4 (4,916)

Form IIs entered to the database since October 1, 1993.
Motor Scores range from 0 to 100.

Table 68. FIM Motor Score Total (Mean) at Rehab Admit and Discharge.

	FIM Score Total	
Mean (n)	Admit Rehab	Discharge Rehab
Total	25.8 (14,839)	55.4 (14,624)

Form Is entered to the database since October 1, 1988.
FIM Motor Score Total ranges from 13 to 91.

Table 69. FIM Score Total (Mean) by Neurologic Category at Rehab Admit and Discharge.

	FIM Score Total	
Neuro Category at Discharge Mean(n)	**Rehab Admit**	**Rehab Discharge**
Paraplegia, incomplete	34.6 (2,772)	70.1 (2,751)
Paraplegia, complete	30.6 (3,690)	65.5 (3,634)
Paraplegia, minimal deficit	41.4 (235)	78.9 (235)
Tetraplegia, incomplete	21.1 (4,745)	50.8 (4,677)
Tetraplegia, complete	15.0 (2,571)	28.8 (2,537)
Tetraplegia, minimal deficit	36.3 (308)	77.9 (313)
Normal, minimal deficit	45.4 (59)	75.5 (60)
Unknown	25.7 (459)	50.3 (417)
Total	25.8 (14,839)	55.4 (14,624)

Form 1s entered into the database since October 1, 1988.
FIM Motor Score Total ranges from 13 to 91.

Table 70. FIM Total Score by Post-Injury Year.

	Post-Injury Year mean (n)								
	1	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**
Total	64.1 (7,230)	63.9 (1,966)	65.5 (4,329)	64.9 (2,991)	62.9 (2,675)	62.7 (2,367)	62.5 (1,871)	62.2 (1,085)	61.7 (228)

Form IIs entered into the database since February 1, 1996.
FIM Motor Score Total ranges from 13 to 91.

Table 71a. Respirator Use (Paraplegia only) at Rehab Admit and System Discharge.

	Respirator Use at Rehab Admit				Respirator Use at System Discharge			
n(%)	**No**	**Yes**	**Unkn**	**Total**	**No**	**Yes**	**Unkn**	**Total**
Total	10,868 (86.9)	824 (6.6)	808 (6.5)	12,500	12,624 (99.1)	80 (0.6)	35 (0.3)	12,739

To determine paraplegia level, Neuro Category at Discharge was used.
Paraplegia group includes complete, incomplete and minimal deficit categories.
All three codes (plus the conversion code) for 'mechanical vent use' were included in the 'Yes' column.

Table 71b. Respirator Use (Tetraplegia only) at Rehab Admit and System Discharge.

n(%)	Respirator Use at Rehab Admit				Respirator Use at System Discharge			
	No	Yes	Unkn	Total	No	Yes	Unkn	Total
Total	10,308 (72.2)	3,022 (21.2)	944 (6.6)	14,274	13,805 (93.2)	908 (6.1)	102 (0.7)	14,815

To determine tetraplegia level, Neuro Category at Discharge was used.
Tetraplegia group includes complete, incomplete and minimal deficit categories.
All three codes (plus the conversion code) for 'mechanical vent use' were included in the 'Yes' column.

Table 72. Respirator Use (Paraplegia & Tetraplegia) at One Year Post-Injury.

n(%)	Respirator Use at Rehab Admit				Respirator Use at System Discharge			
	No	Yes	Unkn	Total	No	Yes	Unkn	Total
Total	7,953 (94.0)	298 (3.5)	213 (2.5)	8,464	7,714 (97.3)	17 (0.2)	199 (2.5)	7,930

Paraplegia & Tetraplegia groups include complete, incomplete and minimal deficit categories.
All three codes (plus the conversion code) for 'mechanical vent use' were included in the 'Yes' column.

Table 73. Method of Bladder Management at Discharge – Male.

	Bladder Management at Discharge							
n(%)	0-None (diapers, ect.)	1-Indwelling Cath	2-Indwelling Cath, stoma*	3-Catheter free with ext collector, no sphincterotomy*	4-Catheter free with ext collector and sphincterotomy*	5-Catheter free with ext collector, sphincterotomy unk	6- reflex stim, crede, external pressure	7- ICP only*
Total	430 (1.9)	3,238 (14.1)	7 (0.0)	211 (0.9)	13 (0.1)	2,796 (12.2)	553 (2.4)	4,264 (18.6)

** Codes (2, 3, 4, 7, 8, 9) were added November 1995.*

Table 73. Method of Bladder Management at Discharge – Male.

	Bladder Management at Discharge								
n(%)	08 -ICP with external collector*	09-ICP after augmentation or continent diversion*	10- ICP – external collector, augmentation or continent diversion unknown	11- Conduit	12- Suprapubic Cystostomy (S/P)	13- Normal Micturition	14- Other	99- Unknown	Total
Total	226 (1.0)	6 (0.0)	5,449 (23.8)	17 (0.1)	1,484 (6.5)	3,828 (16.7)	80 (0.3)	297 (1.3)	22,899

** Codes (2, 3, 4, 7, 8, 9) were added November 1995.*

Table 74. Method of Bladder Management at Discharge – Female.

	Bladder Management at Discharge - Female											
n(%)	0-None (diapers, ect.)	1-Indwelling Cath	2-Indwelling Cath, stoma*	6- reflex stim, crede, external pressure	7- ICP only*	10- ICP – ext collector, augment/continent	11- Conduit	12- Suprapubic Cystostomy (S/P)	13- Normal Micturition	14- Other	99- Unknown	Total
Total	172 (3.1)	1,582 (28.7)	4 (0.1)	156 (2.8)	996 (18.1)	1,218 (22.1)	4 (0.1)	167 (3.0)	1,121 (20.4)	6 (0.1)	79 (1.4)	5,505

**Codes (2 & 7) were added November 1995.*

Table 75. Method of Bladder Management by Post-Injury Year – Male.

	Post-Injury Year n(%)								
Bladder Management	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**
None	432 (2.5)	232 (2.2)	217 (2.4)	102 (2.1)	51 (1.6)	34 (1.5)	11 (0.6)	4 (0.4)	4 (1.9)
Indwelling Catheter	1,623 (9.5)	908 (8.6)	763 (8.4)	479 (9.9)	288 (9.2)	200 (8.9)	141 (8.3)	103 (10.5)	19 (9.0)
*Indwelling Catheter after augmentation	21 (0.1)	8 (0.1)	30 (0.3)	32 (0.7)	46 (1.5)	29 (1.3)	19 (1.1)	13 (1.3)	1 (0.5)
*Catheter Free with external collector, no sphincterotomy	311 (1.8)	139 (1.3)	278 (3.1)	279 (5.8)	293 (9.3)	273 (12.1)	208 (12.2)	90 (9.2)	14 (6.7)
*Catheter Free with external collector, with sphincterotomy	19 (0.1)	12 (0.1)	49 (0.5)	76 (1.6)	93 (3.0)	100 (4.4)	101 (5.9)	69 (7.0)	20 (9.5)
Catheter Free with ext collector, sphincterotomy unknown	2,976 (17.3)	2,831 (26.7)	1,892 (20.9)	782 (16.2)	232 (7.4)	52 (2.3)	24 (1.4)	13 (1.3)	7 (3.3)
Crede, reflex stimulation, external pressure	450 (2.6)	326 (3.1)	207 (2.3)	82 (1.7)	49 (1.6)	36 (1.6)	35 (2.1)	22 (2.2)	3 (1.4)
*ICP only	2,504 (14.6)	748 (7.1)	1,430 (15.8)	866 (17.9)	642 (20.5)	403 (17.8)	277 (16.3)	148 (15.1)	33 (15.7)
*ICP with external collector	294 (1.7)	70 (0.7)	146 (1.6)	90 (1.9)	100 (3.2)	68 (3.0)	63 (3.7)	32 (3.3)	4 (1.9)
*ICP after augmentation or continent diversion	12 (0.1)	5 (0.0)	20 (0.2)	26 (0.5)	29 (0.9)	19 (0.8)	15 (0.9)	5 (0.5)	0 (0.0)
ICP unknown	2,858 (16.7)	1,930 (18.2)	871 (9.6)	308 (6.4)	98 (3.1)	16 (0.7)	3 (0.2)	2 (0.2)	1 (0.5)
Conduit	9 (0.1)	9 (0.1)	40 (0.4)	37 (0.8)	23 (0.7)	26 (1.2)	29 (1.7)	15 (1.5)	6 (2.9)
Suprapubic Cystotomy	1,450 (8.5)	1,208 (11.4)	1,307 (14.5)	839 (17.3)	705 (22.5)	638 (28.2)	492 (29.0)	276 (28.1)	61 (29.0)
Normal Micturition	3,620 (21.1)	1,725 (16.3)	1,482 (16.4)	707 (14.6)	401 (12.8)	312 (13.8)	231 (13.6)	157 (16.0)	31 (14.8)
Other	69 (0.4)	50 (0.5)	53 (0.6)	34 (0.7)	24 (0.8)	21 (0.9)	23 (1.4)	19 (1.9)	3 (1.4)
Unknown	505 (2.9)	392 (3.7)	247 (2.7)	103 (2.1)	62 (2.0)	32 (1.4)	26 (1.5)	13 (1.3)	3 (1.4)
Total	17,153	10,593	9,032	4,842	3,136	2,259	1,698	981	210

* *Codes were added November 1995.*

Table 76. Method of Bladder Management by Post-Injury Year – Female.

	Post-Injury Year n(%)								
Bladder Management	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**
None	178 (4.4)	105 (4.5)	96 (4.4)	46 (3.9)	22 (3.1)	9 (1.7)	9 (2.1)	6 (2.4)	0 (0.0)
Indwelling Catheter	996 (24.5)	706 (29.9)	561 (25.5)	299 (25.4)	191 (26.6)	136 (25.6)	114 (26.8)	61 (24.6)	15 (28.8)
*Indwelling Catheter after augmentation	10 (0.2)	2 (0.1)	14 (0.6)	16 (1.4)	16 (2.2)	8 (1.5)	4 (0.9)	4 (1.6)	1 (1.9)
Crede, reflex stimulation, external pressure	122 (3.0)	99 (4.2)	77 (3.5)	31 (2.6)	18 (2.5)	18 (3.4)	9 (2.1)	9 (3.6)	8 (15.4)
*ICP only	582 (14.3)	172 (7.3)	367 (16.7)	254 (21.6)	179 (25.0)	174 (32.8)	139 (32.7)	69 (27.8)	9 (17.3)
*ICP after augmentation or continent diversion	6 (0.1)	3 (0.1)	20 (0.9)	18 (1.5)	15 (2.1)	7 (1.3)	6 (1.4)	4 (1.6)	4 (7.7)
ICP unknown	769 (18.9)	605 (25.7)	297 (13.5)	125 (10.6)	44 (6.1)	8 (1.5)	1 (0.2)	2 (0.8)	1 (1.9)
Conduit	9 (0.2)	7 (0.3)	21 (1.0)	18 (1.5)	14 (2.0)	11 (2.1)	8 (1.9)	6 (2.4)	4 (7.7)
Suprapubic Cystostomy	196 (4.8)	87 (3.7)	182 (8.3)	103 (8.8)	82 (11.4)	60 (11.3)	53 (12.5)	29 (11.7)	4 (7.7)
Normal Micturition	1,078 (26.5)	484 (20.5)	505 (22.9)	230 (19.6)	115 (16.0)	87 (16.4)	72 (16.9)	48 (19.4)	6 (11.5)
Other	15 (0.4)	11 (0.5)	18 (0.8)	12 (1.0)	13 (1.8)	6 (1.1)	4 (0.9)	7 (2.8)	0 (0.0)
Unknown	107 (2.6)	77 (3.3)	45 (2.0)	23 (2.0)	8 (1.1)	7 (1.3)	6 (1.4)	3 (1.2)	0 (0.0)
Total	4,068	2,358	2,203	1,175	717	531	425	248	52

** Codes were added November 1995.*

Table 77. Patients Rehospitalized by Post-Injury Year.

	Post-Injury Year n(%)								
Total Number of Rehospitalizations	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**
0	13,490 (63.6)	7,761 (59.9)	7,782 (69.3)	4,328 (71.9)	2,844 (73.8)	2,061 (73.9)	1,570 (74.0)	881 (71.7)	174 (66.4)
1	4,728 (22.3)	2,861 (22.1)	2,042 (18.2)	1,023 (17.0)	617 (16.0)	443 (15.9)	347 (16.3)	213 (17.3)	54 (20.6)
2	1,449 (6.8)	990 (7.6)	570 (5.1)	280 (4.7)	170 (4.4)	142 (5.1)	108 (5.1)	68 (5.5)	14 (5.3)
3	472 (2.2)	398 (3.1)	229 (2.0)	104 (1.7)	67 (1.7)	54 (1.9)	37 (1.7)	29 (2.4)	13 (5.0)
4	170 (0.8)	157 (1.2)	85 (0.8)	42 (0.7)	27 (0.7)	29 (1.0)	23 (1.1)	12 (1.0)	3 (1.1)
5	85 (0.4)	78 (0.6)	33 (0.3)	9 (0.1)	10 (0.3)	8 (0.3)	5 (0.2)	2 (0.2)	0 (0.0)
6	32 (0.2)	23 (0.2)	15 (0.1)	17 (0.3)	4 (0.1)	5 (0.2)	3 (0.1)	4 (0.3)	0 (0.0)
>6	26 (0.1)	28 (0.2)	7 (0.1)	6 (0.1)	7 (0.2)	3 (0.1)	1 (0.0)	5 (0.4)	0 (0.0)
Rehospitalized but Number of Rehospitalizations Unknown	65 (0.3)	64 (0.5)	44 (0.4)	26 (0.4)	15 (0.4)	7 (0.3)	3 (0.1)	1 (0.1)	0 (0.0)
Unknown	704 (3.3)	591 (4.6)	428 (3.8)	182 (3.0)	92 (2.4)	38 (1.4)	26 (1.2)	14 (1.1)	4 (1.5)
Total	21,221	12,951	11,235	6,017	3,853	2,790	2,123	1,229	262

Table 78. Total Days Rehospitalized (Mean) by Post-Injury Year.

	Post-Injury Year mean (n)								
	1	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**
Total	24.7 (6,513)	27.0 (4,242)	22.2 (2,776)	21.9 (1,377)	21.3 (834)	21.8 (638)	21.6 (494)	20.4 (324)	16.7 (81)

Unknown number of days rehospitalized and those with no rehospitalizations are excluded.

Table 79. Cause of Rehospitalization by Post-Injury Year.

	Post-Injury Year n(%)									
Cause of Rehospitalization	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**All Years**
Infectious and Parasitic Diseases	128 (7.2)	1 (1.3)	62 (6.6)	58 (8.5)	39 (7.8)	41 (8.5)	21 (4.3)	7 (2.1)	5 (6.3)	362 (7.7)
Cancer	9 (0.5)	0 (0.0)	7 (0.7)	5 (0.7)	7 (1.4)	6 (1.2)	8 (1.7)	4 (1.2)	2 (2.5)	48 (1.0)
Endocrine/Nutrition Diseases	19 (1.1)	1 (1.3)	14 (1.5)	4 (0.6)	3 (0.6)	2 (0.4)	6 (1.2)	10 (3.1)	3 (3.8)	62 (1.3)
Diseases of the Blood	42 (2.4)	0 (0.0)	24 (2.5)	20 (2.9)	5 (1.0)	9 (1.9)	8 (1.7)	5 (1.5)	1 (1.3)	114 (2.4)
Mental Disorders	41 (2.3)	0 (0.0)	21 (2.2)	15 (2.2)	11 (2.2)	4 (0.8)	7 (1.4)	2 (0.6)	4 (5.0)	105 (2.2)
Diseases of the Nervous System	49 (2.8)	1 (1.3)	18 (1.9)	17 (2.5)	2 (0.4)	10 (2.1)	9 (1.9)	8 (2.5)	1 (1.3)	115 (2.5)
Diseases of the Circulatory System	199 (11.2)	7 (9.2)	82 (8.7)	60 (8.8)	43 (8.6)	36 (7.4)	36 (7.4)	30 (9.2)	6 (7.5)	499 (10.7)
Diseases of the Respiratory System	272 (15.3)	12 (15.8)	98 (10.4)	92 (13.4)	30 (6.0)	57 (11.8)	64 (13.2)	58 (17.8)	16 (20.0)	699 (15.0)
Diseases of the Digestive System	154 (8.7)	20 (26.3)	120 (12.7)	97 (14.2)	49 (9.8)	60 (12.4)	68 (14.0)	43 (13.2)	21 (26.3)	632 (13.5)
Diseases of the Genitourinary System	797 (45.0)	35 (46.1)	388 (41.1)	258 (37.7)	195 (39.2)	181 (37.3)	222 (45.9)	139 (42.6)	25 (31.3)	2240 (47.9)
Childbirth and/or Complications of Childbirth	6 (0.3)	0 (0.0)	18 (1.9)	18 (2.6)	13 (2.6)	4 (0.8)	1 (0.2)	0 (0.0)	1 (1.3)	61 (1.3)
Diseases of the Skin	313 (17.7)	11 (14.5)	227 (24.0)	204 (29.8)	173 (34.7)	190 (39.2)	157 (32.4)	117 (35.9)	16 (20.0)	1408 (30.1)
Disease of the Musculoskeletal System	151 (8.5)	3 (3.9)	87 (9.2)	63 (9.2)	41 (8.2)	38 (7.8)	46 (9.5)	40 (12.3)	7 (8.8)	476 (10.2)
Congenital anomalies	2 (0.1)	0 (0.0)	0 (0.0)	1 (0.1)	0 (0.0)	1 (0.2)	4 (0.8)	0 (0.0)	0 (0.0)	8 (0.2)
Symptoms and Ill-defined conditions	68 (3.8)	2 (2.6)	28 (3.0)	14 (2.0)	15 (3.0)	7 (1.4)	7 (1.4)	10 (3.1)	3 (3.8)	154 (3.3)
Injuries and Poisonings	108 (6.1)	4 (5.3)	70 (7.4)	60 (8.8)	41 (8.2)	34 (7.0)	40 (8.3)	32 (9.8)	12 (15.0)	401 (8.6)
Other, Unclassified	382 (21.6)	36 (47.4)	166 (17.6)	119 (17.4)	103 (20.7)	88 (18.1)	43 (8.9)	39 (12.0)	6 (7.5)	982 (21.0)
Inpatient Rehab Services	137 (7.7)	4 (5.3)	33 (3.5)	7 (1.0)	5 (1.0)	7 (1.4)	8 (1.7)	4 (1.2)	0 (0.0)	205 (4.4)
Total	1,772	76	944	685	498	485	484	326	80	5,350

Percentages may total more than 100% because some participants had more than one rehospitalization.
Form IIs entered into the database since March 1, 2001.
Records with no rehospitalizations are excluded.

Table 80. Self-Perceived Health Status by Post-Injury Year.

Self-Perceived Health	Post-Injury Year n(%)								
	1	2	5	10	15	20	25	30	35
Excellent	864 (10.2)	259 (10.7)	696 (13.4)	479 (13.2)	439 (13.9)	387 (14.4)	302 (14.2)	167 (13.6)	35 (13.4)
Very Good	1,705 (20.2)	393 (16.3)	1,254 (24.2)	887 (24.4)	787 (25.0)	716 (26.6)	594 (28.0)	350 (28.5)	62 (23.7)
Good	2,646 (31.3)	731 (30.2)	1,692 (32.6)	1,198 (32.9)	1,105 (35.1)	947 (35.2)	775 (36.5)	424 (34.5)	106 (40.5)
Fair	1,368 (16.2)	387 (16.0)	780 (15.0)	554 (15.2)	447 (14.2)	383 (14.2)	305 (14.4)	197 (16.0)	45 (17.2)
Poor	437 (5.2)	100 (4.1)	189 (3.6)	125 (3.4)	90 (2.9)	74 (2.8)	57 (2.7)	58 (4.7)	8 (3.1)
Don't Know	23 (0.3)	1 (0.0)	16 (0.3)	7 (0.2)	2 (0.1)	1 (0.0)	2 (0.1)	2 (0.2)	0 (0.0)
Refused	88 (1.0)	3 (0.1)	40 (0.8)	38 (1.0)	52 (1.7)	22 (0.8)	18 (0.8)	2 (0.2)	1 (0.4)
Unknown/Not Done/Under 18	1,311 (15.5)	544 (22.5)	522 (10.1)	353 (9.7)	229 (7.3)	158 (5.9)	70 (3.3)	29 (2.4)	5 (1.9)
Total	8,442	2,418	5,189	3,641	3,151	2,688	2,123	1,229	262

Form IIs entered to the database since January 1, 1996.

Table 81.'Compared to one year ago, how would you rate your Health?' by Post-Injury Year.

Rate Health	Post-Injury Year n(%)								
	1	2	5	10	15	20	25	30	35
Much Better	2,386 (33.3)	274 (19.7)	505 (11.6)	229 (7.4)	219 (8.2)	182 (7.7)	187 (8.8)	120 (9.8)	30 (11.5)
Somewhat Better	1,567 (21.9)	324 (23.3)	747 (17.2)	391 (12.7)	288 (10.8)	276 (11.7)	234 (11.0)	160 (13.0)	29 (11.1)
About the Same	1,248 (17.4)	373 (26.9)	2,167 (49.8)	1,734 (56.3)	1,558 (58.2)	1,353 (57.1)	1,249 (58.8)	675 (54.9)	138 (52.7)
Somewhat Worse	544 (7.6)	103 (7.4)	393 (9.0)	348 (11.3)	310 (11.6)	319 (13.5)	315 (14.8)	208 (16.9)	53 (20.2)
Much Worse	311 (4.3)	22 (1.6)	97 (2.2)	75 (2.4)	58 (2.2)	61 (2.6)	44 (2.1)	36 (2.9)	5 (1.9)
Don't Know	11 (0.2)	2 (0.1)	7 (0.2)	5 (0.2)	4 (0.1)	1 (0.0)	2 (0.1)	1 (0.1)	0 (0.0)
Refused	95 (1.3)	4 (0.3)	39 (0.9)	43 (1.4)	53 (2.0)	27 (1.1)	21 (1.0)	2 (0.2)	1 (0.4)
Unknown/Not Done/Under 18	1,001 (14.0)	287 (20.7)	393 (9.0)	254 (8.2)	189 (7.1)	149 (6.3)	71 (3.3)	27 (2.2)	6 (2.3)
Total	7,163	1,389	4,348	3,079	2,679	2,368	2,123	1,229	262

Form IIs entered to database since May 1, 1998

Table 82. Satisfaction With Life Scale - Total Score Mean by Post-Injury Year.

	Post-Injury Year mean (n)								
	1	2	5	10	15	20	25	30	35
Total	18.3 (6,843)	18.2 (1,821)	20.4 (4,486)	20.9 (3,191)	21.7 (2,794)	22.3 (2,434)	22.7 (2,015)	22.7 (1,182)	23.9 (250)

Form IIs entered into the database since January 1, 1996.
Total ranges from 5 to35.

Table 83. CHART Physical Independence Subscale Score by Post-Injury Year.

	Post-Injury Year mean (n)								
	1	2	5	10	15	20	25	30	35
Total	70.0 (7,217)	71.8 (1,972)	76.2 (4,686)	77.5 (3,303)	80.2 (2,906)	83.5 (2,537)	82.7 (2,051)	83.4 (1,198)	87.4 (256)

Form IIs entered into the database since January 1, 1996.
Total ranges from 0 to100.

Table 84. CHART Mobility Subscale Score by Post-Injury Year.

	Post-Injury Year mean (n)								
	1	2	5	10	15	20	25	30	35
Total	73.1 (7,172)	75.9 (1,976)	77.6 (4,670)	79.2 (3,283)	80.0 (2,895)	80.6 (2,530)	79.8 (2,042)	77.6 (1,201)	78.3 (256)

Form IIs entered into the database since January 1, 1996.
Total ranges from 0 to100.

Table 85. CHART Occupational Subscale Score by Post-Injury Year.

	Post-Injury Year mean (n)								
	1	2	5	10	15	20	25	30	35
Total	49.1 (7,050)	50.7 (1,912)	59.5 (4,598)	61.8 (3,266)	64.1 (2,862)	67.0 (2,512)	68.5 (2,031)	66.6 (1,193)	67.7 (256)

Form IIs entered into the database since January 1, 1996.
Total ranges from 0 to100.

Table 86. CHART Social Integration Subscale Score by Post-Injury Year.

	Post-Injury Year mean (n)								
	1	2	5	10	15	20	25	30	35
Total	86.4 (6,994)	85.3 (1,895)	86.6 (4,553)	86.6 (3,255)	87.7 (2,856)	88.3 (2,496)	88.0 (2,015)	87.0 (1,176)	85.9 (252)

Form IIs entered into the database since January 1, 1996.
Total ranges from 0 to100.

Table 87. Major Depressive Syndrome by Post-Injury Year.

Major Depressive Syndrome	Post Injury-Year n(%)								
	1	2	5	10	15	20	25	30	35
No Depressive syndrome	3,780 (65.5)	133 (61.0)	2,603 (73.5)	1,896 (73.9)	1,520 (76.1)	1,498 (78.8)	1,574 (80.4)	958 (77.9)	210 (80.2)
Major Depressive Syndrome	565 (9.8)	26 (11.9)	302 (8.5)	221 (8.6)	127 (6.4)	99 (5.2)	121 (6.2)	78 (6.3)	16 (6.1)
Other Depressive Syndrome	538 (9.3)	23 (10.6)	270 (7.6)	188 (7.3)	146 (7.3)	128 (6.7)	153 (7.8)	133 (10.8)	22 (8.4)
Unknown/Interview Not Done/Under 18	889 (15.4)	36 (16.5)	366 (10.3)	260 (10.1)	205 (10.3)	177 (9.3)	109 (5.6)	60 (4.9)	14 (5.3)
Total	5,772	218	3,541	2,565	1,998	1,902	1,957	1,229	262

Form IIs entered into the database since March 1, 2001.

Table 88. PHQ-9 Severity of Depression Score by Post-Injury Year.

	Post-Injury Year mean (n)								
	1	2	5	10	15	20	25	30	35
Total	5.5 (4,863)	6.2 (181)	4.8 (3,163)	4.5 (2,293)	4.2 (1,789)	3.7 (1,722)	4.0 (1,844)	4.6 (1,166)	4.3 (247)

Form IIs entered into the database since March 1, 2001.
Total ranges from 0 to 27.

Table 89. Alcohol Use by Post-Injury Year.

Alcohol Use	Post-Injury Year n(%)								
	1	2	5	10	15	20	25	30	35
Never Drank	2,115 (36.6)	80 (36.7)	1,102 (31.1)	754 (29.4)	583 (29.2)	457 (24.0)	415 (21.2)	184 (15.0)	33 (12.6)
Currently drinks or did drink in the past	2,920 (50.6)	114 (52.3)	2,149 (60.7)	1,602 (62.5)	1,255 (62.8)	1,302 (68.5)	1,464 (74.8)	993 (80.8)	225 (85.9)
Unknown/Interview Not Done/Under 18	737 (12.8)	24 (11.0)	290 (8.2)	209 (8.1)	160 (8.0)	143 (7.5)	78 (4.0)	52 (4.2)	4 (1.5)
Total	5,772	218	3,541	2,565	1,998	1,902	1,957	1,229	262

Form IIs entered into the database since March 1, 2001.

Table 90. Alcohol Use - Number of Days Per Week by Post-Injury Year.

Number of Days/Week	Post-Injury Year n(%)								
	1	2	5	10	15	20	25	30	35
None or Less than 1 Day Per Week	1,206 (33.0)	41 (29.7)	889 (36.4)	638 (35.2)	509 (36.0)	566 (39.2)	754 (48.9)	549 (52.5)	125 (54.6)
1 Day Per Week	682 (18.6)	30 (21.7)	476 (19.5)	371 (20.5)	269 (19.0)	234 (16.2)	194 (12.6)	129 (12.3)	26 (11.4)
2 Days Per Week	399 (10.9)	16 (11.6)	320 (13.1)	210 (11.6)	156 (11.0)	186 (12.9)	173 (11.2)	99 (9.5)	21 (9.2)
3 Days Per Week	185 (5.1)	9 (6.5)	152 (6.2)	93 (5.1)	102 (7.2)	100 (6.9)	96 (6.2)	55 (5.3)	10 (4.4)
4 Days Per Week	93 (2.5)	4 (2.9)	63 (2.6)	74 (4.1)	60 (4.2)	43 (3.0)	48 (3.1)	36 (3.4)	11 (4.8)
5 Days Per Week	68 (1.9)	2 (1.4)	54 (2.2)	39 (2.2)	32 (2.3)	36 (2.5)	45 (2.9)	43 (4.1)	10 (4.4)
6 Days Per Week	39 (1.1)	2 (1.4)	23 (0.9)	18 (1.0)	8 (0.6)	13 (0.9)	28 (1.8)	11 (1.1)	2 (0.9)
7 Days Per Week	104 (2.8)	3 (2.2)	86 (3.5)	82 (4.5)	65 (4.6)	82 (5.7)	98 (6.4)	83 (7.9)	16 (7.0)
Unknown Days Per Week	154 (4.2)	7 (5.1)	91 (3.7)	81 (4.5)	57 (4.0)	51 (3.5)	29 (1.9)	7 (0.7)	3 (1.3)
Unknown, Not Done, < 18 years old	727 (19.9)	24 (17.4)	285 (11.7)	205 (11.3)	157 (11.1)	134 (9.3)	77 (5.0)	33 (3.2)	5 (2.2)
Total	3,657	138	2,439	1,811	1,415	1,445	1,542	1,045	229

Excludes those participants reporting 'Never drank'.
Form IIs entered into the database since March 1, 2001.

Table 91. Alcohol Use – 'Average number of drinks on the days you drink' by Post-Injury Year.

Average drinks per days drinking	Post-Injury Year n(%)								
	1	2	5	10	15	20	25	30	35
0	1,037 (28.4)	35 (25.4)	708 (29.0)	501 (27.7)	408 (28.8)	459 (31.8)	598 (38.8)	448 (42.9)	100 (43.7)
1	593 (16.2)	23 (16.7)	410 (16.8)	309 (17.1)	230 (16.3)	234 (16.2)	297 (19.3)	212 (20.3)	59 (25.8)
2	567 (15.5)	19 (13.8)	438 (18.0)	323 (17.8)	253 (17.9)	252 (17.4)	273 (17.7)	183 (17.5)	38 (16.6)
3	233 (6.4)	11 (8.0)	223 (9.1)	158 (8.7)	146 (10.3)	128 (8.9)	130 (8.4)	74 (7.1)	12 (5.2)
4	139 (3.8)	4 (2.9)	115 (4.7)	100 (5.5)	59 (4.2)	69 (4.8)	50 (3.2)	35 (3.3)	5 (2.2)
5	65 (1.8)	5 (3.6)	51 (2.1)	35 (1.9)	22 (1.6)	34 (2.4)	26 (1.7)	18 (1.7)	2 (0.9)
6	66 (1.8)	1 (0.7)	61 (2.5)	60 (3.3)	56 (4.0)	39 (2.7)	29 (1.9)	16 (1.5)	1 (0.4)
7 - 10	65 (1.8)	5 (3.6)	42 (1.7)	37 (2.0)	22 (1.6)	34 (2.4)	16 (1.0)	13 (1.2)	2 (0.9)
11 - 20	18 (0.5)	1 (0.7)	15 (0.6)	14 (0.8)	13 (0.9)	12 (0.8)	6 (0.4)	3 (0.3)	1 (0.4)
21 or more	3 (0.1)	0 (0.0)	1 (0.0)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.2)	0 (0.0)
Drinks, but number of drinks unknown	152 (4.2)	10 (7.2)	97 (4.0)	68 (3.8)	48 (3.4)	51 (3.5)	32 (2.1)	9 (0.9)	4 (1.7)
Unknown, Not Done, <18 years of age	719 (19.7)	24 (17.4)	278 (11.4)	205 (11.3)	158 (11.2)	133 (9.2)	85 (5.5)	32 (3.1)	5 (2.2)
Total	3,657	138	2,439	1,811	1,415	1,445	1,542	1,045	229

Excludes those participants reporting 'Never drank'.
Form IIs entered into the database since March 1, 2001.

Table 92. Alcohol Use – 'Number of times during the past month having more than 5 drinks' by Post-Injury Year.

Average drinks per days drinking	Post-Injury Year n(%)								
	1	2	5	10	15	20	25	30	35
0	2,243 (61.3)	79 (57.2)	1,635 (67.0)	1,212 (66.9)	953 (67.3)	994 (68.8)	1,201 (77.9)	861 (82.4)	203 (88.6)
1	192 (5.3)	6 (4.3)	168 (6.9)	100 (5.5)	81 (5.7)	82 (5.7)	85 (5.5)	43 (4.1)	8 (3.5)
2	122 (3.3)	10 (7.2)	77 (3.2)	60 (3.3)	49 (3.5)	51 (3.5)	36 (2.3)	32 (3.1)	3 (1.3)
3	47 (1.3)	2 (1.4)	42 (1.7)	22 (1.2)	22 (1.6)	24 (1.7)	23 (1.5)	15 (1.4)	1 (0.4)
4	53 (1.4)	5 (3.6)	48 (2.0)	43 (2.4)	35 (2.5)	44 (3.0)	25 (1.6)	9 (0.9)	2 (0.9)
5	25 (0.7)	1 (0.7)	17 (0.7)	20 (1.1)	10 (0.7)	9 (0.6)	14 (0.9)	8 (0.8)	0 (0.0)
6 - 10	74 (2.0)	1 (0.7)	44 (1.8)	36 (2.0)	29 (2.0)	29 (2.0)	21 (1.4)	16 (1.5)	1 (0.4)
11 - 15	14 (0.4)	1 (0.7)	14 (0.6)	12 (0.7)	8 (0.6)	10 (0.7)	8 (0.5)	2 (0.2)	1 (0.4)
16 - 20	7 (0.2)	1 (0.7)	2 (0.1)	9 (0.5)	12 (0.8)	6 (0.4)	5 (0.3)	4 (0.4)	1 (0.4)
21 or more	12 (0.3)	2 (1.4)	6 (0.2)	18 (1.0)	7 (0.5)	17 (1.2)	11 (0.7)	14 (1.3)	0 (0.0)
Drinks, but number of times unknown	150 (4.1)	6 (4.3)	104 (4.3)	75 (4.1)	52 (3.7)	48 (3.3)	31 (2.0)	6 (0.6)	4 (1.7)
Unknown, Not Done, <18 years of age	718 (19.6)	24 (17.4)	282 (11.6)	204 (11.3)	157 (11.1)	131 (9.1)	82 (5.3)	35 (3.3)	5 (2.2)
Total	3,657	138	2,439	1,811	1,415	1,445	1,542	1,045	229

Form IIs entered into the database since March 1, 2001.
Excludes those who never had a drink.

Table 93. Severity of Pain Score by Post-Injury Year.

	Post-Injury Year mean (n)								
	1	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**
Total	4.2 (5,095)	4.6 (189)	4.4 (3,259)	4.4 (2,370)	4.2 (1,844)	4.1 (1,766)	4.1 (1,871)	4.3 (1,196)	4.2 (255)

Form IIs entered into the database since March 1, 2001.
Total ranges from 0 to10.

Table 94. Pain Interfering with Work by Post-Injury Year.

	Post-Injury Year n(%)								
Pain Interference	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**
Not at All	1,409 (19.7)	330 (23.8)	976 (22.4)	790 (25.7)	754 (28.1)	699 (29.5)	690 (32.5)	369 (30.0)	75 (28.6)
A little bit	1,472 (20.6)	237 (17.1)	910 (20.9)	606 (19.7)	513 (19.1)	470 (19.8)	364 (17.1)	210 (17.1)	64 (24.4)
Moderately	912 (12.7)	197 (14.2)	585 (13.5)	403 (13.1)	356 (13.3)	330 (13.9)	288 (13.6)	183 (14.9)	38 (14.5)
Quite a bit	873 (12.2)	186 (13.4)	520 (12.0)	351 (11.4)	317 (11.8)	242 (10.2)	256 (12.1)	166 (13.5)	32 (12.2)
Extremely	453 (6.3)	106 (7.6)	323 (7.4)	182 (5.9)	131 (4.9)	106 (4.5)	93 (4.4)	64 (5.2)	11 (4.2)
Don't Know	15 (0.2)	2 (0.1)	4 (0.1)	3 (0.1)	0 (0.0)	3 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)
Refuses	78 (1.1)	4 (0.3)	36 (0.8)	37 (1.2)	52 (1.9)	24 (1.0)	18 (0.8)	2 (0.2)	0 (0.0)
N/A, No Pain	934 (13.0)	58 (4.2)	550 (12.6)	417 (13.5)	340 (12.7)	323 (13.6)	338 (15.9)	204 (16.6)	34 (13.0)
Unknown/Not Done/Under 18	1,017 (14.2)	269 (19.4)	444 (10.2)	290 (9.4)	216 (8.1)	171 (7.2)	76 (3.6)	31 (2.5)	8 (3.1)
Total	7,163	1,389	4,348	3,079	2,679	2,368	2,123	1,229	262

Form IIs entered into the database since May 1, 1998.

Table 95. Ambulation Ability-Walk for 150 feet, by Post-Injury Year.

Walk 150 feet	Post-Injury Year n(%)									
	1	2	5	10	15	20	25	30	35	All Years
No	2,288 (54.4)	74 (68.5)	1,584 (60.8)	1,270 (67.7)	1,050 (72.2)	956 (74.7)	1,177 (79.9)	980 (80.4)	219 (83.6)	9,598 (66.3)
Yes	1,478 (35.1)	27 (25.0)	847 (32.5)	505 (26.9)	298 (20.5)	229 (17.9)	238 (16.1)	208 (17.1)	40 (15.3)	3,870 (26.7)
Unknown/Not Done	439 (10.4)	7 (6.5)	175 (6.7)	101 (5.4)	106 (7.3)	94 (7.3)	59 (4.0)	31 (2.5)	3 (1.1)	1,015 (7.0)
Total	4,205	108	2,606	1,876	1,454	1,279	1,474	1,219	262	14,483

Form IIs entered into the database since May 1, 2004.

Table 96. Ambulation Ability-Walk for 1 street block, by Post-Injury Year .

Walk 1 street block	Post-Injury Year n(%)									
	1	2	5	10	15	20	25	30	35	All Years
No	2,480 (59.0)	80 (74.1)	1,695 (65.0)	1,336 (71.2)	1,083 (74.5)	986 (77.1)	1,194 (81.0)	1,002 (82.2)	222 (84.7)	10,078 (69.6)
Yes	1,281 (30.5)	21 (19.4)	733 (28.1)	438 (23.3)	261 (18.0)	199 (15.6)	220 (14.9)	186 (15.3)	36 (13.7)	3,375 (23.3)
Unknown/Not Done	444 (10.6)	7 (6.5)	178 (6.8)	102 (5.4)	110 (7.6)	94 (7.3)	60 (4.1)	31 (2.5)	4 (1.5)	1,030 (7.1)
Total	4,205	108	2,606	1,876	1,454	1,279	1,474	1,219	262	14,483

Form IIs entered into the database since May 1, 2004.

Table 97. Ambulation Ability-Walk up 1 flight of stairs, by Post-Injury Year.

Walk 1 flight	Post-Injury Year n(%)									
	1	2	5	10	15	20	25	30	35	All Years
No	2,484 (59.1)	79 (73.1)	1,675 (64.3)	1,303 (69.5)	1,067 (73.4)	976 (76.3)	1,187 (80.5)	981 (80.5)	223 (85.1)	9,975 (68.9)
Yes	1,279 (30.4)	22 (20.4)	756 (29.0)	473 (25.2)	277 (19.1)	209 (16.3)	228 (15.5)	207 (17.0)	35 (13.4)	3,486 (24.1)
Unknown/Not Done	442 (10.5)	7 (6.5)	175 (6.7)	100 (5.3)	110 (7.6)	94 (7.3)	59 (4.0)	31 (2.5)	4 (1.5)	1,022 (7.1)
Total	4,205	108	2,606	1,876	1,454	1,279	1,474	1,219	262	14,483

Form IIs entered into the database since May 1, 2004.

Table 98. Type of Mobility Aid, by Post Injury Year.

Type of Mobility Aid	Post Injury Year n(%)									
	1	2	5	10	15	20	25	30	35	All Years
None	606 (14.4)	13 (11.7)	339 (13.0)	214 (11.4)	113 (7.7)	70 (5.5)	80 (5.4)	67 (5.5)	9 (3.4)	1,511 (10.4)
Straight Cane	397 (9.4)	3 (2.7)	220 (8.4)	173 (9.2)	90 (6.2)	72 (5.6)	81 (5.5)	73 (6.0)	16 (6.1)	1,125 (7.8)
Quad Cane	87 (2.1)	0 (0.0)	42 (1.6)	14 (0.7)	13 (0.9)	8 (0.6)	2 (0.1)	5 (0.4)	1 (0.4)	172 (1.2)
Walker	389 (9.2)	9 (8.1)	184 (7.0)	78 (4.1)	45 (3.1)	30 (2.3)	24 (1.6)	26 (2.1)	8 (3.1)	793 (5.5)
Crutches	127 (3.0)	2 (1.8)	92 (3.5)	50 (2.7)	38 (2.6)	49 (3.8)	47 (3.2)	47 (3.9)	9 (3.4)	461 (3.2)
Ankle-Foot Orthotic	132 (3.1)	0 (0.0)	70 (2.7)	59 (3.1)	48 (3.3)	30 (2.3)	35 (2.4)	30 (2.5)	9 (3.4)	413 (2.8)
Knee-Ankle-Foot Orthotic	79 (1.9)	2 (1.8)	52 (2.0)	32 (1.7)	22 (1.5)	23 (1.8)	23 (1.6)	14 (1.1)	6 (2.3)	253 (1.7)
Other	51 (1.2)	0 (0.0)	32 (1.2)	19 (1.0)	10 (0.7)	9 (0.7)	8 (0.5)	4 (0.3)	2 (0.8)	135 (0.9)
N/A, Patient Not Ambulatory	2,254 (53.5)	74 (66.7)	1,558 (59.7)	1,241 (65.9)	1,033 (70.7)	949 (74.1)	1,166 (79)	966 (79.2)	217 (82.8)	9,458 (65.2)
Unknown/Not Done	444 (10.5)	10 (9.0)	178 (6.8)	107 (5.7)	114 (7.8)	95 (7.4)	63 (4.3)	34 (2.8)	3 (1.1)	1,048 (7.2)
Total	4,210	111	2,611	1,882	1,461	1,281	1,476	1,219	262	14,513

Percentages may total more than 100% because some participants used more than one mobility aid.
Form IIs entered into the database since April 1, 2004.

Table 99. Wheelchair or Scooter Use, by Post-Injury Year.

Wheelchair or Scooter Use	Post-Injury Year n(%)									
	1	2	5	10	15	20	25	30	35	All Years
No	1,380 (32.8)	26 (24.1)	742 (28.5)	463 (24.7)	281 (19.3)	207 (16.2)	243 (16.5)	209 (17.1)	43 (16.4)	3,594 (24.8)
Yes	2,382 (56.6)	75 (69.4)	1,695 (65.0)	1,312 (69.9)	1,066 (73.3)	981 (76.7)	1,172 (79.5)	979 (80.3)	216 (82.4)	9,878 (68.2)
Unknown/Not Done	443 (10.5)	7 (6.5)	169 (6.5)	101 (5.4)	107 (7.4)	91 (7.1)	59 (4.0)	31 (2.5)	3 (1.1)	1,011 (7.0)
Total	4,205	108	2,606	1,876	1,454	1,279	1,474	1,219	262	14,483

Form IIs entered into the database since May 1, 2004.

Table 100. Type of Wheelchair or Scooter Used Most Often, by Post-Injury Year.

Type Wheelchair Used Most	Post-Injury Year n(%)									
	1	2	5	10	15	20	25	30	35	All Years
Manual Wheelchair	1,434 (34.1)	44 (40.7)	948 (36.4)	782 (41.7)	651 (44.8)	616 (48.2)	706 (47.9)	561 (46.0)	120 (45.8)	5,862 (40.5)
Power Wheelchair	868 (20.6)	30 (27.8)	694 (26.6)	487 (26.0)	396 (27.2)	341 (26.7)	438 (29.7)	391 (32.1)	90 (34.4)	3,735 (25.8)
Power-Assist Wheelchair	54 (1.3)	1 (0.9)	35 (1.3)	16 (0.9)	12 (0.8)	11 (0.9)	13 (0.9)	15 (1.2)	5 (1.9)	162 (1.1)
Scooter	5 (0.1)	0 (0.0)	10 (0.4)	15 (0.8)	6 (0.4)	10 (0.8)	12 (0.8)	11 (0.9)	1 (0.4)	70 (0.5)
Other	4 (0.1)	0 (0.0)	2 (0.1)	3 (0.2)	0 (0.0)	1 (0.1)	0 (0.0)	0 (0.0)	0 (0.0)	10 (0.1)
Non-user	1,380 (32.8)	26 (24.1)	742 (28.5)	463 (24.7)	281 (19.3)	207 (16.2)	243 (16.5)	209 (17.1)	43 (16.4)	3,594 (24.8)
Unknown/Not Done	460 (10.9)	7 (6.5)	175 (6.7)	110 (5.9)	108 (7.4)	93 (7.3)	62 (4.2)	32 (2.6)	3 (1.1)	1,050 (7.2)
Total	4,205	108	2,606	1,876	1,454	1,279	1,474	1,219	262	14,483

Form IIs entered into the database since May 1, 2004.

Table 101. Computer Use, by Post-Injury Year.

	Post-Injury Year n(%)									
Computer Use (BCompUse)	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**All Years**
No	1,175 (27.9)	34 (31.5)	601 (23.1)	443 (23.6)	302 (20.8)	277 (21.7)	329 (22.3)	265 (21.7)	58 (22.1)	3,484 (24.1)
Home Only	1,704 (40.5)	43 (39.8)	1,139 (43.7)	799 (42.6)	628 (43.2)	521 (40.7)	638 (43.3)	534 (43.8)	117 (44.7)	6,123 (42.3)
Outside Home Only	118 (2.8)	7 (6.5)	81 (3.1)	72 (3.8)	50 (3.4)	50 (3.9)	40 (2.7)	40 (3.3)	4 (1.5)	462 (3.2)
Both	719 (17.1)	17 (15.7)	603 (23.1)	452 (24.1)	365 (25.1)	341 (26.7)	404 (27.4)	350 (28.7)	80 (30.5)	3,331 (23.0)
Unknown/Not Done	489 (11.6)	7 (6.5)	182 (7.0)	110 (5.9)	109 (7.5)	90 (7.0)	63 (4.3)	30 (2.5)	3 (1.1)	1,083 (7.5)
Total	4,205	108	2,606	1,876	1,454	1,279	1,474	1,219	262	14,483

Form IIs entered into the database since May 1, 2004.

Table 102. Internet or Email Usage, by Post-Injury Year.

	Post-Injury Year n(%)									
Internet/Email Use	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**All Years**
Uses Computer Only, No internet or email	109 (2.6)	1 (0.9)	77 (3.0)	55 (2.9)	40 (2.8)	48 (3.8)	49 (3.3)	33 (2.7)	4 (1.5)	416 (2.9)
Daily	1,785 (42.4)	44 (40.7)	1,357 (52.1)	977 (52.1)	813 (55.9)	711 (55.6)	863 (58.5)	755 (61.9)	176 (67.2)	7,481 (51.7)
Weekly	457 (10.9)	12 (11.1)	282 (10.8)	209 (11.1)	132 (9.1)	111 (8.7)	125 (8.5)	86 (7.1)	16 (6.1)	1,430 (9.9)
Monthly	178 (4.2)	10 (9.3)	101 (3.9)	73 (3.9)	50 (3.4)	41 (3.2)	44 (3.0)	49 (4.0)	5 (1.9)	551 (3.8)
N/A, Doesn't use Computer	1,181 (28.1)	34 (31.5)	605 (23.2)	450 (24.0)	310 (21.3)	278 (21.7)	330 (22.4)	266 (21.8)	58 (22.1)	3,512 (24.2)
Unknown/Not Done	495 (11.8)	7 (6.5)	184 (7.1)	112 (6.0)	109 (7.5)	90 (7.0)	63 (4.3)	30 (2.5)	3 (1.1)	1,093 (7.5)
Total	4,205	108	2,606	1,876	1,454	1,279	1,474	1,219	262	14,483

Form IIs entered into the database since May 1, 2004.

Table 103. Type of Modified Vehicle, by Post Injury Year .

	Post Injury Year n(%)									
Type Modified Vehicle	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**All Years**
Does Not Own	2,705 (64.3)	58 (53.7)	1,259 (48.3)	849 (45.3)	549 (37.8)	408 (31.9)	431 (29.2)	369 (30.3)	68 (26.0)	6,696 (46.2)
Car	282 (6.7)	9 (8.3)	294 (11.3)	238 (12.7)	239 (16.4)	210 (16.4)	265 (18.0)	203 (16.7)	41 (15.6)	1,781 (12.3)
Van	641 (15.2)	28 (25.9)	684 (26.2)	551 (29.4)	442 (30.4)	455 (35.6)	588 (39.9)	504 (41.3)	125 (47.7)	4,018 (27.7)
Other	93 (2.2)	4 (3.7)	160 (6.1)	96 (5.1)	91 (6.3)	96 (7.5)	102 (6.9)	76 (6.2)	17 (6.5)	735 (5.1)
Combination	4 (0.1)	1 (0.9)	22 (0.8)	26 (1.4)	23 (1.6)	19 (1.5)	24 (1.6)	37 (3.0)	8 (3.1)	164 (1.1)
Unknown/Not Done	480 (11.4)	8 (7.4)	187 (7.2)	116 (6.2)	110 (7.6)	91 (7.1)	64 (4.3)	30 (2.5)	3 (1.1)	1,089 (7.5)
Total	4,205	108	2,606	1,876	1,454	1,279	1,474	1,219	262	14,483

Form IIs entered into the database since May 1, 2004.

Table 104. Driving Modified Vehicle, by Post-Injury Year .

	Post-Injury Year n(%)									
Drive Modified Vehicle?	**1**	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**All Years**
No	597 (14.2)	29 (26.9)	436 (16.7)	299 (15.9)	203 (14.0)	180 (14.1)	251 (17.0)	199 (16.3)	45 (17.2)	2,239 (15.5)
Yes, From Wheelchair	64 (1.5)	3 (2.8)	134 (5.1)	137 (7.3)	123 (8.5)	133 (10.4)	190 (12.9)	177 (14.5)	43 (16.4)	1,004 (6.9)
Yes, Not from wheelchair	356 (8.5)	10 (9.3)	588 (22.6)	475 (25.3)	467 (32.1)	466 (36.4)	537 (36.4)	444 (36.4)	103 (39.3)	3,446 (23.8)
N/A, Doesn't Own	2,705 (64.3)	58 (53.7)	1,259 (48.3)	849 (45.3)	549 (37.8)	408 (31.9)	431 (29.2)	369 (30.3)	68 (26.0)	6,696 (46.2)
Unknown/Not Done	483 (11.5)	8 (7.4)	189 (7.3)	116 (6.2)	112 (7.7)	92 (7.2)	65 (4.4)	30 (2.5)	3 (1.1)	1,098 (7.6)
Total	4,205	108	2,606	1,876	1,454	1,279	1,474	1,219	262	14,483

Form IIs entered into the database since May 1, 2004.

Table 105. Cell Phone Usage, by Post-Injury Year.

Cell Phone	Post-Injury Year n(%)									
	1	**2**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**All Years**
No	836 (19.9)	21 (19.4)	572 (21.9)	435 (23.2)	315 (21.7)	307 (24.0)	373 (25.3)	298 (24.4)	60 (22.9)	3,217 (22.2)
Yes	2,894 (68.8)	79 (73.1)	1,851 (71.0)	1,328 (70.8)	1,028 (70.7)	881 (68.9)	1,038 (70.4)	891 (73.1)	198 (75.6)	10,188 (70.3)
Unknown/Not Done	475 (11.3)	8 (7.4)	183 (7.0)	113 (6.0)	111 (7.6)	91 (7.1)	63 (4.3)	30 (2.5)	4 (1.5)	1,078 (7.4)
Total	4,205	108	2,606	1,876	1,454	1,279	1,474	1,219	262	14,483

Form IIs entered into the database since May 1, 2004.

Bibliography

1. Smart, C.N. and Sanders, C.R. (1976) The Costs of Motor Vehicle Related Spinal Cord Injuries. Insurance Institute for Highway Safety, Washington, D.C.

2. DeVivo, M.J., Stover, S.L., Black, K.J. (1992) Prognostic factors for 12-year survival after spinal cord injury. Arch. Phys. Med. Rehabil. 73, 156-162.

3.DeVivo MJ. Estimating Life Expectancy for Use in Determining Lifetime Costs of Care. Top Spinal Cord Inj Rehabil 2002; 7(4):49-58.

4.Strauss D, Shavelle R, Day S, DeVivo MJ. An Analytic Method for Longitudinal Mortality Studies. J Insur Med 2000; 32:217–225.

5.Nobunaga, A.I., Go, B.K., and Karunas, R.B. (1999) Recent demographic and injury trends in people served by the model spinal cord injury care systems. Arch. Phys. Med. Rehabil. 80, November 1999.

6. Fine, P.R., Kuhlemeier, K.V., DeVivo, M.J. and Stover, S.L. (1979) Spinal cord injury: an epidemiologic perspective. Paraplegia 17, 237-250.