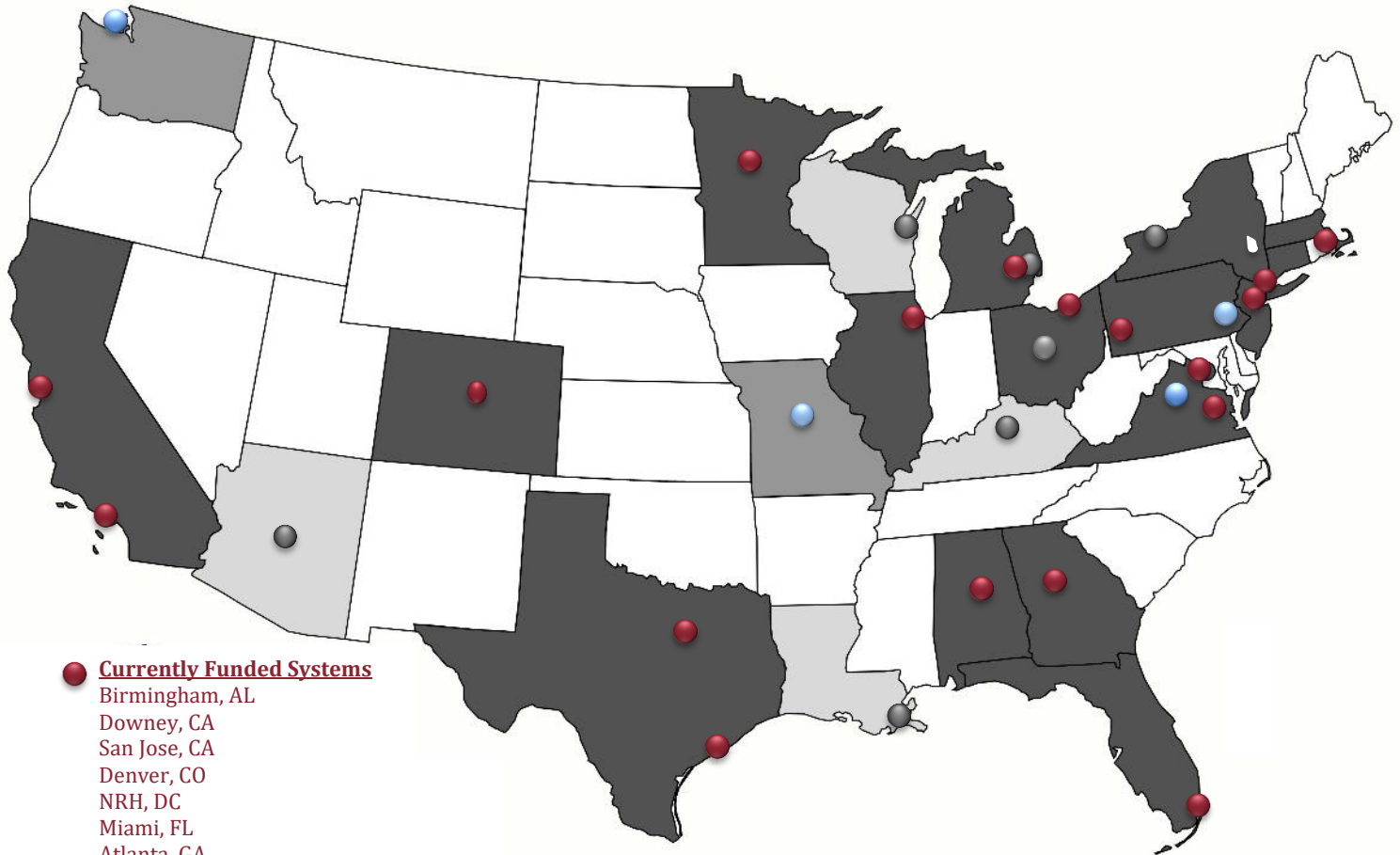# SCIMS 2022 Annual Report - Complete Public Version

**Currently Funded Systems**
Birmingham, AL
Downey, CA
San Jose, CA
Denver, CO
NRH, DC
Miami, FL
Atlanta, GA
Chicago, IL
Boston, MA
Ann Arbor, MI
Minnesota
West Orange, NJ
Mount Sinai, NY
Cleveland, OH
Pittsburgh, PA
Dallas, TX
Houston, TX
Richmond, VA

**Form II Collection**
Columbia, MO
Philadelphia, PA
Fishersville, VA
Seattle, WA

**Previously Funded Systems**
Phoenix, AZ
Louisville, KY
New Orleans, LA
Detroit, MI
NYU, NY
Rochester, NY
Columbus, OH
Milwaukee, WI

# THE 2022 ANNUAL STATISTICAL REPORT

# COMPLETE PUBLIC VERSION

# for the

# SPINAL CORD INJURY MODEL SYSTEMS

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The current grant cycle of the Spinal Cord Injury Model Systems (SCIMS) and the National Spinal Cord Injury Statistical Center (NSCISC) began on September 1, 2021 and ends on August 31, 2026. This report summarizes the activities pertaining to SCIMS data collection as well as database management and utilization that have occurred during the first year of the grant cycle. Data collection for the new cycle began 1 month before the end of the 2016 – 2021 grant cycle.

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 (NISCS) 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 18 federally-sponsored regional Spinal Cord Injury Model Systems located at a major medical centers throughout the United States. In each of the settings, SCI model 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 extensive quality control procedures that further enhance the reliability and validity of the database.

**Model SCI Systems**

Presently there are 18 systems and 3 follow-up centers sponsored by the National Institute of 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 Rehab Center
  Birmingham, AL 205-934-3283

- California
  Southern California Spinal Cord Injury Model System -- Rancho Los Amigos National Rehabilitation Center, CA 562-385-8111

  Northern California Spinal Cord Injury Model System of Care -- Santa Clara Valley Medical Center, San Jose, CA 800-352-1956

- Colorado
  Rocky Mountain Regional Spinal Injury System -- Craig Hospital, Englewood, CO 303-789-8306

- Washington D.C.
  National Capitol SCIMS at MedStar National Rehabilitation Hospital, Washington, DC. 202-877-1694

- Florida
  South Florida Spinal Cord Injury Model System --University of Miami, FL 305-243-3860

- Georgia
  Southeastern Regional Spinal Cord Injury Model System -- Shepherd Center, Atlanta, GA 404-353-2020

- Illinois
  Midwest Regional Spinal Cord Injury Care System – Shirley Ryan AbilityLab Chicago, IL 312-238 2802

- Massachusetts & Connecticut
  Spaulding New England Regional Spinal Cord Injury Center -- Spaulding Rehabilitation Hospital, Boston, MA 617-952-6174 and Gaylord Specialty Healthcare, Wallingford, CT 203-679-3563

- Michigan
  University of Michigan Spinal Cord Injury Model System, Ann Arbor, MI 734-763-0971

- Minnesota
  Minnesota Regional Spinal Cord Injury Model System, 612-626-5399 (Option 7)

- New Jersey
  Northern New Jersey Spinal Cord Injury System -- Kessler Institute for Rehabilitation and Keller Foundation, West Orange, NJ 973-324-3567

- New York
  Mount Sinai Hospital Spinal Cord Injury Model System -- Icahn of Medicine at Mount Sinai
  New York, NY 212-241-3084


- Ohio
  Northeast Ohio Regional Spinal Cord Injury System -- Case Western Reserve University
  Cleveland, OH 216-957-3562

- Pennsylvania
  University of Pittsburgh Spinal Cord Injury Model System, Pittsburgh PA 412-232-7949

- Texas
  Baylor Scott & White Spinal Cord Injury Model System, Dallas TX 214-820-9988

  Texas Model Spinal Cord Injury System – TIRR Memorial Hermann Houston, TX 713-797-5972

- Virginia
  Richmond Virginia Spinal Cord Injury Model System – Virginia Commonwealth University,
  VA 804-828-5232


**Follow-up Centers**

The following centers are former model systems and submit follow-up data.

- Pennsylvania
  Regional Spinal Cord Injury System of the Delaware Valley – Thomas Jefferson University
  Hospital and Magee Rehabilitation Hospital Philadelphia, PA 215-955-6579

- Missouri
  Columbia, Missouri (collected by NSCISC 205-934-3283)

- Virginia
  Fishersville, Virginia (collected by NSCISC 205-934-3283)

**Former and Non-participating SCI Systems:**
Data from currently non-participating SCI systems (Phoenix, AZ; Louisville, KY; New Orleans, LA; Detroit, MI; NYU, NY; Rochester, NY; Columbus, OH and Milwaukee WI) have been included.


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

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

Model System Knowledge Translations Center-Spinal Cord Injury
www.MSKTC.org/sci



**MSKTC**.org
SCI · TBI · BURN

Access Spinal Cord
Injury Resources

National Institute on Disability, Independent Living and Rehabilitation Research
https://www.acl.gov/programs/research-and-development

**NSCISC Web Site**

The NSCISC public information web pages include Frequently Asked Questions, National SCI Database information, life expectancy calculator, intercultural resources, publications, and documents that are available free of charge to anyone in the world at any time via the internet. An analysis was done of the NSCISC domain using Google Analytics. Since November 2022, the NSCISC website averaged 2,192 visits per month, 79% of which were first time visitors. The majority (85%) were from the Americas, 8% from Europe, 3% were from Asia, and the rest were from other continents.

In November 2022, there were roughly 4,200 links on the internet to one or more pages of the NSCISC web site. The number of links to the NSCISC site by other sites as well as the replication of NSCISC data on other sites is a reflection of the value, usefulness, and clarity of the information offered by the NSCISC.

A Google search for "spinal cord injury" ranked UAB Spinal Cord Information Network website 15th in the list of top 20 websites among approximately 98 million results found. Other internet search engine such as Bing, listed these UAB websites in the top 10-15 results when searching for keywords similar to "spinal cord injury statistics". When using narrower search for "national spinal cord injury statistics", the NSCISC web site is number one and has related pages in the second and third results out of the 8.3 million results listed by Google. Moreover, almost all of the top 20 "national spinal cord injury statics" sites used data taken directly from the NSCISC website and for many of those sites the NSCISC statistical data were the only date provided.

Facts and Figures at a Glance reports demographic and high interest variables, such as cause of injury, occupational status, lifetime costs and life expectancy by categorical level of injury. The Journal of Spinal Cord Medicine publishes this report on a regular basis. The 2022 Facts and Figures is available in English and Spanish, along with historic Facts and Figures at a Glance, and have been archived on the NSCISC web site: Facts and Figures at a Glance.

Public versions of the NSCISC Annual Reports

The NSCISC edits Annual Statistical Reports for public use by removing the stratification of the data by SCIMS so that only aggregate information is published. Annual Reports for years 2021 – 2022, and end of cycle reports for 2006, 2011 and 2021 are available to the public on the NSCISC web site at NSCISC Reports.

Fact Sheets

The NSCISC is creating a set of informational fact sheets that summarize data and recent trends in spinal cord injury. The first of the set is entitled 'Recent Trends in Causes of Spinal Cord Injuries' and is posted for the public. This fact sheet is updated annually.

Quick Search Public Tools: Causes of SCI and Life Expectancy

To better serve NSCISC consumers, the Life Expectancy Calculator is a quick search too to provide an estimate for the life expectancy of a person with spinal cord injury who: is at least 2 years post spinal cord injury, has access to good healthcare, is not on a ventilator and has not-regained all normal feeling and movement, in which case life expectancy is considered the same as the general population.

These estimates should be interpreted cautiously. Life expectancy reflects the average experience of a group of similar individuals. Some individuals will not survive as long while others will survive longer. These estimates are based solely on the chosen factors below. Many other factors can also influence life expectancy and may need to be considered on a case by case basis.

All data submitted to the NSCISC for this cycle by November 11, 2022 are included in this report. In brief, the Form I dataset includes baseline demographic and clinical information of persons who met eligibility criteria and the Form II dataset includes sociodemographic and outcome data of Form I participants obtained at follow-up. In 1987, the Registry dataset was created to store limited baseline information of persons who did not fully qualify for enrollment.

As of November 11, 2022, the National SCI Database contained information on 36,275 Form I participants and 130,681 Form II records successfully collected from 30,245 participants by phone, in person, by chart review, or by mailed survey. Records with no collected data (those deemed 'Lost to Follow-up') are not included in these tables. The combined total of Registry, Form I, and Form II records in the National SCI Database is 182,471 records. (*Table 1:* **Total forms entered into the National SCI Database as of November 11, 2022***)*

## Increase in the Number of Records: Tables 2 – 4

**Table 2** reports the number of new records entered into the database since the last Annual Report on November 5, 2021. The number of Registry participants has increased by 354, the number of Form I records has increased by 602, and the number of Form II records has increased by 1,553 (excluding those deemed 'Lost to Follow-up').

Since the beginning of the 2021-2026 funding cycle, the number of Registry records has increased by 354, the number of Form I records has increased by 602, and the number of Form II records has increased by 1,553 (excluding those 'Lost to Follow-up') **(Table 3)**.

**Table 4** presents the total number of Form I participants who were admitted to the Model Systems since September 1, 2021 and the count and percentage of these participants who were admitted the day of or the day following the injury (classified as Day-1 Admissions). This information is provided because the reporting procedures implemented in November 1995 resulted in a substantial increase in the number of variables collected on participants who enter the System as Day-1 Admissions.

Nationally, 29.9% of participants admitted since September 1, 2021 have been Day-1 Admissions. System percentages range from 90.9% to 0.0%.

## Participants by Year of Injury and Year of Data Collection: Tables 5 – 9

The number of participants entered into the National SCI Database by years of injury are depicted in **Tables 5 - 7**. These tables represent Registry, Form I, and Form I Day-1 admission records. Again, data for non-funded, non-Form II systems are included in 'Other.'

In 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 participants entered into the database in both 1981 and 1982 is undoubtedly the result of this interruption. The decline in participants enrolled in the National SCI Database since 1984 is the result of fewer Systems being funded by NIDILRR than in previous years.

**Table 5** presents the number of Registry participants enrolled by year of injury. The data reflect the historical changes in the SCIMS program. In 1987, criteria for enrollment in the National SCI Database were changed by restricting eligibility to participants 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 participants who no longer meet eligibility requirements for full data collection.

Variation in Form I participant enrollment is primarily due to three factors: number of funded Systems, eligibility criteria, and size of funded Systems (**Table 6**). The number of funded Systems changed in 1985, 1990, 2000, 2006 and 2022 (see chart immediately below) as a result of NIDDILR's competitive selection policy. Eligibility criteria were changed in 1987, restricting Form I enrollment, then in 2000, the eligibility criteria were changed to reflect pre-1987 requirements.

| Years | 1985-1990 | 1990-1995 | 1995-2000 | 2000-2006 | 2006-2011 | 2016-2021 | 2021-2022 | 2022-2026 |
|---|---|---|---|---|---|---|---|---|
| # of Systems | 13 | 13 | 18 | 16 | 14 | 14 | 14 | 18 |

'Date of Injury' and 'Date of Admission to System' data have been collected since 1973. **Table 7** 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 participants who entered the System the day of or the day following their injury (Day-1 admissions).

**Table 8** presents the total number of follow-up records in the database for each post-injury year. Totals do not include the Form II records that are coded 'Lost to Follow-up.'

**Table 9** presents the total number of follow-up records in the database for each post-injury year by calendar year of data collection. Prospective Form II follow-up data collection began in 1975, originally on a yearly basis. From 1996 through September 2000, Form II was collected in post-

injury years 1, 2, 5, and 10 and every 5 years thereafter for all participants, except for a sample of 125 participants from each System for whom a reduced set of Form II data was collected every year. To further reduce the workload, beginning in October 2000, Form II data collection was no longer required at year 2, with one exception: if a participant 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. In addition, the collection of Form II data yearly from 125 participants per System was terminated. The decrease in the number of Form II records for off-years reflects such changes in the frequency of follow-up data collection. The date on which a record is first entered into the database has been documented since October 1986. Data reported to the database between 1975 and 1986 were thus combined as one group in the table.

## Participant Status: Tables 10

**Table 10** describes the current status of Form I participants. The status is in a hierarchical order. For example, 'Deceased' supersedes all other codes. Of the 36,275 Form I participants reported to the database since 1972, 34.6% were deceased, 6.7% reached neurologic recovery, 3.7% withdrew consent, and the identity of 2.3% was lost due to break in funding; 52.7% are still eligible for Form II follow-up.

## Cause of Death: Table 11

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 contains and has much longer follow-up on individual patients through use of the Social Security Death Index (SSDI), Equifax Nationwide Death Search, on-line obituaries, and the National Death Index (NDI). The Collaborative SCI Survival Study database includes Form I and Registry participants as well as other patients who were treated at an SCI Model System but are not in the National SCI Database. The Collaborative SCI Survival Study database 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, published in 1995. Therefore, these data represent an update of the 1992 estimates provided in that book chapter as well as an update of the 2021 Annual Report.

Primary cause of death for the 17,987 deceased participants in the Collaborative SCI Survival Study database appears in **Table 11.** Only persons admitted to a System since 1973 and treated at a System within 1 year of injury were included in this analysis. The number of deaths with unknown causes is high because searches of the NDI for causes of death have only been conducted through 2017. As a result, there are still 3,601 (20.0%) persons whose primary cause of death is unknown, and these were not included in the calculation of any percentages.

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In participants for whom cause of death is known, diseases of the respiratory system were the leading cause of death (65.1% of these were cases of pneumonia). The second leading cause of death was infectious and parasitic diseases. These were usually cases of septicemia (90.5%) and were usually associated with decubitus ulcers, urinary tract infections, or respiratory infections. Also included in this category were 86 cases of AIDS (5.0%). Cancer ranked third, followed by hypertensive and ischemic heart disease. Specific locations of cancer included lung (392 cases, 25.1%), followed by bladder (141 cases, 9.0%); colon/rectum (134 cases, 8.6%); prostate (84 cases, 5.4%); and liver (66 cases, 4.2%). Other heart disease ranked fifth; however, these cases were often unexplained heart attacks (36.6%, ICD10CM code I46.9) that usually do not represent a true underlying cause of death. Rather, such cases 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, suicide, and diseases of pulmonary circulation (91.7% of which were cases of pulmonary emboli). Pulmonary emboli usually occurred prior to first definitive discharge.

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, these categories do include persons involved in fatal events following discharge. If the 140 cases of subsequent trauma of uncertain nature were divided proportionately between the following three categories, then an additional 89 unintentional injuries, 40 suicides, and 11 homicides would have taken place.

Within the first year after injury, the top five leading causes of death were respiratory diseases (30.9%), other heart diseases (13.7%), infective and parasitic diseases (9.5%), pulmonary circulation diseases (8.8%), and hypertensive and ischemic heart diseases (6.7%). Among people who survived the first year after injury, respiratory diseases were the leading cause of death (19.9%), followed by infective and parasitic diseases (12.4%), cancer (11.9%), hypertensive and ischemic heart diseases (10.9%), and other heart diseases (7.4%).

## Long-Term Survival: Tables 12

**Table 12** presents cumulative survival for the Collaborative SCI Survival Study database. Only persons injured since 1973 and treated at a System within 1 year of injury were included in this analysis. Data from currently non-participating Systems are included in the national table.

Patients were considered 'Withdrawn Alive' if: 1) a follow-up form (Form II) for 2020 or later was submitted, indicating the patient was known to be alive, 2) the patient's follow-up was discontinued due to neurologic recovery or transfer to another System, or 3) searches performed in 2021 did not indicate a reported death. The proportion of patients who died in each post-injury year ranged

from 4.48% in year 1 to 1.74% in years 5, 6, and 10.    Annual death rates for those who survived the first post-injury year averaged 2.58% and increased over time as the population aged.

The cumulative 10-, 20-, 30-, and 40-year survival rates for patients with an SCI were 80.68%, 65.81%, 51.41%, and 37.34%, respectively.    Median (50%) survival for the total sample is estimated to occur at 31 years after injury.    However, because of the high proportion of losses to follow-up, as well as the known under-reporting of SCI 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.

## Standardized Mortality Ratios: Tables 13 – 14

Standardized mortality ratios (SMRs) for the Collaborative SCI Survival Study database by neurologic level of injury, ASIA Impairment Scale (AIS) grade, and current age appear in **Table 13**. The AIS is used to quantify the degree of residual neurologic function.    All persons who were admitted within 1 year of injury to a System since 1973 and survived at least 24 hours after injury were included in this analysis.    Comparable SMRs for persons who survive the first post-injury year appear in **Table 14**.    For each neurologic category and age group, the observed number of deaths was compared to an expected number of deaths based on observed length of follow-up and age-sex-race-specific mortality rates for the general U.S. population in 2003 using methods outlined in detail by Smart and Sanders [1].    The year 2003 was chosen because it was the mid-year of follow-up for the SCI population.    All follow-up data through 2021 were used.

Differences in calculated SMR values between **Tables 13 and 14** increase with increasing injury severity due to the much higher first-year mortality rates among more severely injured persons. The SMR is statistically significant for all neurologic groups in both 24-hour and 1-year survivors. Among 1-year survivors, those who are ventilator-dependent and less than 31 years of age have 50.0 times greater mortality than persons of the same age, sex, race, and length of follow-up who do not have an SCI, while persons who have an AIS D injury and are at least 61 years of age, regardless of injury level, have only 1.56 times greater mortality than their counterparts without an SCI.

## Life Expectancy: Tables 15 – 16

Life expectancies for SCI patients who survived at least 24 hours after injury, by age at injury (in 5-year intervals) and neurologic level and extent of lesion, appear in **Table 15**.    Comparable estimates for persons who survived the first post-injury year, by current age, appear in **Table 16**. These life expectancy estimates were calculated based on applying the SMR values from **Tables 13 and 14** to the life table for the U.S. general population in the year 2020.

Prior to 2016, life expectancy estimates contained in NSCISC annual reports were based on applying a constant SMR for each neurologic group to all ages.    That was the method used by

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SCI researchers when the NSCISC began making these calculations. However, as sample sizes and lengths of follow-up increased, it became clear that the SMR decreased significantly as age increased. Therefore, this method (the use of a constant SMR with advancing age) typically results in an overestimation of life expectancy at younger ages and an underestimation of life expectancy at older ages, particularly for more severely impaired persons. As a result, more recent reports of life expectancy based on the SMR method use age-specific SMR values for each neurologic group, such as those appearing in **Tables 13 and 14**. Until 2016, the NSCISC continued to report life expectancy estimates in its annual reports based on a single SMR for each neurologic group to maintain consistency and facilitate evaluation of trends over time. However, the NSCISC believes the benefits of comparability to recently published studies combined with enhanced precision of life expectancy estimates derived from using age-specific SMRs now outweigh the benefits of maintaining consistency with previous methods of calculation. Therefore, since 2016, life expectancy estimates have been based on age-specific SMRs.

Most life expectancy estimates contained in this annual report are slightly lower than those contained in the 2020 annual report due to slightly higher age-sex-race-specific SMR values. This should not be interpreted to imply that life expectancies have changed as current estimates are well within the previous confidence limits. Readers interested in more precise estimates are referred to the NSCISC website life expectancy calculator that includes other risk factors such as sex, cause of injury and health insurance status; separates age, injury levels and AIS grades more precisely; and takes any historical trends in life expectancy into account by using the more flexible and statistically powerful method of person-year multiple logistic regression. Methods for estimating life expectancy that are used by the NSCISC website calculator are detailed in two articles by Strauss et al.[3] and DeVivo[4].

Life expectancies for persons with SCI remain substantially below normal, particularly for persons with tetraplegia and ventilator dependency. Moreover, although mortality rates during the first post-injury year have decreased steadily since the 1970s, annual mortality rates after the first post-injury year have not changed since the early 1980s. Therefore, although general population life expectancy is increasing, life expectancy for persons with SCI who have survived the first year after injury has remained relatively constant, and the gap in life expectancy between persons with SCI and the general population of comparable age, sex, and race, is increasing.

Values in these tables should be considered rough estimates of life expectancy of individual persons because the neurologic categories are rather broad. At a 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), AIS grade, length of survival that has already occurred after injury, and to a lesser extent, etiology of injury, gender, race, education, and access to care (availability of good insurance coverage or other financial resources)[2]. Significant co-morbidities (cancer, heart disease, diabetes, etc.) should also be considered when present[3].

## Form II Follow-up Status: Tables 17-20

**Table 17** describes the type of medical care being provided to the participant. Out of 200,771 records, 35.4% of participants came into a System for an appointment during the follow-up window (18 months). The variation between Systems in the category of 'System Appointments' was distinct, ranging from 16.3% to 56.3%. The coding category of 'Future Follow-up Not Required' is for those participants who achieve minimal deficit, 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.

**Table 18** categorizes the type of follow-up by participants grouped according to post-injury year. Including those 'Lost' due to break in funding, the percentage of eligible participants lost to follow-up ranged from 16.7% for post-injury year 1 participants to 62.7% for post-injury year 20 participants. Prior to coding a Form II as 'Lost,' the following minimal tracking activities are required: 1) SSDI, Genealogy, or other death search sites are checked for record of death; 2) System records are searched for recent activity and updated contact information; 3) at least two free internet searches and a fee-based search are conducted, if available; 4) viable phone numbers are called at least six times at different times of the day and week; and 5) a Form II Survey is mailed to a viable address.

**Table 19** documents the reasons why follow-up data are not obtainable for those participants whose category of follow-up care is 'Lost.' This 'Reason for Lost' variable was added to the database in January 1998 with four categories, including the 'Other' category used to determine if expanded coding categories will be needed in the future. In 2007, the 'Refused/Withdrawn' code was separated into two codes to allow participants a choice to refuse this interview (and be contacted in the next cycle) or to withdraw from the study and not be contacted again unless re-consented. The 'Identity Unknown' code was included in 2009 to be used by Systems in identifying participants whose identity is no longer available due to the break in funding. To help specify the reason for 'Unable to Contact,' the following five codes were added to the database in October 2011: 1) 'Contact made but survey not completed,' 2) 'Attempted contact but language barrier prevented collection,' 3) 'Attempted contact but moved out of country,' 4) 'No contact - Apparently valid contact information,' and 5) 'No contact - No valid contact information.' The 'Identity unknown to NSCISC' code was also added in October 2011 for participants enrolled by de-funded Systems, whose identity may still be known at the enrolling System but is not available to the NSCISC for data collection.

Before October 2011, once a Form II was submitted as 'Lost,' future follow-up was still pursued but no additional Form II coded 'Lost' was required at next follow-up if that participant was still 'Lost.' This policy was changed in the 2016-2021 grant cycle. The submission of a Form II for previously lost participants is now required for the eligible anniversary year (1, 5, 10, 15, etc.) unless participants died, reached neurologic recovery, or withdrew consent, or their identifying information was lost. To fill gaps in the existing database, approximately 33,846 Form II records

were inserted to reflect the 'Lost' status at the beginning of the 2011-2016 cycle, and the reason for lost was either coded as 'Break in funding' for unfunded Systems or 'Unknown' for funded Systems. This explains why a large percentage was reported as 'Unknown.'

**Table 20** presents a System analysis of how interviews were conducted; this variable has been collected since 1996. Analysis was performed on required follow-up years only (1, 5, 10, etc.). Of the 52,338 records, 71.2% were conducted by phone, with percentages ranging by System from 36.4% to 89.6%. Self-administered (mailed) interviews were conducted 9.2% of the time, with percentages ranging by System from 0.0% to 27.8%. Of all interviews, 8.4% were conducted in person, with percentages ranging by System from 0.6% to 58.7%. Nationally, 7.8% of all interviews used a combination of the methods (i.e., in-person, by phone, and/or by mail/email/online), with percentages ranging by System from 0.0% to 38.4%.

# Part III

# Descriptive Analysis of the National SCI Database: Tables 21-190

## 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 participant 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 of the following tables is restricted to analysis of national aggregate data and intersystem variability within the database.

Starting in 1995, revised Form II reporting procedures required submission of Form IIs for all participants in post-injury years 1, 2, 5, and 10, and every 5 years thereafter. Beginning in October 2000, Form II data collection was no longer required at year 2, with one exception: if a participant 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 number of records in all the other post-injury years. Therefore, most of the Form II analyses are restricted only to post-injury years 1, 5, 10, 15, 20, 25, 30, 35, 40 and 45.

## Lost and Unknown Categories

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

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

## Cross-sectional versus Longitudinal Analysis

Changes in percentages or mean scores over post-injury years must be interpreted cautiously. This is a cross-sectional analysis, and the participants at post-injury year 30 are not the same as those at post-injury year 1, for example. Part of the increase or decrease in scores over time could be due to differential survival of persons with better health or care as well as due to differential loss to follow-up. A truly accurate assessment of changes over time will require a longitudinal approach and multivariate analysis.

## 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 participant values cluster around the mean). If data are normally distributed, 95% of all observed values will fall within 1.96 S.D.s of the mean.

## Age at Injury: Tables 21 – 23

The cumulative frequency distribution of age at injury is depicted in **Table 21**.    Five participants were less than 1-year-old, while one was 99 years old. The most common age at injury was 19 years. Nearly a quarter (22.7%) of all injuries occurred between the ages of 17 and 22 years, nearly half (46.4%) of all injuries occurred between the ages of 16 and 30, and 12.7% of all injuries occurred at age 60 or older. Some descriptive statistics for the age at injury distribution are shown in **Table 22**.    Mean (S.D.) age for all participants was 36.1 (17.4) years, with the mean age for participants in each System ranging from a low of 31.0 years to a high of 54.3 years.

**Table 23** reflects a consistent trend toward older age at time of injury.    The mean age at injury has increased from 28.7 years in 1972-1979 to 43.4 years in 2015-2019. This trend reflects in large part a similar trend in the average age of the U.S. population. However, underlying changes in age-specific SCI incidence rates, changing locations of Systems, and changing referral patterns to Systems may also be contributing to the trend toward older age at injury for persons in the database.

## Sex: Table 24

The number of SCI participants by sex/gender is shown in **Table 24**.    Overall, 80.3% of all reported SCIs occurred among males. There was very little variability among Systems with regard to the composition of the participant populations by sex.    Among Systems, the proportion of male participants ranged from a low of 71.4% to a high of 86.9%.

## Race: Tables 25 – 29

The number of SCI participants by race is shown in **Table 25**. There was substantial variability among Systems: the proportion of Caucasian participants ranged from 34.5% to 90.6%, while the proportion of African Americans ranged from 4.1% to 53.7%.    Across Systems, the highest proportion of Native American Indians was 7.1% and the highest proportion of participants of Asian descent was 6.3%. High percentages of unknowns (4.7%) in the 'Race' variable are due to a database conversion process that occurred in 1995.    When the '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 this variable, the 'No' code was inserted and their original race code was retained.

It should not be inferred from these data that the incidence of SCI was higher among whites than non-whites.   On the contrary, most participants are white because whites compose by far the largest segment of the U.S. population.   In fact, other studies have demonstrated conclusively that the SCI incidence rate is highest among non-whites[5].

Overall, 10.1% of respondents endorsed 'Hispanic Origin' (**Table 26**). By System, the percentage ranged from 0.0% to 51.4% out of a total of 36,275 records.

**Table 27** depicts Hispanic origin by race: 3.5% reported as Hispanic Caucasian and 0.4% reported as Hispanic African American out of a total of 36,275 records.

The trends over years in racial groups (**Table 28**) reveal an increase in the percentage of participants who identify as African American (from 14.2% in 1972-1979 to 27.4% in 2020-2022). Also, there has been a slight increase in the percentage of participants who identify as Asian/Pacific Islander (from 0.9% in 1972-1979 to 2.8% in 2020-2022), while the percentage of participants who identify as Caucasian has decreased (from 76.8% in the 1972-1979 to 59.8% in 2020-2022).

Analysis of the trends in participation by those of Hispanic origin by year of injury (**Table 29**) shows a 6.8% increase in Hispanic participation into the 1990s (6.0% in 1972-1979 to 12.8% in 1990-1994). The most current time frame, however, shows that participation by those of Hispanic origin decreased to 8.6% in 2005-2009 then increased to 16.8% in 2020-2022.

This trend is due in small part to trends in the U.S. general population.   Periodic changes in participating Systems, changes in eligibility criteria for inclusion into the National SCI Database, and changes in referral patterns to Systems are also partly responsible for this racial trend. However, changes in underlying race-specific SCI incidence rates are also likely.


## Etiology: Tables 30 – 36

**Table 30** ranks the national causes of injuries and then separates by sex. For males and females, the three leading causes of SCI were the same: auto accidents, falls, and gunshot wounds.

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

Significant sex-specific differences are evident in six etiologies: auto accidents (males 28.2%; females 45.8%); gunshot wounds (males 16.7%; females 9.3%); motorcycle accidents (males 7.1%; females 2.2%); diving accidents (males 6.4%; females 2.4%); hit by falling/flying objects (males 3.2%; females 0.8%) and medical/surgical complications (males 2.3%; females 5.3%).

It should be noted that the all-terrain vehicles/ all-terrain cycles (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.

The group etiology categories reported in **Tables 31 – 36** are as follows:

'<u>Vehicular</u>' includes: Automobiles (includes jeeps, trucks, dune buggies, and buses; Motorcycles (2-wheeled, motorized vehicles, including mopeds and motorized dirt bikes); Boats; Fixed-wing aircraft; Rotating-wing aircraft; Snowmobiles; Bicycles (includes tricycles and unicycles); ATV and ATC (includes both 3-wheeled and 4-wheeled vehicles); and Other vehicular, unclassified (includes tractors, bulldozers, go-carts, steamrollers, trains, road graders, forklifts).

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

'<u>Sports</u>' 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); Rodeo (includes bronco/bull riding); Track and field (includes pole vault, high jump, etc.); Field sports (includes field hockey, lacrosse, soccer, and rugby); Hang gliding; Air sports (includes parachuting, para-sailing); Winter sports (includes sled, snow tube, toboggan, ice hockey, snow-boarding); Skateboarding; and Unclassified (includes auto racing, glider kite, slide, swimming, bungee jumping, scuba diving, roller-blading, jet-skiing, cheerleading, etc.).

'<u>Falls</u>' also includes jumping and being pushed accidentally (not as an act of violence).

'<u>Medical/surgical Complication</u>' is defined as "Impairment of spinal cord function resulting from adverse effects of medical, surgical or diagnostic procedures and treatment."

'<u>Other</u>' includes: Hit by falling/flying object (includes ditch cave in, avalanche, rockslide); Pedestrian (includes falling/jumping into the path of a vehicle); and all other unclassified injuries.

The percentage of injuries in each etiology group appears in **Table 31**. Overall, 'Vehicular' ranked first in the National SCI Database (41.7%) and first in elven Systems, where 'Falls' ranked first in six Systems (38.5%, 40.0%, 33.3%, 29.4%, 45.5% and 30.8%, respectively), and 'Violence' ranked first in one System (45.2%).

'Falls' ranked second nationally (23.3%) for eight Systems; 'Vehicular' ranked as the second most frequent etiology in seven Systems (30.6%, 23.8%, 36.7%, 30.8%, 27.6%, 28.1% and 28.9%, respectively). 'Violence' ranked third nationally (17.0%) and second in three Systems (20.3%, 28.0%, and 24.6%).

The percentage of injuries in each etiology group by age at injury is depicted in **Table 32**. Vehicular accidents were the predominant cause of SCI in participants up to 45 years of age. After

age 45, falls were the leading cause of SCI. The percentage of SCIs resulting from sports and violence declined with advancing age, while the percentage resulting from falls and medical/surgical complications increased proportionately.

**Table 33** depicts the percentage of injuries in each etiology group by sex. The percentage of injuries resulting from vehicular accidents, violence, and sports differed by sex. Females were more likely to be injured by a vehicular accident (females, 50.8%; males, 39.4%), but violence and sports were more likely the cause of male injuries (males, 18.4% and 11.0%, respectively; females, 11.2% and 5.6%, respectively).

**Table 34** depicts the percentage of injuries in each etiology group by race. Vehicular accidents were the leading cause of injuries across all races except for African Americans, for whom violence was the leading cause.

**Table 35** shows the percentage of injuries in each etiology group by Hispanic origin. Vehicular accidents and violence were the most common causes of injuries for those of Hispanic origin (36.1% and 30.3%, respectively), whereas, vehicular accidents accounted for 42.4% and violence accounted for only 15.4% of injuries among those of non-Hispanic origin.

Although vehicular accidents continue to be the leading cause of SCI (**Table 36**), the percentage declined from 46.9% in the 1970s to 35.8% during 2020-2022. The percentage of injuries due to falls has increased gradually and consistently since the 1970s, and falls currently account for 29.6% of all SCIs. Injuries due to acts of violence peaked in the 1990-1994 period (28.9%), declined to 14.0% in the 2015-2019 and then increased to 18.3% in 2020-2022. Sports-related SCIs declined from 14.4% during the 1970s to 9.1% since 2020. Medical and surgical complications account for a small percentage of all injuries, but this percentage increased gradually from 1.2% in the 1970s to 4.7% during 2005-2014. These trends are mainly due to the aging of the U.S. population but are also in part due to changing locations of the Systems, changing referral patterns to these Systems, changes in underlying incidence rates, or a combination of these factors.

## Work Relatedness: Table 37

This variable was added to the database in October 2000, and only records entered after January 1, 2001, are included in **Table 37**. Of the 15,775 available records, 9.4% had a work-related SCI. The percentage of participants at each System with a work-related SCI ranged from 2.9% to 13.7%.

## Marital Status: Tables 38 - 40

**Table 38** depicts marital status at injury. The code 'Living with significant other' was added to the database in October 2011. It is not surprising, given the young age at which most injuries occur, that half of the participants in the database were single/never married (50.2%) at the time of injury. Substantial intersystem variability was noted in the single/never married category, from 33.3% to 64.1%. While the percentage of divorced participants ranged from 5.3% to 21.4%.

**Table 39** shows a steady increase across post-injury year categories in the percentage of participants who endorsed 'Married' (from 32.5% of post-injury year 1 participants to 49.5% of post-injury year 45 participants) or 'Divorced' (from 10.9% of post-injury year 1 participants to 23.6% of post-injury year 30 participants). The percentage of participants in the 'Single, never married' category ranged from 48.6% of those at post-injury year 1 to 20.0% of those at post-injury year 45.

**Table 40** reflects all changes since the last Form II with a known marital status code (or since Form I if there is no Form II marital status). 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. Marital status was relatively stable over time. 'No Change' was reported for 92.3% of post-injury year 1 participants and for 83.4% of post-injury year 30 participants.

## Level of Education: Tables 41 - 42

The highest level of formal education completed at time of injury appears in **Table 41**.   More than 60% (excluding 'Other') of the participants were at least high school graduates at the time of injury, whereas more than 80% were at least 19 years of age at injury and would normally be expected to have completed high school. Approximately one tenth (7.8%) of participants had an eighth grade education or less, whereas only about 2% were less than 15 years of age at injury and would normally be expected to have an eighth grade education or less.

The proportion of participants with an eighth grade education or less ranged by System from 1.2% to 21.7%. Overall, 5.3% of the participants had an unknown level of education, suggesting some Systems are having substantial difficulty collecting this information.

In **Table 42**, level of education is shown to be higher in participants at later post-injury years than in those with more recent injuries. Overall, 70.7% of post-injury year 1 participants had completed at least a high school education, compared with 94.3% of post-injury year 45 participants.

## Occupational Status & Job Census Code: Tables 43 - 46

The Occupational Status tables review the primary occupational, educational or training status of the participant 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 is shown in **Table 43**.   Nationally, 58.4% of participants were reportedly working at the time of injury.   Among Systems, this was the most common occupational status reported, ranging from 67.9% to 40.0%.

The national rankings for the other most commonly reported occupational status categories ranked in order as follows: 'Unemployed' (15.1%), 'Student' (13.8%), and 'Retired' (8.0%).

**Table 44** shows an increase in the percentage of working respondents over the post-injury years, from 12.8% of post-injury year 1 participants to 33.4% of post-injury year 25 participants, then declining in later years to 24.3% for post-injury year 45 participants. 'Retired' increases across post-injury years' whereas the percentage reporting 'Unemployed' decreased over the post-injury years (from 53.3% of post-injury year 1 participants to 20.0% of post-injury year 40 participants).

## Weeks Worked: Table 45

**Table 45** identifies the number of weeks worked in the last 12 months (or since injury if less than 12 months after SCI) at the time of the follow-up interview. A year-round job is 52 weeks regardless of vacation or sick leave taken. Work includes any civilian work for pay or profit or worked without pay on a family operated farm or business. For those working, the total average weeks worked was 27.1 at post injury year 1, weeks worked increased until post injury year 30 (45.2), then declined to 36.5 weeks worked at post injury year 45.

Job Census Code **Tables 46 and 47** reflect data entered into the database since January 1, 2001. At injury, over one third of respondents (38.4%) reported 'Not Working' and ranges across centers from 26.4% to 53.3%. The second most reported category was 'Precision, production, craft and repair,' at 8.2%. There was very little variability across Systems for other types of work. **Table 47** shows Job Census Code by post-injury year. 'Not Working' was reported by 82.4% of respondents at post-injury year 1 then decreased to 65.2% for post-injury year 25 participants. The percentage of participants in the 'Management, business and financial' category increased over the post-injury years (from 3.8% of post-injury year 1 participants to 8.9% of post-injury year 35 participants).

## Veteran Status & VA Health Care Services Used: Tables 48 - 49

Veteran status analysis includes Form I records entered after January 1, 2001. This variable documents whether or not the participant is a veteran of the U.S. military forces (i.e., Air Force, Army, Coast Guard, Marine Corp or Navy). **Table 48** shows only 8.0% of Form I participants are veterans.

**Table 49** identifies the participants' use of Veteran Administration (VA) health care services since last follow-up. VA services data have been collected since October 31, 2000. A small percentage of participants used VA services for health care, ranging from 4.0% of post-injury year 1 participants to 5.2% of post-injury year 40 participants.

## Primary Payer: Tables 50 - 51

**Table 50** documents the participants' primary payer of medical costs during inpatient stay. This care includes hospitalization, outpatient medical and rehabilitation services, vocational rehabilitation, education, training, equipment, medications and supplies, attendant care and custodial care but does not include income maintenance (unemployment payments). 'Primary' is defined as the organization that pays first. 'Private Insurance' ranked first during the period of initial hospitalization, providing support for about half (49.7%) of the participants. Medicaid provided support for more than one fourth (26.9%) of the participants during this same period.

Primary payers by post-injury year appear in **Table 51.** 'Private Insurance' ranked first among participants at post-injury years 1 and 5 (44.0% and 32.0%, respectively). However, the proportion of participants receiving Medicare benefits increased substantially across post-injury years, from 9.2% of post-injury year 1 participants to 63.3% of post-injury year 45 participants. The proportion of participants receiving Medicaid support decreased steadily through all post-injury years.

The high number of records coded as 'Unknown/missing' and therefore excluded in Tables 49 and 50 is a result of the historical changes in data collection. Sponsors of care data were collected from 1973 to September 2006, with up to five entries for sponsors. Beginning in 1987, coding position #1 (position #1 is the first of five entries) was designated for the primary payer with no order for the following 4 positions. For records prior to 1987 that had more than one entry, all codes were moved down one position, and the 'Unknown' code was inserted in coding position #1. In 2006, the 'Sponsor of care' variables were retired. In October 2011, a single primary payer variable was added back to the database and 'Primary Sponsor of Care' was converted to 'Primary Payer.'

## Family Household Income Level at Time of Injury: Table 52

**Table 52** categorizes the income level of the family members living in the same household as the participant. FFamily members are defined as household members 15 years old and over, related to the respondent by birth, marriage, or adoption were included. Overall, about one quarter (22.2%) of participants endorsed income of less than $25,000, with System variability ranging from 7.1% to 71.3%. About one fifth (23.3%) of participants had income of $75,000 or more, ranging from 5.1% to 46.8%. Participant responses of 'Decline to answer' or 'Participant doesn't know' constituted 17.2%, making the total unknown rate of response above 20%.

## Family Income: Table 53

**Table 53** categorizes the income level of the family members living in the same household as the participant by post-injury years. The incomes of all family members 15 years old and over, related to the respondent by birth, marriage or adoption and living in the household were included. The proportion of participants with family income less than $25,000 ranged from 39.1% to 42.3% for participants in post-injury years 1 - 20, but declined for those in post-injury years 25, 30, 35, 40,

and 45 (40.8%, 37.3%, 32.2%, 27.6%, and 19.6%, respectively). Approximately 16.0% of post-injury year 1, 5, 10, and 15 participants reported Family income of $75,000 or more, and increased across the remaining years, to 34.8% of post-injury year 45 participants.

The 'Family income' variable was first added to the database in 1996, as one of the items included in the Craig Handicap Assessment and Reporting Technique (CHART) economic self-sufficiency subscale. Use of the CHART economic self-sufficiency subscale was discontinued after September 2006. The 'Family income' variable, however, was added to the database in October 2011. To a large extent, these historical changes explain the high number of unknown/missing data in this variable.

## Injuries & Spinal Surgery: Table 54 - 56

**Table 54**, Vertebral Injury documents spinal fractures and/or dislocations that occurred at the same time as the SCI. A spinal fracture or dislocation is defined as any break, rupture, or crack through or between any parts of the vertebral column from the occiput to coccyx. On average, 79.6% of participants had at least one vertebral injury, with percentages ranging by System from 53.6% to 92.8%.

Associated injuries are summarized in **Table 55**. This variable documents at least one of the following conditions: moderate to severe traumatic brain injury (Glasgow Coma Scale score of 12 or below), non-vertebral fractures requiring surgery, severe facial injuries affecting sensory organs, major chest injury requiring chest-tube or mechanical ventilation, traumatic amputations of an arm or leg or injuries severe enough to require surgical amputation, severe hemorrhaging, brachial plexus injury, or damage to any internal organ requiring surgery. This variable excludes associated injuries not listed, negative findings from exploratory surgeries, and injuries that pre-date the SCI. Associated injuries occurred in 36.8% of cases, ranging by System from 21.0% to 78.6%.

The 'Spinal Surgery' variable (**Table 56**) documents whether any of the following spinal surgical procedures were performed at any point during the inpatient hospitalization period following the SCI: laminectomy, neural canal restoration, open reduction, spinal fusion, or internal fixation of the spine. On average, 80.7% of participants underwent spinal surgery, ranging by System from 61.3% to 92.9%.

## Place of Residence: Tables 57 – 59

**Table 57** summarizes place of residence at the time of injury. This variable has been collected for System admissions since December 1, 1995. In October 2000, 'Convent, monastery, or other religious order' was added to 'Group Living Situation.' In October 2011, a new code, 'Assisted Living,' was added. At the time of injury, the majority (97.9%) of participants were living in a private residence, which includes house, apartment, or individual residence in a retirement village. There is very little variability between Systems.

Place of residence at discharge is shown in **Table 58**.    Most participants (87.4%) discharged to a private residence.    The proportion of participants discharged to a private residence ranged by System from 69.3% to 94.0%.

**Table 59** shows place of residence across post-injury years. By far, private residence was most common, ranging from 91.6% for post-injury year 1 participants to 97.0% for post-injury years 30 and 35 participants. The percentage of those reporting nursing home residences decreased across years, from 3.9% of post-injury year 1 participants to 1.3% of post-injury years 40 participants.

## Days Hospitalized at Acute Unit: Tables 60 – 62

**Table 60** depicts median days from injury to System admission by year of injury. Median days from injury to System admission were at the peak (20 days) in 1972-1979 and at the lowest (1 day) in 1990-1999. A change in eligibility criteria implemented in January 1987 resulted in a decrease in median days from injury to System admission. 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 1 year of admission). For the recent years (2020-2022), the longest median duration from injury to System admission is 17.0 days at one System and six Systems had a median of 1 day from injury to System admission.

Database revisions in November 1995 resulted in the separation of the single 'Length of stay' variable into 'Acute care length of stay' and 'Rehabilitation care length of stay.' Data on the length of stay 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 two tables (Tables 61 and 62) include records for those patients who were admitted to the system within 1 day of their injury (Day-1s Only).

**Table 61** reflects median days spent in acute care by year of injury. Median acute care length of stay has declined from 24 days in 1972-1979 to 11 days in 2010-2019.

**Table 62** depicts median days hospitalized in the acute care unit by year of injury and by neurologic level and extent of lesion (neurological category). 'Neurologic category at discharge' documents the level and extent of the lesion at discharge. Minimal deficit groups were added in 1987, and retrospective updates were allowed but not required. Participants with complete tetraplegia injuries typically had the longest acute stays (an average of 25 days for all years), while participants with minimal deficits had the shortest stays. The decrease in median acute length of stay over the past five decades is noted across various levels of neurological category. Minimal deficit categories ('Paraplegia, Minimal Deficit' and 'Tetraplegia, Minimal Deficit') were added in October 1987 to better describe participants with minimal or no neurologic deficit. Retrospective updates were allowed but not required for minimal deficit categories.

## Days Hospitalized at Rehabilitation: Tables 63 – 66

The next four tables document the median rehabilitation length of stay for people with SCI that were: 1) admitted to system within 1 day of their injury (Day-1s Only, **Tables 63 and 65**) and 2) all people admitted to rehabilitation, regardless of Day-1 status (**Tables 64 and 66**).

Among people with SCI admitted to system within 1 day of their injury, the median rehabilitation length of stay has declined over the last five decades, from 98 days in 1972-1979 to 31 days in 2015-2019 (**Table 63**). Among people admitted to rehabilitation, regardless of Day-1 status, the median rehabilitation length of stay has also decreased from 91 days in 1972-1979 to 41 days in 2020-2022 (**Table 64**).

**Table 65** shows that, among people with SCI that were admitted to a System within 1 day of their injury, the median days hospitalized in the rehabilitation unit were greatest for participants with complete tetraplegia (an average of 92 days for all years), ranging from 142 days in 1972-1979 to 35 days in 2020-2022. For those with incomplete paraplegia, the rehabilitation length of stay ranged from 68 days in 1972-1979 to 26 days in 2015-2019.

Including all people admitted to rehabilitation, regardless of Day-1 status, the median days hospitalized in the rehabilitation unit were greatest for participants with complete tetraplegia (an average of 92 days for all years), ranging from 122 days in 1972-1979 to 55 days in 2020-2022 (**Table 66**).    For those with incomplete paraplegia, the rehabilitation length of stay ranged from 68 days in 1972-1979 to 32 days in 1995-1999 and around 34 days since 2000.

## Neurologic Level at Discharge: Tables 67 - 70

The proportion of participants with cervical, thoracic, lumbar, and sacral levels of injury at discharge is presented in the next four tables. To determine a single neurologic level of injury, the most rostral (highest) sensory and motor level on the left and right side at discharge was used. Percentages presented in all four tables were calculated based on the total number of records (cervical, thoracic, lumbar and sacral = 33,856 records).

Overall, 54.9% of participants had cervical lesions at discharge, 34.7% had thoracic lesions, 10.1% had lumbar lesions, and 0.4% had sacral lesions. Close to half (45.4%) of the participants in the database were discharged with cervical lesions at C4 (15.7%), C5 (14.9%), C6 (9.9%), or C7 (4.9%). The next most common levels of lesion at discharge were T12 (6.0%) and L01 (4.7%).

## Neurologic Categories: Tables 71 - 74

'Neurologic category at discharge,' which documents the level and extent of lesion at discharge, is separated into paraplegia complete, incomplete, or minimal deficit, and tetraplegia complete, incomplete, or minimal deficit. As above, minimal deficit groups were added in 1987, and retrospective updates were allowed but not required.

**Table 71** shows that, at the time of discharge, most participants had neurologically incomplete tetraplegia (33.0%), followed by neurologically complete paraplegia (23.5%), neurologically incomplete paraplegia (18.5%), and neurologically complete tetraplegia (18.1%).

Neurologic categories at discharge by etiology group are depicted in **Table 72**. Neurologically incomplete tetraplegia ranked first for etiologies of vehicular accidents (33.4%), sports (48.1%) and falls (42.9%). Neurologically complete paraplegia ranked first (41.4%) for SCIs resulting from violence. Neurologically incomplete paraplegia ranked first (46.5%) in SCIs resulting from medical/surgical complications. Interestingly, 83.8% of all sports-related injuries resulted in tetraplegia, while 67.1% of all violence-related injuries resulted in paraplegia.

The neurologic category at discharge grouped by year of injury is depicted in **Table 73**. Both tetraplegia complete and paraplegia complete injuries have declined since the 1970s (25.3% and 27.7%, respectively) to current levels (10.8% and 16.9%, respectively, in 2020-2022).

Neurologic data in **Table 74** were collected from only those participants who completed a clinical System neurologic exam. This exam may be conducted from 6 months prior to the first anniversary of the injury to 6 months after the first anniversary. At the year 1 exam, neurologically incomplete tetraplegia ranked first (20.7%), followed by neurologically complete paraplegia (17.7%), neurologically incomplete paraplegia (13.4%), and neurologically complete tetraplegia (12.7%).

## ASIA Impairment Scale: Tables 75 – 80

As mentioned above, the AIS, formerly known as the Frankel Grade, is used to quantify the degree of residual neurologic function. The next six tables report AIS grades, at rehabilitation admission and System discharge, and by cervical, thoracic, lumbar, and sacral levels.

**Table 75** depicts the proportion of participants with each AIS grade at discharge. Nationally, 'Complete (A)' injuries at discharge constitute the largest category (41.6%), and 'Functional Motor Incomplete (D)' injuries constitute the second largest category (29.5%). One System has the highest rates of 'Complete (A)' injuries (57.4%), whereas one System has the highest rate of 'Functional Motor Incomplete (D)' injuries (50.0%).

AIS grade at admission to acute care, admission to rehabilitation, and discharge from the System appears in **Table 76** (for Day-1 Admissions only). The collection of data regarding neurologic function at admission to rehabilitation began October 31, 2000, and accordingly, the values in the 'Rehabilitation admission' column were generated from a smaller 'known value' sample. Between acute admission and System discharge, the proportion of participants declined in three out of the four categories ('Complete (A),' 'Sensory Incomplete (B),' and 'Non-functional Motor Incomplete (C)'). Conversely, the percentage of participants with injuries in the 'Functional Motor Incomplete (D)' category increased from 18.7% at acute admission to 32.3% at System discharge.

AIS grade by neurologic level of lesion at discharge appears in **Tables 77-79**.   Among persons with cervical lesions, neurologically complete (A) and functional motor incomplete (D) lesions were equally common. Thoracic lesions were more likely to be neurologically complete (A). Lumbar lesions were more likely to be functional motor incomplete (D).

**Table 80** depicts the proportion of participants with AIS grade at the first anniversary after the injury. These data require a System exam and can be collected from 6 months prior to the 1-year anniversary to 6 months after the anniversary. Of the participants with completed year 1 follow-ups, 30.4% had neurologically complete (A) injuries and 20.8% had functional motor incomplete (D) injuries.

## Motor Scores Tables 81 - 82

The ASIA motor score is a measure of motor function, ranging from 0 to 100, used to document neurologic recovery. The 'Motor Score' variable was added in 1986 and data collection at the time of admission to rehabilitation was added in 1993. The analyses for Tables 81 and 82 used data entered since October 1993.

Mean motor scores (Day-1 Admissions only) at acute admission, admission to rehabilitation and first definitive System discharge appear in **Table 81**. Nationally, the mean score increased from 44.3 at System admission to 48.5 at rehabilitation admission and to 56.4 at discharge. A similar trend was observed at each System.

**Table 82** shows the mean motor scores (57.2 for all Systems combined) at 1 year post-injury. These data require a System exam and may be collected from 6 months prior to the 1-year anniversary to 6 months after the anniversary.

## Sensory Scores: Table 83 – 86

The sensory and summary scores, as described in the International Standards for Neurological Classification of Spinal Cord Injury guidelines, were measured by testing 28 key dermatomes on each side (right and left) from C2 to S4-5, with scores ranging from 0 (no sensation) to 2 (intact). The total maximum score for light touch and pin prick on the left and right is 56 each (total 112 on the right and 112 on the left). The associated table averages excluded records categorized as 'No exam.' These variables were added October 1, 2011, and were collected at three time points: rehabilitation admission, System discharge, and post-injury year 1 exam. Comparison of the averages must be interpreted cautiously as multiple factors impact System differences.

**Table 83** shows the mean total light touch score at rehabilitation admission was 65.5. Mean System scores at rehabilitation admission ranged from 53.6 to 86.0. The mean Light Touch Total at System discharge was 70.9, and mean System Light Touch Total scores ranged from 61.9 to 89.2.

**Table 84** shows the mean Pin Prick Total score at rehabilitation admission was 57.1. Mean System Pin Prick Total at rehabilitation admission ranged from 45.4 to 75.5. The mean Pin Prick Total at System discharge was 62.0, and mean System Pin Prick Total scores ranged from 52.4 to 74.3.

**Tables 85 and 86** show descriptive statistics for Light Touch and Pin Prick Total Scores at post-injury year 1. The mean Light Touch Total score for all Systems was 69.2, and scores ranged from 32.6 to 78.6. The mean Pin Prick Total Score for all Systems was 64.3, and scores ranged from 34.8 to 76.8.

## Respirator Use: Tables 87 - 92

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 rehabilitation admission and at the time of System discharge.

In October 2016, 'Continuous positive airway pressure (CPAP) for sleep apnea' was added to the coding scheme. CPAP is coded when a mechanical device is used for chronic or obstructive sleep apnea. Mechanical devices include CPAP, Adaptive Servo Ventilation (ASV) or BiPAP when used specifically for sleep apnea.

In 2021, codes were updated to the International SCI Pulmonary Database. Existing records coded as 'Limited, short-term use for pulmonary/respiratory complications' and 'Ventilator-dependent or ventilator use requiring a weaning process' and 'Used mechanical ventilation, length of time and type unknown' were converted to 'Mechanical ventilation hours per day unknown and pacer unknown'. Two new codes were added, 'Diaphragmatic pacing device only' and 'Bi-level Positive Airway Pressure (BiPAP), external negative pressure devices, and other unclassified.'

Mechanical Ventilation is categorized as 'None'; 'Mechanical ventilation less than 24 hours per day with or without a Pacer'; Mechanical ventilation 24 hours per day with or without a Pacer'; and 'Mechanical ventilation hours per day unknown with or without a Pacer'; 'Phrenic nerve stimulator only'; 'Diaphragmatic pacing device only'; 'Bi-level Positive Airway Pressure (BiPAP), external negative pressure devices, and other unclassified'; and 'Continuous positive airway pressure (CPAP) for sleep apnea'. In Tables 87 – 92, respirator use does not include 'Continuous positive airway pressure (CPAP) for sleep apnea'.

**Tables 87-90** separate paraplegia (Table 87-88) from tetraplegia (Table 89-90) level lesions. Of the participants with paraplegia level lesions admitted to System rehabilitation, 5.2% required respirator assistance. Most persons with paraplegia were discharged with no respirator use (only 0.4% required respirator use at discharge). **Table 89-90** shows 19.0% of the persons with tetraplegia required the use of a mechanical respirator at the time of rehabilitation admission, whereas only 5.4% were discharged requiring a respirator. Intersystem variability in the proportion of persons with tetraplegia who required the use of a respirator at System rehabilitation admission was substantial, ranging from 0.0% to 33.7%.   The proportion of those with tetraplegia who were discharged requiring a respirator also varied considerably, ranging

from 0.0% to 16.9%. This variability may be partly attributed to whether Systems provide services for participants requiring mechanical ventilation.

**Table 91 and 92** shows the proportion of participants who required the use of a mechanical respirator 1 year post-injury.   Only 0.2% of participants in the paraplegia group and 3.4% of participants in the tetraplegia group still required the respirator 1 year post-injury.

## Method of Bladder Emptying and Bladder Collection Appliance: Tables 93 - 100

In September 2021, NSCISC updated Bladder Management codes to match the International Lower Urinary Tract Function Dataset version 2.0 and a conversion occurred for existing data that converted Bladder Management into 2 variables: Bladder Emptying and Collecting Appliance for Urinary Incontinence. Tables 93 - 100 represent the primary method of bladder emptying and bladder collection appliance being used at discharge and by participants grouped according to post-injury year.

**Tables 93 and 94** show the method of bladder emptying at System discharge, separated by sex. The most common discharge categories for males were ICP (45.1%), followed by normal micturition (17.7%), indwelling catheter- transurethral (14.2%), and bladder reflex triggering (12.8%). Most females were discharged with ICP (40.2%) as well, followed by indwelling catheterization- transurethral (26.6%) and normal micturition (21.6%). There is intersystem variation in bladder management. For example, suprapubic cystostomy is used more often in the one System than in the other Systems, regardless of sex.

**Table 95 and 96** show the method of bladder collecting appliance for urinary incontinence at System discharge, separated by sex. The majority of participants did not use an appliance (65.0% for males and 77.6% for females). The most common method of bladder collecting appliance was condom catheter (12.4%) for males and padded brief or pad (3.6%) for females.

**Tables 97 and 98** show the method of bladder emptying used by participants grouped by year post-injury, separated by sex. Because of increasingly short lengths of stay in rehabilitation, some males have not yet completed the ICP training and graduated to the use of condom catheter drainage before discharge. This trend is reflected by the decline in ICP use reported at post-injury year 1 and year 5 participants (34.9% and 30.6%, respectively) as compared to method of bladder emptying at discharge. The gradual decrease in normal micturition over time for both males and females may result from aging or individuals being increasingly less likely over time to return for follow-up.   The high percentages of male individuals with suprapubic cystostomies after year 20 is the result of a high proportion of records from a System, in which this is a more common method of management.

**Table 99 and 100** show the collection appliance for urinary incontinence by year post-injury, separated by sex. The percentage of condom catheter and sheath in males (ranging from 17.9% to 20.9%) and use of padded briefs or pad for females (ranging from 3.4%-6.8%) was fairly stable over the years.

## Bladder Incontinence: Tables 101 – 102

**Tables 101-102** document the average involuntary urine leakage (incontinence) since rehabilitation admission or up to 4 weeks and for the follow-up interviews, over the last 4 weeks. At rehabilitation, over half (56.2%) report no incontinence and one-quarter report (25.8%) report at least weekly incontinence. Across follow-up years, incontinence was stable; near 60% of respondents report no incontinence and around 20% report at least weekly incontinence.

## Bowel Management: Tables 103 – 110

**Tables 103-108** document the primary defecation method and bowel care procedures, the average frequency of bowel emptying, and average time required for each defecation since rehabilitation admission and within the last 4 weeks at each required follow-up year. During rehabilitation, most participants (44.5%) used suppositories as the primary method to empty the bowels and the second most used method was normal defecation (21.7%). Across post injury years, normal defecation declined from year 1 to year 45 post injury (35.1% to 20.5%, respectively). The use of suppositories decreased across post injury years (from 26.4% at year 1 post injury to 18.3% at post injury year 40) whereas digital stimulation increased (from 15.1% at post injury year 1 to 26.1% at post injury year 30). Colostomy increased from 4.6% at post injury year 1 to 17.6% at post injury year 45.

Over two-thirds (68.2%) of participants reported emptying their bowel at least once a day during rehabilitation (Table 105). Across years, **Table 106** shows a steady decline of daily defecation, from 49.6% at post injury year 1 to 28.6% at post injury year 45.

Over half (55.7%) of participants in rehabilitation reported it took less than 30 minutes to empty the bowel. Across Centers, this ranged from 28.6% to 77.6%. At follow-up interview, the proportion of participants reported less than 30 minutes decreased from 56.0% at post injury year 1 to 40.5% at post injury year 45.

In addition, **Tables 109-110** present the average frequency of incontinence to solid or liquid stools since rehabilitation admission or up to 4 weeks and for the follow-up interview, over the last 4 weeks. Most participants (61.3%) experienced fecal incontinence never or less than monthly at rehabilitation. About three-quarters of respondents report never or less than monthly experiencing fecal incontinence across post injury.

## Health Literacy at Injury: Tables 111

**Tables 111** document self-reported health literacy at the time of injury.   Participants 18 years old and older are asked to score their need for help reading hospital materials. The responses were scored on a 5 point Likert scale. Almost 60% never or rarely needed help reading hospital materials.

## Body Mass Index: Table 112-113

Height and weight have been collected since October 2006. Both measurements are taken near rehabilitation admission as well as at each Form II interview. Height may be collected by self-report but weight requires a calibrated scale measurement at a System exam, which results in a large number of missing data points for Table 113, as more than 70% of follow-up data were obtained by phone interviews or mail.

Weight and height were used to calculate body mass index (BMI; kg/m$^2$). Nationally, the mean BMI near the time of System rehabilitation admission is 26.8 (**Table 112**), ranging by System from 24.7 to 28.7. **Table 113** shows the mean BMI for each post-injury year. There was little variability in mean BMI across all post-injury years (range from 25.6 to 26.9).

## Pregnancies and Live Birth: Tables 114 – 117

For female participants 15 years old and older, the interviewer asks the number of pregnancies and number of live births. The number of pregnancies and live births prior to injury and at each post-injury year are presented in **Table 114-115** and **Table 116-117**, respectively. Since these variables were added in 2016, follow-up interviewers asked participants how many pregnancies and live births had occurred at the time of injury and these data were added to the National SCI Database retrospectively. Out of about 830 responses at injury, the mean number of pregnancies was 1.9 (**Table 114**) and live births was 1.5 (**Table 116**). From about 2,700 respondents across anniversary years, the total number of pregnancies hover near 2 and live births are between 1.2 and 1.5 (**Tables 115** and **117**).

## Medical Conditions: Tables 118 – 123

The next set of tables document self-reported hypertension, hyperlipidemia, and arthritis (osteoarthritis, rheumatoid arthritis, gout, lupus or fibromyalgia). During rehabilitation, participants are asked 'Prior to your spinal cord injury, has a health professional every told you that you have … ' At Form II follow-up interviews, participants are asked 'Currently, do you have or do you take medication for …'. Again, since these variables were added in 2016, follow-up interviewers asked participants about each condition at the time of injury and these data were added to the National SCI Database retrospectively. The results are presented in **Tables 118-123**. Most respondents endorse no hypertension (73.7%), no hyperlipidemia (80.7%), and no arthritis (80.7%) prior to injury. Respondents report an increase across anniversary years in all three conditions. For example, arthritis increased the most across anniversary years, from 20.6% at post injury year 1 to 45.4% at post injury year 40.

## Diabetes Diagnosis: Tables 124 – 125

These variables identify the self-reported presence of diabetes prior to the injury and at each required follow-up year. The interviewer asks *"Prior to your spinal cord injury, had you been told by a health professional that you have diabetes or high blood sugar?"* for Form I collection, and

*"Currently, do you have diabetes or high blood sugar?"* for Form II collection. The 'Diabetes' variable was added to the database for Form I and Form II in October 2011 and modified in October 2016. A code for 'Borderline/Impaired Glucose' was added September 2021, in previously collected data borderline is coded 'No'.

Prior to injury, 10.7% of participants had diabetes. In post-injury year 1 participants, the prevalence of diabetes is 10.4% and this prevalence rate is steady over the post-injury years with an increase for post-injury year 45 participants (16.2%).

## Urinary Tract Infection: Table 126

This variable identifies the self-reported frequency of a urinary tract infection requiring treatment with an antibiotic in the past 12 months. This variable was added to the Form II database in October 2011 and modified in October 2016 at which time codes were added to indicate frequency of UTI and existing data indicating a UTI occurred were converted to 'UTI Number Unknown'. Over one half of post-injury year 1 participants (53.7%) reported one or more urinary tract infections with antibiotic treatment (1 to 2 times, 14.5%; 3 to 5 times, 8.1%; > 5 times, 5.4%; or unknown times, 25.7%). The prevalence of urinary tract infection is fairly stable over the post-injury years.

## Pressure Ulcer: Table 127

This variable identifies the self-reported occurrence of a pressure ulcer of grade 2 or higher in the past 12 months. This variable was added to the database for Form II in October 2011. Among post-injury year 1 participants, 25.3% reported the occurrence of pressure ulcers since discharge from rehabilitation. The prevalence of pressure ulcer increased over the post-injury years to 38.1% for post-injury year 45 participants.

## Rehospitalizations: Tables 128 - 130

These variables document all rehospitalizations in all hospitals (i.e., System and non-System) that occurred during the 12 months prior to the date of the interview. Cause of rehospitalization was added in March 2001.

**Tables 128 and 129** show the total number of rehospitalizations and mean total days by post-injury year. By far, the majority of participants reported no rehospitalization across all post-injury year categories. Percentages ranged from 63.3% of post-injury year 1 participants to 72.3% of post-injury year 15 participants and slowly declines to 64.8% in post-injury year 45. Among those rehospitalized, the mean total of days hospitalized is fairly stable across post injury years ranging from 19.5 days for post-injury year 20 participants to 23.7 days for post-injury year 45 participants.

**Table 130,** Cause of Rehospitalization by Post-Injury Year, counts each episode of rehospitalization (up to 8) per participant. Diseases of the genitourinary system were the leading cause of rehospitalization during most post-injury years, ranging from 23.8% of 980 rehospitalization episodes for post-injury year 35 to 30.4% for post-injury year 1. Disease of the skin was the second most common cause of rehospitalization, ranging from 11.3% for post-injury year 1 to 20.5% for post-injury year 20. Other common causes of rehospitalization included respiratory, digestive, circulatory, and musculoskeletal diseases. The relatively high percentages of 'Other, Unclassified' causes suggest that additional categories may need to be identified for this variable.

## Depression: Table 131

**Table 131** documents a self-reported diagnosis of depression prior to the SCI (Form I). The interviewer asks *"Prior to your spinal cord injury, had you ever been told by a health professional that you have depression?"* Data are collected primarily by self-report and include major depression and clinical depression but exclude bipolar, adjustment disorder, grief and bereavement. This variable was added to the database for Form I in October 2011.

Overall, 14.4% of participants reported depression diagnosis prior to injury. System percentages ranged from 8.4% to 33.3%.

## Patient Health Questionnaire at Injury: Tables 132 – 135

The Patient Health Questionnaire-9 (PHQ-9) consists of nine questions reflecting the frequency of problems associated with possible depression. Each of the nine questions is scored from 0 (no problem) to 3 (nearly every day). Major 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 five 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. PHQ questions 3-9 were not required from October 2011 to September 2016, which explains the large percentage of unknown/missing data.

**Tables 132-133** depict the PHQ-9 frequency and percentage of persons with major or other depressive syndrome and the mean severity of depression score at initial rehabilitation. At injury, over 80% of respondents indicate no depressive syndromes and the total mean severity of depression score was 5.7 out of 27, ranging from 3.8 to 12.9.

**Table 134** depicts the frequency and percentage of persons with major or other depressive syndrome by post-injury year. Excluding unknown/missing/declined data, the percentage of persons with major depressive syndrome ranges from 11.1% for post-injury year 1 participants to 6.2% for post-injury year 35 participants. The percentage of persons with other depressive syndrome ranges from 10.5% for post-injury year 1 to 7.6% for post-injury year 20 participants.

**Table 135** depicts the mean severity of depression score by post-injury year category. This analysis includes records with scores of 0. Overall, mean depression severity scores varied slightly over the years, ranging from 7.2 for post-injury year 40 participants to 5.2 for post-injury year 25 participants.

## Sleep and Falls: Tables 136 and 140

**Tables 136 and 140** show the self-reported occurrence of sleep problems (including problems falling asleep and staying asleep) and falls in the past 12 months for each required follow-up year. About half of respondents had no problems sleeping or problems less than monthly and this was fairly stable across post injury years. Consistently across post injury years, about one quarter of participants experienced sleep problems daily or almost daily. The percentage of persons reported no falls in the last 12 months ranges from 45.3% for post-injury year 1 to 65.7% for post-injury year 45.

## Anxiety Diagnosis: Table 137

This variable documents self-reported diagnosis of anxiety prior to injury (Form I). The interviewer asks *"Prior to your spinal cord injury, had you ever been told by a health professional that you had post-traumatic stress disorder (PTSD), panic disorder or generalized anxiety disorder (GAD)?"* Data are collected primarily by self-report. When more than one diagnosis is reported, the first chronologic disorder is entered to the database. This variable was added to the database for Form I in October 2011.

Most participants (87.1%) had no anxiety disorder diagnosis prior to injury (**Table 137**). General anxiety disorder prior to injury was endorsed most often (6.6%), with System percentages ranging from 1.7% to 21.4%.

## Pain: Tables 138 - 139

The severity of pain score reflects the participant's self-reported usual level of pain over the past 4 weeks, on a scale of 0 to 10. These data were required after March 1, 2001. **Table 138** depicts the mean severity of pain score. The total mean usual level of pain did not vary across post-injury years through year 45, staying between 3.4 and 4.5. Furthermore, reported severity of pain scores did not vary substantially between Systems.

**Table 139** 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 National SCI 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 a little bit. The percentage of participants who reported pain interference as 'Not at all' was lowest (17.7%) for post-injury year 1 participants and highest, at 27.4%, for post-injury year 25 participants and decreasing after post-injury years 30 through 45 (27.2%, 25.9%, 24.8% and 22.9% respectively). Approximately 15%–20% of persons reported that pain interfered with work/routine 'Quite a bit' to 'Extremely' across all post-injury years.

## Self-Perceived Health Status: Tables 141 - 142

*"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 SF-36. If the interview is conducted at year 1, then the time frame is 'since rehabilitation discharge' instead of 'compared to a year ago.' This variable was added in May 1998. These questions are not collected from participants less than 18 years old.

**Table 141** depicts the participant's perception of their current health by post-injury year. Most post-injury Year 1 participants (32.2%) endorsed 'Good' and the fewest (5.5%) endorsed 'Poor.' Endorsements of 'Excellent' and 'Very good' increased slightly across post-injury years until post-injury year 25, then decreased slightly for participants in the post-injury years 30 through 40.

**Table 142** shows the participant's perception of their health compared to a year ago (for post-injury Year 1 participants, 'since rehabilitation discharge'). Over half of post-injury year 1 participants reported their health as 'Much Better' or 'Somewhat Better' (32.8% and 24.2%, respectively). However, reports of 'Somewhat Worse' health increased across post-injury years, from 7.4% for post-injury year 1 participants to 20.5% for post-injury year 35 participants.

## Alcohol Use Disorder: Table 143 – 144

The Alcohol Use Disorders Identification Test-Concise (AUDIT-C), a 3-item alcohol screening instrument that helps identify persons who are hazardous drinkers or have an active alcohol use disorder. Generally, the higher the score, the more likely it is that the patient's drinking is affecting his or her safety. The three items are: *How often do you have a drink containing alcohol? How many standard drinks containing alcohol do you have on a typical day?* And *How often do you have six or more drinks on one occasion?* Scores for the three items are summed; men who score 4 or greater and women who score 3 or greater are considered as having an alcohol use disorder.

**Table 143** depicts the alcohol use disorder in the 12 months prior to injury (Form I). Forty percent of participants met the criteria for alcohol use disorder during the year prior to injury, with percentages ranging from 16.4% to 52.8%.

**Table 144** shows the alcohol use disorder in the 12 months prior to the follow-up interview by post-injury year. Percentages ranged from 25.1% of post-injury year 1 participants to 32.0% of post-injury year 35 participants.

## Substance Use: Tables 145 – 162

The Alcohol, Smoking and Substance Involvement Screening Test (ASSIST) was developed for the World Health Organization (WHO) as a technical tool to assist with early identification of substance use related health risks and substance use disorders in primary health care, general medical care and other settings. Prescribed substances are included when taken at a higher dose or more frequently than prescribed. Cannabis is included regardless of local legality or prescription. **Tables 145-162** identify up to 9 substances (Tobacco, Cannabis, Cocaine, Amphetamine type stimulants, Inhalants, Sedatives or Sleeping pills, Hallucinogens, Opioids, and Other) used by participants at least 18 years old in the last 3 months prior to the injury and in the last 3 months before the follow-up interview.

- In the 3 months prior to injury, one-quarter of participants used tobacco products daily or almost daily. In the 3 months prior to the follow-up interview, participants used tobacco products daily or almost daily from post anniversary year 1 (14.2%) increased to year 15 (18.0%) then decreased in following post injury years (year 45, 11.0%).
- Participants reported cannabis use at least weekly by about 21.0% of participants 3 months prior to injury (daily or almost daily (14.7%) and weekly (6.0%)). Similarly, at follow-up participants reported cannabis use at least weekly around 20% from post injury years 1 through 25, then decreased slightly in following years (Year 45, 13.8%).
- Except for sedatives, all other drugs were reportedly used at least weekly by less than 2% of participants prior to the injury and the follow-up interview rates were lower than prior to injury (Form I).
- Use of sedatives at least weekly prior to the injury was less than 1% but at the follow-up interview, rates were near 5% from post injury years 1 through 30, after which use drops slightly.

## Satisfaction with Life: Table 163

This table reflects the mean total score measuring the concept of life satisfaction based on the participant'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; and 4. So far I have gotten the important things I want in life."* 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 4 to 28; higher scores imply more satisfaction with life.

Only records entered into the database after 1995 for participants age 18 or older were used in this analysis. Nationally, mean life satisfaction total score increased across the post-injury years, from 15.8 for post-injury year 1 participants to 20.3 for post-injury year 45 participants.

## SCI-QOL Resilience: Tables 164

**Tables 164** describes resilience, as defined by the Spinal Cord Injury Quality of Life measure (SCI-QOL Resilience), by each post-injury year. Participants 18 years old and older were asked to rate the frequency of 8 resilient behaviors: "I had a positive attitude", "I felt good about how I have coped with my injury", "I used positive ways to cope with my injury", "I felt I can get through difficult times", "I tried to see the positive side of things", "I was confident that I could overcome my limitations", "I took action to improve my life", and "I found new things to enjoy". The System auto-calculated T score (ranging from 0 to 100) and Standard Error, though only the T Score is represented in this report.

T-Scores are stable across post injury years with a slight increase ranging from 51.1 at post injury year 1 to 53.4 at post injury year 35.

## CHART: Tables 165 - 168

The Craig Handicap Assessment and Reporting Technique (CHART) questionnaire is widely used in measuring societal participation for persons with disabilities. CHART data were added to the National SCI Database in November 1995. The questionnaire is administered at follow-up to individuals who are 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 included in the database was changed to the short form that consists of only 20 questions and includes a sixth subscale (cognitive independence). CHART data collected from 1996 through 2000 were converted to the short form 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 165** depicts the mean CHART physical independence subscale score by post-injury year for each System. The mean physical independence score increased across post-injury years, from 71.8 for post-injury year 1 participants to 86.6 for post-injury year 40 participants. However, there was considerable intersystem variability in physical independence scores. For example, for post-injury year 1 participants, mean physical independence scores by System ranged from 54.3 to 85.9.

**Table 166** depicts the mean CHART mobility subscale score by post-injury year. The mean mobility score shows little variability across years, ranging from 73.0 for post-injury year 1 participants to 78.1 for post-injury year 15 participants then scores declined slightly to 69.6 for post-injury year 45 participants.

**Table 167** depicts the mean CHART occupation subscale score by post-injury for each System. The mean occupation score increased across years, from 49.0 for post-injury year 1 participants to 64.0 for post-injury year 25 participants, then declined slightly to 52.8 for post-injury year 45 participants. However, there was considerable intersystem variability in occupation scores.   For example, mean occupation scores for post-injury year 1 participants by System ranged from 35.0 to 62.6. Although the occupation subscale includes other activities besides competitive employment, the trend over post-injury years in this subscale score is consistent with many previous studies of return to work after SCI that have shown a gradual increase in the employment rate over time.

**Table 168** depicts the mean CHART social integration subscale by post-injury year for each System. Social integration scores changed very little across years, ranging from the lowest of 84.8 (post-injury year 40 participants) to the highest of 86.6 (post-injury year 1).

## SCI-Functional Independence with Assistive Technology: Tables 169-182

SCI-Functional Independence with Assistive Technology (SCI-FI AT) is used among participants at least 18 years old. This measures the functional status in the following domains: basic mobility, self-care, fine motor, ambulation, manual wheelchair, and power wheelchair. The data is collected close to discharge during initial rehabilitation stay or up to 30 days' post-discharge and at post injury years. **Tables 169-170** document the collection method of the SCI-FI AT items. Three available methods are NSCISC Web Program, Desktop Program, and Short Form. Eighty-six percent of interviews used the Short Forms during inpatient rehabilitation. The follow-up interviews primarily used the Short Forms as well, ranging between 74.7% at post injury year 10 to 91.0% at post injury year 45.

T scores for each domain, ranging from 0-100, is presented in **Tables 171-182**. The total mean rehabilitation T Score for each domain was slightly lower than the total mean T Score at follow-up. Most domains decreased slightly after post injury year 30, except for Power Wheelchair domain which increased from post injury year 1 (43.8) to post injury year 45 (48.6). This may partly be due to manual wheelchair users transitioning to power wheelchairs in later years.

## Ambulation: Tables 183 - 185

**Tables 183-185** reflect ambulation ability by post-injury year. These three variables were added May 1, 2004, and reflect the yes/no responses to 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?*

Among 10,479 participants who were interviewed at 1 year post injury, 38.4% reported being able to walk for 150 feet at home, 33.0% reported being able to walk for one street block outside the home, and 32.7% reported being able to walk up one flight of stairs. The gradual

decrease in ambulation ability reported over post-injury years may be the result of aging or reduced follow-up as ambulation improves.

## Wheelchair Use: Tables 186 - 187

Variables in Tables 186 and 187 were added in May 2004. **Table 186** reflects the participants who use wheelchairs or scooters more than 40 hours per week by post-injury year. The use of wheelchairs tended to increase across the years, from 59.3% of post-injury year 1 participants to 79.5% of post-injury year 45 participants. The increase may be the result of aging or reduced follow-up as ambulation improves. **Table 187** identifies the most common type of wheelchair was 'manual' in all years, but use of power chairs increased across years, from 23.2% of post-injury year 1 participants to 36.2% of post-injury year 45 participants.

## Primary Mode of Transportation: Table 188

**Table 188** reflects the primary mode of transportation for trips away from home for each post injury year. Most participants reported using a private car, truck or van for transportation (71.9% at post injury year 1 to 84.8% at post injury year 40). The second most frequently used transportation was a special transit for people with disabilities (14.1% at post injury year 1 to 4.6 at post injury year 40).

## CARE Functional Ability: Table 189-190

**Table 189-190** CARE functional ability measure the need for assistance with self-care and mobility activities. The data was collected at rehabilitation admission and discharge. The Self-care is based on the participant's performance on 7 items, including eating, oral hygiene, toileting hygiene, shower/bathe self, upper body dressing, lower body dressing, and putting on/taking off footwear. The mobility items are roll left to right, site to lying, lying to sitting, sit to stand, chair/bed-to-chair transfer, toilet transfer, car transfer, walk 10 feet, walk 50 feet with two turns, walk 150 feet, walk 10 feet on uneven surface, 1 step/curb, 4 steps, 12 steps, picking up object, wheel 50 feet with two turns, and wheel 150 feet. The self-care total score (7 item scores) ranges from 7 (lowest) to 42 (highest) and mobility (15 item scores) ranges from 15 (lowest) to 90 (highest). Table 189 and 199 show the national mean total score of self-care and mobility increased from rehabilitation admission to discharge (14.0 to 28.1, and 23.1 to 51.9, respectively).

# Tables

**Table 1. Total Forms Entered into the National SCI Database as of November 11, 2022**

Form II excludes Lost to Follow-up

|  | Registry | Form I | Form II | Total |
|---|---|---|---|---|
| Total | 15,515 | 36,275 | 130,681 | 182,471 |

Footnote 1: Form II includes 30,245 participants with Follow-up records.

**Table 2. Number of New Records Entered into the National SCI Database since the Last Annual Report in November 2021**

Form II excludes Lost to Follow-up

|  | Registry | Form I | Form II | Total |
|---|---|---|---|---|
| Total | 354 | 602 | 1,553 | 2,509 |

**Table 3. Number of New Records Entered into the National SCI Database for 2021-2026 Funding Cycle**

Form II excludes Lost to Follow-up

|  | Registry | Form I | Form II | Total |
|---|---|---|---|---|
| Total | 354 | 602 | 1,553 | 2,509 |

**Table 4. Percentage of Form I Day-1 Admissions Entered into the National SCI Database for 2021-2026 Funding Cycle**

|  | Total Number of Form Is Entered | Total Day-1 Admissions | % Day-1 Admissions |
|---|---|---|---|
| Total | 602 | 180 | 29.9 |

## Table 5. 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 | 435 | 478 | 521 | 508 | 553 | 563 | 560 | 617 | 568 | 581 | 607 | 570 |

| | Year of Injury | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** |
| Total | 444 | 506 | 477 | 358 | 373 | 453 | 404 | 386 | 370 | 431 | 444 | 400 |

| | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** | **Total** |
| Total | 319 | 340 | 270 | 354 | 308 | 352 | 328 | 267 | 304 | 314 | 191 | 15,515 |

## Table 6. Number of Form I Patients by Year of Injury

(Continued)

| | Year of Injury | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1972** | **1973** | **1974** | **1975** | **1976** | **1977** | **1978** | **1979** | **1980** | **1981** | **1982** | **1983** | **1984** | **1985** | **1986** |
| Total | 3 | 220 | 402 | 579 | 684 | 822 | 848 | 1,005 | 1,130 | 818 | 749 | 1,155 | 1,097 | 977 | 931 |

(Continued)

| | Year of Injury | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1987** | **1988** | **1989** | **1990** | **1991** | **1992** | **1993** | **1994** | **1995** | **1996** | **1997** | **1998** | **1999** | **2000** | |
| Total | 662 | 628 | 645 | 597 | 705 | 650 | 654 | 689 | 638 | 735 | 754 | 729 | 767 | 674 | |

(Continued)

| | Year of Injury | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** |
| Total | 716 | 723 | 694 | 636 | 658 | 686 | 778 | 787 | 697 | 703 | 676 | 757 | 761 |

| | Year of Injury | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** | **Total** |
| Total | 753 | 752 | 663 | 748 | 770 | 770 | 621 | 602 | 377 | 36,275 |

Footnote 1: Enrollment criteria changed in 1987 and 2000.

## Table 7. Number of Form I Day-1 Admissions by Year of Injury

(Continued)

| | Year of Injury | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1972** | **1973** | **1974** | **1975** | **1976** | **1977** | **1978** | **1979** | **1980** | **1981** | **1982** | **1983** | **1984** | **1985** |
| Total | 1 | 72 | 103 | 178 | 196 | 238 | 229 | 293 | 359 | 262 | 221 | 463 | 435 | 331 |

(Continued)

| | Year of Injury | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1986** | **1987** | **1988** | **1989** | **1990** | **1991** | **1992** | **1993** | **1994** | **1995** | **1996** | **1997** | **1998** | **1999** |
| Total | 429 | 378 | 348 | 359 | 382 | 413 | 388 | 394 | 377 | 351 | 409 | 400 | 406 | 397 |

(Continued)

| | Year of Injury | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** |
| Total | 323 | 356 | 350 | 290 | 267 | 282 | 290 | 277 | 290 | 249 | 269 | 286 |

| | Year of Injury | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** | **Total** |
| Total | 254 | 274 | 258 | 273 | 239 | 252 | 232 | 269 | 226 | 189 | 120 | 14,927 |

Footnote 1: Enrollment criteria changed in 1987 and 2000.

## Table 8. Number of Form IIs by Post-Injury Year

Excludes Lost to Follow-up

(Continued)

| | Post-Injury Year | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** |
| Total | 27,485 | 12,971 | 9,533 | 8,122 | 15,714 | 5,895 | 5,044 | 4,163 | 3,441 | 9,469 | 2,119 | 1,567 | 1,122 | 885 |

(Continued)

| | Post-Injury Year | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **15** | **16** | **17** | **18** | **19** | **20** | **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |
| Total | 6,501 | 489 | 344 | 260 | 192 | 4,922 | 50 | 24 | 16 | 19 | 3,910 | 8 | 5 | 8 | 9 | 3,010 |

| | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **31** | **32** | **33** | **34** | **35** | **36** | **39** | **40** | **45** | **Total** |
| Total | 1 | 1 | 1 | 1 | 2,127 | 1 | 1 | 1,041 | 210 | 130,681 |

## Table 9. Number of Form IIs by Post-Injury Year and Calendar Year of Data Collection

Excludes Lost to Follow-up (Continued on next page)

| Post-Injury year | 1975-1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 7,512 | 981 | 693 | 451 | 427 | 590 | 521 | 582 | 529 | 485 | 506 | 571 |
| 2 | 5,999 | 808 | 723 | 443 | 381 | 457 | 333 | 555 | 440 | 390 | 407 | 466 |
| 3 | 4,669 | 681 | 624 | 540 | 390 | 399 | 275 | 396 | 445 | 361 | 245 | 199 |
| 4 | 3,635 | 597 | 496 | 445 | 421 | 434 | 263 | 368 | 306 | 350 | 254 | 211 |
| 5 | 2,921 | 408 | 430 | 361 | 328 | 472 | 254 | 328 | 300 | 242 | 335 | 389 |
| 6 | 2,277 | 384 | 254 | 323 | 280 | 381 | 295 | 305 | 295 | 217 | 114 | 220 |
| 7 | 1,713 | 405 | 248 | 205 | 258 | 354 | 257 | 345 | 260 | 204 | 107 | 112 |
| 8 | 1,268 | 305 | 279 | 220 | 141 | 280 | 221 | 289 | 301 | 211 | 92 | 89 |
| 9 | 935 | 239 | 208 | 228 | 167 | 181 | 210 | 222 | 269 | 234 | 89 | 104 |
| 10 | 634 | 211 | 147 | 186 | 174 | 202 | 146 | 226 | 216 | 234 | 259 | 231 |
| 11 | 364 | 176 | 139 | 152 | 121 | 186 | 135 | 140 | 194 | 179 | 21 | 57 |
| 12 | 148 | 146 | 110 | 132 | 107 | 132 | 129 | 141 | 118 | 160 | 12 | 11 |
| 13 | 35 | 81 | 100 | 105 | 92 | 107 | 93 | 134 | 124 | 99 | 9 | 5 |
| 14 | 0 | 35 | 59 | 96 | 71 | 100 | 70 | 115 | 128 | 112 | 7 | 17 |
| 15 | 0 | 0 | 29 | 57 | 80 | 98 | 112 | 83 | 103 | 140 | 180 | 224 |
| 16 | 0 | 0 | 0 | 24 | 38 | 83 | 53 | 75 | 69 | 91 | 18 | 6 |
| 17 | 0 | 0 | 0 | 0 | 14 | 32 | 67 | 57 | 72 | 59 | 13 | 5 |
| 18 | 0 | 0 | 0 | 0 | 0 | 11 | 25 | 70 | 49 | 64 | 7 | 7 |
| 19 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 26 | 63 | 47 | 2 | 20 |
| 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7 | 20 | 75 | 111 | 167 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 20 | 4 | 3 |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 4 |
| 23 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 26 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 30 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 32,110 | 5,457 | 4,539 | 3,968 | 3,490 | 4,499 | 3,463 | 4,464 | 4,304 | 3,976 | 2,794 | 3,123 |

Footnote 1: Date of each record first entered into the database (Indate) was added in 1986.

Footnote 2: Form II data collection frequency changed in 1995 and 2000.

## Table 9. Number of Form IIs by Post-Injury Year and Calendar Year of Data Collection

Excludes Lost to Follow-up (Continued on next page)

| Post-injury year | Calendar Year of Data Collection | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
| 1 | 590 | 548 | 454 | 476 | 434 | 490 | 592 | 472 | 457 | 516 | 616 | 537 | 667 |
| 2 | 467 | 468 | 389 | 45 | 18 | 30 | 31 | 15 | 10 | 9 | 18 | 13 | 20 |
| 3 | 87 | 113 | 48 | 26 | 1 | 3 | 8 | 1 | 1 | 2 | 6 | 2 | 2 |
| 4 | 197 | 64 | 60 | 5 | 2 | 2 | 0 | 1 | 0 | 1 | 5 | 1 | 0 |
| 5 | 348 | 279 | 296 | 305 | 272 | 243 | 272 | 300 | 338 | 423 | 382 | 322 | 338 |
| 6 | 230 | 162 | 119 | 14 | 1 | 1 | 2 | 1 | 0 | 0 | 7 | 2 | 3 |
| 7 | 213 | 174 | 142 | 32 | 1 | 0 | 1 | 1 | 1 | 1 | 3 | 2 | 0 |
| 8 | 100 | 174 | 160 | 22 | 4 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 0 |
| 9 | 82 | 98 | 139 | 20 | 7 | 6 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 10 | 212 | 192 | 181 | 239 | 212 | 169 | 188 | 196 | 190 | 296 | 311 | 250 | 268 |
| 11 | 88 | 82 | 57 | 13 | 2 | 4 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| 12 | 62 | 71 | 57 | 7 | 2 | 8 | 3 | 1 | 1 | 0 | 4 | 3 | 0 |
| 13 | 12 | 42 | 59 | 9 | 3 | 8 | 0 | 0 | 0 | 0 | 3 | 1 | 0 |
| 14 | 13 | 10 | 35 | 9 | 2 | 3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| 15 | 263 | 252 | 234 | 237 | 140 | 117 | 143 | 158 | 178 | 239 | 221 | 187 | 202 |
| 16 | 10 | 4 | 2 | 0 | 0 | 2 | 3 | 0 | 0 | 0 | 9 | 1 | 0 |
| 17 | 10 | 0 | 1 | 4 | 0 | 0 | 6 | 0 | 0 | 0 | 3 | 0 | 0 |
| 18 | 12 | 0 | 1 | 2 | 0 | 1 | 8 | 0 | 0 | 0 | 1 | 0 | 0 |
| 19 | 11 | 8 | 5 | 1 | 0 | 1 | 2 | 0 | 0 | 0 | 1 | 0 | 0 |
| 20 | 170 | 178 | 160 | 203 | 182 | 163 | 223 | 202 | 215 | 173 | 130 | 111 | 155 |
| 21 | 8 | 2 | 1 | 0 | 0 | 0 | 3 | 1 | 4 | 0 | 0 | 1 | 0 |
| 22 | 5 | 2 | 2 | 0 | 1 | 0 | 1 | 2 | 0 | 0 | 1 | 2 | 0 |
| 23 | 5 | 0 | 0 | 0 | 0 | 2 | 2 | 0 | 0 | 0 | 1 | 0 | 0 |
| 24 | 2 | 2 | 4 | 0 | 0 | 0 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| 25 | 6 | 55 | 105 | 155 | 131 | 142 | 178 | 196 | 166 | 219 | 209 | 178 | 217 |
| 26 | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 1 | 0 | 2 | 0 | 0 | 0 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 2 | 0 | 0 | 0 | 0 | 0 |
| 29 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 1 | 0 | 0 | 0 | 0 | 0 |
| 30 | 0 | 0 | 0 | 0 | 0 | 5 | 53 | 105 | 112 | 205 | 177 | 179 | 214 |
| 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 32 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 33 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 | 53 | 100 |
| 36 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 39 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 40 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 3,203 | 2,980 | 2,711 | 1,824 | 1,415 | 1,400 | 1,753 | 1,657 | 1,673 | 2,087 | 2,118 | 1,846 | 2,187 |

Footnote 1: Date of each record first entered into the database (Indate) was added in 1986.

Footnote 2: Form II data collection frequency changed in 1995 and 2000.

# Table 9. Number of Form IIs by Post-Injury Year and Calendar Year of Data Collection
Excludes Lost to Follow-up

| Post-injury year | Calendar Year of Data Collection | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Total |
| 1 | 539 | 381 | 650 | 671 | 648 | 570 | 595 | 626 | 644 | 585 | 465 | 414 | 27,485 |
| 2 | 12 | 8 | 4 | 1 | 4 | 1 | 1 | 0 | 1 | 4 | 0 | 0 | 12,971 |
| 3 | 1 | 1 | 2 | 1 | 0 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 9,533 |
| 4 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 8,122 |
| 5 | 331 | 367 | 459 | 430 | 487 | 335 | 452 | 420 | 495 | 462 | 370 | 220 | 15,714 |
| 6 | 1 | 1 | 2 | 2 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 5,895 |
| 7 | 0 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 5,044 |
| 8 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 4,163 |
| 9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 3,441 |
| 10 | 241 | 316 | 410 | 312 | 351 | 258 | 340 | 349 | 351 | 329 | 242 | 200 | 9,469 |
| 11 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2,119 |
| 12 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1,567 |
| 13 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1,122 |
| 14 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 885 |
| 15 | 175 | 238 | 253 | 226 | 251 | 216 | 284 | 336 | 282 | 236 | 175 | 152 | 6,501 |
| 16 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 489 |
| 17 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 344 |
| 18 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 260 |
| 19 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 192 |
| 20 | 140 | 222 | 201 | 225 | 249 | 168 | 233 | 180 | 216 | 160 | 165 | 118 | 4,922 |
| 21 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 |
| 22 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 24 |
| 23 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 24 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| 25 | 168 | 204 | 157 | 143 | 170 | 156 | 210 | 172 | 175 | 169 | 124 | 105 | 3,910 |
| 26 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 8 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| 28 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| 30 | 179 | 213 | 190 | 245 | 244 | 180 | 192 | 124 | 105 | 102 | 83 | 103 | 3,010 |
| 31 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 32 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 33 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| 35 | 105 | 183 | 185 | 154 | 241 | 166 | 176 | 159 | 220 | 159 | 125 | 95 | 2,127 |
| 36 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| 39 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| 40 | 0 | 1 | 9 | 38 | 113 | 101 | 138 | 109 | 174 | 153 | 110 | 95 | 1,041 |
| 45 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 11 | 40 | 44 | 63 | 51 | 210 |
| Total | 1,896 | 2,137 | 2,523 | 2,452 | 2,763 | 2,162 | 2,623 | 2,487 | 2,706 | 2,416 | 1,922 | 1,553 | 130,681 |

Footnote 1: Date of each record first entered into the database (Indate) was added in 1986.

Footnote 2: Form II data collection frequency changed in 1995 and 2000.

# Table 10. Form I Participant Status

| n (%) | Participant Status | | | | | | |
|---|---|---|---|---|---|---|---|
| | **Deceased** | **Neuro-recovery** | **With-drawn** | **ID unkn** | **Eligible** | **Eligible/ lost** | **Total** |
| Total | 12,562 (34.6) | 2,444 (6.7) | 1,328 (3.7) | 845 (2.3) | 12,461 (34.4) | 6,635 (18.3) | 36,275 |

*Footnote 1: Eligible/Lost: Eligible for follow-up, but last Form II coded lost (Category of Care=5).*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

# Table 11. Primary Cause of Death

| ICD10 Codes | Primary Cause of Death | Overall | ≤ 1 year | >1 year |
|---|---|---|---|---|
| J00-J99 | Diseases of the respiratory system | 3,078 (21.4) | 596 (30.9) | 2,482 (19.9) |
| A00-B99 | Infective and parasitic diseases | 1,729 (12.0) | 183 (9.5) | 1,546 (12.4) |
| C00-D48 | Neoplasms | 1,562 (10.9) | 82 (4.3) | 1,480 (11.9) |
| I10-I25 | Hypertensive and ischemic heart disease | 1,484 (10.3) | 129 (6.7) | 1,355 (10.9) |
| I00-I09, I30-I52 | Other heart disease | 1,189 (8.3) | 264 (13.7) | 925 (7.4) |
| S00-X59 | Unintentional injuries | 961 (6.7) | 53 (2.8) | 908 (7.3) |
| K00-K93 | Diseases of the digestive system | 697 (4.8) | 65 (3.4) | 632 (5.1) |
| I60-I69 | Cerebrovascular disease | 508 (3.5) | 62 (3.2) | 446 (3.6) |
| X60-X84 | Suicide | 425 (3.0) | 27 (1.4) | 398 (3.2) |
| I26-I28 | Disease of pulmonary circulation | 421 (2.9) | 170 (8.8) | 251 (2.0) |
| N00-N99 | Diseases of the genitourinary system | 413 (2.9) | 50 (2.6) | 363 (2.9) |
| E00-E90 | Endocrine, nutritional, metabolic and immunity disorders | 404 (2.8) | 31 (1.6) | 373 (3.0) |
| R00-R99 | Symptoms and ill-defined conditions | 393 (2.7) | 63 (3.3) | 330 (2.7) |
| G00-H95 | Diseases of the nervous system and sense organs | 295 (2.1) | 66 (3.4) | 229 (1.8) |
| I70-I79 | Diseases of the arteries, arterioles, and capillaries | 164 (1.1) | 26 (1.4) | 138 (1.1) |
| M00-M99 | Diseases of the musculoskeletal system and connective tissue | 163 (1.1) | 6 (0.3) | 157 (1.3) |
| F00-F99 | Mental disorders | 142 (1.0) | 16 (0.8) | 126 (1.0) |
| Y10-Y34 | Subsequent trauma of uncertain nature (unintentional/suicide/homicide) | 140 (1.0) | 11 (0.6) | 129 (1.0) |
| X85-Y09 | Homicides | 120 (0.8) | 8 (0.4) | 112 (0.9) |
| D50-D89 | Diseases of blood and blood-forming organs | 43 (0.3) | 4 (0.2) | 39 (0.3) |
| I80-I89 | Diseases of veins, lymphatics, and other diseases of the circulatory system | 25 (0.2) | 10 (0.5) | 15 (0.1) |
| Q00-Q99 | Congenital anomalies | 18 (0.1) | 1 (0.1) | 17 (0.1) |
| Y35 | Legal intervention | 2 (<0.1) | 0 (0.0) | 2 (<0.1) |
|  | All others | 10 (0.1) | 3 (0.2) | 7 (<0.1) |
|  | Total known causes of death | 14,386 (100.0) | 1,926 (100.0) | 12,460 (100.0) |
|  | Total unknown causes of death | 3,601 | 327 | 3,274 |
|  | Total deaths | 17,987 | 2,253 | 15,734 |

# Table 12. Cumulative Survival – National

| Years Post Injury | Patients Entered | Dead | Censored | Effective Number Exposed | Proportion Dead | Proportion Surviving | Cumulative Survival at Beginning of Interval |
|---|---|---|---|---|---|---|---|
| 0 - 1 | 55,638 | 2,253 | 10,283 | 50,496.5 | 0.0446 | 0.9554 | 1.0000 |
| 1 - 2 | 43,102 | 1,009 | 2,720 | 41,742.0 | 0.0242 | 0.9758 | 0.9554 |
| 2 - 3 | 39,373 | 696 | 912 | 38,917.0 | 0.0179 | 0.9821 | 0.9323 |
| 3 - 4 | 37,765 | 689 | 374 | 37,578.0 | 0.0183 | 0.9817 | 0.9156 |
| 4 - 5 | 36,702 | 639 | 762 | 36,321.0 | 0.0176 | 0.9824 | 0.8988 |
| 5 - 6 | 35,301 | 596 | 2,086 | 34,258.0 | 0.0174 | 0.9826 | 0.8830 |
| 6 - 7 | 32,619 | 584 | 995 | 32,121.5 | 0.0182 | 0.9818 | 0.8677 |
| 7 - 8 | 31,040 | 549 | 382 | 30,849.0 | 0.0178 | 0.9822 | 0.8519 |
| 8 - 9 | 30,109 | 558 | 269 | 29,974.5 | 0.0186 | 0.9814 | 0.8367 |
| 9 - 10 | 29,282 | 508 | 536 | 29,014.0 | 0.0175 | 0.9825 | 0.8211 |
| 10 - 11 | 28,238 | 566 | 1,426 | 27,525.0 | 0.0206 | 0.9794 | 0.8068 |
| 11 - 12 | 26,246 | 459 | 723 | 25,884.5 | 0.0177 | 0.9823 | 0.7902 |
| 12 - 13 | 25,064 | 479 | 182 | 24,973.0 | 0.0192 | 0.9808 | 0.7762 |
| 13 - 14 | 24,403 | 443 | 167 | 24,319.5 | 0.0182 | 0.9818 | 0.7613 |
| 14 - 15 | 23,793 | 516 | 339 | 23,623.5 | 0.0218 | 0.9782 | 0.7474 |
| 15 - 16 | 22,938 | 435 | 814 | 22,531.0 | 0.0193 | 0.9807 | 0.7311 |
| 16 - 17 | 21,689 | 441 | 612 | 21,383.0 | 0.0206 | 0.9794 | 0.7170 |
| 17 - 18 | 20,636 | 421 | 406 | 20,433.0 | 0.0206 | 0.9794 | 0.7022 |
| 18 - 19 | 19,809 | 404 | 369 | 19,624.5 | 0.0206 | 0.9794 | 0.6877 |
| 19 - 20 | 19,036 | 433 | 454 | 18,809.0 | 0.0230 | 0.9770 | 0.6736 |
| 20 - 21 | 18,149 | 386 | 671 | 17,813.5 | 0.0217 | 0.9783 | 0.6581 |
| 21 - 22 | 17,092 | 344 | 554 | 16,815.0 | 0.0205 | 0.9795 | 0.6438 |
| 22 - 23 | 16,194 | 387 | 437 | 15,975.5 | 0.0242 | 0.9758 | 0.6306 |
| 23 - 24 | 15,370 | 363 | 479 | 15,130.5 | 0.0240 | 0.9760 | 0.6153 |
| 24 - 25 | 14,528 | 308 | 602 | 14,227.0 | 0.0216 | 0.9784 | 0.6006 |
| 25 - 26 | 13,618 | 343 | 682 | 13,277.0 | 0.0258 | 0.9742 | 0.5876 |
| 26 - 27 | 12,593 | 299 | 775 | 12,205.5 | 0.0245 | 0.9755 | 0.5724 |
| 27 - 28 | 11,519 | 313 | 581 | 11,228.5 | 0.0279 | 0.9721 | 0.5584 |
| 28 - 29 | 10,625 | 280 | 568 | 10,341.0 | 0.0271 | 0.9729 | 0.5428 |
| 29 - 30 | 9,777 | 252 | 570 | 9,492.0 | 0.0265 | 0.9735 | 0.5281 |
| 30 - 31 | 8,955 | 252 | 637 | 8,636.5 | 0.0292 | 0.9708 | 0.5141 |
| 31 - 32 | 8,066 | 229 | 605 | 7,763.5 | 0.0295 | 0.9705 | 0.4991 |
| 32 - 33 | 7,232 | 179 | 438 | 7,013.0 | 0.0255 | 0.9745 | 0.4844 |
| 33 - 34 | 6,615 | 213 | 419 | 6,405.5 | 0.0333 | 0.9667 | 0.4720 |
| 34 - 35 | 5,983 | 201 | 472 | 5,747.0 | 0.0350 | 0.9650 | 0.4563 |
| 35 - 36 | 5,310 | 174 | 485 | 5,067.5 | 0.0343 | 0.9657 | 0.4404 |
| 36 - 37 | 4,651 | 147 | 439 | 4,431.5 | 0.0332 | 0.9668 | 0.4252 |
| 37 - 38 | 4,065 | 99 | 380 | 3,875.0 | 0.0255 | 0.9745 | 0.4111 |
| 38 - 39 | 3,586 | 116 | 361 | 3,405.5 | 0.0341 | 0.9659 | 0.4006 |
| 39 - 40 | 3,109 | 103 | 349 | 2,934.5 | 0.0351 | 0.9649 | 0.3870 |
| 40 - 41 | 2,657 | 98 | 440 | 2,437.0 | 0.0402 | 0.9598 | 0.3734 |
| 41 - 42 | 2,119 | 78 | 449 | 1,894.5 | 0.0412 | 0.9588 | 0.3584 |
| 42 - 43 | 1,592 | 35 | 292 | 1,446.0 | 0.0242 | 0.9758 | 0.3436 |
| 43 - 44 | 1,265 | 38 | 249 | 1,140.5 | 0.0333 | 0.9667 | 0.3353 |
| 44 - 45 | 978 | 42 | 270 | 843.0 | 0.0498 | 0.9502 | 0.3241 |
| 45 - 46 | 666 | 13 | 231 | 550.5 | 0.0236 | 0.9764 | 0.3080 |
| 46 - 47 | 422 | 11 | 178 | 333.0 | 0.0330 | 0.9670 | 0.3007 |
| 47 - 48 | 233 | 5 | 132 | 167.0 | 0.0299 | 0.9701 | 0.2908 |
| 48 - 49 | 96 | 1 | 95 | 48.5 | 0.0206 | 0.9794 | 0.2821 |
| Total | 55,638 | 17,987 | 37,651 | | | | |

Footnote 1: Patients entered = Number of individuals alive at start of interval.
Footnote 2: Dead = Number of individuals who died during the interval.
Footnote 3: Censored = Number of individuals alive at start of interval ineligible for further follow-up due to study termination or lost to follow-up (survival status was unknown) during the interval.
Footnote 4: Effective Number Exposed = Number of individuals exposed to risk of dying in interval (patients entered - 0.5 * censored).
Footnote 5: Proportion Dead = Conditional probability of death during the interval (dead / effective number exposed).
Footnote 6: Proportion Surviving = Conditional probability of surviving the interval (1- proportion dead).
Footnote 7: Cumulative Survival at Beginning of Interval = previous cumulative survival * proportion surviving previous interval.

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# Table 13. SMRs for Persons with SCI Surviving at Least 24 Hours Post-Injury

| Neurologic Group | Age Group | Actual Deaths | Expected Deaths | SMR | 95% Confidence Limits |
|---|---|---|---|---|---|
| Vent Dependent | 0-30 | 247 | 2.72 | 90.81 | 80.00 – 102.7 |
| | 31-45 | 219 | 5.19 | 42.20 | 36.88 – 48.07 |
| | 46-60 | 255 | 10.51 | 24.26 | 21.42 – 27.38 |
| | 61+ | 445 | 24.57 | 18.11 | 16.49 – 19.85 |
| C1-4 AIS A,B,C | 0-30 | 284 | 24.48 | 11.60 | 10.31 – 13.01 |
| | 31-45 | 779 | 66.62 | 11.69 | 10.89 – 12.54 |
| | 46-60 | 997 | 139.00 | 7.17 | 6.74 – 7.63 |
| | 61+ | 1,013 | 225.53 | 4.49 | 4.22 – 4.78 |
| C5-8 AIS A,B,C | 0-30 | 335 | 50.21 | 6.67 | 5.99 – 7.42 |
| | 31-45 | 1,009 | 148.68 | 6.79 | 6.38 – 7.22 |
| | 46-60 | 1,551 | 304.00 | 5.10 | 4.85 – 5.36 |
| | 61+ | 1,231 | 354.29 | 3.48 | 3.29 – 3.67 |
| T1-S3 AIS A,B,C | 0-30 | 443 | 82.23 | 5.39 | 4.90 – 5.91 |
| | 31-45 | 1,204 | 254.76 | 4.73 | 4.47 – 5.00 |
| | 46-60 | 1,684 | 524.08 | 3.21 | 3.06 – 3.37 |
| | 61+ | 1,681 | 712.99 | 2.36 | 2.25 – 2.47 |
| All Level AIS D | 0-30 | 117 | 44.14 | 2.65 | 2.20 – 3.17 |
| | 31-45 | 379 | 157.21 | 2.41 | 2.18 – 2.66 |
| | 46-60 | 945 | 490.00 | 1.93 | 1.81 – 2.05 |
| | 61+ | 2,210 | 1412.69 | 1.56 | 1.50 – 1.63 |

*Footnote 1: SMR= Standardized mortality ratio (Actual deaths/Expected deaths).*

# Table 14. SMRs for Persons with SCI Surviving at Least 1 Year Post-Injury

| Neurologic Group | Age Group | Actual Deaths | Expected Deaths | SMR | 95% Confidence Limits |
|---|---|---|---|---|---|
| Vent Dependent | 0-30 | 111 | 2.28 | 48.68 | 40.24 – 58.40 |
| | 31-45 | 113 | 4.69 | 24.09 | 19.95 – 28.86 |
| | 46-60 | 133 | 8.90 | 14.94 | 12.56 – 17.65 |
| | 61+ | 111 | 15.95 | 6.96 | 5.75 – 8.35 |
| C1-4 AIS A,B,C | 0-30 | 235 | 21.34 | 11.01 | 9.67 – 12.49 |
| | 31-45 | 721 | 63.41 | 11.37 | 10.56– 12.22 |
| | 46-60 | 888 | 130.61 | 6.80 | 6.36 – 7.26 |
| | 61+ | 772 | 204.19 | 3.78 | 3.52 – 4.06 |
| C5-8 AIS A,B,C | 0-30 | 274 | 44.40 | 6.17 | 5.47 – 6.94 |
| | 31-45 | 959 | 144.19 | 6.65 | 6.24 – 7.08 |
| | 46-60 | 1,457 | 296.79 | 4.91 | 4.66 – 5.17 |
| | 61+ | 1,077 | 337.22 | 3.19 | 3.01 – 3.39 |
| T1-S3 AIS A,B,C | 0-30 | 380 | 72.08 | 5.27 | 4.76 – 5.82 |
| | 31-45 | 1,140 | 246.54 | 4.62 | 4.36 – 4.90 |
| | 46-60 | 1,621 | 513.52 | 3.16 | 3.01 – 3.31 |
| | 61+ | 1,557 | 695.68 | 2.24 | 2.13 – 2.35 |
| All Level AIS D | 0-30 | 94 | 38.79 | 2.42 | 1.97 – 2.95 |
| | 31-45 | 366 | 150.89 | 2.43 | 2.19 – 2.68 |
| | 46-60 | 883 | 470.36 | 1.88 | 1.76 – 2.00 |
| | 61+ | 2,049 | 1346.93 | 1.52 | 1.45 – 1.59 |

*Footnote 1: SMR= Standardized mortality ratio (Actual deaths/Expected deaths).*

# Table 15. Life Expectancy for Persons with SCI Surviving at Least 24 Hours Post-Injury

| Age at Injury | No SCI | AIS D Any Level | AIS ABC T1-S3 | AIS ABC C5-C8 | AIS ABC C1-C4 | Vent Dependent Any Level |
|---|---|---|---|---|---|---|
| 10 years | 67.5 | 59.4 | 51.2 | 45.6 | 38.2 | 15.0 |
| 15 years | 62.6 | 54.5 | 46.5 | 40.9 | 33.6 | 10.9 |
| 20 years | 57.7 | 49.9 | 42.1 | 36.6 | 29.7 | 8.6 |
| 25 years | 53.0 | 45.6 | 38.3 | 32.9 | 26.5 | 8.0 |
| 30 years | 48.4 | 41.4 | 34.7 | 29.4 | 23.6 | 8.9 |
| 35 years | 43.8 | 37.3 | 31.1 | 26.1 | 21.0 | 8.4 |
| 40 years | 39.3 | 33.2 | 27.6 | 22.9 | 18.6 | 7.3 |
| 45 years | 34.8 | 29.2 | 24.4 | 19.9 | 16.6 | 6.9 |
| 50 years | 30.4 | 25.3 | 20.9 | 16.9 | 14.0 | 5.6 |
| 55 years | 26.2 | 21.6 | 17.7 | 14.1 | 11.7 | 4.1 |
| 60 years | 22.2 | 18.2 | 14.9 | 12.0 | 10.1 | 3.2 |
| 65 years | 18.5 | 14.9 | 12.1 | 9.6 | 8.1 | 2.4 |
| 70 years | 14.9 | 11.7 | 9.3 | 7.3 | 6.1 | 1.6 |
| 75 years | 11.6 | 8.8 | 6.8 | 5.2 | 4.2 | 0.9 |
| 80 years | 8.6 | 6.3 | 4.7 | 3.5 | 2.7 | 0.5 |

*Footnote 1: Values for persons with no SCI are from the 2020 life tables for the U.S. general population.*

# Table 16. Life Expectancy for Persons with SCI Surviving at Least 1 Year Post-Injury

| Current Age | No SCI | AIS D Any Level | AIS ABC T1-S3 | AIS ABC C5-C8 | AIS ABC C1-C4 | Vent Dependent Any Level |
|---|---|---|---|---|---|---|
| 10 years | 67.5 | 60.0 | 51.8 | 46.6 | 39.5 | 22.3 |
| 15 years | 62.6 | 55.1 | 47.0 | 41.8 | 34.9 | 18.1 |
| 20 years | 57.7 | 50.4 | 42.7 | 37.5 | 30.9 | 15.5 |
| 25 years | 53.0 | 46.1 | 38.9 | 33.7 | 27.7 | 14.5 |
| 30 years | 48.4 | 41.8 | 35.3 | 30.1 | 24.7 | 14.6 |
| 35 years | 43.8 | 37.7 | 31.7 | 26.8 | 22.1 | 13.4 |
| 40 years | 39.3 | 33.6 | 28.2 | 23.6 | 19.8 | 11.8 |
| 45 years | 34.8 | 29.7 | 24.9 | 20.7 | 17.7 | 10.7 |
| 50 years | 30.4 | 25.8 | 21.5 | 17.6 | 15.2 | 8.9 |
| 55 years | 26.2 | 22.0 | 18.2 | 14.9 | 12.9 | 7.5 |
| 60 years | 22.2 | 18.6 | 15.5 | 12.8 | 11.4 | 7.3 |
| 65 years | 18.5 | 15.3 | 12.6 | 10.3 | 9.3 | 6.2 |
| 70 years | 14.9 | 12.1 | 9.8 | 7.9 | 7.0 | 4.5 |
| 75 years | 11.6 | 9.1 | 7.2 | 5.6 | 5.0 | 3.0 |
| 80 years | 8.6 | 6.6 | 5.0 | 3.8 | 3.3 | 1.8 |

*Footnote 1: Values for persons with no SCI are from the 2020 life tables for the U.S. general population.*

## Table 17. Category of Follow-up Care

| n (%) | Category of Follow-up Care | | | | | |
|---|---|---|---|---|---|---|
| | System Appt | Interview Only | Lost | Future Follow-up Not Required | Unknown | Total |
| Total | 71,048 (35.4) | 57,052 (28.4) | 70,090 (34.9) | 2,227 (1.1) | 354 (0.2) | 200,771 |

*Footnote 1: 'Future Follow-up Not Required'=Form IIs coded 8 (Minimal Deficit).*
*Footnote 2: 'Lost' includes Lost to Follow-up due to breaks in funding.*

## Table 18. Category of Follow-up Care by Post-Injury Year

| Category of Follow-up Care n (%) | Post-Injury Year | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | Total |
| System Appt | 19,250 (58.3) | 7,147 (27.3) | 3,538 (17.0) | 1,954 (11.8) | 1,216 (9.2) | 825 (8.2) | 453 (6.3) | 246 (5.2) | 116 (5.2) | 17 (3.3) | 0 (0.0) | 34,762 |
| Interview Only | 7,015 (21.3) | 8,255 (31.5) | 5,816 (27.9) | 4,487 (27.0) | 3,670 (27.8) | 3,056 (30.3) | 2,535 (35.0) | 1,862 (39.3) | 925 (41.3) | 193 (38.0) | 0 (0.0) | 37,814 |
| Lost | 5,514 (16.7) | 10,455 (40.0) | 11,350 (54.5) | 10,107 (60.9) | 8,261 (62.7) | 6,190 (61.3) | 4,230 (58.4) | 2,616 (55.2) | 1,198 (53.5) | 298 (58.7) | 1 (100.0) | 60,220 |
| Future Follow-up Not Required | 1,131 (3.4) | 274 (1.0) | 108 (0.5) | 53 (0.3) | 33 (0.3) | 27 (0.3) | 22 (0.3) | 17 (0.4) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1,665 |
| Unknown | 89 (0.3) | 38 (0.1) | 7 (0.0) | 7 (0.0) | 3 (0.0) | 2 (0.0) | 0 (0.0) | 2 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 148 |
| Total | 32,999 | 26,169 | 20,819 | 16,608 | 13,183 | 10,100 | 7,240 | 4,743 | 2,239 | 508 | 1 | 134,609 |

*Footnote 1: 'Lost' includes Lost to Follow-up due to breaks in funding.*

# Table 19. Reasons for Lost by Post-Injury Year: Lost to Follow-up Records Only

| Reason for Lost n (%) | Post-Injury Year | | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | 50 | |
| Patient refused/withdrew consent | 97 (2.7) | 89 (1.0) | 60 (0.6) | 48 (0.5) | 53 (0.6) | 35 (0.6) | 5 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 387 |
| Incarcerated and not available | 65 (1.8) | 89 (1.0) | 69 (0.6) | 65 (0.7) | 42 (0.5) | 22 (0.4) | 15 (0.4) | 9 (0.3) | 5 (0.4) | 1 (0.3) | 0 (0.0) | 382 |
| Unable to contact | 848 (23.7) | 1,123 (12.2) | 993 (9.2) | 663 (6.7) | 606 (7.4) | 572 (9.2) | 301 (7.1) | 53 (2.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 5,159 |
| Patient interview | 77 (2.2) | 79 (0.9) | 93 (0.9) | 72 (0.7) | 61 (0.7) | 82 (1.3) | 59 (1.4) | 51 (1.9) | 20 (1.7) | 2 (0.7) | 0 (0.0) | 596 |
| Withdrew consent | 220 (6.2) | 213 (2.3) | 197 (1.8) | 177 (1.8) | 138 (1.7) | 154 (2.5) | 169 (4.0) | 104 (4.0) | 43 (3.6) | 7 (2.3) | 1 (100.0) | 1,423 |
| ID Unkn due to break in funding | 2 (0.1) | 21 (0.2) | 22 (0.2) | 26 (0.3) | 134 (1.6) | 400 (6.5) | 797 (18.8) | 395 (15.1) | 59 (4.9) | 14 (4.7) | 0 (0.0) | 1,870 |
| Contact made but survey not completed* | 138 (3.9) | 178 (1.9) | 133 (1.2) | 140 (1.4) | 153 (1.9) | 120 (1.9) | 116 (2.7) | 107 (4.1) | 64 (5.3) | 11 (3.7) | 0 (0.0) | 1,160 |
| Language barrier* | 1 (0.0) | 4 (0.0) | 8 (0.1) | 4 (0.0) | 4 (0.0) | 1 (0.0) | 1 (0.0) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 24 |
| Moved out of country* | 10 (0.3) | 37 (0.4) | 41 (0.4) | 23 (0.2) | 16 (0.2) | 12 (0.2) | 8 (0.2) | 11 (0.4) | 4 (0.3) | 3 (1.0) | 0 (0.0) | 165 |
| No contact, but valid information* | 198 (5.5) | 255 (2.8) | 322 (3.0) | 284 (2.9) | 320 (3.9) | 259 (4.2) | 239 (5.7) | 238 (9.1) | 135 (11.3) | 39 (13.1) | 0 (0.0) | 2,289 |
| No contact, no valid information* | 183 (5.1) | 414 (4.5) | 499 (4.6) | 528 (5.3) | 578 (7.0) | 544 (8.8) | 491 (11.6) | 418 (16.0) | 253 (21.1) | 50 (16.8) | 0 (0.0) | 3,958 |
| Identity unknown to NSCISC | 0 (0.0) | 18 (0.2) | 43 (0.4) | 1 (0.0) | 1 (0.0) | 146 (2.4) | 32 (0.8) | 2 (0.1) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 244 |
| Break in Funding | 337 (9.4) | 2,430 (26.3) | 3,011 (27.8) | 3,281 (33.0) | 2,818 (34.3) | 2,146 (34.7) | 1,402 (33.1) | 1,099 (42.0) | 606 (50.6) | 169 (56.7) | 0 (0.0) | 17,299 |
| Other | 116 (3.2) | 114 (1.2) | 101 (0.9) | 101 (1.0) | 117 (1.4) | 39 (0.6) | 38 (0.9) | 16 (0.6) | 5 (0.4) | 2 (0.7) | 0 (0.0) | 649 |
| Unkn | 1,285 (35.9) | 4,161 (45.1) | 5,245 (48.4) | 4,541 (45.6) | 3,184 (38.7) | 1,658 (26.8) | 557 (13.2) | 113 (4.3) | 2 (0.2) | 0 (0.0) | 0 (0.0) | 20,746 |
| Total | 3,577 (6.3) | 9,225 (16.4) | 10,837 (19.2) | 9,954 (17.7) | 8,225 (14.6) | 6,190 (11.0) | 4,230 (7.5) | 2,616 (4.6) | 1,198 (2.1) | 298 (0.5) | 1 (0.0) | 56,351 |

*Footnote 1: Form IIs entered into the database since January 1, 1998.*

*Footnote 2: In February 2007, 'Refusal/Withdrawn Consent' code is invalid; 'Withdrew Consent' and 'Patient Refusal' codes were added.*

*Footnote 3: In February 2009, 'Identity Unknown' code was added for participants with no personal identifiers due to break in funding.*

*Footnote 4: In October 2011, 'Unable to contact' is invalid; *codes were added.*

# Table 20. How was the Interview Conducted

| n (%) | How was interview conducted | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | In Person | By Phone | Self Admin Mailed | Combo | Self Admin REDCap | Chart Review | N/A, no interview data | Unkn | Total |
| Total | 4,373 (8.4) | 37,285 (71.2) | 4,810 (9.2) | 4,105 (7.8) | 81 (0.2) | 55 (0.1) | 1,297 (2.5) | 332 (0.6) | 52,338 |

*Footnote 1: Form IIs entered into the database since March 1, 1996 and only required interview years (1, 5, 10…).*
*Footnote 2: Code 4 (combo) added in 1998.*

# Table 21. Age at Injury: Frequency Distribution

| Age | Frequency | Percent | Cumulative Percent | Age | Frequency | Percent | Cumulative Percent | Age | Frequency | Percent | Cumulative Percent |
|---|---|---|---|---|---|---|---|---|---|---|---|
| <1 | 5 | 0.01 | 0.01 | 33 | 592 | 1.63 | 54.85 | 66 | 274 | 0.76 | 93.00 |
| 1 | 13 | 0.04 | 0.05 | 34 | 551 | 1.52 | 56.37 | 67 | 244 | 0.67 | 93.67 |
| 2 | 10 | 0.03 | 0.08 | 35 | 607 | 1.67 | 58.05 | 68 | 235 | 0.65 | 94.32 |
| 3 | 22 | 0.06 | 0.14 | 36 | 577 | 1.59 | 59.64 | 69 | 203 | 0.56 | 94.88 |
| 4 | 22 | 0.06 | 0.20 | 37 | 547 | 1.51 | 61.14 | 70 | 178 | 0.49 | 95.37 |
| 5 | 18 | 0.05 | 0.25 | 38 | 583 | 1.61 | 62.75 | 71 | 187 | 0.52 | 95.88 |
| 6 | 20 | 0.06 | 0.30 | 39 | 498 | 1.37 | 64.12 | 72 | 142 | 0.39 | 96.27 |
| 7 | 15 | 0.04 | 0.34 | 40 | 479 | 1.32 | 65.44 | 73 | 156 | 0.43 | 96.70 |
| 8 | 19 | 0.05 | 0.40 | 41 | 494 | 1.36 | 66.81 | 74 | 142 | 0.39 | 97.09 |
| 9 | 21 | 0.06 | 0.45 | 42 | 481 | 1.33 | 68.13 | 75 | 141 | 0.39 | 97.48 |
| 10 | 33 | 0.09 | 0.55 | 43 | 460 | 1.27 | 69.40 | 76 | 115 | 0.32 | 97.80 |
| 11 | 16 | 0.04 | 0.59 | 44 | 467 | 1.29 | 70.69 | 77 | 134 | 0.37 | 98.17 |
| 12 | 37 | 0.10 | 0.69 | 45 | 445 | 1.23 | 71.91 | 78 | 98 | 0.27 | 98.44 |
| 13 | 108 | 0.30 | 0.99 | 46 | 418 | 1.15 | 73.07 | 79 | 109 | 0.30 | 98.74 |
| 14 | 216 | 0.60 | 1.59 | 47 | 444 | 1.22 | 74.29 | 80 | 73 | 0.20 | 98.94 |
| 15 | 424 | 1.17 | 2.75 | 48 | 437 | 1.20 | 75.50 | 81 | 53 | 0.15 | 99.09 |
| 16 | 827 | 2.28 | 5.03 | 49 | 425 | 1.17 | 76.67 | 82 | 58 | 0.16 | 99.25 |
| 17 | 1196 | 3.30 | 8.33 | 50 | 434 | 1.20 | 77.86 | 83 | 55 | 0.15 | 99.40 |
| 18 | 1484 | 4.09 | 12.42 | 51 | 383 | 1.06 | 78.92 | 84 | 45 | 0.12 | 99.52 |
| 19 | 1527 | 4.21 | 16.63 | 52 | 396 | 1.09 | 80.01 | 85 | 38 | 0.10 | 99.63 |
| 20 | 1389 | 3.83 | 20.46 | 53 | 399 | 1.10 | 81.11 | 86 | 37 | 0.10 | 99.73 |
| 21 | 1365 | 3.76 | 24.22 | 54 | 390 | 1.08 | 82.19 | 87 | 22 | 0.06 | 99.79 |
| 22 | 1283 | 3.54 | 27.76 | 55 | 378 | 1.04 | 83.23 | 88 | 23 | 0.06 | 99.85 |
| 23 | 1174 | 3.24 | 31.00 | 56 | 401 | 1.11 | 84.33 | 89 | 18 | 0.05 | 99.90 |
| 24 | 1132 | 3.12 | 34.12 | 57 | 373 | 1.03 | 85.36 | 90 | 11 | 0.03 | 99.93 |
| 25 | 1053 | 2.90 | 37.02 | 58 | 358 | 0.99 | 86.35 | 91 | 8 | 0.02 | 99.96 |
| 26 | 964 | 2.66 | 39.68 | 59 | 333 | 0.92 | 87.27 | 92 | 6 | 0.02 | 99.97 |
| 27 | 931 | 2.57 | 42.24 | 60 | 358 | 0.99 | 88.25 | 93 | 1 | 0.01 | 99.98 |
| 28 | 877 | 2.42 | 44.66 | 61 | 338 | 0.93 | 89.19 | 94 | 3 | 0.01 | 99.98 |
| 29 | 859 | 2.37 | 47.03 | 62 | 311 | 0.86 | 90.04 | 95 | 3 | 0.01 | 99.99 |
| 30 | 784 | 2.16 | 49.19 | 63 | 267 | 0.74 | 90.78 | 97 | 1 | 0.01 | 99.99 |
| 31 | 738 | 2.03 | 51.23 | 64 | 273 | 0.75 | 91.53 | 98 | 1 | 0.01 | 100.00 |
| 32 | 724 | 2.00 | 53.22 | 65 | 257 | 0.71 | 92.24 | 99 | 1 | 0.01 | 100.00 |

*Footnote 1: Excludes 1 record reporting unknown age.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 22. Age at Injury

|  | Age at Injury | | | | |
|---|---|---|---|---|---|
|  | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 36,275 | 36.1 | 17.4 | 0 | 99 |

## Table 23. Trend in Age by Year of Injury

| Year of Injury | Age at Injury | | | | |
|---|---|---|---|---|---|
|  | N | Mean | Standard Deviation | Minimum | Maximum |
| 1973-1979 | 4,563 | 28.7 | 14.1 | 1 | 88 |
| 1980-1984 | 4,949 | 30.5 | 14.7 | 1 | 90 |
| 1985-1989 | 3,843 | 32.3 | 15.8 | 0 | 92 |
| 1990-1994 | 3,295 | 33.7 | 16.0 | 1 | 97 |
| 1995-1999 | 3,623 | 36.4 | 17.0 | 0 | 98 |
| 2000-2004 | 3,443 | 37.6 | 16.7 | 3 | 90 |
| 2005-2009 | 3,606 | 40.5 | 18.0 | 1 | 94 |
| 2010-2014 | 3,650 | 42.2 | 18.4 | 0 | 95 |
| 2015-2019 | 3,703 | 43.4 | 18.4 | 0 | 92 |
| 2020-2022 | 1,600 | 43.0 | 18.7 | 13 | 99 |
| Total | 36,275 | 36.1 | 17.4 | 0 | 99 |

*Footnote 1: September 2021: Trend data for 2010-2014 & 2015-2020 was updated.*

## Table 24. Sex/Gender

| n (%) | Sex/gender | | | | | | |
|---|---|---|---|---|---|---|---|
|  | Male | Female | Transgender, male at birth | Transgender, female at birth | Other, Transgender, sex at birth unkn | Unkn | Total |
| Total | 29,141 (80.3) | 7,125 (19.6) | 5 (0.0) | 2 (0.0) | 1 (0.0) | 1 (0.0) | 36,275 |

*Footnote 1: 'In September 2021, added codes for 'Transgender, male at birth' and 'Transgender female at birth'. Records previously coded as '3. Other, Transgender' were updated to appropriate sex at birth.*

## Table 25. Racial Group

| n (%) | Caucasian | African American | Native American | Asian/Pacific Islander | Other | Declined | Unkn | Total |
|---|---|---|---|---|---|---|---|---|
| Total | 24,354 (67.1) | 8,356 (23.0) | 338 (0.9) | 653 (1.8) | 813 (2.2) | 41 (0.1) | 1,720 (4.7) | 36,275 |

*Footnote 1: High percentages of unknowns are mainly due to database conversion process in 1995.*
*Footnote 2: 'Decline' code was added in October 2011.*

## Table 26. Hispanic Origin

| n (%) | Not of Hispanic Origin | Hispanic Origin | Declined | Unkn | Total |
|---|---|---|---|---|---|
| Total | 32,258 (88.9) | 3,681 (10.1) | 21 (0.1) | 315 (0.9) | 36,275 |

*Footnote 1: 'Decline' code was added in October 2011.*

## Table 27. Hispanic Origin by Race

| Hispanic Origin n (%) | Caucasian | African American | Native American | Asian | Other | Declined | Unkn | Total |
|---|---|---|---|---|---|---|---|---|
| No | 22,960 (63.3) | 8,133 (22.4) | 285 (0.8) | 632 (1.7) | 233 (0.6) | 6 (0.0) | 9 (0.0) | 32,258 |
| Yes | 1,279 (3.5) | 136 (0.4) | 52 (0.1) | 20 (0.1) | 571 (1.6) | 31 (0.1) | 1,592 (4.4) | 3,681 |
| Declined | 8 (0.0) | 4 (0.0) | 0 (0.0) | 0 (0.0) | 5 (0.0) | 4 (0.0) | 0 (0.0) | 21 |
| Unkn | 107 (0.3) | 83 (0.2) | 1 (0.0) | 1 (0.0) | 4 (0.0) | 0 (0.0) | 119 (0.3) | 315 |
| Total | 24,354 | 8,356 | 338 | 653 | 813 | 41 | 1,720 | 36,275 |

*Footnote 1: High percentage of unknowns are mainly due to a database conversion process in 1995.*
*Footnote 2: 'Declined' code was added in October 2011.*

# Table 28. Trend in Race by Year of Injury

| Racial Group n (%) | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973-1979 | 1980-1984 | 1985-1989 | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2019 | 2020-2022 | Total |
| Caucasian | 3,506 (76.8) | 3,524 (71.2) | 2,489 (64.8) | 1,804 (54.7) | 2,251 (62.1) | 2,416 (70.2) | 2,392 (66.3) | 2,572 (70.5) | 2,444 (66.0) | 956 (59.8) | 24,354 |
| African American | 648 (14.2) | 873 (17.6) | 957 (24.9) | 959 (29.1) | 982 (27.1) | 814 (23.6) | 961 (26.7) | 814 (22.3) | 910 (24.6) | 438 (27.4) | 8,356 |
| Native American | 88 (1.9) | 65 (1.3) | 29 (0.8) | 15 (0.5) | 17 (0.5) | 11 (0.3) | 31 (0.9) | 35 (1.0) | 30 (0.8) | 17 (1.1) | 338 |
| Asian | 42 (0.9) | 61 (1.2) | 55 (1.4) | 62 (1.9) | 83 (2.3) | 71 (2.1) | 74 (2.1) | 66 (1.8) | 94 (2.5) | 45 (2.8) | 653 |
| Other | 16 (0.4) | 17 (0.3) | 10 (0.3) | 47 (1.4) | 110 (3.0) | 98 (2.8) | 114 (3.2) | 110 (3.0) | 171 (4.6) | 120 (7.5) | 813 |
| Declined | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 7 (0.2) | 22 (0.6) | 12 (0.8) | 41 |
| Unkn | 263 (5.8) | 409 (8.3) | 303 (7.9) | 408 (12.4) | 180 (5.0) | 33 (1.0) | 34 (0.9) | 46 (1.3) | 32 (0.9) | 12 (0.8) | 1,720 |
| Total | 4,563 | 4,949 | 3,843 | 3,295 | 3,623 | 3,443 | 3,606 | 3,650 | 3,703 | 1,600 | 36,275 |

*Footnote 1: High percentage of unknowns are mainly due to a database conversion process in 1995.*

*Footnote 2: 'Declined' code was added in October 2011.*

*Footnote 3: September 2021: Trend data for 2010-2014 & 2015-2020 was updated.*

# Table 29. Trend in Hispanic Origin by Year of Injury

| Hispanic Origin n (%) | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973-1979 | 1980-1984 | 1985-1989 | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2019 | 2020-2022 | Total |
| No | 4,288 (94.0) | 4,539 (91.7) | 3,535 (92.0) | 2,856 (86.7) | 3,122 (86.2) | 2,992 (86.9) | 3,251 (90.2) | 3,187 (87.3) | 3,173 (85.7) | 1,315 (82.2) | 32,258 |
| Yes | 272 (6.0) | 408 (8.2) | 307 (8.0) | 421 (12.8) | 398 (11.0) | 429 (12.5) | 310 (8.6) | 381 (10.4) | 486 (13.1) | 269 (16.8) | 3,681 |
| Declined | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.0) | 7 (0.2) | 7 (0.2) | 6 (0.4) | 21 |
| Unkn | 3 (0.1) | 2 (0.0) | 1 (0.0) | 18 (0.5) | 103 (2.8) | 22 (0.6) | 44 (1.2) | 75 (2.1) | 37 (1.0) | 10 (0.6) | 315 |
| Total | 4,563 | 4,949 | 3,843 | 3,295 | 3,623 | 3,443 | 3,606 | 3,650 | 3,703 | 1,600 | 36,275 |

*Footnote 1: 'Declined' code was added in October 2011.*

*Footnote 2: September 2021: Trend data for 2010-2014 & 2015-2020 was updated.*

# Table 30. Etiology of Spinal Cord Injury by Biological Sex

| Ran | Etiology    n (%) | Males | Females | Total |
|---|---|---|---|---|
| 1 | Auto accident | 8,205 (28.2) | 3,256 (45.8) | 11,461 (31.6) |
| 2 | Fall | 6,759 (23.2) | 1,692 (23.8) | 8,451 (23.3) |
| 3 | Gunshot wound | 4,870 (16.7) | 659 (9.3) | 5,529 (15.3) |
| 4 | Motorcycle accident | 2,079 ( 7.1) | 160 ( 2.2) | 2,239 ( 6.2) |
| 5 | Diving | 1,877 ( 6.4) | 171 ( 2.4) | 2,048 ( 5.7) |
| 6 | Medical/surgical complication | 662 ( 2.3) | 378 ( 5.3) | 1,040 ( 2.9) |
| 7 | Hit by falling/flying object | 918 ( 3.2) | 56 ( 0.8) | 974 ( 2.7) |
| 8 | Bicycle | 571 ( 2.0) | 79 ( 1.1) | 650 ( 1.8) |
| 9 | Pedestrian | 402 ( 1.4) | 141 ( 2.0) | 543 ( 1.5) |
| 10 | Person-to-person contact | 271 ( 0.9) | 74 ( 1.0) | 345 ( 1.0) |
| 11 | Other unclassified | 285 ( 1.0) | 32 ( 0.4) | 317 ( 0.9) |
| 12 | All-terrain vehicle (ATV) and all-terrain cycle (ATC) | 252 ( 0.9) | 49 ( 0.7) | 301 ( 0.8) |
| 13 | All other penetrating wounds | 213 ( 0.7) | 60 ( 0.8) | 273 ( 0.8) |
| 14 | Other vehicular | 201 ( 0.7) | 20 ( 0.3) | 221 ( 0.6) |
| 15 | Snow skiing | 195 ( 0.7) | 21 ( 0.3) | 216 ( 0.6) |
| 16 | Other sport | 149 ( 0.5) | 35 ( 0.5) | 184 ( 0.5) |
| 17 | Winter sports | 152 ( 0.5) | 32 ( 0.4) | 184 ( 0.5) |
| 18 | Horseback riding | 79 ( 0.3) | 89 ( 1.3) | 168 ( 0.5) |
| 19 | Surfing: includes body surfing | 152 ( 0.5) | 7 ( 0.1) | 159 ( 0.4) |
| 20 | Football | 156 ( 0.5) | 0 ( 0.0) | 156 ( 0.4) |
| 21 | Fixed-wing aircraft | 76 ( 0.3) | 31 ( 0.4) | 107 ( 0.3) |
| 22 | Wrestling | 97 ( 0.3) | 2 ( 0.0) | 99 ( 0.3) |
| 23 | Trampoline | 74 ( 0.3) | 9 ( 0.1) | 83 ( 0.2) |
| 24 | Snowmobile | 52 ( 0.2) | 10 ( 0.1) | 62 ( 0.2) |
| 25 | Gymnastics | 40 ( 0.1) | 21 ( 0.3) | 61 ( 0.2) |
| 26 | Air sports | 45 ( 0.2) | 3 ( 0.0) | 48 ( 0.1) |
| 27 | Field sports | 45 ( 0.2) | 2 ( 0.0) | 47 ( 0.1) |
| 28 | Boat | 28 ( 0.1) | 14 ( 0.2) | 42 ( 0.1) |
| 29 | Hang gliding | 39 ( 0.1) | 2 ( 0.0) | 41 ( 0.1) |
| 30 | Water skiing | 33 ( 0.1) | 3 ( 0.0) | 36 ( 0.1) |
| 31 | Rotating wing aircraft | 33 ( 0.1) | 2 ( 0.0) | 35 ( 0.1) |
| 32 | Baseball/softball | 25 ( 0.1) | 1 ( 0.0) | 26 ( 0.1) |
| 33 | Rodeo | 24 ( 0.1) | 1 ( 0.0) | 25 ( 0.1) |
| 34 | Explosion | 14 ( 0.0) | 2 ( 0.0) | 16 ( 0.0) |
| 35 | Basketball/volleyball | 15 ( 0.1) | 0 ( 0.0) | 15 ( 0.0) |
| 36 | Skateboard | 10 ( 0.0) | 1 ( 0.0) | 11 ( 0.0) |
| 37 | Track and field | 6 ( 0.0) | 0 ( 0.0) | 6 ( 0.0) |
| 101 | Total | 29,104 (80.4) | 7,115 (19.6) | 36,219 ( 100) |

Footnote 1: Excludes 54 records reporting unknown.

Footnote 2: Males include 5 transgender, male at birth. Females include 2 transgender, female at birth.

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

# Table 31. Grouped Etiology

| n (%) | Etiology | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Vehicular** | **Violence** | **Sports** | **Falls** | **Med/Surg** | **Other** | **Unkn** | **Total** |
| Total | 15,119 (41.7) | 6,163 (17.0) | 3,613 (10.0) | 8,451 (23.3) | 1,040 (2.9) | 1,834 (5.1) | 55 (0.2) | 36,275 |

*Footnote 1: Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30; Medical/surgical complication=code 50.*

# Table 32. Grouped Etiology by Age at Injury

| Etiology n (%) | Age at Injury | | | | | | |
|---|---|---|---|---|---|---|---|
| | **<15** | **16-30** | **31-45** | **46-60** | **61-75** | **76-98** | **Total** |
| Vehicular | 368 (36.8) | 7,760 (46.1) | 3,654 (44.3) | 2,253 (38.0) | 914 (27.3) | 170 (18.6) | 15,119 |
| Violence | 232 (23.2) | 4,120 (24.5) | 1,363 (16.5) | 369 (6.2) | 69 (2.1) | 10 (1.1) | 6,163 |
| Sports | 239 (23.9) | 2,374 (14.1) | 618 (7.5) | 272 (4.6) | 102 (3.0) | 8 (0.9) | 3,613 |
| Falls | 79 (7.9) | 1,774 (10.5) | 1,881 (22.8) | 2,295 (38.7) | 1,799 (53.7) | 623 (68.2) | 8,451 |
| Med/Surg | 27 (2.7) | 111 (0.7) | 135 (1.6) | 358 (6.0) | 335 (10.0) | 74 (8.1) | 1,040 |
| Other | 52 (5.2) | 690 (4.1) | 577 (7.0) | 367 (6.2) | 123 (3.7) | 25 (2.7) | 1,834 |
| Unkn | 2 (0.2) | 16 (0.1) | 15 (0.2) | 13 (0.2) | 6 (0.2) | 3 (0.3) | 55 |
| Total | 999 | 16,845 | 8,243 | 5,927 | 3,348 | 913 | 36,275 |

*Footnote 1: Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30; Medical/surgical complication=code 50.*

# Table 33. Grouped Etiology by Biological Sex

| Etiology n (%) | Sex | | |
|---|---|---|---|
| | **Male** | **Female** | **Total** |
| Vehicular | 11,497 (39.4) | 3,621 (50.8) | 15,118 |
| Violence | 5,368 (18.4) | 795 (11.2) | 6,163 |
| Sports | 3,213 (11.0) | 400 (5.6) | 3,613 |
| Falls | 6,759 (23.2) | 1,692 (23.7) | 8,451 |
| Med/Surg | 662 (2.3) | 378 (5.3) | 1,040 |
| Other | 1,605 (5.5) | 229 (3.2) | 1,834 |
| Unkn | 42 (0.1) | 12 (0.2) | 54 |
| Total | 29,146 | 7,127 | 36,273 |

*Footnote 1: Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30; Medical/surgical complication=code 50.*
*Footnote 2: Male include 5 transgender, male at birth. Female include 2 transgender, female at birth.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 34. Grouped Etiology by Racial Group

| Etiology n (%) | Racial Group | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Caucasian | African American | Native American | Asian | Other | Declined | Unkn | Total |
| Vehicular | 11,403 (46.8) | 2,393 (28.6) | 188 (55.6) | 272 (41.7) | 322 (39.6) | 17 (41.5) | 524 (30.5) | 15,119 |
| Violence | 1,577 (6.5) | 3,564 (42.7) | 48 (14.2) | 96 (14.7) | 171 (21.0) | 9 (22.0) | 698 (40.6) | 6,163 |
| Sports | 3,156 (13.0) | 234 (2.8) | 14 (4.1) | 54 (8.3) | 47 (5.8) | 3 (7.3) | 105 (6.1) | 3,613 |
| Falls | 6,096 (25.0) | 1,623 (19.4) | 65 (19.2) | 176 (27.0) | 208 (25.6) | 11 (26.8) | 272 (15.8) | 8,451 |
| Med/Surg | 786 (3.2) | 184 (2.2) | 4 (1.2) | 21 (3.2) | 22 (2.7) | 0 (0.0) | 23 (1.3) | 1,040 |
| Other | 1,297 (5.3) | 350 (4.2) | 19 (5.6) | 32 (4.9) | 43 (5.3) | 1 (2.4) | 92 (5.3) | 1,834 |
| Unkn | 39 (0.2) | 8 (0.1) | 0 (0.0) | 2 (0.3) | 0 (0.0) | 0 (0.0) | 6 (0.3) | 55 |
| Total | 24,354 | 8,356 | 338 | 653 | 813 | 41 | 1,720 | 36,275 |

*Footnote 1: Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30; Medical/surgical complication=code 50.*

## Table 35. Grouped Etiology by Hispanic Origin

| Etiology n (%) | Hispanic Origin | | | | |
|---|---|---|---|---|---|
| | No | Yes | Declined | Unkn | Total |
| Vehicular | 13,682 (42.4) | 1,328 (36.1) | 6 (28.6) | 103 (32.7) | 15,119 |
| Violence | 4,976 (15.4) | 1,116 (30.3) | 5 (23.8) | 66 (21.0) | 6,163 |
| Sports | 3,364 (10.4) | 230 (6.2) | 1 (4.8) | 18 (5.7) | 3,613 |
| Falls | 7,606 (23.6) | 741 (20.1) | 6 (28.6) | 98 (31.1) | 8,451 |
| Med/Surg | 949 (2.9) | 84 (2.3) | 1 (4.8) | 6 (1.9) | 1,040 |
| Other | 1,639 (5.1) | 174 (4.7) | 2 (9.5) | 19 (6.0) | 1,834 |
| Unkn | 42 (0.1) | 8 (0.2) | 0 (0.0) | 5 (1.6) | 55 |
| Total | 32,258 | 3,681 | 21 | 315 | 36,275 |

*Footnote 1: Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30; Medical/surgical complication=code 50.*

# Table 36. Trend in Grouped Etiology by Year of Injury

| Etiology n (%) | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973-1979 | 1980-1984 | 1985-1989 | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2019 | 2020-2022 | Total |
| Vehicular | 2,142 (46.9) | 2,236 (45.2) | 1,620 (42.2) | 1,197 (36.3) | 1,449 (40.0) | 1,634 (47.5) | 1,459 (40.5) | 1,395 (38.2) | 1,415 (38.2) | 572 (35.8) | 15,119 |
| Violence | 605 (13.3) | 792 (16.0) | 723 (18.8) | 952 (28.9) | 764 (21.1) | 478 (13.9) | 544 (15.1) | 493 (13.5) | 520 (14.0) | 292 (18.3) | 6,163 |
| Sports | 655 (14.4) | 705 (14.2) | 390 (10.1) | 249 (7.6) | 254 (7.0) | 302 (8.8) | 289 (8.0) | 329 (9.0) | 295 (8.0) | 145 (9.1) | 3,613 |
| Falls | 752 (16.5) | 836 (16.9) | 796 (20.7) | 659 (20.0) | 847 (23.4) | 792 (23.0) | 999 (27.7) | 1,109 (30.4) | 1,187 (32.1) | 474 (29.6) | 8,451 |
| Med/Surg | 53 (1.2) | 83 (1.7) | 80 (2.1) | 76 (2.3) | 131 (3.6) | 87 (2.5) | 170 (4.7) | 171 (4.7) | 146 (3.9) | 43 (2.7) | 1,040 |
| Other | 353 (7.7) | 294 (5.9) | 231 (6.0) | 159 (4.8) | 174 (4.8) | 145 (4.2) | 141 (3.9) | 145 (4.0) | 128 (3.5) | 64 (4.0) | 1,834 |
| Unkn | 3 (0.1) | 3 (0.1) | 3 (0.1) | 3 (0.1) | 4 (0.1) | 5 (0.1) | 4 (0.1) | 8 (0.2) | 12 (0.3) | 10 (0.6) | 55 |
| Total | 4,563 | 4,949 | 3,843 | 3,295 | 3,623 | 3,443 | 3,606 | 3,650 | 3,703 | 1,600 | 36,275 |

*Footnote 1: Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30;Medical/surgical complication=code 50.*
*Footnote 2: September 2021: Trend data for 2010-2014 & 2015-2020 was updated.*

# Table 37. Work Relatedness

| n (%) | Injury Related to Work | | | |
|---|---|---|---|---|
| | No | Yes | Unkn | Total |
| Total | 14,103 (89.4) | 1,488 (9.4) | 184 (1.2) | 15,775 |

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

# Table 38. Marital Status at Time of Spinal Cord Injury

| n (%) | Marital Status at Injury | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Single | Married | Divorced | Separated | Widowed | Signific-ant other | Other | Unkn | Total |
| Total | 18,208 (50.2) | 12,001 (33.1) | 3,378 (9.3) | 1,168 (3.2) | 961 (2.6) | 286 (0.8) | 40 (0.1) | 233 (0.6) | 36,275 |

*Footnote 1:'Living with significant other' was added in October 2011.*

## Table 39. Marital Status by Post-Injury Year

| Marital Status n (%) | Post-Injury Year | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| Single | 13,358 (48.6) | 7,018 (44.7) | 3,809 (40.2) | 2,398 (36.9) | 1,729 (35.1) | 1,334 (34.1) | 933 (31.0) | 595 (28.0) | 252 (24.2) | 42 (20.0) | 31,468 |
| Married | 8,926 (32.5) | 5,072 (32.3) | 3,150 (33.3) | 2,199 (33.8) | 1,726 (35.1) | 1,392 (35.6) | 1,133 (37.6) | 862 (40.5) | 454 (43.6) | 104 (49.5) | 25,018 |
| Divorced | 3,003 (10.9) | 2,418 (15.4) | 1,777 (18.8) | 1,402 (21.6) | 1,104 (22.4) | 891 (22.8) | 709 (23.6) | 473 (22.2) | 223 (21.4) | 43 (20.5) | 12,043 |
| Separated | 886 (3.2) | 418 (2.7) | 236 (2.5) | 152 (2.3) | 112 (2.3) | 77 (2.0) | 65 (2.2) | 39 (1.8) | 14 (1.3) | 4 (1.9) | 2,003 |
| Widowed | 669 (2.4) | 399 (2.5) | 253 (2.7) | 160 (2.5) | 128 (2.6) | 127 (3.2) | 104 (3.5) | 75 (3.5) | 49 (4.7) | 9 (4.3) | 1,973 |
| Significant other | 269 (1.0) | 159 (1.0) | 123 (1.3) | 108 (1.7) | 71 (1.4) | 53 (1.4) | 48 (1.6) | 60 (2.8) | 37 (3.6) | 7 (3.3) | 935 |
| Other | 28 (0.1) | 19 (0.1) | 9 (0.1) | 8 (0.1) | 5 (0.1) | 6 (0.2) | 3 (0.1) | 2 (0.1) | 1 (0.1) | 0 (0.0) | 81 |
| Unkn | 346 (1.3) | 211 (1.3) | 112 (1.2) | 74 (1.1) | 47 (1.0) | 30 (0.8) | 15 (0.5) | 21 (1.0) | 11 (1.1) | 1 (0.5) | 868 |
| Total | 27,485 | 15,714 | 9,469 | 6,501 | 4,922 | 3,910 | 3,010 | 2,127 | 1,041 | 210 | 74,389 |

*Footnote 1: 'Living with significant other' was added in October 2011.*

# Table 40. Change in Marital Status by Post-Injury Year

| Change in Marital Status n (%) | Post-Injury Year | | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | Total |
| No Change | 11,117 (92.3) | 6,847 (85.3) | 5,090 (84.6) | 3,897 (83.9) | 3,403 (84.4) | 3,142 (83.9) | 2,509 (83.4) | 1,804 (84.8) | 903 (86.7) | 183 (87.1) | 38,895 |
| Divorce | 242 (2.0) | 431 (5.4) | 274 (4.6) | 209 (4.5) | 182 (4.5) | 153 (4.1) | 129 (4.3) | 76 (3.6) | 27 (2.6) | 4 (1.9) | 1,727 |
| Marriage | 221 (1.8) | 324 (4.0) | 332 (5.5) | 248 (5.3) | 230 (5.7) | 213 (5.7) | 161 (5.3) | 101 (4.7) | 39 (3.7) | 5 (2.4) | 1,874 |
| Widowed | 49 (0.4) | 69 (0.9) | 52 (0.9) | 36 (0.8) | 30 (0.7) | 46 (1.2) | 35 (1.2) | 31 (1.5) | 18 (1.7) | 4 (1.9) | 370 |
| Divorce + Marriage | 28 (0.2) | 55 (0.7) | 54 (0.9) | 68 (1.5) | 66 (1.6) | 85 (2.3) | 78 (2.6) | 41 (1.9) | 13 (1.2) | 4 (1.9) | 492 |
| Widowed + Marriage | 2 (0.0) | 9 (0.1) | 7 (0.1) | 6 (0.1) | 4 (0.1) | 9 (0.2) | 11 (0.4) | 6 (0.3) | 5 (0.5) | 1 (0.5) | 60 |
| Divorce, Marriage + Widowed | 5 (0.0) | 2 (0.0) | 2 (0.0) | 1 (0.0) | 2 (0.0) | 4 (0.1) | 7 (0.2) | 2 (0.1) | 3 (0.3) | 0 (0.0) | 28 |
| Significant other | 167 (1.4) | 134 (1.7) | 93 (1.5) | 99 (2.1) | 47 (1.2) | 38 (1.0) | 44 (1.5) | 38 (1.8) | 18 (1.7) | 7 (3.3) | 685 |
| Other | 64 (0.5) | 43 (0.5) | 40 (0.7) | 18 (0.4) | 22 (0.5) | 17 (0.5) | 18 (0.6) | 5 (0.2) | 3 (0.3) | 1 (0.5) | 231 |
| Unkn | 150 (1.2) | 109 (1.4) | 74 (1.2) | 64 (1.4) | 48 (1.2) | 37 (1.0) | 18 (0.6) | 23 (1.1) | 12 (1.2) | 1 (0.5) | 536 |
| Total | 12,045 | 8,023 | 6,018 | 4,646 | 4,034 | 3,744 | 3,010 | 2,127 | 1,041 | 210 | 44,898 |

*Footnote 1: Form IIs entered into the database since January 1, 2001.*
*Footnote 2: Significant other or partner was added in October 2011.*

# Table 41. Highest Level of Education at Time of Injury

| n (%) | Education Level | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 8th Grade or Less | 9th-11th Grade | High School or GED | Assoc | Bachs | Masters | Doctorate | Other | Unkn | Total |
| Total | 2,838 (7.8) | 7,815 (21.5) | 17,698 (48.8) | 1,284 (3.5) | 3,003 (8.3) | 880 (2.4) | 477 (1.3) | 342 (0.9) | 1,938 (5.3) | 36,275 |

# Table 42. Highest Level of Education by Post-Injury Year

| Education Level n (%) | Post-Injury Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | Total |
| 8th Grade or Less | 1,760 (6.4) | 760 (4.8) | 383 (4.0) | 185 (2.8) | 126 (2.6) | 81 (2.1) | 71 (2.4) | 46 (2.2) | 19 (1.8) | 2 (1.0) | 3,433 |
| 9th through 11th Grade | 5,346 (19.5) | 2,032 (12.9) | 1,063 (11.2) | 636 (9.8) | 471 (9.6) | 316 (8.1) | 196 (6.5) | 114 (5.4) | 51 (4.9) | 4 (1.9) | 10,229 |
| High School/GED | 14,461 (52.6) | 8,666 (55.1) | 4,736 (50.0) | 3,173 (48.8) | 2,271 (46.1) | 1,788 (45.7) | 1,299 (43.2) | 842 (39.6) | 362 (34.8) | 60 (28.6) | 37,658 |
| Associate Degree | 1,172 (4.3) | 967 (6.2) | 790 (8.3) | 610 (9.4) | 502 (10.2) | 394 (10.1) | 333 (11.1) | 253 (11.9) | 129 (12.4) | 32 (15.2) | 5,182 |
| Bachelor's Degree | 2,609 (9.5) | 1,970 (12.5) | 1,517 (16.0) | 1,116 (17.2) | 897 (18.2) | 796 (20.4) | 654 (21.7) | 511 (24.0) | 273 (26.2) | 61 (29.0) | 10,404 |
| Master's Degree | 783 (2.8) | 545 (3.5) | 471 (5.0) | 408 (6.3) | 347 (7.0) | 310 (7.9) | 275 (9.1) | 209 (9.8) | 127 (12.2) | 35 (16.7) | 3,510 |
| Doctorate Degree | 404 (1.5) | 240 (1.5) | 181 (1.9) | 141 (2.2) | 123 (2.5) | 108 (2.8) | 108 (3.6) | 86 (4.0) | 52 (5.0) | 10 (4.8) | 1,453 |
| Other | 307 (1.1) | 213 (1.4) | 169 (1.8) | 121 (1.9) | 104 (2.1) | 64 (1.6) | 42 (1.4) | 38 (1.8) | 10 (1.0) | 4 (1.9) | 1,072 |
| Unkn | 643 (2.3) | 321 (2.0) | 159 (1.7) | 111 (1.7) | 81 (1.6) | 53 (1.4) | 32 (1.1) | 28 (1.3) | 18 (1.7) | 2 (1.0) | 1,448 |
| Total | 27,485 | 15,714 | 9,469 | 6,501 | 4,922 | 3,910 | 3,010 | 2,127 | 1,041 | 210 | 74,389 |

## Table 43. Occupational Status at Time of Injury

| n (%) | Work | Home maker | OJT | Work shop | Retired | Student | Unemp loyed | Other | Unkn | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 21,176 (58.4) | 644 (1.8) | 87 (0.2) | 20 (0.1) | 2,901 (8.0) | 5,017 (13.8) | 5,477 (15.1) | 518 (1.4) | 435 (1.2) | 36,275 |

*Footnote 1: OJT = on the job training.*

## Table 44. Occupational Status by Post-Injury Year

| Occupational Status n (%) | Post-Injury Year | | | | | | | | | | Total |
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Work | 3,525 (12.8) | 3,294 (21.0) | 2,506 (26.5) | 1,974 (30.4) | 1,585 (32.2) | 1,306 (33.4) | 954 (31.7) | 645 (30.3) | 277 (26.6) | 51 (24.3) | 16,117 |
| homemaker | 421 (1.5) | 285 (1.8) | 205 (2.2) | 143 (2.2) | 88 (1.8) | 77 (2.0) | 75 (2.5) | 46 (2.2) | 21 (2.0) | 3 (1.4) | 1,364 |
| OJT | 32 (0.1) | 20 (0.1) | 8 (0.1) | 4 (0.1) | 8 (0.2) | 2 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 74 |
| Workshop | 13 (0.0) | 6 (0.0) | 8 (0.1) | 2 (0.0) | 1 (0.0) | 3 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 33 |
| Retired | 2,387 (8.7) | 1,671 (10.6) | 1,103 (11.6) | 799 (12.3) | 596 (12.1) | 526 (13.5) | 575 (19.1) | 637 (29.9) | 475 (45.6) | 131 (62.4) | 8,900 |
| Student | 3,843 (14.0) | 2,138 (13.6) | 554 (5.9) | 191 (2.9) | 101 (2.1) | 47 (1.2) | 17 (0.6) | 11 (0.5) | 1 (0.1) | 0 (0.0) | 6,903 |
| Unemployed | 14,636 (53.3) | 7,113 (45.3) | 4,343 (45.9) | 2,837 (43.6) | 2,130 (43.3) | 1,575 (40.3) | 1,074 (35.7) | 643 (30.2) | 208 (20.0) | 18 (8.6) | 34,577 |
| Other | 1,924 (7.0) | 829 (5.3) | 548 (5.8) | 421 (6.5) | 332 (6.7) | 317 (8.1) | 282 (9.4) | 119 (5.6) | 39 (3.7) | 6 (2.9) | 4,817 |
| Unkn | 704 (2.6) | 358 (2.3) | 194 (2.0) | 130 (2.0) | 81 (1.6) | 57 (1.5) | 33 (1.1) | 26 (1.2) | 20 (1.9) | 1 (0.5) | 1,604 |
| Total | 27,485 (36.9) | 15,714 (21.1) | 9,469 (12.7) | 6,501 (8.7) | 4,922 (6.6) | 3,910 (5.3) | 3,010 (4.0) | 2,127 (2.9) | 1,041 (1.4) | 210 (0.3) | 74,389 |

*Footnote 1: OJT = on the job training.*

## Table 45. The Number of Employed Weeks in the Last 12 Months by Post-Injury Year

| | Post Injury Year    mean (n) | | | | | | | | | |
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
|---|---|---|---|---|---|---|---|---|---|---|
| Total | 27.1 (733) | 36.1 (717) | 35.4 (554) | 39.3 (491) | 37.4 (366) | 40.8 (302) | 45.2 (215) | 42.2 (298) | 41.9 (233) | 36.5 (64) |

*Footnote 1: Form IIs entered to the database since January 1, 2017.*
*Footnote 2: Work includes civilian work for pay or work without pay on a family-operated farm or business, valid range 1 to 52 weeks.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

# Table 46. Job Census Code at Time of Injury

*(Continued)*

| n (%) | Job Census Code | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Management Occupations | Business and Financial Operations Occupations | Computer and Mathematical Occupations | Architecture and Engineering Occupations | Community and Social Service Occupations | Legal Occupations | Educational Instruction and Library Occupations | Arts, Design, Entertainment, Sports, and Media Occupations | Healthcare Practitioners and Technical Occupations |
| Total | 48 (0.3) | 14 (0.1) | 5 (0.0) | 12 (0.1) | 5 (0.0) | 4 (0.0) | 12 (0.1) | 12 (0.1) | 163 (1.0) |

*(Continued)*

| n (%) | Job Census Code | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Healthcare Support Occupations | Protective Service Occupations | Food Preparation and Serving Related Occupations | Building and Grounds Cleaning and Maintenance | Personal Care and Service Occupations | Sales and Related Occupations | Office and Administrative Support Occupations | Farming, Fishing, and Forestry Occupations | Construction and Extraction Occupations |
| Total | 4 (0.0) | 11 (0.1) | 23 (0.1) | 6 (0.0) | 8 (0.1) | 569 (3.6) | 471 (3.0) | 286 (1.8) | 393 (2.5) |

*(Continued)*

| n (%) | Job Census Code | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Installation, Maintenance, and Repair Occupations | Production Occupations | Transportation and Material Moving Occupations | Military Specific Occupations | Management, Business, Financial Occupations | Computer, Engineer, Science Occupations | Education, Legal, Communication Services, Arts/Media Occupations | Services Occupations | Professional Specialty |
| Total | 552 (3.5) | 129 (0.8) | 698 (4.4) | 53 (0.3) | 1,026 (6.5) | 115 (0.7) | 167 (1.1) | 1,248 (7.9) | 984 (6.2) |

| n (%) | Job Census Code | | | | | |
|---|---|---|---|---|---|---|
| | Technicians and related support | Precision production, craft, and repair | Handlers, equip cleaners, helpers/laborers | Not working | Unknown | Total |
| Total | 338 (2.1) | 1,290 (8.2) | 679 (4.3) | 6,051 (38.4) | 396 (2.5) | 15,772 |

*Footnote 1: Form Is entered to the database since January 1, 2001.*
*Footnote 2: In September 2021, coding was updated to the 2018 Standard Occupational Classification.*

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# Table 47. Job Census Code by Post-Injury Year

*(Continued)*

| Job Census Code        n (%) | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Management Occupations | 10 (0.1) | 11 (0.1) | 7 (0.1) | 8 (0.2) | 5 (0.1) | 7 (0.2) | 3 (0.1) | 5 (0.2) | 5 (0.5) | 5 (2.4) | 66 |
| Business and Financial Operations Occupations | 6 (0.0) | 9 (0.1) | 1 (0.0) | 1 (0.0) | 1 (0.0) | 3 (0.1) | 3 (0.1) | 2 (0.1) | 1 (0.1) | 3 (1.4) | 30 |
| Computer and Mathematical Occupations | 2 (0.0) | 2 (0.0) | 2 (0.0) | 0 (0.0) | 1 (0.0) | 2 (0.1) | 2 (0.1) | 1 (0.0) | 0 (0.0) | 1 (0.5) | 13 |
| Architecture and Engineering Occupations | 1 (0.0) | 3 (0.0) | 5 (0.1) | 2 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.0) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 13 |
| Life, Physical, and Social Science Occupations | 0 (0.0) | 0 (0.0) | 2 (0.0) | 2 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 5 |
| Community and Social Service Occupations | 0 (0.0) | 0 (0.0) | 2 (0.0) | 2 (0.0) | 3 (0.1) | 1 (0.0) | 1 (0.0) | 0 (0.0) | 2 (0.2) | 0 (0.0) | 11 |
| Legal Occupations | 2 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.0) | 1 (0.1) | 1 (0.5) | 6 |
| Educational Instruction and Library Occupations | 2 (0.0) | 1 (0.0) | 1 (0.0) | 2 (0.0) | 2 (0.0) | 0 (0.0) | 2 (0.1) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 11 |
| Arts, Design, Entertainment, Sports, and Media Occupations | 1 (0.0) | 2 (0.0) | 3 (0.0) | 2 (0.0) | 2 (0.0) | 2 (0.1) | 1 (0.0) | 1 (0.0) | 2 (0.2) | 0 (0.0) | 16 |
| Healthcare Practitioners and Technical Occupations | 39 (0.3) | 48 (0.6) | 33 (0.5) | 30 (0.6) | 14 (0.3) | 13 (0.3) | 10 (0.3) | 12 (0.6) | 5 (0.5) | 3 (1.4) | 207 |
| Healthcare Support Occupations | 4 (0.0) | 2 (0.0) | 2 (0.0) | 2 (0.0) | 0 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 11 |
| Protective Service Occupations | 0 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.5) | 3 |
| Food Preparation and Serving Related Occupations | 1 (0.0) | 3 (0.0) | 1 (0.0) | 0 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 6 |
| Building and Grounds Cleaning and Maintenance Occupations | 1 (0.0) | 1 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 2 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 5 |
| Personal Care and Service Occupations | 0 (0.0) | 2 (0.0) | 0 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 4 |
| Sales and Related Occupations | 158 (1.3) | 189 (2.4) | 163 (2.7) | 116 (2.5) | 95 (2.4) | 92 (2.5) | 64 (2.1) | 37 (1.7) | 13 (1.2) | 1 (0.5) | 928 |
| Office and Administrative Support Occupations | 138 (1.1) | 185 (2.3) | 165 (2.7) | 169 (3.6) | 134 (3.3) | 148 (4.0) | 94 (3.1) | 51 (2.4) | 20 (1.9) | 2 (1.0) | 1,106 |
| Farming, Fishing, and Forestry Occupations | 41 (0.3) | 32 (0.4) | 23 (0.4) | 21 (0.5) | 15 (0.4) | 21 (0.6) | 17 (0.6) | 7 (0.3) | 5 (0.5) | 2 (1.0) | 184 |

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

*Footnote 2: In September 2021, coding was updated to the 2018 Standard Occupational Classification*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

# Table 47. Job Census Code by Post-Injury Year

| Job Census Code n (%) | Post-Injury Year | | | | | | | | | | Total |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | |
| Construction and Extraction Occupations | 16 (0.1) | 14 (0.2) | 10 (0.2) | 9 (0.2) | 7 (0.2) | 5 (0.1) | 5 (0.2) | 5 (0.2) | 2 (0.2) | 1 (0.5) | 74 |
| Installation, Maintenance, and Repair Occupations | 36 (0.3) | 42 (0.5) | 28 (0.5) | 22 (0.5) | 26 (0.6) | 10 (0.3) | 8 (0.3) | 9 (0.4) | 4 (0.4) | 1 (0.5) | 186 |
| Production Occupations | 15 (0.1) | 12 (0.1) | 7 (0.1) | 4 (0.1) | 4 (0.1) | 1 (0.0) | 2 (0.1) | 4 (0.2) | 3 (0.3) | 0 (0.0) | 52 |
| Transportation and Material Moving Occupations | 37 (0.3) | 34 (0.4) | 26 (0.4) | 17 (0.4) | 19 (0.5) | 17 (0.5) | 17 (0.6) | 4 (0.2) | 9 (0.9) | 2 (1.0) | 182 |
| Military Specific Occupations | 6 (0.0) | 4 (0.0) | 1 (0.0) | 1 (0.0) | 0 (0.0) | 1 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 14 |
| Management, Business, Financial Occupations | 459 (3.8) | 375 (4.7) | 324 (5.4) | 298 (6.4) | 318 (7.9) | 293 (7.8) | 245 (8.1) | 190 (8.9) | 92 (8.8) | 17 (8.1) | 2,611 |
| Computer, Engineer, Science Occupations | 73 (0.6) | 55 (0.7) | 35 (0.6) | 49 (1.1) | 30 (0.7) | 27 (0.7) | 29 (1.0) | 48 (2.3) | 24 (2.3) | 4 (1.9) | 374 |
| Education, Legal, Communication Services, Arts/Media Occupations | 68 (0.6) | 65 (0.8) | 49 (0.8) | 50 (1.1) | 40 (1.0) | 43 (1.1) | 26 (0.9) | 44 (2.1) | 33 (3.2) | 5 (2.4) | 423 |
| Services Occupations | 142 (1.2) | 136 (1.7) | 94 (1.6) | 74 (1.6) | 71 (1.8) | 54 (1.4) | 30 (1.0) | 17 (0.8) | 12 (1.2) | 2 (1.0) | 632 |
| Professional Specialty, not valid after 10/1/2016 | 367 (3.0) | 316 (3.9) | 352 (5.9) | 321 (6.9) | 347 (8.6) | 370 (9.9) | 297 (9.9) | 164 (7.7) | 32 (3.1) | 0 (0.0) | 2,566 |
| Technicians and related support, not valid after 10/1/2016 | 70 (0.6) | 75 (0.9) | 72 (1.2) | 57 (1.2) | 54 (1.3) | 60 (1.6) | 46 (1.5) | 23 (1.1) | 2 (0.2) | 0 (0.0) | 459 |
| Precision production, craft, and repair, not valid after 10/1/2016 | 75 (0.6) | 67 (0.8) | 67 (1.1) | 56 (1.2) | 36 (0.9) | 40 (1.1) | 29 (1.0) | 13 (0.6) | 3 (0.3) | 0 (0.0) | 386 |
| Handlers, equip cleaners, helpers/laborers, not valid after 10/1/2016 | 27 (0.2) | 22 (0.3) | 17 (0.3) | 13 (0.3) | 6 (0.1) | 12 (0.3) | 10 (0.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 107 |
| Not working | 9,923 (82.4) | 6,107 (76.1) | 4,370 (72.6) | 3,182 (68.5) | 2,695 (66.8) | 2,440 (65.2) | 2,023 (67.2) | 1,456 (68.5) | 744 (71.5) | 158 (75.2) | 33,098 |
| Unknown | 325 (2.7) | 206 (2.6) | 154 (2.6) | 135 (2.9) | 106 (2.6) | 78 (2.1) | 43 (1.4) | 32 (1.5) | 25 (2.4) | 1 (0.5) | 1,105 |
| Total | 12,045 (26.8) | 8,022 (17.9) | 6,017 (13.4) | 4,646 (10.3) | 4,033 (9.0) | 3,743 (8.3) | 3,010 (6.7) | 2,127 (4.7) | 1,041 (2.3) | 210 (0.5) | 44,894 |

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

*Footnote 2: In October 2016: * codes were added, ** codes become invalid.*

## Table 48. Veteran Status at Time of Injury

| n (%) | Veteran Status | | | |
|---|---|---|---|---|
| | No | Yes | Unkn | Total |
| Total | 14,287 (90.6) | 1,269 (8.0) | 219 (1.4) | 15,775 |

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

## Table 49. VA Healthcare System Services Used by Year Post-Injury

| VA Healthcare Services Used n (%) | Post-Injury Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | Total |
| No services, but participant is a Veteran | 1,284 (10.6) | 572 (7.1) | 473 (7.9) | 354 (7.6) | 295 (7.3) | 306 (8.2) | 247 (8.2) | 136 (6.4) | 47 (4.5) | 12 (5.7) | 3,726 |
| Yes | 488 (4.0) | 351 (4.4) | 233 (3.9) | 162 (3.5) | 148 (3.7) | 150 (4.0) | 140 (4.7) | 95 (4.5) | 54 (5.2) | 8 (3.8) | 1,829 |
| N/A, Not a Veteran | 10,047 (83.3) | 6,910 (86.1) | 5,179 (86.0) | 4,035 (86.8) | 3,509 (87.0) | 3,226 (86.2) | 2,590 (86.0) | 1,861 (87.5) | 920 (88.4) | 187 (89.0) | 38,464 |
| Unknown | 245 (2.0) | 190 (2.4) | 134 (2.2) | 97 (2.1) | 83 (2.1) | 62 (1.7) | 33 (1.1) | 35 (1.6) | 20 (1.9) | 3 (1.4) | 902 |
| Total | 12,064 (26.9) | 8,023 (17.9) | 6,019 (13.4) | 4,648 (10.3) | 4,035 (9.0) | 3,744 (8.3) | 3,010 (6.7) | 2,127 (4.7) | 1,041 (2.3) | 210 (0.5) | 44,921 |

*Footnote 1: Form IIs entered into the database since October 31, 2000.*

## Table 50. Primary Payer of Medical Costs during Initial Hospital Stay

| n (%) | Private Insurance | Medicare | Medicaid | Worker's Compensation | Vet Admin | Other Government | No Pay | Private funds | Other | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Primary Payer |
| Total | 11,576 (49.7) | 2,052 (8.8) | 6,268 (26.9) | 1,559 (6.7) | 62 (0.3) | 291 (1.2) | 858 (3.7) | 378 (1.6) | 239 (1.0) | 23,283 |

*Footnote 1: This variable was not collected between 2006 and 2011. Exclude 12,992 records coded as unknown/decline*

## Table 51. Primary Payer of Medical Costs by Post-Injury Year

| Primary Payer    n (%) | Post-Injury Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | Total |
| Private Insurance | 7,846 (44.0) | 3,565 (32.0) | 2,197 (29.9) | 1,701 (31.8) | 1,303 (31.4) | 916 (31.9) | 654 (32.2) | 592 (32.3) | 327 (32.0) | 53 (25.6) | 19,154 |
| Medicare | 1,650 (9.2) | 3,519 (31.6) | 2,838 (38.6) | 2,155 (40.3) | 1,748 (42.1) | 1,215 (42.3) | 918 (45.2) | 895 (48.8) | 553 (54.1) | 131 (63.3) | 15,622 |
| Medicaid | 5,816 (32.6) | 2,782 (25.0) | 1,530 (20.8) | 872 (16.3) | 631 (15.2) | 419 (14.6) | 270 (13.3) | 184 (10.0) | 74 (7.2) | 9 (4.3) | 12,587 |
| Worker's Compensation | 1,285 (7.2) | 682 (6.1) | 452 (6.1) | 339 (6.3) | 263 (6.3) | 165 (5.7) | 102 (5.0) | 87 (4.7) | 37 (3.6) | 6 (2.9) | 3,418 |
| Veterans Administration | 170 (1.0) | 134 (1.2) | 95 (1.3) | 82 (1.5) | 61 (1.5) | 49 (1.7) | 42 (2.1) | 34 (1.9) | 16 (1.6) | 5 (2.4) | 688 |
| Other Government | 333 (1.9) | 124 (1.1) | 41 (0.6) | 40 (0.7) | 24 (0.6) | 15 (0.5) | 9 (0.4) | 9 (0.5) | 2 (0.2) | 1 (0.5) | 598 |
| No Pay | 257 (1.4) | 56 (0.5) | 39 (0.5) | 38 (0.7) | 34 (0.8) | 19 (0.7) | 16 (0.8) | 8 (0.4) | 8 (0.8) | 1 (0.5) | 476 |
| Private funds | 353 (2.0) | 223 (2.0) | 120 (1.6) | 92 (1.7) | 64 (1.5) | 62 (2.2) | 14 (0.7) | 18 (1.0) | 4 (0.4) | 1 (0.5) | 951 |
| Other | 131 (0.7) | 48 (0.4) | 44 (0.6) | 29 (0.5) | 20 (0.5) | 14 (0.5) | 8 (0.4) | 6 (0.3) | 2 (0.2) | 0 (0.0) | 302 |
| Total | 17,841 | 11,133 | 7,356 | 5,348 | 4,148 | 2,874 | 2,033 | 1,833 | 1,023 | 207 | 53,796 |

*Footnote 1: This variable was not collected between 2006 and 2011.Excludes 20,292 records coded as "unknown/decline".*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 52. Family Household Income Level at Time of Injury

| n (%) | Family Household Income | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | <$25,000 | $25,000-$49,999 | $50,000-$74,999 | $75,000 or more | Participant doesn't know | Declined | Unkn | Total |
| Total | 1,725 (22.2) | 1,544 (19.9) | 1,097 (14.1) | 1,809 (23.3) | 762 (9.8) | 576 (7.4) | 243 (3.1) | 7,756 |

*Footnote 1: Data was required for all Admissions to System since October 1, 2011.*

## Table 53. Family Household Income Level by Post-Injury Year

| Family Household Income n (%) | Post-Injury Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | Total |
| <$25,000 | 3,541 (39.1) | 2,635 (41.2) | 1,966 (40.5) | 1,641 (39.7) | 1,527 (42.3) | 1,089 (40.8) | 736 (37.3) | 590 (32.2) | 280 (27.6) | 40 (19.6) | 14,045 |
| $25,000-$49,999 | 1,823 (20.1) | 1,266 (19.8) | 1,077 (22.2) | 910 (22.0) | 738 (20.5) | 509 (19.1) | 373 (18.9) | 399 (21.8) | 228 (22.5) | 44 (21.6) | 7,367 |
| $50,000-$74,999 | 1,054 (11.6) | 709 (11.1) | 557 (11.5) | 515 (12.5) | 423 (11.7) | 342 (12.8) | 235 (11.9) | 218 (11.9) | 134 (13.2) | 25 (12.3) | 4,212 |
| $75,000 or more | 1,596 (17.6) | 1,114 (17.4) | 782 (16.1) | 730 (17.7) | 683 (18.9) | 553 (20.7) | 472 (23.9) | 455 (24.8) | 265 (26.2) | 71 (34.8) | 6,721 |
| Participant doesn't know | 647 (7.2) | 354 (5.5) | 201 (4.1) | 155 (3.8) | 73 (2.0) | 58 (2.2) | 38 (1.9) | 39 (2.1) | 20 (2.0) | 5 (2.5) | 1,590 |
| Declined | 387 (4.3) | 322 (5.0) | 269 (5.5) | 179 (4.3) | 163 (4.5) | 120 (4.5) | 118 (6.0) | 130 (7.1) | 86 (8.5) | 19 (9.3) | 1,793 |
| Total | 9,048 | 6,400 | 4,852 | 4,130 | 3,607 | 2,671 | 1,972 | 1,831 | 1,013 | 204 | 35,728 |

*Footnote 1: Form IIs entered into the database since January 1, 1996.*
*Footnote 2: This variable was not collected between 2006 and 2011. Excludes 16,122 unknown records.*
*Footnote 3: Participant doesn't know/Declined was added in October 2011.*

## Table 54. Vertebral Injury

| n (%) | Vertebral Injury | | | |
|---|---|---|---|---|
| | No | Yes | Unkn | Total |
| Total | 2,298 (20.1) | 9,087 (79.6) | 36 (0.3) | 11,421 |

*Footnote 1: Data were required for all Admissions to System since October 1, 2006.*

## Table 55. Associated Injury

| n (%) | Associated Injury | | | |
|---|---|---|---|---|
| | No | Yes | Unkn | Total |
| Total | 7,160 (62.7) | 4,207 (36.8) | 54 (0.5) | 11,421 |

*Footnote 1: Data were required for all Admissions to System since October 1, 2006.*

## Table 56. Spinal Surgery

| n (%) | Spinal Surgery | | | |
|---|---|---|---|---|
| | No | Yes | Unkn | Total |
| Total | 2,168 (19.0) | 9,217 (80.7) | 36 (0.3) | 11,421 |

*Footnote 1: Data were required for all Admissions to System since October 1, 2006.*

## Table 57. Place of Residence at Time of Injury

| n (%) | Residence at Time of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Private | Hospital | Nursing Home | Group Living | Correction Institute | Hotel Motel | Other | Homeless | Assisted Living | Unkn | Total |
| Total | 18,650 (97.9) | 60 (0.3) | 42 (0.2) | 114 (0.6) | 11 (0.1) | 29 (0.2) | 11 (0.1) | 98 (0.5) | 5 (0.0) | 29 (0.2) | 19,049 |

*Footnote 1: Data required for all admissions to system since December 1, 1995.*
*Footnote 2: 'Assisted Living' was added in October 2011.*

## Table 58. Place of Residence at Discharge

| n (%) | Place of Residence at Discharge | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Private | Hospital | Nursing Home | Group Living | Correction Institute | Hotel Motel | Deceased | Other | Homeless | Assisted Living | Unkn | Total |
| Total | 31,694 (87.4) | 595 (1.6) | 2,512 (6.9) | 415 (1.1) | 50 (0.1) | 98 (0.3) | 711 (2.0) | 32 (0.1) | 18 (0.0) | 37 (0.1) | 113 (0.3) | 36,275 |

*Footnote 1: 'Assisted Living' was added in October 2011.*

## Table 59. Place of Residence by Post-Injury Year

| Residence      n (%) | Post-Injury Year | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 | Total |
| Private Residence | 25,169 (91.6) | 14,696 (93.5) | 9,027 (95.3) | 6,242 (96.0) | 4,741 (96.3) | 3,784 (96.8) | 2,921 (97.0) | 2,063 (97.0) | 1,005 (96.5) | 201 (95.7) | 69,849 |
| Hospital | 130 (0.5) | 28 (0.2) | 7 (0.1) | 7 (0.1) | 2 (0.0) | 5 (0.1) | 1 (0.0) | 2 (0.1) | 0 (0.0) | 0 (0.0) | 182 |
| Nursing Home | 1,081 (3.9) | 472 (3.0) | 250 (2.6) | 134 (2.1) | 96 (2.0) | 58 (1.5) | 53 (1.8) | 30 (1.4) | 14 (1.3) | 3 (1.4) | 2,191 |
| Group Living Situation | 329 (1.2) | 192 (1.2) | 50 (0.5) | 26 (0.4) | 15 (0.3) | 11 (0.3) | 6 (0.2) | 3 (0.1) | 1 (0.1) | 1 (0.5) | 634 |
| Correctional Institution | 34 (0.1) | 17 (0.1) | 9 (0.1) | 6 (0.1) | 4 (0.1) | 2 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 72 |
| Hotel/Motel | 63 (0.2) | 9 (0.1) | 6 (0.1) | 1 (0.0) | 5 (0.1) | 0 (0.0) | 2 (0.1) | 3 (0.1) | 0 (0.0) | 0 (0.0) | 89 |
| Other | 45 (0.2) | 12 (0.1) | 6 (0.1) | 7 (0.1) | 6 (0.1) | 4 (0.1) | 4 (0.1) | 8 (0.4) | 7 (0.7) | 0 (0.0) | 99 |
| Homeless | 24 (0.1) | 10 (0.1) | 4 (0.0) | 3 (0.0) | 2 (0.0) | 2 (0.1) | 1 (0.0) | 2 (0.1) | 3 (0.3) | 0 (0.0) | 51 |
| Assisted Living | 61 (0.2) | 47 (0.3) | 17 (0.2) | 16 (0.2) | 12 (0.2) | 11 (0.3) | 13 (0.4) | 8 (0.4) | 8 (0.8) | 4 (1.9) | 197 |
| Unkn | 549 (2.0) | 231 (1.5) | 93 (1.0) | 59 (0.9) | 39 (0.8) | 33 (0.8) | 9 (0.3) | 8 (0.4) | 3 (0.3) | 1 (0.5) | 1,025 |
| Total | 27,485 (36.9) | 15,714 (21.1) | 9,469 (12.7) | 6,501 (8.7) | 4,922 (6.6) | 3,910 (5.3) | 3,010 (4.0) | 2,127 (2.9) | 1,041 (1.4) | 210 (0.3) | 74,389 |

*Footnote 1: Assisted Living was added in October 2011.*

## Table 60. Median Days from Injury to Admission by Year of Injury

| median (n) | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973-1979 | 1980-1984 | 1985-1989 | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2019 | 2020-2022 | Total |
| Total | 20.0 (4,563) | 15.0 (4,949) | 2.0 (3,843) | 1.0 (3,295) | 1.0 (3,623) | 5.0 (3,443) | 8.0 (3,606) | 8.0 (3,650) | 9.0 (3,703) | 10.0 (1,600) | 7.0 (36,275) |

*Footnote 1: Eligibility criteria changed in 1987 & 2000.*
*Footnote 2: September 2021: Trend data for 2010-2014 & 2015-2020 was updated.*

## Table 61. Median Days Hospitalized in the System's Acute Care Unit by Year of Injury (Day-1s Only)

| median (n) | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973-1979 | 1980-1984 | 1985-1989 | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2019 | 2020-2022 | Overall |
| Total | 24.0 (1,224) | 23.0 (1,627) | 19.0 (1,747) | 15.0 (1,877) | 13.0 (1,900) | 13.0 (1,577) | 12.0 (1,351) | 11.0 (1,283) | 11.0 (1,197) | 13.0 (442) | 16.0 (14,225) |

*Footnote 1: In 1995, variable 'Length of Stay' was separated.*

## Table 62. Median Days Hospitalized in the System's Acute Care Unit by Year of Injury and Neurologic Category (Day-1s Only)

| Neurologic Category median (n) | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973-1979 | 1980-1984 | 1985-1989 | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2019 | 2020-2022 | Overall |
| Tetraplegia, complete | 27.0 (313) | 30.0 (348) | 24.0 (315) | 26.0 (323) | 24.0 (313) | 24.5 (264) | 23.0 (176) | 19.0 (137) | 21.0 (117) | 25.5 (40) | 25.0 (2,346) |
| Tetraplegia, incomplete | 24.0 (323) | 22.0 (509) | 18.0 (542) | 15.0 (483) | 10.0 (545) | 11.0 (482) | 10.0 (487) | 10.0 (533) | 10.0 (514) | 12.5 (168) | 13.0 (4,586) |
| Tetraplegia, minimal deficit | 23.0 (3) | 11.0 (5) | 11.5 (42) | 9.0 (76) | 7.0 (59) | 8.0 (37) | 8.0 (12) | 8.5 (12) | 7.5 (4) | 9.0 (3) | 9.0 (253) |
| Paraplegia, complete | 23.0 (327) | 22.0 (402) | 19.0 (408) | 16.0 (513) | 13.0 (482) | 15.0 (354) | 14.0 (287) | 13.0 (241) | 14.0 (191) | 13.0 (66) | 16.0 (3,271) |
| Paraplegia, incomplete | 21.5 (218) | 22.0 (325) | 18.0 (381) | 13.0 (378) | 12.0 (363) | 11.0 (271) | 10.0 (291) | 10.5 (286) | 10.0 (230) | 12.0 (76) | 13.0 (2,819) |
| Paraplegia, minimal deficit | 0.0 (0) | 10.0 (7) | 13.0 (29) | 10.0 (71) | 12.0 (39) | 10.5 (26) | 11.0 (12) | 10.0 (9) | 6.0 (2) | 4.0 (1) | 11.0 (196) |
| Normal, minimal deficit | 19.0 (36) | 18.0 (24) | 12.0 (13) | 10.0 (8) | 10.0 (8) | 9.0 (18) | 13.0 (6) | 9.0 (7) | 6.0 (14) | 8.5 (4) | 12.5 (138) |
| Unkn | 16.0 (4) | 23.0 (7) | 24.0 (17) | 18.0 (25) | 18.0 (91) | 16.0 (125) | 12.0 (80) | 11.0 (58) | 13.0 (125) | 12.0 (84) | 14.0 (616) |
| Total | 24.0 (1,224) | 23.0 (1,627) | 19.0 (1,747) | 15.0 (1,877) | 13.0 (1,900) | 13.0 (1,577) | 12.0 (1,351) | 11.0 (1,283) | 11.0 (1,197) | 13.0 (442) | 16.0 (14,225) |

*Footnote1: Para & Tetra minimal deficit categories were added in 1987. Some records have been updated.*
*Footnote2: Neurologic impairment at discharge was used as the basis of comparison.*

**Table 63. Median Days Hospitalized in the System's Rehab Unit by Year of Injury (Day-1s Only)**

| median (n) | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973-1979 | 1980-1984 | 1985-1989 | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2019 | 2020-2022 | Overall |
| Total | 98.0 (1,198) | 86.0 (1,646) | 73.0 (1,743) | 58.0 (1,842) | 44.0 (1,903) | 42.0 (1,449) | 38.0 (1,325) | 35.0 (1,327) | 31.0 (1,254) | 31.5 (520) | 51.0 (14,207) |

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**Table 64. Median Days Hospitalized in the System's Rehab Unit by Year of Injury (All Rehab Admissions)**

| median (n) | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973-1979 | 1980-1984 | 1985-1989 | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2019 | 2020-2022 | Overall |
| Total | 91.0 (4,420) | 86.0 (4,812) | 77.0 (3,723) | 59.0 (3,159) | 45.0 (3,553) | 46.0 (3,228) | 44.0 (3,474) | 44.0 (3,613) | 42.0 (3,655) | 41.0 (1,564) | 57.0 (35,201) |

**Table 65. Median Days Hospitalized in the System's Rehab Unit by Year of Injury and Neurologic Category (Day-1s Only)**

| Neurologic Category median (n) | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973-1979 | 1980-1984 | 1985-1989 | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2019 | 2020-2022 | Overall |
| Tetraplegia, complete | 142.0 (293) | 121.0 (349) | 111.0 (289) | 99.0 (309) | 71.0 (327) | 65.5 (244) | 62.0 (165) | 51.0 (139) | 49.0 (120) | 35.0 (43) | 92.0 (2,278) |
| Tetraplegia, incomplete | 104.0 (333) | 95.0 (526) | 85.0 (549) | 75.0 (465) | 51.0 (544) | 44.0 (471) | 36.0 (489) | 36.0 (549) | 33.0 (540) | 35.0 (199) | 52.0 (4,665) |
| Tetraplegia, minimal deficit | 0.0 (0) | 41.0 (5) | 22.0 (41) | 25.5 (78) | 14.0 (59) | 23.0 (29) | 17.0 (8) | 13.0 (14) | 9.0 (3) | 21.5 (2) | 22.0 (239) |
| Paraplegia, complete | 84.0 (347) | 72.5 (424) | 63.0 (429) | 52.0 (523) | 39.0 (492) | 42.0 (338) | 40.0 (293) | 35.0 (249) | 34.0 (204) | 29.0 (83) | 51.0 (3,382) |
| Paraplegia, incomplete | 68.0 (218) | 63.0 (322) | 57.0 (394) | 43.0 (378) | 31.0 (364) | 30.0 (267) | 29.0 (296) | 30.0 (291) | 26.0 (239) | 28.0 (94) | 38.0 (2,863) |
| Paraplegia, minimal deficit | 0.0 (0) | 19.0 (7) | 33.0 (28) | 27.0 (66) | 19.0 (41) | 19.0 (23) | 14.0 (12) | 11.5 (8) | 17.0 (1) | 11.0 (1) | 21.0 (187) |
| Normal, minimal deficit | 38.5 (6) | 43.0 (9) | 10.0 (5) | 12.5 (8) | 10.0 (9) | 15.0 (11) | 19.0 (3) | 8.5 (8) | 11.5 (14) | 18.0 (4) | 14.0 (77) |
| Unkn | 132.0 (1) | 88.0 (4) | 115 (8) | 36.0 (15) | 31.0 (67) | 35.5 (66) | 44.0 (59) | 31.0 (69) | 30.0 (133) | 30.0 (94) | 33.0 (516) |
| Total | 98.0 (1,198) | 86.0 (1,646) | 73.0 (1,743) | 58.0 (1,842) | 44.0 (1,903) | 42.0 (1,449) | 38.0 (1,325) | 35.0 (1,327) | 31.0 (1,254) | 31.5 (520) | 51.0 (14,207) |

*Footnote1: Para & Tetra minimal deficit categories were added in 1987. Some records have been updated.*

*Footnote2: Neurologic impairment at discharge was used as the basis of comparison.*

# Table 66. Median Days Hospitalized in the System's Rehab Unit by Year of Injury and Neurologic Category (All Rehab Admissions)

| Neurologic Category median (n) | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973-1979 | 1980-1984 | 1985-1989 | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2019 | 2020-2022 | Overall |
| Tetraplegia, complete | 122.0 (1,097) | 114.0 (1,038) | 113.0 (683) | 98.0 (579) | 73.0 (671) | 66.0 (609) | 64.0 (542) | 68.0 (465) | 59.0 (404) | 55.0 (171) | 92.0 (6,259) |
| Tetraplegia, incomplete | 96.0 (1,261) | 94.0 (1,571) | 87.0 (1,170) | 77.0 (792) | 51.0 (1,003) | 50.0 (1,071) | 45.5 (1,252) | 47.0 (1,478) | 45.0 (1,531) | 44.0 (606) | 60.0 (11,735) |
| Tetraplegia, minimal deficit | 7.0 (1) | 57.5 (12) | 29.0 (60) | 28.0 (110) | 19.0 (89) | 23.5 (50) | 26.0 (42) | 16.0 (23) | 18.0 (29) | 27.5 (4) | 24.5 (420) |
| Paraplegia, complete | 80.5 (1,252) | 71.0 (1,221) | 64.0 (948) | 52.0 (929) | 39.0 (968) | 44.0 (772) | 42.0 (744) | 42.0 (659) | 42.0 (656) | 35.0 (266) | 53.0 (8,415) |
| Paraplegia, incomplete | 68.0 (794) | 63.0 (922) | 57.0 (792) | 44.0 (627) | 32.0 (627) | 34.0 (540) | 34.0 (692) | 35.0 (681) | 34.0 (632) | 35.0 (285) | 43.0 (6,592) |
| Paraplegia, minimal deficit | 0.0 (0) | 19.0 (17) | 33.5 (48) | 28.0 (87) | 19.5 (54) | 17.0 (49) | 21.0 (37) | 14.5 (16) | 24.0 (12) | 11.0 (3) | 22.0 (323) |
| Normal, minimal deficit | 36.0 (11) | 34.0 (17) | 10.0 (7) | 14.0 (11) | 15.5 (18) | 17.0 (17) | 12.0 (9) | 9.0 (13) | 12.0 (19) | 15.5 (8) | 15.0 (130) |
| Unkn | 100.0 (4) | 89.5 (14) | 67.0 (15) | 30.0 (24) | 37.0 (123) | 38.5 (120) | 47.5 (156) | 36.5 (278) | 37.5 (372) | 36.0 (221) | 38.0 (1,327) |
| Total | 91.0 (4,420) | 86.0 (4,812) | 77.0 (3,723) | 59.0 (3,159) | 45.0 (3,553) | 46.0 (3,228) | 44.0 (3,474) | 44.0 (3,613) | 42.0 (3,655) | 41.0 (1,564) | 57.0 (35,201) |

*Footnote1: Para & Tetra minimal deficit categories were added in 1987. Some records have been updated.*

*Footnote2: Neurologic impairment at discharge was used as the basis of comparison.*

## Table 67. Neurologic Level of Injury at Discharge-Cervical Lesions

| n (% of all lesions) | Cervical Neurologic Level | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | C01 | C02 | C03 | C04 | C05 | C06 | C07 | C08 | C Unkn | Sub-Total |
| Total | 446 | 778 | 1,238 | 5,325 | 5,055 | 3,348 | 1,647 | 638 | 100 | 18,575 |
| | (1.3) | (2.3) | (3.7) | (15.7) | (14.9) | (9.9) | (4.9) | (1.9) | (0.3) | (54.9) |

*Footnote 1: The neurologic level of injury is the most rostral (highest) sensory and motor level, left and right at discharge.*
*Footnote 2: (%) are calculated on Total of all levels (Cervical, Thoracic, Lumbar, Sacral) for each center.*

## Table 68. Neurologic Level of Injury at Discharge -Thoracic Lesions

| n (% of all lesions) | Thoracic Neurologic Level | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T01 | T02 | T03 | T04 | T05 | T06 | T07 | T08 | T09 | T10 | T11 | T12 | T Unkn | Sub-Total |
| Total | 523 | 431 | 711 | 1,317 | 885 | 934 | 692 | 879 | 680 | 1,439 | 1,206 | 2,022 | 34 | 11,753 |
| | (1.5) | (1.3) | (2.1) | (3.9) | (2.6) | (2.8) | (2.0) | (2.6) | (2.0) | (4.3) | (3.6) | (6.0) | (0.1) | (34.7) |

*Footnote 1: The neurologic level of injury is the most rostral (highest) sensory and motor level, left and right at discharge..*
*Footnote 2: (%) are calculated on Total of all levels (Cervical, Thoracic, Lumbar, Sacral) for each center.*

## Table 69. Neurologic Level of Injury at Discharge-Lumbar Lesions

| n (% of all lesions) | Lumbar Neurologic Level | | | | | | |
|---|---|---|---|---|---|---|---|
| | L01 | L02 | L03 | L04 | L05 | L Unkn | Sub-Total |
| Total | 1,579 (4.7) | 874 (2.6) | 569 (1.7) | 264 (0.8) | 111 (0.3) | 10 (0.0) | 3,407 (10.1) |

*Footnote 1: The neurologic level of injury is the most rostral (highest) sensory and motor level, left and right at discharge.*
*Footnote 2: (%) are calculated on Total of all levels (Cervical, Thoracic, Lumbar, Sacral) for each center.*

## Table 70. Neurologic Level of Injury at Discharge-Sacral Lesions

| n (% of all lesions) | Sacral Neurologic Level | | | | | | |
|---|---|---|---|---|---|---|---|
| | S01 | S02 | S03 | S04 | S05 | S Unkn | Sub-Total |
| Total | 56 (0.2) | 35 (0.1) | 7 (0.0) | 12 (0.0) | 10 (0.0) | 1 (0.0) | 121 (0.4) |

*Footnote 1: The neurologic level of injury is the most rostral (highest) sensory and motor level, left and right at discharge.*
*Footnote 2: (%) are calculated on Total of all levels (Cervical, Thoracic, Lumbar, Sacral) for each center.*

## Table 71. Neurologic Category at Discharge

| n (%) | Neurologic Category at Discharge | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Tetra Comp | Tetra Incomp | Tetra MinDef | Para Comp | Para Incomp | Para MinDef | Norm, MinDef | Unkn | Total |
| Total | 6,549 (18.1) | 11,987 (33.0) | 450 (1.2) | 8,531 (23.5) | 6,694 (18.5) | 341 (0.9) | 207 (0.6) | 1,516 (4.2) | 36,275 |

*Footnote 1: Para & Tetra minimal deficit categories were added in 1987. Some records have been updated.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 72. Neurologic Category at Discharge by Grouped Etiology

| Etiology n (%) | Neurologic Category at Discharge | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Tetra Comp | Tetra Incomp | Tetra MinDef | Para Comp | Para Incomp | Para MinDef | Norm, MinDef | Unkn | Total |
| Vehicular | 3,007 (19.9) | 5,054 (33.4) | 195 (1.3) | 3,649 (24.1) | 2,470 (16.3) | 114 (0.8) | 85 (0.6) | 545 (3.6) | 15,119 |
| Violence | 914 (14.8) | 812 (13.2) | 37 (0.6) | 2,550 (41.4) | 1,502 (24.4) | 80 (1.3) | 11 (0.2) | 257 (4.2) | 6,163 |
| Sports | 1,245 (34.5) | 1,738 (48.1) | 42 (1.2) | 210 (5.8) | 252 (7.0) | 16 (0.4) | 20 (0.6) | 90 (2.5) | 3,613 |
| Falls | 1,054 (12.5) | 3,629 (42.9) | 152 (1.8) | 1,425 (16.9) | 1,548 (18.3) | 98 (1.2) | 72 (0.9) | 473 (5.6) | 8,451 |
| Med/Surg | 43 (4.1) | 244 (23.5) | 7 (0.7) | 171 (16.4) | 484 (46.5) | 11 (1.1) | 9 (0.9) | 71 (6.8) | 1,040 |
| Other | 274 (14.9) | 483 (26.3) | 17 (0.9) | 521 (28.4) | 434 (23.7) | 22 (1.2) | 10 (0.5) | 73 (4.0) | 1,834 |
| Unkn | 12 (21.8) | 27 (49.1) | 0 (0.0) | 5 (9.1) | 4 (7.3) | 0 (0.0) | 0 (0.0) | 7 (12.7) | 55 |
| Total | 6,549 (18.1) | 11,987 (33.0) | 450 (1.2) | 8,531 (23.5) | 6,694 (18.5) | 341 (0.9) | 207 (0.6) | 1,516 (4.2) | 36,275 |

*Footnote 1: Paraplegia and tetraplegia minimal deficit categories were added in 1987. Some records have been updated.*
*Footnote 2:    Vehicular=codes 1-9; Violence=codes 10-15; Sports=codes 20-29, 70-78; Falls=code 30; Medical/surgical complication=code 50.*

## Table 73. Trend in Neurologic Category at Discharge by Year of Injury

| Neurologic Category n (%) | Year of Injury | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1973-1979 | 1980-1984 | 1985-1989 | 1990-1994 | 1995-1999 | 2000-2004 | 2005-2009 | 2010-2014 | 2015-2019 | 2020-2022 | Total |
| Tetraplegia, complete | 1,155 (25.3) | 1,085 (21.9) | 729 (19.0) | 624 (18.9) | 684 (18.9) | 642 (18.6) | 574 (15.9) | 470 (12.9) | 414 (11.2) | 172 (10.8) | 6,549 |
| Tetraplegia, incomplete | 1,282 (28.1) | 1,598 (32.3) | 1,198 (31.2) | 821 (24.9) | 1,020 (28.2) | 1,119 (32.5) | 1,279 (35.5) | 1,493 (40.9) | 1,550 (41.9) | 627 (39.2) | 11,987 |
| Tetraplegia, minimal deficit | 4 (0.1) | 13 (0.3) | 62 (1.6) | 115 (3.5) | 89 (2.5) | 61 (1.8) | 48 (1.3) | 23 (0.6) | 30 (0.8) | 5 (0.3) | 450 |
| Paraplegia, complete | 1,265 (27.7) | 1,231 (24.9) | 960 (25.0) | 946 (28.7) | 972 (26.8) | 800 (23.2) | 758 (21.0) | 666 (18.2) | 662 (17.9) | 271 (16.9) | 8,531 |
| Paraplegia, incomplete | 804 (17.6) | 948 (19.2) | 802 (20.9) | 640 (19.4) | 636 (17.6) | 551 (16.0) | 702 (19.5) | 684 (18.7) | 639 (17.3) | 288 (18.0) | 6,694 |
| Paraplegia, minimal deficit | 0 (0.0) | 19 (0.4) | 50 (1.3) | 95 (2.9) | 54 (1.5) | 52 (1.5) | 38 (1.1) | 17 (0.5) | 13 (0.4) | 3 (0.2) | 341 |
| Normal ,minimal deficit | 45 (1.0) | 38 (0.8) | 16 (0.4) | 13 (0.4) | 19 (0.5) | 24 (0.7) | 12 (0.3) | 13 (0.4) | 19 (0.5) | 8 (0.5) | 207 |
| Unkn | 8 (0.2) | 17 (0.3) | 26 (0.7) | 41 (1.2) | 149 (4.1) | 194 (5.6) | 195 (5.4) | 284 (7.8) | 376 (10.2) | 226 (14.1) | 1,516 |
| Total | 4,563 | 4,949 | 3,843 | 3,295 | 3,623 | 3,443 | 3,606 | 3,650 | 3,703 | 1,600 | 36,275 |

*Footnote 1: Paraplegia and tetraplegia minimal deficit categories were added in 1987. Some records have been updated.*

## Table 74. Neurologic Category at 1 Year Post-Injury

| n (%) | Neurologic Category | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Tetra Comp | Tetra Incomp | Tetra MinDef | Para Comp | Para Incomp | Para MinDef | Norm, MinDef | Unkn | Total |
| Total | 3,495 (12.7) | 5,691 (20.7) | 363 (1.3) | 4,860 (17.7) | 3,675 (13.4) | 295 (1.1) | 288 (1.0) | 8,818 (32.1) | 27,485 |

*Footnote 1: Paraplegia and tetraplegia minimal deficit categories were added in 1987. Some records have been updated.*

## Table 75. ASIA Impairment Scale at Discharge

| n (%) | ASIA Impairment Scale | | | | | | |
|---|---|---|---|---|---|---|---|
| | Complete (A) | Sensory Only (B) | Non-functional Motor (C) | Functiona Motor (D) | Recovere d (E) | Unkn | Total |
| Total | 15,080 (41.6) | 3,888 (10.7) | 4,539 (12.5) | 10,687 (29.5) | 207 (0.6) | 1,874 (5.2) | 36,275 |

## Table 76. ASIA Impairment Scale at Acute Admission, Rehabilitation Admission, and System Discharge (Day-1s Only)

| AIS n (%) | Acute Admit | Rehab Admit | System Discharge |
|---|---|---|---|
| Complete (A) | 6,432 (43.1) | 2,229 (15.6) | 5,938 (39.8) |
| Sensory Incomplete (B) | 1,749 (11.7) | 688 (4.8) | 1,457 (9.8) |
| Non-functional Motor (C) | 2,056 (13.8) | 1,054 (7.4) | 1,764 (11.8) |
| Functional Motor (D) | 2,790 (18.7) | 1,723 (12.1) | 4,817 (32.3) |
| Unkn | 1,900 (12.7) | 8,582 (60.1) | 809 (5.4) |
| Total | 14,927 | 14,279 | 14,927 |

*Footnote 1: Rehabilitation admission data required after October 31, 2000.*

## Table 77. ASIA Impairment Scale by Neurologic Level at Discharge- Cervical

| AIS n (%) | Neurologic Level at Discharge | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | C01 | C02 | C03 | C04 | C05 | C06 | C07 | C08 | C Unkn | Total |
| Complete (A) | 155 (34.8) | 256 (32.9) | 390 (31.5) | 2,005 (37.7) | 1,626 (32.2) | 1,228 (36.7) | 565 (34.3) | 187 (29.3) | 26 (26.0) | 6,438 (34.7) |
| Sensory Only (B) | 15 (3.4) | 49 (6.3) | 95 (7.7) | 674 (12.7) | 643 (12.7) | 569 (17.0) | 265 (16.1) | 110 (17.2) | 9 (9.0) | 2,429 (13.1) |
| Non-functional Motor (C) | 62 (13.9) | 95 (12.2) | 205 (16.6) | 824 (15.5) | 631 (12.5) | 423 (12.6) | 209 (12.7) | 73 (11.4) | 10 (10.0) | 2,532 (13.6) |
| Functional Motor (D) | 213 (47.8) | 368 (47.3) | 529 (42.7) | 1,772 (33.3) | 2,097 (41.5) | 1,097 (32.8) | 586 (35.6) | 261 (40.9) | 32 (32.0) | 6,955 (37.4) |
| Recovered (E) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Unkn | 1 (0.2) | 10 (1.3) | 19 (1.5) | 50 (0.9) | 58 (1.1) | 31 (0.9) | 22 (1.3) | 7 (1.1) | 23 (23.0) | 221 (1.2) |
| Total | 446 (2.4) | 778 (4.2) | 1,238 (6.7) | 5,325 (28.7) | 5,055 (27.2) | 3,348 (18.0) | 1,647 (8.9) | 638 (3.4) | 100 (0.5) | 18,575 |

## Table 78. ASIA Impairment Scale by Neurologic Level at Discharge - Thoracic

| AIS n (%) | Neurologic Level at Discharge | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | T01 | T02 | T03 | T04 | T05 | T06 | T07 | T08 | T09 | T10 | T11 | T12 | T Unkn | Total |
| Complete (A) | 275 (52.6) | 300 (69.6) | 552 (77.6) | 976 (74.1) | 686 (77.5) | 688 (73.7) | 491 (71.0) | 641 (72.9) | 507 (74.6) | 1,033 (71.8) | 782 (64.8) | 852 (42.1) | 14 (41.2) | 7,797 (66.3) |
| Sensory Only (B) | 70 (13.4) | 42 (9.7) | 62 (8.7) | 120 (9.1) | 65 (7.3) | 86 (9.2) | 63 (9.1) | 67 (7.6) | 38 (5.6) | 68 (4.7) | 107 (8.9) | 224 (11.1) | 3 (8.8) | 1,015 (8.6) |
| Non-functional Motor (C) | 49 (9.4) | 33 (7.7) | 45 (6.3) | 92 (7.0) | 55 (6.2) | 62 (6.6) | 47 (6.8) | 65 (7.4) | 53 (7.8) | 140 (9.7) | 149 (12.4) | 361 (17.9) | 2 (5.9) | 1,153 (9.8) |
| Functional Motor (D) | 125 (23.9) | 55 (12.8) | 49 (6.9) | 123 (9.3) | 75 (8.5) | 95 (10.2) | 88 (12.7) | 103 (11.7) | 79 (11.6) | 190 (13.2) | 159 (13.2) | 566 (28.0) | 4 (11.8) | 1,711 (14.6) |
| Unkn | 4 (0.8) | 1 (0.2) | 3 (0.4) | 6 (0.5) | 4 (0.5) | 3 (0.3) | 3 (0.4) | 3 (0.3) | 3 (0.4) | 8 (0.6) | 9 (0.7) | 19 (0.9) | 11 (32.4) | 77 (0.7) |
| Total | 523 (4.4) | 431 (3.7) | 711 (6.0) | 1,317 (11.2) | 885 (7.5) | 934 (7.9) | 692 (5.9) | 879 (7.5) | 680 (5.8) | 1,439 (12.2) | 1,206 (10.3) | 2,022 (17.2) | 34 (0.3) | 11,753 |

## Table 79. ASIA Impairment Scale by Neurologic Level at Discharge - Lumbar

| AIS n (%) | Neurologic Level at Discharge | | | | | | |
|---|---|---|---|---|---|---|---|
| | L01 | L02 | L03 | L04 | L05 | L Unkn | Total |
| Complete (A) | 373 (23.6) | 105 (12.0) | 85 (14.9) | 18 (6.8) | 10 (9.0) | 1 (10.0) | 592 (17.4) |
| Sensory Only (B) | 185 (11.7) | 102 (11.7) | 66 (11.6) | 19 (7.2) | 8 (7.2) | 0 (0.0) | 380 (11.2) |
| Non-functional Motor (C) | 411 (26.0) | 169 (19.3) | 132 (23.2) | 29 (11.0) | 8 (7.2) | 0 (0.0) | 749 (22.0) |
| Functional Motor (D) | 595 (37.7) | 484 (55.4) | 273 (48.0) | 193 (73.1) | 85 (76.6) | 6 (60.0) | 1,636 (48.0) |
| Unkn | 15 (0.9) | 14 (1.6) | 13 (2.3) | 5 (1.9) | 0 (0.0) | 3 (30.0) | 50 (1.5) |
| Total | 1,579 (46.3) | 874 (25.7) | 569 (16.7) | 264 (7.7) | 111 (3.3) | 10 (0.3) | 3,407 |

## Table 80. ASIA Impairment Scale at 1 Year Post-Injury

| n (%) | AIS | | | | | | |
|---|---|---|---|---|---|---|---|
| | Complete (A) | Sensory Incomplete (B) | Non-functional Motor (C) | Functional Motor (D) | Recovered (E) | Unkn | Total |
| Total | 8,355 (30.4) | 1,914 (7.0) | 1,880 (6.8) | 5,726 (20.8) | 288 (1.0) | 9,322 (33.9) | 27,485 |

## Table 81. Motor Score Total (Mean) at Acute Admission, Rehabilitation Admission and System Discharge (Day-1s Only)

| Mean (n) | Motor Score Totals | | |
|---|---|---|---|
| | Acute Admit | Rehab Admit | System Discharge |
| Total | 44.3 (6,763) | 48.5 (7,721) | 56.4 (7,797) |

*Footnote 1: Form I Day-1s entered to the database since October 1, 1993.*
*Footnote 2: Motor Scores Totals range from 0 to 100.*

## Table 82. Motor Score Total at 1 Year Post-Injury

| | Motor Score Total | | | | |
|---|---|---|---|---|---|
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 6,995 | 57.2 | 28.0 | 0 | 100 |

*Footnote 1: Form IIs entered to the database since October 1, 1993.*
*Footnote 2: Motor Scores range from 0 to 100.*

**Table 83. Sensory Score for Light Touch Total (Mean) at Rehabilitation Admission and System Discharge**

| Mean (n) | Sensory Score for Light Touch Total | |
|---|---|---|
| | Rehab Admit | System Discharge |
| Total | 65.5 (6,927) | 70.9 (6,667) |

*Footnote 1: Data were required for all admissions to System since October 1, 2011.*
*Footnote 2: Sensory Score Light Touch Total ranges from 0 to 112*

**Table 84. Sensory Score for Pin Prick Total (Mean) at Rehabilitation Admission and System Discharge**

| Mean (n) | Sensory Score for Pin Prick Total | |
|---|---|---|
| | Rehab Admit | System Discharge |
| Total | 57.1 (6,922) | 62.0 (6,673) |

*Footnote 1: Data were required for all admissions to System since October 1, 2011.*
*Footnote 2: Sensory Score Light Touch Total ranges from 0 to 112*

**Table 85. Sensory Score for Light Touch Total at 1 Year Post-Injury**

| | Sensory Score for Light Touch Total | | | | |
|---|---|---|---|---|---|
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 1,967 | 69.2 | 33.0 | 0 | 112 |

*Footnote 1: Form IIs entered into the database since January 1, 2012.*
*Footnote 2: Sensory Score Light Touch Total ranges from 0 to 112*

**Table 86. Sensory Score for Pin Prick Total at 1 Year Post-Injury**

| | Sensory Score for Pin Prick Total | | | | |
|---|---|---|---|---|---|
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 1,900 | 64.3 | 32.3 | 0 | 112 |

*Footnote 1: Form IIs entered into the database since January 1, 2012.*
*Footnote 2: Sensory Score Light Touch Total ranges from 0 to 112*

# Table 87. Respirator Use (Para) at Rehabilitation Admission

*(continued)*

| n (%) | Respirator Use at Rehab Admit | | | | | | |
|---|---|---|---|---|---|---|---|
| | None | Yes, Mechanical ventilation less than 24 hours per day (no Pacer) | Yes, Mechanical ventilation 24 hours per day (no Pacer) | Yes, Mechanical ventilation hours per day unknown (no Pacer) | Yes, Mechanical ventilation less than 24 hours per day with Pacer | Yes, Mechanical ventilation 24 hours per day with Pacer | Yes, Mechanical ventilation hours per day unknown, with Pacer |
| Total | 13,703 (88.9) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |

| n (%) | Respirator Use at Rehab Admit | | | | | | |
|---|---|---|---|---|---|---|---|
| | Yes, Mechanical ventilation hours per day unknown (Pacer unknown) | Phrenic nerve stimulator only | Diaphragmatic pacing device only | Bi-level Positive Airway Pressure (BiPAP), external negative pressure devices, and other unclassified | Continuous Positive Airway Pressure (CPAP) for sleep apnea | Unkn | Total |
| Total | 797 (5.2) | 1 (0.0) | 0 (0.0) | 1 (0.0) | 7 (0.0) | 912 (5.9) | 15,421 |

*Footnote 1: To determine paraplegia level, Neuro Category at Discharge was used.*

*Footnote 2: Paraplegia group includes complete, incomplete and minimal deficit categories.*

*Footnote 3: In September 2021, updated codes to match International SCI Pulmonary Dataset.*

# Table 88. Respirator Use (Para) at System Discharge

*(continued)*

| n (%) | Respirator Use at System Discharge | | | | | | |
|---|---|---|---|---|---|---|---|
| | None | Yes, Mechanical ventilation less than 24 hours per day (no Pacer) | Yes, Mechanical ventilation 24 hours per day (no Pacer) | Yes, Mechanical ventilation hours per day unknown (no Pacer) | Yes, Mechanical ventilation less than 24 hours per day with Pacer | Yes, Mechanical ventilation 24 hours per day with Pacer | Yes, Mechanical ventilation hours per day unknown, with Pacer |
| Total | 15,441 (99.2) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |

| n (%) | Respirator Use at System Discharge | | | | | | |
|---|---|---|---|---|---|---|---|
| | Yes, Mechanical ventilation hours per day unknown (Pacer unknown) | Phrenic nerve stimulator only | Diaphragmatic pacing device only | Bi-level Positive Airway Pressure (BiPAP), external negative pressure | Continuous Positive Airway Pressure (CPAP) for sleep apnea | Unkn | Total |
| Total | 66 (0.4) | 0 (0.0) | 0 (0.0) | 1 (0.0) | 12 (0.1) | 46 (0.3) | 15,566 |

*Footnote 1: To determine paraplegia level, Neuro Category at Discharge was used.*

*Footnote 2: Paraplegia group includes complete, incomplete and minimal deficit categories.*

*Footnote 3: In September 2021, updated codes to match International SCI Pulmonary Dataset.*

# Table 89. Respirator Use (Tetra) at Rehabilitation Admission

*(continued)*

| n (%) | None | Yes, Mechanical ventilation less than 24 hours per day (no Pacer) | Yes, Mechanical ventilation 24 hours per day (no Pacer) | Yes, Mechanical ventilation hours per day unknown (no Pacer) | Yes, Mechanical ventilation less than 24 hours per day with Pacer | Yes, Mechanical ventilation 24 hours per day with Pacer | Yes, Mechanical ventilation hours per day unknown, with Pacer |
|---|---|---|---|---|---|---|---|
| | | | | **Respirator Use at Rehab Admit** | | | |
| Total | 13,902 (74.8) | 4 (0.0) | 7 (0.0) | 0 (0.0) | 1 (0.0) | 3 (0.0) | 0 (0.0) |

| n (%) | Yes, Mechanical ventilation hours per day unknown (Pacer unknown) | Phrenic nerve stimulator only | Diaphragmatic pacing device only | Bi-level Positive Airway Pressure (BiPAP), external negative pressure | Continuous Positive Airway Pressure (CPAP) for sleep apnea | Unkn | Total |
|---|---|---|---|---|---|---|---|
| | | | | **Respirator Use at Rehab Admit** | | | |
| Total | 3,539 (19.0) | 5 (0.0) | 1 (0.0) | 2 (0.0) | 19 (0.1) | 1,097 (5.9) | 18,580 |

*Footnote 1: To determine tetraplegia level, Neuro Category at Discharge was used.*

*Footnote 2: Tetraplegia group includes complete, incomplete and minimal deficit categories.*

*Footnote 3: In September 2021, updated codes to match International SCI Pulmonary Dataset.*

## Table 90. Respirator Use (Tetra) at System Discharge

*(continued)*

| n (%) | Respirator Use at System Discharge | | | | | | |
|---|---|---|---|---|---|---|---|
| | None | Yes, Mechanical ventilation less than 24 hours per day (no Pacer) | Yes, Mechanical ventilation 24 hours per day (no Pacer) | Yes, Mechanical ventilation hours per day unknown (no Pacer) | Yes, Mechanical ventilation less than 24 hours per day with Pacer | Yes, Mechanical ventilation 24 hours per day with Pacer | Yes, Mechanical ventilation hours per day unknown, with Pacer |
| Total | 17,783 (93.7) | 3 (0.0) | 2 (0.0) | 0 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) |

| n (%) | Respirator Use at System Discharge | | | | | | |
|---|---|---|---|---|---|---|---|
| | Yes, Mechanical ventilation hours per day unknown (Pacer unknown) | Phrenic nerve stimulator only | Diaphragmatic pacing device only | Bi-level Positive Airway Pressure (BiPAP), external negative pressure | Continuous Positive Airway Pressure (CPAP) for sleep apnea | Unkn | Total |
| Total | 1,008 (5.3) | 11 (0.1) | 1 (0.0) | 1 (0.0) | 41 (0.2) | 135 (0.7) | 18,986 |

*Footnote 1: To determine paraplegia level, Neuro Category at Discharge was used.*
*Footnote 2: paraplegia group includes complete, incomplete and minimal deficit categories.*
*Footnote 3: In September 2021, updated codes to match International SCI Pulmonary Dataset.*

# Table 91. Respirator Use (Paraplegia) at 1 Year Post-Injury

*(continued)*

| n (%) | Respirator Use - Paraplegia | | | | | | |
|---|---|---|---|---|---|---|---|
| | None | Yes, Mechanical ventilation less than 24 hours per day (no Pacer) | Yes, Mechanical ventilation 24 hours per day (no Pacer) | Yes, Mechanical ventilation hours per day unknown (no Pacer) | Yes, Mechanical ventilation less than 24 hours per day with Pacer | Yes, Mechanical ventilation 24 hours per day with Pacer | Yes, Mechanical ventilation hours per day unknown, with Pacer |
| Total | 8,592 (97.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |

| n (%) | Respirator Use - Paraplegia | | | | | | |
|---|---|---|---|---|---|---|---|
| | Yes, Mechanical ventilation hours per day unknown (Pacer unknown) | Phrenic nerve stimulator only | Diaphragmatic pacing device only | Bi-level Positive Airway Pressure (BiPAP), external negative pressure | Continuous Positive Airway Pressure (CPAP) for sleep apnea | Unkn | Total |
| Total | 19 (0.2) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 219 (2.5) | 8,830 |

*Footnote 1: Paraplegia & Tetraplegia groups include complete, incomplete and minimal deficit categories.*

*Footnote 2: In September 2021, updated codes to match International SCI Pulmonary Dataset.*

# Table 92. Respirator Use (Tetraplegia) at 1 Year Post-Injury

*(continued)*

| n (%) | Respirator Use - Tetraplegia | | | | | | |
|---|---|---|---|---|---|---|---|
| | None | Yes, Mechanical ventilation less than 24 hours per day (no Pacer) | Yes, Mechanical ventilation 24 hours per day (no Pacer) | Yes, Mechanical ventilation hours per day unknown (no Pacer) | Yes, Mechanical ventilation less than 24 hours per day with Pacer | Yes, Mechanical ventilation 24 hours per day with Pacer | Yes, Mechanical ventilation hours per day unknown, with Pacer |
| Total | 8,968 (93.9) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |

| n (%) | Respirator Use - Tetraplegia | | | | | | |
|---|---|---|---|---|---|---|---|
| | Yes, Mechanical ventilation hours per day unknown (Pacer unknown) | Phrenic nerve stimulator only | Diaphragmatic pacing device only | Bi-level Positive Airway Pressure (BiPAP), external negative pressure devices, and other unclassified | Continuous Positive Airway Pressure (CPAP) for sleep apnea | Unkn | Total |
| Total | 316 (3.3) | 10 (0.1) | 0 (0.0) | 0 (0.0) | 10 (0.1) | 245 (2.6) | 9,549 |

*Footnote 1: Paraplegia & Tetraplegia groups include complete, incomplete and minimal deficit categories.*
*Footnote 2: In September 2021, updated codes to match International SCI Pulmonary Dataset.*

## Table 93. Method of Bladder Emptying at Discharge - Male

| n (%) | Bladder Emptying at Discharge | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Normal voiding | Bladder reflex triggering | Intermittent catheterization (ICP) | Indwelling catheter - Transurethral | Indwelling catheter - Suprapubic | Non-continent urinary diversion/ostomy | Other | Unkn | Total |
| Total | 5,164 (17.7) | 3,728 (12.8) | 13,148 (45.1) | 4,129 (14.2) | 1,923 (6.6) | 18 (0.1) | 94 (0.3) | 942 (3.2) | 29,146 |

*Footnote 1: *Codes were added November 1995.*
*Footnote 2: In September 2021, updated codes and name to match International Lower Urinary Tract Function Dataset version 2.0. Existing Bladder Management data converted into 2 variables: Bladder Emptying and Collecting Appliance for Urinary Incontinence.*

## Table 94. Method of Bladder Emptying at Discharge - Female

| n (%) | Bladder Emptying at Discharge | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Normal voiding | Bladder reflex triggering | Intermittent catheterization (ICP) | Indwelling catheter - Transurethral | Indwelling catheter - Suprapubic | Non-continent urinary diversion/ostomy | Other | Unkn | Total |
| Total | 1,538 (21.6) | 161 (2.3) | 2,868 (40.2) | 1,893 (26.6) | 314 (4.4) | 4 (0.1) | 14 (0.2) | 335 (4.7) | 7,127 |

*Footnote 1: *Codes were added November 1995.*
*Footnote 2: In September 2021, updated codes and name to match International Lower Urinary Tract Function Dataset version 2.0. Existing Bladder Management data converted into 2 variables: Bladder Emptying and Collecting Appliance for Urinary Incontinence.*

**Table 95. Method of Bladder Collecting Appliance for Urinary Incontinence at Discharge - Male**

| n (%) | No | Yes, condom catheter/sheath | Yes, padded brief/pad | Yes, ostomy bag | Other | Unkn | Total |
|---|---|---|---|---|---|---|---|
| **Bladder Collection Appliance at Discharge** | | | | | | | |
| Total | 18,943 (65.0) | 3,610 (12.4) | 627 (2.2) | 19 (0.1) | 6 (0.0) | 5,941 (20.4) | 29,146 |

*Footnote 1: In September 2021, this variable was added to the database.*

**Table 96. Method of Bladder Collecting Appliance for Urinary Incontinence at Discharge - Female**

| n (%) | No | Yes, PureWick for females | Yes, padded brief/pad | Yes, ostomy bag | Unkn | Total |
|---|---|---|---|---|---|---|
| **Bladder Collection Appliance at Discharge** | | | | | | |
| Total | 5,527 (77.6) | 3 (0.0) | 257 (3.6) | 4 (0.1) | 1,336 (18.7) | 7,127 |

*Footnote 1: In September 2021, this variable was added to the database.*

# Table 97. Method of Bladder Emptying by Post-Injury Year – Male

| Bladder Emptying n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Normal voiding | 5,227 (23.7) | 2,610 (20.8) | 1,433 (19.1) | 900 (17.4) | 676 (17.2) | 510 (16.3) | 417 (17.3) | 275 (16.3) | 128 (15.9) | 23 (13.9) |
| Bladder reflex triggering | 3,912 (17.7) | 2,569 (20.5) | 1,338 (17.8) | 781 (15.1) | 587 (14.9) | 532 (17.0) | 375 (15.6) | 236 (14.0) | 115 (14.3) | 26 (15.7) |
| Intermittent catheterization (ICP) | 7,708 (34.9) | 3,846 (30.6) | 2,381 (31.8) | 1,691 (32.7) | 1,214 (30.9) | 935 (30.0) | 683 (28.4) | 486 (28.7) | 215 (26.7) | 37 (22.3) |
| Indwelling catheter - Transurethral | 2,065 (9.3) | 1,032 (8.2) | 717 (9.6) | 520 (10.1) | 380 (9.7) | 286 (9.2) | 266 (11.1) | 204 (12.1) | 101 (12.6) | 22 (13.3) |
| Indwelling catheter - Suprapubic | 1,992 (9.0) | 1,816 (14.5) | 1,245 (16.6) | 1,014 (19.6) | 890 (22.6) | 712 (22.8) | 564 (23.5) | 412 (24.4) | 198 (24.6) | 48 (28.9) |
| Non-continent urinary diversion/ostomy | 14 (0.1) | 48 (0.4) | 50 (0.7) | 36 (0.7) | 39 (1.0) | 47 (1.5) | 30 (1.2) | 25 (1.5) | 15 (1.9) | 6 (3.6) |
| Other | 79 (0.4) | 55 (0.4) | 42 (0.6) | 28 (0.5) | 25 (0.6) | 23 (0.7) | 26 (1.1) | 14 (0.8) | 5 (0.6) | 1 (0.6) |
| Unkn | 1,098 (5.0) | 580 (4.6) | 291 (3.9) | 195 (3.8) | 119 (3.0) | 76 (2.4) | 43 (1.8) | 39 (2.3) | 27 (3.4) | 3 (1.8) |
| Total | 22,095 | 12,556 | 7,497 | 5,165 | 3,930 | 3,121 | 2,404 | 1,691 | 804 | 166 |

*Footnote 1: In September 2021, the variable name changed from Bladder Management to Bladder Emptying. The bladder management variable data were split into 2 variables: Bladder Emptying and Collecting Appliance for Urinary Incontinence.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

# Table 98. Method of Bladder Emptying by Post-Injury Year - Female

| Bladder Emptying n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Normal voiding | 1,562 (29.0) | 858 (27.2) | 498 (25.3) | 311 (23.3) | 207 (20.9) | 152 (19.3) | 114 (18.8) | 79 (18.1) | 38 (16.0) | 4 (9.1) |
| Bladder reflex triggering | 128 (2.4) | 82 (2.6) | 37 (1.9) | 25 (1.9) | 25 (2.5) | 16 (2.0) | 16 (2.6) | 21 (4.8) | 12 (5.1) | 3 (6.8) |
| Intermittent catheterization (ICP) | 1,738 (32.2) | 923 (29.2) | 636 (32.3) | 462 (34.6) | 361 (36.4) | 299 (37.9) | 222 (36.6) | 150 (34.4) | 78 (32.9) | 13 (29.5) |
| Indwelling catheter - Transurethral | 1,153 (21.4) | 675 (21.4) | 395 (20.0) | 269 (20.1) | 209 (21.1) | 166 (21.0) | 143 (23.6) | 105 (24.1) | 55 (23.2) | 13 (29.5) |
| Indwelling catheter - Suprapubic | 401 (7.4) | 352 (11.1) | 249 (12.6) | 166 (12.4) | 121 (12.2) | 103 (13.1) | 65 (10.7) | 49 (11.2) | 29 (12.2) | 6 (13.6) |
| Non-continent urinary diversion/ostomy | 12 (0.2) | 31 (1.0) | 30 (1.5) | 24 (1.8) | 18 (1.8) | 15 (1.9) | 12 (2.0) | 10 (2.3) | 12 (5.1) | 3 (6.8) |
| Other | 15 (0.3) | 21 (0.7) | 15 (0.8) | 17 (1.3) | 10 (1.0) | 5 (0.6) | 11 (1.8) | 4 (0.9) | 2 (0.8) | 0 (0.0) |
| Unkn | 381 (7.1) | 216 (6.8) | 112 (5.7) | 62 (4.6) | 41 (4.1) | 33 (4.2) | 23 (3.8) | 18 (4.1) | 11 (4.6) | 2 (4.5) |
| Total | 5,390 | 3,158 | 1,972 | 1,336 | 992 | 789 | 606 | 436 | 237 | 44 |

*Footnote 1: In September 2021, the variable name changed from Bladder Management to Bladder Emptying. The bladder management variable data were split into 2 variables: Bladder Emptying and Collecting Appliance for Urinary Incontinence.*

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## Table 99. Method of Bladder Collection Appliance by Post-Injury Year – Male

| Bladder Management n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| No | 14,023 (63.5) | 8,334 (66.4) | 5,325 (71.0) | 3,877 (75.1) | 3,006 (76.5) | 2,315 (74.2) | 1,810 (75.3) | 1,272 (75.2) | 605 (75.2) | 114 (68.7) |
| Yes, condom catheter/sheath | 3,959 (17.9) | 2,628 (20.9) | 1,456 (19.4) | 897 (17.4) | 684 (17.4) | 625 (20.0) | 465 (19.3) | 310 (18.3) | 139 (17.3) | 34 (20.5) |
| Yes, padded brief/pad | 567 (2.6) | 289 (2.3) | 159 (2.1) | 103 (2.0) | 66 (1.7) | 37 (1.2) | 18 (0.7) | 20 (1.2) | 20 (2.5) | 5 (3.0) |
| Yes, ostomy bag | 18 (0.1) | 58 (0.5) | 57 (0.8) | 42 (0.8) | 45 (1.1) | 49 (1.6) | 31 (1.3) | 30 (1.8) | 18 (2.2) | 7 (4.2) |
| Other | 3 (0.0) | 2 (0.0) | 2 (0.0) | 3 (0.1) | 0 (0.0) | 2 (0.1) | 3 (0.1) | 2 (0.1) | 1 (0.1) | 0 (0.0) |
| Unkn | 3,525 (16.0) | 1,245 (9.9) | 498 (6.6) | 243 (4.7) | 129 (3.3) | 93 (3.0) | 77 (3.2) | 57 (3.4) | 21 (2.6) | 6 (3.6) |
| Total | 22,095 | 12,556 | 7,497 | 5,165 | 3,930 | 3,121 | 2,404 | 1,691 | 804 | 166 |

*Footnote 1: In September 2021, this variable was added to the database. Appropriate Bladder Management data were inserted to existing records.*

## Table 100. Method of Bladder Collection Appliance by Post-Injury Year - Female

| Bladder Management n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| No | 4,160 (77.2) | 2,565 (81.2) | 1,669 (84.6) | 1,173 (87.8) | 902 (90.9) | 721 (91.4) | 549 (90.6) | 393 (90.1) | 201 (84.8) | 37 (84.1) |
| Yes, PureWick for females | 2 (0.0) | 1 (0.0) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Yes, padded brief/pad | 278 (5.2) | 163 (5.2) | 84 (4.3) | 54 (4.0) | 38 (3.8) | 27 (3.4) | 21 (3.5) | 21 (4.8) | 16 (6.8) | 3 (6.8) |
| Yes, ostomy bag | 14 (0.3) | 33 (1.0) | 30 (1.5) | 24 (1.8) | 19 (1.9) | 14 (1.8) | 13 (2.1) | 10 (2.3) | 12 (5.1) | 2 (4.5) |
| Other | 6 (0.1) | 1 (0.0) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.2) | 0 (0.0) | 0 (0.0) |
| Unkn | 930 (17.3) | 395 (12.5) | 187 (9.5) | 85 (6.4) | 33 (3.3) | 27 (3.4) | 23 (3.8) | 11 (2.5) | 8 (3.4) | 2 (4.5) |
| Total | 5,390 | 3,158 | 1,972 | 1,336 | 992 | 789 | 606 | 436 | 237 | 44 |

*Footnote 1: In September 2021, this variable was added to the database. Appropriate Bladder Management data were inserted to existing records.*

## Table 101. Frequency of Bladder Incontinence at Initial Rehabilitation

| n (%) | Frequency of Bladder Incontinence | | | | | | |
|---|---|---|---|---|---|---|---|
| | None | Daily | Weekly | Monthly | NA | Unkn | Total |
| Total | 2,289 (56.2) | 497 (12.2) | 555 (13.6) | 601 (14.7) | 37 (0.9) | 97 (2.4) | 4,076 |

*Footnote 1: Form Is admitted to the System since January 1, 2016.*

## Table 102. Frequency of Bladder Incontinence in the Last 4 Weeks by Post-Injury Year

| Bladder Incontinence n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| None | 1,888 (58.4) | 1,430 (59.7) | 1,080 (60.0) | 863 (59.4) | 620 (57.7) | 565 (59.6) | 438 (61.9) | 582 (62.3) | 448 (57.8) | 122 (58.1) |
| Daily | 344 (10.6) | 245 (10.2) | 187 (10.4) | 158 (10.9) | 119 (11.1) | 117 (12.3) | 78 (11.0) | 102 (10.9) | 97 (12.5) | 16 (7.6) |
| Weekly | 345 (10.7) | 227 (9.5) | 190 (10.6) | 149 (10.3) | 132 (12.3) | 83 (8.8) | 67 (9.5) | 89 (9.5) | 75 (9.7) | 32 (15.2) |
| Monthly | 444 (13.7) | 312 (13.0) | 209 (11.6) | 186 (12.8) | 134 (12.5) | 110 (11.6) | 80 (11.3) | 107 (11.5) | 100 (12.9) | 25 (11.9) |
| NA | 42 (1.3) | 35 (1.5) | 35 (1.9) | 19 (1.3) | 11 (1.0) | 25 (2.6) | 13 (1.8) | 17 (1.8) | 25 (3.2) | 11 (5.2) |
| Unkn | 172 (5.3) | 148 (6.2) | 99 (5.5) | 78 (5.4) | 58 (5.4) | 48 (5.1) | 32 (4.5) | 37 (4.0) | 30 (3.9) | 4 (1.9) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form Iis obtained since October 1, 2016.*

## Table 103. Method of Bowel Management at Rehabilitation

| n (%) | Method of Bowel Management | | | | | | |
|---|---|---|---|---|---|---|---|
| | Enema (>150 mL), including transanal irrigation | Colostomy (ileostomy) | Sacral anterior root stimulation | Other (pad, brief, disposable underwear, etc) | NA | Unkn | Total |
| Total | 141 (3.5) | 133 (3.3) | 1 (0.0) | 22 (0.5) | 2 (0.0) | 56 (1.4) | 4,076 |

*(Continued)*

| n (%) | Method of Bowel Management | | | | | | |
|---|---|---|---|---|---|---|---|
| | No defecation since rehab admit | Normal defecation | Straining bearing down to empty | Digital ano-rectal stimulation | Suppositories | Digital evacuation | Mini enema (Clysma, <150 mL) |
| Total | 24 (0.6) | 885 (21.7) | 41 (1.0) | 717 (17.6) | 1,815 (44.5) | 107 (2.6) | 132 (3.2) |

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 104. Method of Bowel Management in the Last 4 Weeks by Post-Injury Year

| Bowel Management n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| No defecation in last 4 weeks | 39 (1.2) | 18 (0.8) | 18 (1.0) | 9 (0.6) | 14 (1.3) | 10 (1.1) | 6 (0.8) | 6 (0.6) | 4 (0.5) | 0 (0.0) |
| Normal defecation | 1,136 (35.1) | 799 (33.3) | 567 (31.5) | 439 (30.2) | 312 (29.1) | 243 (25.6) | 174 (24.6) | 205 (21.9) | 200 (25.8) | 43 (20.5) |
| Straining/bearing down to empty | 66 (2.0) | 74 (3.1) | 63 (3.5) | 44 (3.0) | 29 (2.7) | 28 (3.0) | 23 (3.2) | 29 (3.1) | 35 (4.5) | 7 (3.3) |
| Digital ano-rectal stimulation | 488 (15.1) | 448 (18.7) | 366 (20.3) | 306 (21.1) | 213 (19.8) | 219 (23.1) | 185 (26.1) | 237 (25.4) | 196 (25.3) | 53 (25.2) |
| Suppositories | 853 (26.4) | 549 (22.9) | 356 (19.8) | 284 (19.5) | 221 (20.6) | 183 (19.3) | 127 (17.9) | 191 (20.4) | 142 (18.3) | 39 (18.6) |
| Digital evacuation | 166 (5.1) | 106 (4.4) | 61 (3.4) | 69 (4.7) | 54 (5.0) | 51 (5.4) | 36 (5.1) | 73 (7.8) | 53 (6.8) | 16 (7.6) |
| Mini enema (Clysma, < 150 mL) | 102 (3.2) | 73 (3.0) | 67 (3.7) | 64 (4.4) | 34 (3.2) | 45 (4.7) | 20 (2.8) | 15 (1.6) | 15 (1.9) | 4 (1.9) |
| Enema (>150 mL), including transanal irrigation | 77 (2.4) | 39 (1.6) | 48 (2.7) | 36 (2.5) | 24 (2.2) | 30 (3.2) | 19 (2.7) | 18 (1.9) | 13 (1.7) | 4 (1.9) |
| Colostomy (ileostomy) | 150 (4.6) | 155 (6.5) | 150 (8.3) | 114 (7.8) | 102 (9.5) | 89 (9.4) | 81 (11.4) | 123 (13.2) | 80 (10.3) | 37 (17.6) |
| Sacral anterior root stimulation | 0 (0.0) | 4 (0.2) | 2 (0.1) | 1 (0.1) | 1 (0.1) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 1 (0.1) | 0 (0.0) |
| Other (pad, brief, disposable underwear, etc) | 79 (2.4) | 39 (1.6) | 36 (2.0) | 26 (1.8) | 26 (2.4) | 13 (1.4) | 9 (1.3) | 7 (0.7) | 12 (1.5) | 1 (0.5) |
| NA | 3 (0.1) | 1 (0.0) | 1 (0.1) | 4 (0.3) | 0 (0.0) | 1 (0.1) | 3 (0.4) | 2 (0.2) | 1 (0.1) | 0 (0.0) |
| Unkn | 76 (2.3) | 92 (3.8) | 65 (3.6) | 57 (3.9) | 44 (4.1) | 36 (3.8) | 24 (3.4) | 28 (3.0) | 23 (3.0) | 6 (2.9) |
| Total | 3,235 (23.9) | 2,397 (17.7) | 1,800 (13.3) | 1,453 (10.7) | 1,074 (7.9) | 948 (7.0) | 708 (5.2) | 934 (6.9) | 775 (5.7) | 210 (1.6) |

*Footnote 1: Form Iis obtained since October 1, 2016.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 105. Frequency of Emptying Bowel at Initial Rehabilitation

| n (%) | Frequency of Emptying Bowel | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | No defecation since rehab admit | Less than once a week | 1 to 6 times a week | Daily | Declined | NA | Unkn | Total |
| Total | 14 (0.3) | 120 (2.9) | 950 (23.3) | 2,781 (68.2) | 5 (0.1) | 136 (3.3) | 70 (1.7) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: In September 2021, wording of the codes changed slightly to match updates in the International SCI Bowel Function Dataset: 'Once or more per day' changed to 'Daily'; '2-6 times per week' changed to '1-6 times per week'; and 'Once per week or less' changed to 'Less than once per week'.*

## Table 106. Frequency of Emptying Bowel in the Last 4 Weeks by Post-Injury Year

| Frequency of Emptying Bowel n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No defecation since rehab admit | 9 (0.3) | 7 (0.3) | 6 (0.3) | 1 (0.1) | 2 (0.2) | 1 (0.1) | 4 (0.6) | 1 (0.1) | 2 (0.3) | 0 (0.0) |
| Less than once a week | 105 (3.2) | 87 (3.6) | 76 (4.2) | 70 (4.8) | 45 (4.2) | 38 (4.0) | 25 (3.5) | 32 (3.4) | 26 (3.4) | 7 (3.3) |
| 1 to 6 times a week | 1,213 (37.5) | 1,016 (42.4) | 821 (45.6) | 684 (47.1) | 485 (45.2) | 468 (49.4) | 344 (48.6) | 462 (49.5) | 403 (52.0) | 102 (48.6) |
| Daily | 1,603 (49.6) | 1,000 (41.7) | 649 (36.1) | 508 (35.0) | 386 (35.9) | 305 (32.2) | 221 (31.2) | 280 (30.0) | 239 (30.8) | 60 (28.6) |
| Declined | 9 (0.3) | 15 (0.6) | 11 (0.6) | 6 (0.4) | 10 (0.9) | 4 (0.4) | 1 (0.1) | 4 (0.4) | 1 (0.1) | 1 (0.5) |
| NA | 154 (4.8) | 156 (6.5) | 151 (8.4) | 119 (8.2) | 103 (9.6) | 90 (9.5) | 86 (12.1) | 128 (13.7) | 80 (10.3) | 37 (17.6) |
| Unkn= | 142 (4.4) | 116 (4.8) | 86 (4.8) | 65 (4.5) | 43 (4.0) | 42 (4.4) | 27 (3.8) | 27 (2.9) | 24 (3.1) | 3 (1.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: In September 2021, wording of the codes changed slightly to match updates in the International SCI Bowel Function Dataset: 'Once or more per day' changed to 'Daily'; '2-6 times per week' changed to '1-6 times per week'; and 'Once per week or less' changed to 'Less than once per week'.*

## Table 107. Average Time to Empty Bowel at Initial Rehabilitation

| n (%) | No defecation since rehab admit | 0 to 30 minutes | 31 to 60 minutes | > 60 minutes | Declined | NA | Unkn | Total |
|---|---|---|---|---|---|---|---|---|
| Total | 46 (1.1) | 2,269 (55.7) | 1,063 (26.1) | 419 (10.3) | 17 (0.4) | 137 (3.4) | 125 (3.1) | 4,076 |

*Footnote 1: Form Is admitted to the System since January 1, 2016.*

## Table 108. Average Time to Empty Bowel in the Last 4 Weeks by Post-Injury Year

| Average Time to Empty Bowel n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No defecation in the last 4 weeks | 47 (1.5) | 33 (1.4) | 27 (1.5) | 17 (1.2) | 20 (1.9) | 8 (0.8) | 10 (1.4) | 15 (1.6) | 13 (1.7) | 2 (1.0) |
| 0 to 30 minutes | 1,810 (56.0) | 1,287 (53.7) | 928 (51.6) | 742 (51.1) | 541 (50.4) | 484 (51.1) | 349 (49.3) | 454 (48.6) | 387 (49.9) | 85 (40.5) |
| 31 to 60 minutes | 721 (22.3) | 535 (22.3) | 385 (21.4) | 291 (20.0) | 205 (19.1) | 177 (18.7) | 135 (19.1) | 166 (17.8) | 148 (19.1) | 49 (23.3) |
| More than 60 minutes | 277 (8.6) | 228 (9.5) | 173 (9.6) | 195 (13.4) | 138 (12.8) | 136 (14.3) | 93 (13.1) | 137 (14.7) | 116 (15.0) | 33 (15.7) |
| Declined | 38 (1.2) | 22 (0.9) | 23 (1.3) | 11 (0.8) | 16 (1.5) | 7 (0.7) | 5 (0.7) | 7 (0.7) | 4 (0.5) | 0 (0.0) |
| NA | 158 (4.9) | 158 (6.6) | 153 (8.5) | 120 (8.3) | 105 (9.8) | 90 (9.5) | 86 (12.1) | 128 (13.7) | 81 (10.5) | 37 (17.6) |
| Unkn | 184 (5.7) | 134 (5.6) | 111 (6.2) | 77 (5.3) | 49 (4.6) | 46 (4.9) | 30 (4.2) | 27 (2.9) | 26 (3.4) | 4 (1.9) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 109. Frequency of Bowel Incontinence at Initial Rehabilitation

| n (%) | Frequency of Bowel Incontinence | | | | | | |
|---|---|---|---|---|---|---|---|
| | Less than once a month or Never | 1 to 4 times a month | 1 to 6 times a week | Daily | NA | Unkn | Total |
| Total | 2,499 (61.3) | 820 (20.1) | 418 (10.3) | 184 (4.5) | 49 (1.2) | 106 (2.6) | 4,076 |

*Footnote 1: Form Is admitted to the System since January 1, 2016.*
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## Table 110. Frequency of Bowel Incontinence in the Last 4 Weeks by Post-Injury Year

| Frequency of Bowel Incontinence n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Less than once a month or Never | 2,469 (76.3) | 1,864 (77.8) | 1,371 (76.2) | 1,129 (77.7) | 808 (75.2) | 704 (74.3) | 546 (77.1) | 709 (75.9) | 582 (75.1) | 150 (71.4) |
| 1 to 4 times a month | 319 (9.9) | 219 (9.1) | 188 (10.4) | 139 (9.6) | 106 (9.9) | 115 (12.1) | 74 (10.5) | 114 (12.2) | 107 (13.8) | 31 (14.8) |
| 1 to 6 times a week | 90 (2.8) | 61 (2.5) | 34 (1.9) | 28 (1.9) | 32 (3.0) | 29 (3.1) | 21 (3.0) | 31 (3.3) | 31 (4.0) | 5 (2.4) |
| Daily | 57 (1.8) | 26 (1.1) | 23 (1.3) | 16 (1.1) | 15 (1.4) | 10 (1.1) | 6 (0.8) | 10 (1.1) | 5 (0.6) | 7 (3.3) |
| Declined | 30 (0.9) | 22 (0.9) | 15 (0.8) | 15 (1.0) | 16 (1.5) | 10 (1.1) | 7 (1.0) | 8 (0.9) | 4 (0.5) | 1 (0.5) |
| NA | 98 (3.0) | 68 (2.8) | 68 (3.8) | 49 (3.4) | 35 (3.3) | 36 (3.8) | 22 (3.1) | 30 (3.2) | 14 (1.8) | 12 (5.7) |
| Unkn | 172 (5.3) | 137 (5.7) | 101 (5.6) | 77 (5.3) | 62 (5.8) | 44 (4.6) | 32 (4.5) | 32 (3.4) | 32 (4.1) | 4 (1.9) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*

## Table 111. Health Literacy at the Time of Injury –help reading hospital materials

| n (%) | Help reading hospital materials | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Never | Rarely | Sometimes | Often | Always | Patient unable to respond | Unkn, age < 18 | Total |
| Total | 1,741 (42.7) | 699 (17.1) | 721 (17.7) | 348 (8.5) | 295 (7.2) | 10 (0.2) | 262 (6.4) | 4,076 |

*Footnote 1: Form Is admitted to the System since January 1, 2016.*

*Footnote 2: Participants must be at least 18 years old.*

## Table 112. Body Mass Index (mean) during Rehabilitation

| | BMI (kg/m2) | | | | |
|---|---|---|---|---|---|
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 11,056 | 26.8 | 6.5 | 10 | 94 |

*Footnote 1: Data required for all admissions to System since October 1, 2006.*

## Table 113. Body Mass Index (mean) by Post-Injury Year

| mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Total | 26.1 (3,576) | 26.9 (1,169) | 26.6 (713) | 26.6 (511) | 26.0 (425) | 26.5 (371) | 25.7 (247) | 25.6 (148) | 26.3 (73) | 26.3 (6) |

*Footnote1: Form II entered to the data base since January 2007*

## Table 114. Number of Pregnancies Prior to Injury

| | Number of Pregnancies | | | | |
|---|---|---|---|---|---|
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 829 | 1.9 | 1.9 | 0 | 11 |

*Footnote 1: Form Is admitted to the System since January 1, 2016.*
*Footnote 2: Women ≥ 15 years old.*

## Table 115. Number of Pregnancies by Post-Injury Year

| | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| mean (n) | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Total | 1.8 (670) | 1.9 (436) | 1.8 (386) | 1.9 (296) | 2.1 (236) | 1.8 (178) | 1.7 (140) | 1.7 (164) | 1.7 (162) | 1.7 (43) |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Women ≥ 15 years old.*

## Table 116. Number of Live Births Prior to Injury

| | Number of Live Births | | | | |
|---|---|---|---|---|---|
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 831 | 1.5 | 1.6 | 0 | 12 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Women ≥ 15 years old.*

## Table 117. Number of Live Births by Post-Injury Year

| | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Mean (n) | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Total | 1.4 (673) | 1.5 (441) | 1.4 (389) | 1.5 (296) | 1.5 (239) | 1.4 (177) | 1.2 (141) | 1.2 (163) | 1.2 (163) | 1.2 (43) |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Women ≥ 15 years old.*

## Table 118. Hypertension Diagnosis Prior to Injury

| n (%) | Hypertension Diagnosis | | | | | |
|---|---|---|---|---|---|---|
| | No | Yes | Borderline/Pre-Hypertensive | Declined, Participant not know | Unknown | Total |
| Total | 3,003 (73.7) | 1,030 (25.3) | 7 (0.2) | 5 (0.1) | 31 (0.8) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: In September 2021, added code for 2 Borderline/Pre-Hypertensive.*

## Table 119. Hypertension Diagnosis by Post-Injury Year

| Hypertension n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No | 2,412 (74.6) | 1,832 (76.4) | 1,394 (77.4) | 1,123 (77.3) | 818 (76.2) | 716 (75.5) | 493 (69.6) | 640 (68.5) | 538 (69.4) | 131 (62.4) |
| Yes | 691 (21.4) | 441 (18.4) | 320 (17.8) | 252 (17.3) | 202 (18.8) | 199 (21.0) | 196 (27.7) | 261 (27.9) | 214 (27.6) | 76 (36.2) |
| Borderline/Pre-Hypertensive | 4 (0.1) | 3 (0.1) | 2 (0.1) | 3 (0.2) | 0 (0.0) | 2 (0.2) | 0 (0.0) | 0 (0.0) | 1 (0.1) | 0 (0.0) |
| Declined,Participant not know | 11 (0.3) | 18 (0.8) | 11 (0.6) | 18 (1.2) | 13 (1.2) | 4 (0.4) | 3 (0.4) | 6 (0.6) | 4 (0.5) | 0 (0.0) |
| Unknown | 117 (3.6) | 103 (4.3) | 73 (4.1) | 57 (3.9) | 41 (3.8) | 27 (2.8) | 16 (2.3) | 27 (2.9) | 18 (2.3) | 3 (1.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: In September 2021, added code for 2 Borderline/Pre-Hypertensive.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 120. Hyperlipidemia Diagnosis Prior to Injury

| n (%) | Hyperlipidemia Diagnosis | | | | |
|---|---|---|---|---|---|
| | No | Yes | Declined, Participant not know | Unkn | Total |
| Total | 3,289 (80.7) | 741 (18.2) | 12 (0.3) | 34 (0.8) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*

## Table 121. Hyperlipidemia Diagnosis by Post-Injury Year

| Hyperlipidemia n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No | 2,589 (80.0) | 1,921 (80.1) | 1,429 (79.4) | 1,163 (80.0) | 848 (79.0) | 764 (80.6) | 545 (77.0) | 686 (73.4) | 594 (76.6) | 150 (71.4) |
| Yes | 491 (15.2) | 331 (13.8) | 278 (15.4) | 209 (14.4) | 162 (15.1) | 143 (15.1) | 134 (18.9) | 203 (21.7) | 152 (19.6) | 55 (26.2) |
| Declined, Participant not know | 33 (1.0) | 38 (1.6) | 15 (0.8) | 25 (1.7) | 20 (1.9) | 14 (1.5) | 9 (1.3) | 16 (1.7) | 11 (1.4) | 1 (0.5) |
| Unknown | 122 (3.8) | 107 (4.5) | 78 (4.3) | 56 (3.9) | 44 (4.1) | 27 (2.8) | 20 (2.8) | 29 (3.1) | 18 (2.3) | 4 (1.9) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*

## Table 122. Arthritis Diagnosis Prior to Injury

| n (%) | Arthritis Diagnosis | | | | |
|---|---|---|---|---|---|
| | No | Yes | Declined, Doesn't not know | Unknown | Total |
| Total | 3,288 (80.7) | 736 (18.1) | 14 (0.3) | 38 (0.9) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*

## Table 123. Arthritis Diagnosis by Post-Injury Year

| Arthritis n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No | 2,424 (74.9) | 1,715 (71.5) | 1,294 (71.9) | 1,010 (69.5) | 709 (66.0) | 660 (69.6) | 431 (60.9) | 539 (57.7) | 400 (51.6) | 127 (60.5) |
| Yes | 665 (20.6) | 546 (22.8) | 411 (22.8) | 356 (24.5) | 303 (28.2) | 251 (26.5) | 254 (35.9) | 356 (38.1) | 352 (45.4) | 79 (37.6) |
| Declined/Participant not know | 18 (0.6) | 28 (1.2) | 15 (0.8) | 29 (2.0) | 17 (1.6) | 7 (0.7) | 5 (0.7) | 10 (1.1) | 4 (0.5) | 1 (0.5) |
| Unknown | 128 (4.0) | 108 (4.5) | 80 (4.4) | 58 (4.0) | 45 (4.2) | 30 (3.2) | 18 (2.5) | 29 (3.1) | 19 (2.5) | 3 (1.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*

## Table 124. Diabetes Diagnosis Prior to Injury

| n (%) | Diabetes Diagnosis | | | | | |
|---|---|---|---|---|---|---|
| | No | Yes | Borderline /Impaired glucose tolerance | Declined | Unkn | Total |
| Total | 6,854 (88.4) | 829 (10.7) | 7 (0.1) | 11 (0.1) | 55 (0.7) | 7,756 |

*Footnote 1: Data required for all Admissions to System since October 1, 2011.*
*Footnote 2: In September 2021, added code for Borderline.*

## Table 125. Diabetes Diagnosis by Post-Injury Year

| Diabetes n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No | 5,425 (86.8) | 3,835 (85.3) | 2,958 (85.5) | 2,273 (85.8) | 1,836 (85.9) | 1,514 (84.8) | 1,504 (84.4) | 1,593 (85.5) | 900 (86.5) | 172 (81.9) |
| Yes | 653 (10.4) | 501 (11.1) | 396 (11.5) | 273 (10.3) | 233 (10.9) | 220 (12.3) | 237 (13.3) | 230 (12.3) | 119 (11.4) | 34 (16.2) |
| Borderline/Impaired glucose tolerance | 4 (0.1) | 0 (0.0) | 3 (0.1) | 4 (0.2) | 2 (0.1) | 3 (0.2) | 2 (0.1) | 0 (0.0) | 3 (0.3) | 0 (0.0) |
| Declined | 18 (0.3) | 24 (0.5) | 13 (0.4) | 19 (0.7) | 14 (0.7) | 7 (0.4) | 7 (0.4) | 7 (0.4) | 0 (0.0) | 0 (0.0) |
| Unkn | 149 (2.4) | 137 (3.0) | 88 (2.5) | 80 (3.0) | 52 (2.4) | 41 (2.3) | 31 (1.7) | 33 (1.8) | 19 (1.8) | 4 (1.9) |
| Total | 6,249 | 4,497 | 3,458 | 2,649 | 2,137 | 1,785 | 1,781 | 1,863 | 1,041 | 210 |

*Footnote 1: Form IIs entered into the database since January 1, 2012.*
*Footnote 2: In September 2021, added code for Borderline.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 126. Urinary Tract Infection Requiring Antibiotics Treatment in Past 12 Months by Post-Injury Year

| UTI    n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No | 2,668 (42.7) | 2,228 (49.5) | 1,675 (48.4) | 1,248 (47.1) | 1,003 (46.9) | 784 (43.9) | 806 (45.3) | 806 (43.3) | 435 (41.8) | 102 (48.6) |
| 1 to 2 times* | 909 (14.5) | 599 (13.3) | 467 (13.5) | 377 (14.2) | 283 (13.2) | 303 (17.0) | 212 (11.9) | 298 (16.0) | 260 (25.0) | 62 (29.5) |
| 3 to 5 times* | 505 (8.1) | 302 (6.7) | 234 (6.8) | 188 (7.1) | 130 (6.1) | 129 (7.2) | 102 (5.7) | 121 (6.5) | 106 (10.2) | 26 (12.4) |
| >5 times* | 340 (5.4) | 233 (5.2) | 180 (5.2) | 138 (5.2) | 108 (5.1) | 88 (4.9) | 66 (3.7) | 95 (5.1) | 67 (6.4) | 15 (7.1) |
| UTI number unkn | 1,604 (25.7) | 952 (21.2) | 791 (22.9) | 584 (22.0) | 538 (25.2) | 417 (23.4) | 553 (31.0) | 499 (26.8) | 140 (13.4) | 0 (0.0) |
| Declined | 23 (0.4) | 30 (0.7) | 12 (0.3) | 20 (0.8) | 14 (0.7) | 9 (0.5) | 6 (0.3) | 8 (0.4) | 4 (0.4) | 2 (1.0) |
| Unkn | 200 (3.2) | 153 (3.4) | 99 (2.9) | 94 (3.5) | 61 (2.9) | 55 (3.1) | 36 (2.0) | 36 (1.9) | 29 (2.8) | 3 (1.4) |
| Total | 6,249 | 4,497 | 3,458 | 2,649 | 2,137 | 1,785 | 1,781 | 1,863 | 1,041 | 210 |

*Footnote 1: Form IIs entered into the database since January 1, 2012.*
*Footnote 2: * codes were added in October 2016.*

## Table 127. Pressure Ulcer Occurrence in Past 12 Months by Post-Injury Year

| Pressure Ulcer n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No | 4,472 (71.6) | 3,182 (70.8) | 2,376 (68.7) | 1,842 (69.5) | 1,424 (66.6) | 1,156 (64.8) | 1,189 (66.8) | 1,205 (64.7) | 641 (61.6) | 126 (60.0) |
| Yes | 1,583 (25.3) | 1,150 (25.6) | 966 (27.9) | 709 (26.8) | 643 (30.1) | 576 (32.3) | 555 (31.2) | 619 (33.2) | 376 (36.1) | 80 (38.1) |
| Declined | 24 (0.4) | 22 (0.5) | 15 (0.4) | 14 (0.5) | 12 (0.6) | 5 (0.3) | 3 (0.2) | 5 (0.3) | 1 (0.1) | 1 (0.5) |
| Unkn | 170 (2.7) | 143 (3.2) | 101 (2.9) | 84 (3.2) | 58 (2.7) | 48 (2.7) | 34 (1.9) | 34 (1.8) | 23 (2.2) | 3 (1.4) |
| Total | 6,249 | 4,497 | 3,458 | 2,649 | 2,137 | 1,785 | 1,781 | 1,863 | 1,041 | 210 |

*Footnote 1: Form IIs entered into the database since January 1, 2012.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

# Table 128. Patients Re-hospitalized by Post Injury Year

| Total Number of Rehospitalizations n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| 0 | 17,399 (63.3) | 10,797 (68.7) | 6,730 (71.1) | 4,697 (72.3) | 3,536 (71.8) | 2,820 (72.1) | 2,136 (71.0) | 1,450 (68.2) | 705 (67.7) | 136 (64.8) |
| 1 | 6,048 (22.0) | 2,912 (18.5) | 1,643 (17.4) | 1,085 (16.7) | 853 (17.3) | 676 (17.3) | 548 (18.2) | 414 (19.5) | 207 (19.9) | 47 (22.4) |
| 2 | 1,889 (6.9) | 821 (5.2) | 481 (5.1) | 307 (4.7) | 253 (5.1) | 185 (4.7) | 162 (5.4) | 125 (5.9) | 58 (5.6) | 11 (5.2) |
| 3 | 651 (2.4) | 318 (2.0) | 169 (1.8) | 111 (1.7) | 89 (1.8) | 80 (2.0) | 63 (2.1) | 54 (2.5) | 26 (2.5) | 5 (2.4) |
| 4 | 235 (0.9) | 122 (0.8) | 71 (0.7) | 44 (0.7) | 45 (0.9) | 36 (0.9) | 24 (0.8) | 20 (0.9) | 11 (1.1) | 2 (1.0) |
| 5 | 119 (0.4) | 57 (0.4) | 14 (0.1) | 19 (0.3) | 16 (0.3) | 10 (0.3) | 8 (0.3) | 7 (0.3) | 3 (0.3) | 0 (0.0) |
| 6 | 56 (0.2) | 24 (0.2) | 19 (0.2) | 8 (0.1) | 10 (0.2) | 6 (0.2) | 7 (0.2) | 2 (0.1) | 1 (0.1) | 0 (0.0) |
| >6 | 44 (0.2) | 17 (0.1) | 10 (0.1) | 14 (0.2) | 5 (0.1) | 5 (0.1) | 8 (0.3) | 6 (0.3) | 0 (0.0) | 0 (0.0) |
| Yes, Unkn # of rehospitalizations | 65 (0.2) | 44 (0.3) | 26 (0.3) | 15 (0.2) | 7 (0.1) | 3 (0.1) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Unkn | 979 (3.6) | 602 (3.8) | 306 (3.2) | 201 (3.1) | 108 (2.2) | 89 (2.3) | 53 (1.8) | 49 (2.3) | 30 (2.9) | 9 (4.3) |
| Total | 27,485 | 15,714 | 9,469 | 6,501 | 4,922 | 3,910 | 3,010 | 2,127 | 1,041 | 210 |

# Table 129. Total Days Re-hospitalized (Mean) By Post-Injury Year

| mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Total | 22.8 (8,555) | 19.7 (4,040) | 19.9 (2,284) | 20.3 (1,507) | 19.5 (1,213) | 20.8 (962) | 20.1 (798) | 23.6 (614) | 20.8 (301) | 23.7 (64) |

*Footnote 1: Exclude those with unknown number of days rehospitalized or with no/unknown rehospitalizations.*

# Table 130. Cause of Rehospitalization by Post Injury Year

| Cause of Rehospitalization n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Infectious and Parasitic Diseases | 277 (4.4) | 156 (4.5) | 132 (5.3) | 88 (4.8) | 88 (5.4) | 66 (4.4) | 28 (2.2) | 33 (3.4) | 14 (3.1) | 5 (5.5) |
| Cancer | 39 (0.6) | 21 (0.6) | 19 (0.8) | 20 (1.1) | 15 (0.9) | 16 (1.1) | 10 (0.8) | 8 (0.8) | 7 (1.5) | 0 (0.0) |
| Endocrine/Nutrition Diseases | 44 (0.7) | 42 (1.2) | 20 (0.8) | 9 (0.5) | 11 (0.7) | 17 (1.1) | 16 (1.2) | 13 (1.3) | 2 (0.4) | 4 (4.4) |
| Diseases of the Blood | 123 (2.0) | 60 (1.7) | 48 (1.9) | 34 (1.9) | 26 (1.6) | 23 (1.5) | 22 (1.7) | 21 (2.1) | 13 (2.8) | 2 (2.2) |
| Mental Disorders | 102 (1.6) | 63 (1.8) | 36 (1.4) | 21 (1.2) | 12 (0.7) | 23 (1.5) | 12 (0.9) | 8 (0.8) | 1 (0.2) | 0 (0.0) |
| Diseases of the Nervous System | 154 (2.5) | 70 (2.0) | 49 (2.0) | 16 (0.9) | 35 (2.1) | 15 (1.0) | 23 (1.8) | 8 (0.8) | 12 (2.6) | 1 (1.1) |
| Diseases of the Circulatory System | 415 (6.6) | 172 (5.0) | 120 (4.8) | 88 (4.8) | 75 (4.6) | 71 (4.8) | 77 (6.0) | 66 (6.7) | 31 (6.8) | 11 (12.1) |
| Diseases of the Respiratory System | 503 (8.0) | 238 (6.9) | 175 (7.0) | 100 (5.5) | 116 (7.1) | 118 (7.9) | 94 (7.3) | 66 (6.7) | 52 (11.4) | 5 (5.5) |
| Diseases of the Digestive System | 311 (5.0) | 275 (7.9) | 175 (7.0) | 110 (6.0) | 134 (8.2) | 118 (7.9) | 105 (8.2) | 84 (8.6) | 30 (6.6) | 1 (1.1) |
| Diseases of the Genitourinary System | 1,906 (30.4) | 1,012 (29.2) | 635 (25.4) | 527 (28.9) | 418 (25.5) | 400 (26.9) | 326 (25.3) | 233 (23.8) | 112 (24.5) | 28 (30.8) |
| Childbirth and/or Complications of Childbirth | 25 (0.4) | 43 (1.2) | 41 (1.6) | 33 (1.8) | 17 (1.0) | 5 (0.3) | 3 (0.2) | 1 (0.1) | 0 (0.0) | 0 (0.0) |
| Diseases of the Skin | 711 (11.3) | 492 (14.2) | 425 (17.0) | 348 (19.1) | 337 (20.5) | 287 (19.3) | 256 (19.9) | 189 (19.3) | 85 (18.6) | 23 (25.3) |
| Disease of the Musculoskeletal System | 315 (5.0) | 182 (5.2) | 159 (6.4) | 99 (5.4) | 79 (4.8) | 90 (6.1) | 98 (7.6) | 90 (9.2) | 39 (8.5) | 4 (4.4) |
| Congenital anomalies | 3 (0.0) | 1 (0.0) | 1 (0.0) | 1 (0.1) | 3 (0.2) | 4 (0.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Symptoms and Ill-defined conditions | 163 (2.6) | 76 (2.2) | 47 (1.9) | 32 (1.8) | 26 (1.6) | 26 (1.7) | 19 (1.5) | 17 (1.7) | 5 (1.1) | 1 (1.1) |
| Injuries and Poisonings | 247 (3.9) | 166 (4.8) | 139 (5.6) | 79 (4.3) | 81 (4.9) | 87 (5.9) | 80 (6.2) | 63 (6.4) | 26 (5.7) | 3 (3.3) |
| Inpatient Rehab Services | 302 (4.8) | 76 (2.2) | 28 (1.1) | 26 (1.4) | 24 (1.5) | 27 (1.8) | 29 (2.3) | 31 (3.2) | 10 (2.2) | 2 (2.2) |
| Other, Unclassified | 639 (10.2) | 326 (9.4) | 248 (9.9) | 195 (10.7) | 144 (8.8) | 93 (6.3) | 88 (6.8) | 49 (5.0) | 19 (4.1) | 1 (1.1) |
| Total rehospitalization episodes | 6,279 (100.0) | 3,471 (100.0) | 2,497 (100.0) | 1,826 (100.0) | 1,641 (100.0) | 1,486 (100.0) | 1,286 (100.0) | 980 (100.0) | 458 (100.0) | 91 (100.0) |
| Total Participants | 3,817 | 2,213 | 1,598 | 1,173 | 1,059 | 955 | 809 | 615 | 303 | 63 |

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

*Footnote 2: Those with no/unknown rehospitalizations are excluded.*

*Footnote 3: Total rehospitalization episodes includes each episode of rehospitalization (up to 8) per participant.*

# Table 131. Depression Diagnosis Prior to Injury

| n (%) | Depression Diagnosis | | | | |
|---|---|---|---|---|---|
| | No | Yes | Declined | Unkn | Total |
| Total | 6,513 (84.0) | 1,114 (14.4) | 24 (0.3) | 105 (1.4) | 7,756 |

*Footnote 1: Data was required for all Admissions to System since October 1, 2011.*

# Table 132. PHQ at Initial Rehabilitation – Major Depressive Syndrome

| n (%) | Major Depressive Syndrome | | | | | |
|---|---|---|---|---|---|---|
| | No depressive syndrome | Major depressive syndrome | Other depressive syndrome | Declined | Unkn/not done/under 18 | Total |
| Total | 3,358 (82.4) | 148 (3.6) | 284 (7.0) | 68 (1.7) | 218 (5.3) | 4,076 |

*Footnote 1: Form Is admitted to the System since January 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

# Table 133. PHQ at Initial Rehabilitation – Severity of Depression Score

| | Severity of Depression Score | | | | |
|---|---|---|---|---|---|
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 3,855 | 5.7 | 10.8 | 0 | 77 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: PHQ score ranges from 0 to 27.*
*Footnote 3: Participants must be at least 18 years old.*

# Table 134. Major Depressive Syndrome by Post-Injury Year

| Depressive Syndrome n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No Depressive Syndrome | 6,092 (50.6) | 4,393 (54.8) | 3,225 (53.6) | 2,636 (56.7) | 2,295 (56.9) | 2,320 (62.0) | 1,513 (50.3) | 955 (44.9) | 598 (57.4) | 177 (84.3) |
| Major Depressive Syndrome | 861 (7.1) | 473 (5.9) | 346 (5.7) | 230 (5.0) | 180 (4.5) | 181 (4.8) | 119 (4.0) | 70 (3.3) | 51 (4.9) | 12 (5.7) |
| Other Depressive Syndrome | 816 (6.8) | 458 (5.7) | 339 (5.6) | 241 (5.2) | 203 (5.0) | 216 (5.8) | 191 (6.3) | 104 (4.9) | 71 (6.8) | 11 (5.2) |
| Decline | 126 (1.0) | 97 (1.2) | 71 (1.2) | 68 (1.5) | 52 (1.3) | 33 (0.9) | 28 (0.9) | 33 (1.6) | 23 (2.2) | 4 (1.9) |
| Unknown/Interview Not Done/Under18 | 4,149 (34.4) | 2,602 (32.4) | 2,037 (33.8) | 1,471 (31.7) | 1,304 (32.3) | 994 (26.5) | 1,159 (38.5) | 965 (45.4) | 298 (28.6) | 6 (2.9) |
| Total | 12,044 | 8,023 | 6,018 | 4,646 | 4,034 | 3,744 | 3,010 | 2,127 | 1,041 | 210 |

*Footnote 1: Form IIs entered into the database since March 1, 2001.*
*Footnote 2: PHQ-9 was not collected between 2011 and 2016.*

# Table 135. PHQ-9 Severity of Depression Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Total | 6.7 (7,875) | 6.3 (5,408) | 6.2 (3,969) | 6.0 (3,171) | 5.6 (2,723) | 5.2 (2,743) | 5.7 (1,848) | 6.7 (1,161) | 7.2 (740) | 6.1 (203) |

*Footnote 1: Form IIs entered into the database since March 1, 2001.*
*Footnote 2: Total ranges from 0 to 27.*
*Footnote 3: PHQ-9 was not collected between 2011 and 2016.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 136. Sleep Problems in the Last 12 Months by Post-Injury Year

| Sleep problems n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Never or less than monthly | 1,236 (38.2) | 882 (36.8) | 665 (36.9) | 584 (40.2) | 394 (36.7) | 392 (41.4) | 267 (37.7) | 366 (39.2) | 284 (36.6) | 81 (38.6) |
| Monthly (3 days a month or less) | 442 (13.7) | 316 (13.2) | 244 (13.6) | 186 (12.8) | 163 (15.2) | 110 (11.6) | 98 (13.8) | 107 (11.5) | 118 (15.2) | 34 (16.2) |
| Weekly (1 to 4 days a week) | 553 (17.1) | 441 (18.4) | 346 (19.2) | 241 (16.6) | 192 (17.9) | 159 (16.8) | 134 (18.9) | 188 (20.1) | 156 (20.1) | 40 (19.0) |
| Daily or almost daily (5 to 7 days a week) | 780 (24.1) | 598 (24.9) | 438 (24.3) | 359 (24.7) | 262 (24.4) | 237 (25.0) | 180 (25.4) | 238 (25.5) | 187 (24.1) | 52 (24.8) |
| Unknown, Interview not done | 224 (6.9) | 160 (6.7) | 107 (5.9) | 83 (5.7) | 63 (5.9) | 50 (5.3) | 29 (4.1) | 35 (3.7) | 30 (3.9) | 3 (1.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*

## Table 137. Anxiety Diagnosis Prior to Injury

| n (%) | Anxiety Diagnosis | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | No | Post-traumatic stress disorder | Panic disorder | Generalized anxiety disorder | Multiple diagnoses, first diagnosis unk | Declined | Unkn | Total |
| Total | 6,759 (87.1) | 252 (3.2) | 38 (0.5) | 511 (6.6) | 70 (0.9) | 21 (0.3) | 105 (1.4) | 7,756 |

*Footnote 1: Data were required for all Admissions to System since October 1, 2011.*
*Footnote 2: If more than 1 disorder, the first diagnosis was coded.*

## Table 138. Severity of Pain Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Total | 4.3 (10,941) | 4.4 (7,498) | 4.5 (5,654) | 4.5 (4,357) | 4.4 (3,806) | 4.3 (3,579) | 4.3 (2,932) | 4.3 (2,063) | 4.2 (991) | 3.9 (199) |

*Footnote 1: Form IIs entered into the database since March 1, 2001.*
*Footnote 2: Total ranges from 0 to 10.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

# Table 139. Pain Interfering with Work by Post Injury Year

| Pain Interference n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Not at All | 2,409 (17.7) | 1,699 (19.0) | 1,422 (21.5) | 1,289 (23.9) | 1,163 (25.6) | 1,071 (27.4) | 818 (27.2) | 551 (25.9) | 258 (24.8) | 48 (22.9) |
| A little bit | 2,944 (21.6) | 1,977 (22.1) | 1,412 (21.4) | 1,136 (21.1) | 977 (21.5) | 777 (19.9) | 605 (20.1) | 465 (21.9) | 224 (21.5) | 60 (28.6) |
| Moderately | 2,027 (14.9) | 1,452 (16.2) | 1,025 (15.5) | 810 (15.0) | 682 (15.0) | 609 (15.6) | 499 (16.6) | 358 (16.8) | 181 (17.4) | 32 (15.2) |
| Quite a bit | 1,771 (13.0) | 1,168 (13.1) | 884 (13.4) | 686 (12.7) | 515 (11.3) | 462 (11.8) | 384 (12.8) | 276 (13.0) | 123 (11.8) | 22 (10.5) |
| Extremely | 911 (6.7) | 654 (7.3) | 451 (6.8) | 340 (6.3) | 268 (5.9) | 217 (5.5) | 152 (5.0) | 116 (5.5) | 57 (5.5) | 9 (4.3) |
| Don't Know | 24 (0.2) | 11 (0.1) | 6 (0.1) | 9 (0.2) | 9 (0.2) | 3 (0.1) | 4 (0.1) | 1 (0.0) | 2 (0.2) | 0 (0.0) |
| Refuses | 110 (0.8) | 55 (0.6) | 51 (0.8) | 64 (1.2) | 31 (0.7) | 21 (0.5) | 5 (0.2) | 7 (0.3) | 3 (0.3) | 0 (0.0) |
| N/A, No Pain | 1,810 (13.3) | 1,139 (12.7) | 830 (12.6) | 659 (12.2) | 611 (13.5) | 598 (15.3) | 465 (15.4) | 299 (14.1) | 150 (14.4) | 33 (15.7) |
| Unknown/Not Done/Under 18 | 1,631 (12.0) | 791 (8.8) | 522 (7.9) | 402 (7.5) | 286 (6.3) | 152 (3.9) | 78 (2.6) | 54 (2.5) | 43 (4.1) | 6 (2.9) |
| Total | 13,637 | 8,946 | 6,603 | 5,395 | 4,542 | 3,910 | 3,010 | 2,127 | 1,041 | 210 |

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

# Table 140. Falls in the Last 12 Months by Post-Injury Year

| Fall n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| None | 1,466 (45.3) | 1,250 (52.1) | 953 (52.9) | 782 (53.8) | 569 (53.0) | 524 (55.3) | 409 (57.8) | 552 (59.1) | 444 (57.3) | 138 (65.7) |
| 1 to 2 times | 847 (26.2) | 523 (21.8) | 398 (22.1) | 321 (22.1) | 245 (22.8) | 233 (24.6) | 148 (20.9) | 195 (20.9) | 165 (21.3) | 41 (19.5) |
| 3 to 5 times | 454 (14.0) | 265 (11.1) | 177 (9.8) | 141 (9.7) | 104 (9.7) | 71 (7.5) | 63 (8.9) | 81 (8.7) | 69 (8.9) | 13 (6.2) |
| More than 5 times | 273 (8.4) | 214 (8.9) | 163 (9.1) | 129 (8.9) | 96 (8.9) | 73 (7.7) | 59 (8.3) | 71 (7.6) | 68 (8.8) | 13 (6.2) |
| Unknown, Interview not done | 195 (6.0) | 145 (6.0) | 109 (6.1) | 80 (5.5) | 60 (5.6) | 47 (5.0) | 29 (4.1) | 35 (3.7) | 29 (3.7) | 5 (2.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*


# Table 141. Self-Perceived Health Status by Post-Injury Year

| Self-Perceived Health n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Excellent | 1,441 (9.8) | 1,158 (12.0) | 797 (11.2) | 691 (11.9) | 621 (12.9) | 499 (12.8) | 371 (12.3) | 226 (10.6) | 103 (9.9) | 20 (9.5) |
| Very Good | 3,312 (22.5) | 2,372 (24.5) | 1,797 (25.3) | 1,544 (26.6) | 1,298 (26.9) | 1,096 (28.0) | 842 (28.0) | 548 (25.8) | 280 (26.9) | 62 (29.5) |
| Good | 4,740 (32.2) | 3,226 (33.4) | 2,384 (33.6) | 2,024 (34.9) | 1,652 (34.3) | 1,376 (35.2) | 1,051 (34.9) | 760 (35.7) | 356 (34.2) | 73 (34.8) |
| Fair | 2,535 (17.2) | 1,634 (16.9) | 1,236 (17.4) | 922 (15.9) | 810 (16.8) | 644 (16.5) | 500 (16.6) | 423 (19.9) | 205 (19.7) | 40 (19.0) |
| Poor | 805 (5.5) | 446 (4.6) | 316 (4.5) | 208 (3.6) | 178 (3.7) | 138 (3.5) | 163 (5.4) | 121 (5.7) | 57 (5.5) | 11 (5.2) |
| Don't Know | 37 (0.3) | 27 (0.3) | 13 (0.2) | 11 (0.2) | 8 (0.2) | 4 (0.1) | 6 (0.2) | 0 (0.0) | 5 (0.5) | 0 (0.0) |
| Refuses | 120 (0.8) | 62 (0.6) | 50 (0.7) | 64 (1.1) | 28 (0.6) | 21 (0.5) | 3 (0.1) | 5 (0.2) | 1 (0.1) | 0 (0.0) |
| Unknown/Not Done/Under 18 | 1,724 (11.7) | 745 (7.7) | 500 (7.0) | 335 (5.8) | 225 (4.7) | 132 (3.4) | 74 (2.5) | 44 (2.1) | 34 (3.3) | 4 (1.9) |
| Total | 14,714 | 9,670 | 7,093 | 5,799 | 4,820 | 3,910 | 3,010 | 2,127 | 1,041 | 210 |

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

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 142. 'Compared to one year ago, how would you rate your Health?' by Post-Injury Year

| Self-Perceived Health n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Much Better | 4,471 (32.8) | 1,079 (12.1) | 575 (8.7) | 492 (9.1) | 425 (9.4) | 366 (9.4) | 316 (10.5) | 226 (10.6) | 125 (12.0) | 24 (11.4) |
| Somewhat Better | 3,297 (24.2) | 1,644 (18.4) | 944 (14.3) | 641 (11.9) | 557 (12.3) | 487 (12.5) | 378 (12.6) | 251 (11.8) | 141 (13.5) | 30 (14.3) |
| About the Same | 2,570 (18.8) | 4,256 (47.6) | 3,520 (53.3) | 3,006 (55.7) | 2,467 (54.3) | 2,188 (56.0) | 1,631 (54.2) | 1,061 (49.9) | 483 (46.4) | 100 (47.6) |
| Somewhat Worse | 1,014 (7.4) | 942 (10.5) | 867 (13.1) | 670 (12.4) | 651 (14.3) | 591 (15.1) | 505 (16.8) | 437 (20.5) | 207 (19.9) | 42 (20.0) |
| Much Worse | 522 (3.8) | 204 (2.3) | 155 (2.3) | 146 (2.7) | 139 (3.1) | 108 (2.8) | 102 (3.4) | 92 (4.3) | 42 (4.0) | 8 (3.8) |
| Don't Know | 19 (0.1) | 19 (0.2) | 11 (0.2) | 9 (0.2) | 8 (0.2) | 5 (0.1) | 1 (0.0) | 4 (0.2) | 3 (0.3) | 1 (0.5) |
| Refuses | 125 (0.9) | 66 (0.7) | 57 (0.9) | 68 (1.3) | 36 (0.8) | 26 (0.7) | 2 (0.1) | 6 (0.3) | 3 (0.3) | 0 (0.0) |
| Unknown/Not Done/Under 18 | 1,619 (11.9) | 736 (8.2) | 474 (7.2) | 363 (6.7) | 259 (5.7) | 139 (3.6) | 75 (2.5) | 50 (2.4) | 37 (3.6) | 5 (2.4) |
| Total | 13,637 | 8,946 | 6,603 | 5,395 | 4,542 | 3,910 | 3,010 | 2,127 | 1,041 | 210 |

*Footnote 1: Form IIs entered to the database since January 1, 1998.*

## Table 143. Alcohol Use Disorder by Prior to Injury

| n (%) | Alcohol Use Disorder | | |
|---|---|---|---|
| | Yes | No | Total |
| Total | 2,949 (40.3) | 4,377 (59.7) | 7,326 |

*Footnote 1: Data was required for all Admissions to System since October 1, 2011.*
*Footnote 2: The Alcohol Use Disorders Identification Test-Concise, (3-item alcohol screening instrument; scale of 0 to 12). Alcohol use disorder threshold is met for men with scores of 4+ and women with scores 3+.*

## Table 144. Alcohol Use Disorder by Post-Injury Year

| Alcohol Use n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Yes | 1,150 (25.1) | 997 (29.8) | 724 (28.9) | 572 (29.7) | 478 (30.1) | 414 (30.4) | 402 (29.0) | 458 (32.0) | 219 (28.3) | 41 (25.6) |
| No | 3,428 (74.9) | 2,350 (70.2) | 1,782 (71.1) | 1,351 (70.3) | 1,110 (69.9) | 950 (69.6) | 985 (71.0) | 975 (68.0) | 554 (71.7) | 119 (74.4) |
| Total | 4,578 | 3,347 | 2,506 | 1,923 | 1,588 | 1,364 | 1,387 | 1,433 | 773 | 160 |

*Footnote 1: Data was required for all Admissions to System since October 1, 2011.*
*Footnote 2: The Alcohol Use Disorders Identification Test-Concise, (3-item alcohol screening instrument; scale of 0 to 12).*
*Alcohol use disorder threshold is met for men with scores of 4+ and women with scores 3+.*

## Table 145. Substance Abuse in the 3 Months Prior to Injury – Tobacco

| n (%) | Tobacco | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Never | Once or twice | Monthly | Weekly | Daily or almost daily | Declined | Unkn | Total |
| Total | 2,557 (62.7) | 111 (2.7) | 78 (1.9) | 128 (3.1) | 1,025 (25.1) | 16 (0.4) | 161 (3.9) | 4,076 |

*Footnote 1: Form Is admitted to the System since January 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

## Table 146. Substance Abuse in the Last 3 Months by Post-Injury Year –Tobacco

| Tobacco n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Never | 2,354 (72.8) | 1,722 (71.8) | 1,242 (69.0) | 1,031 (71.0) | 756 (70.4) | 684 (72.2) | 522 (73.7) | 737 (78.9) | 630 (81.3) | 175 (83.3) |
| Once or twice in last 3 months | 77 (2.4) | 50 (2.1) | 53 (2.9) | 24 (1.7) | 25 (2.3) | 19 (2.0) | 16 (2.3) | 20 (2.1) | 15 (1.9) | 3 (1.4) |
| Monthly | 37 (1.1) | 31 (1.3) | 21 (1.2) | 15 (1.0) | 12 (1.1) | 11 (1.2) | 5 (0.7) | 9 (1.0) | 5 (0.6) | 0 (0.0) |
| Weekly | 75 (2.3) | 45 (1.9) | 38 (2.1) | 32 (2.2) | 19 (1.8) | 17 (1.8) | 13 (1.8) | 7 (0.7) | 9 (1.2) | 3 (1.4) |
| Daily or almost daily | 460 (14.2) | 408 (17.0) | 318 (17.7) | 261 (18.0) | 188 (17.5) | 164 (17.3) | 121 (17.1) | 122 (13.1) | 90 (11.6) | 23 (11.0) |
| Declined | 30 (0.9) | 14 (0.6) | 24 (1.3) | 19 (1.3) | 20 (1.9) | 4 (0.4) | 1 (0.1) | 5 (0.5) | 0 (0.0) | 1 (0.5) |
| Unkn | 202 (6.2) | 127 (5.3) | 104 (5.8) | 71 (4.9) | 54 (5.0) | 49 (5.2) | 30 (4.2) | 34 (3.6) | 26 (3.4) | 5 (2.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

## Table 147. Substance Abuse in the 3 Months Prior to Injury – Cannabis

| n (%) | Cannabis | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Never** | **Once or twice** | **Monthly** | **Weekly** | **Daily or almost daily** | **Declined** | **Unkn** | **Total** |
| Total | 2,746 (67.4) | 179 (4.4) | 129 (3.2) | 243 (6.0) | 600 (14.7) | 20 (0.5) | 159 (3.9) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

## Table 148. Substance Abuse in the Last 3 Months by Post-Injury Year – Cannabis

| Cannabis n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Never | 2,087 (64.5) | 1,536 (64.1) | 1,220 (67.8) | 1,005 (69.2) | 725 (67.5) | 660 (69.6) | 528 (74.6) | 725 (77.6) | 579 (74.7) | 158 (75.2) |
| Once or twice in last 3 months | 131 (4.0) | 98 (4.1) | 61 (3.4) | 62 (4.3) | 47 (4.4) | 30 (3.2) | 33 (4.7) | 28 (3.0) | 30 (3.9) | 12 (5.7) |
| Monthly | 100 (3.1) | 68 (2.8) | 33 (1.8) | 36 (2.5) | 31 (2.9) | 20 (2.1) | 12 (1.7) | 13 (1.4) | 14 (1.8) | 4 (1.9) |
| Weekly | 173 (5.3) | 125 (5.2) | 88 (4.9) | 79 (5.4) | 42 (3.9) | 59 (6.2) | 27 (3.8) | 34 (3.6) | 36 (4.6) | 10 (4.8) |
| Daily or almost daily | 482 (14.9) | 407 (17.0) | 251 (13.9) | 174 (12.0) | 149 (13.9) | 121 (12.8) | 73 (10.3) | 92 (9.9) | 84 (10.8) | 19 (9.0) |
| Declined | 36 (1.1) | 17 (0.7) | 26 (1.4) | 24 (1.7) | 21 (2.0) | 6 (0.6) | 1 (0.1) | 7 (0.7) | 4 (0.5) | 2 (1.0) |
| Unkn | 226 (7.0) | 146 (6.1) | 121 (6.7) | 73 (5.0) | 59 (5.5) | 52 (5.5) | 34 (4.8) | 35 (3.7) | 28 (3.6) | 5 (2.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

## Table 149. Substance Abuse in the 3 Months Prior to Injury – Cocaine

| n (%) | Cocaine | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Never** | **Once or twice** | **Monthly** | **Weekly** | **Daily or almost daily** | **Declined** | **Unkn** | **Total** |
| Total | 3,752 (92.1) | 54 (1.3) | 52 (1.3) | 31 (0.8) | 11 (0.3) | 15 (0.4) | 161 (3.9) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

## Table 150. Substance Abuse in the Last 3 Months by Post-Injury Year – Cocaine

| Cocaine n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Never | 2,938 (90.8) | 2,213 (92.3) | 1,639 (91.1) | 1,344 (92.5) | 989 (92.1) | 887 (93.6) | 670 (94.6) | 891 (95.4) | 743 (95.9) | 204 (97.1) |
| Once or twice in last 3 months | 13 (0.4) | 15 (0.6) | 15 (0.8) | 13 (0.9) | 5 (0.5) | 3 (0.3) | 1 (0.1) | 1 (0.1) | 1 (0.1) | 0 (0.0) |
| Monthly | 9 (0.3) | 6 (0.3) | 1 (0.1) | 3 (0.2) | 2 (0.2) | 1 (0.1) | 1 (0.1) | 2 (0.2) | 0 (0.0) | 0 (0.0) |
| Weekly | 3 (0.1) | 2 (0.1) | 1 (0.1) | 1 (0.1) | 0 (0.0) | 1 (0.1) | 3 (0.4) | 1 (0.1) | 2 (0.3) | 0 (0.0) |
| Daily or almost daily | 2 (0.1) | 1 (0.0) | 1 (0.1) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Declined | 33 (1.0) | 15 (0.6) | 21 (1.2) | 19 (1.3) | 19 (1.8) | 4 (0.4) | 0 (0.0) | 5 (0.5) | 1 (0.1) | 1 (0.5) |
| Unkn | 237 (7.3) | 145 (6.0) | 122 (6.8) | 73 (5.0) | 58 (5.4) | 52 (5.5) | 33 (4.7) | 34 (3.6) | 28 (3.6) | 5 (2.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

**Table 151. Substance Abuse in the 3 Months Prior to Injury – Amphetamine-type Stimulants**

| n (%) | Amphetamine-type | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Never** | **Once or twice** | **Monthly** | **Weekly** | **Daily or almost daily** | **Declined** | **Unkn** | **Total** |
| Total | 3,798 (93.2) | 37 (0.9) | 13 (0.3) | 20 (0.5) | 33 (0.8) | 15 (0.4) | 160 (3.9) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

**Table 152. Substance Abuse in the Last 3 Months by Post-Injury Year – Amphetamine-type Stimulants**

| Amphetamine-type n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Never | 2,948 (91.1) | 2,223 (92.7) | 1,642 (91.2) | 1,352 (93.0) | 985 (91.7) | 885 (93.4) | 672 (94.9) | 892 (95.5) | 743 (95.9) | 202 (96.2) |
| Once or twice in last 3 months | 8 (0.2) | 5 (0.2) | 9 (0.5) | 4 (0.3) | 6 (0.6) | 1 (0.1) | 0 (0.0) | 2 (0.2) | 2 (0.3) | 0 (0.0) |
| Monthly | 4 (0.1) | 3 (0.1) | 1 (0.1) | 2 (0.1) | 1 (0.1) | 2 (0.2) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Weekly | 1 (0.0) | 1 (0.0) | 1 (0.1) | 2 (0.1) | 1 (0.1) | 3 (0.3) | 0 (0.0) | 1 (0.1) | 1 (0.1) | 0 (0.0) |
| Daily or almost daily | 3 (0.1) | 4 (0.2) | 3 (0.2) | 0 (0.0) | 2 (0.2) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.5) |
| Declined | 33 (1.0) | 15 (0.6) | 22 (1.2) | 19 (1.3) | 20 (1.9) | 4 (0.4) | 1 (0.1) | 5 (0.5) | 2 (0.3) | 1 (0.5) |
| Unkn | 238 (7.4) | 146 (6.1) | 122 (6.8) | 74 (5.1) | 59 (5.5) | 52 (5.5) | 34 (4.8) | 34 (3.6) | 27 (3.5) | 6 (2.9) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

# Table 153. Substance Abuse in the 3 Months Prior to Injury – Inhalants

| n (%) | Inhalants | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | Never | Once or twice | Monthly | Weekly | Daily or almost daily | Declined | Unkn | Total |
| Total | 3,889 (95.4) | 9 (0.2) | 1 (0.0) | 1 (0.0) | 2 (0.0) | 14 (0.3) | 160 (3.9) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

# Table 154. Substance Abuse in the Last 3 Months by Post-Injury Year – Inhalants

| Inhalants n (%) | Post-Injury Year | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Never | 2,961 (91.5) | 2,234 (93.2) | 1,654 (91.9) | 1,359 (93.5) | 994 (92.6) | 890 (93.9) | 671 (94.8) | 894 (95.7) | 746 (96.3) | 204 (97.1) |
| Once or twice in last 3 months | 3 (0.1) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.1) | 0 (0.0) |
| Monthly | 0 (0.0) | 1 (0.0) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Weekly | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Daily or almost daily | 3 (0.1) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 2 (0.2) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Declined | 31 (1.0) | 15 (0.6) | 21 (1.2) | 19 (1.3) | 19 (1.8) | 4 (0.4) | 0 (0.0) | 5 (0.5) | 0 (0.0) | 1 (0.5) |
| Unkn | 237 (7.3) | 146 (6.1) | 123 (6.8) | 75 (5.2) | 58 (5.4) | 54 (5.7) | 35 (4.9) | 35 (3.7) | 28 (3.6) | 5 (2.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

## Table 155. Substance Abuse in the 3 Months Prior to Injury – Sedatives/Sleeping

| n (%) | Sedatives/Sleeping | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Never** | **Once or twice** | **Monthly** | **Weekly** | **Daily or almost daily** | **Declined** | **Unkn** | **Total** |
| Total | 3,842 (94.3) | 19 (0.5) | 15 (0.4) | 15 (0.4) | 12 (0.3) | 14 (0.3) | 159 (3.9) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

## Table 156. Substance Abuse in the Last 3 Months by Post-Injury Year – Sedatives/Sleeping

| Sedatives/Sleeping n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Never | 2,774 (85.7) | 2,055 (85.7) | 1,558 (86.6) | 1,279 (88.0) | 920 (85.7) | 832 (87.8) | 628 (88.7) | 842 (90.1) | 720 (92.9) | 193 (91.9) |
| Once or twice in last 3 months | 17 (0.5) | 25 (1.0) | 14 (0.8) | 13 (0.9) | 7 (0.7) | 6 (0.6) | 3 (0.4) | 11 (1.2) | 7 (0.9) | 3 (1.4) |
| Monthly | 10 (0.3) | 13 (0.5) | 4 (0.2) | 6 (0.4) | 8 (0.7) | 3 (0.3) | 4 (0.6) | 5 (0.5) | 3 (0.4) | 1 (0.5) |
| Weekly | 41 (1.3) | 27 (1.1) | 14 (0.8) | 15 (1.0) | 12 (1.1) | 15 (1.6) | 5 (0.7) | 12 (1.3) | 3 (0.4) | 1 (0.5) |
| Daily or almost daily | 122 (3.8) | 115 (4.8) | 67 (3.7) | 47 (3.2) | 48 (4.5) | 35 (3.7) | 33 (4.7) | 23 (2.5) | 12 (1.5) | 5 (2.4) |
| Declined | 31 (1.0) | 14 (0.6) | 21 (1.2) | 19 (1.3) | 20 (1.9) | 4 (0.4) | 0 (0.0) | 6 (0.6) | 0 (0.0) | 1 (0.5) |
| Unkn | 240 (7.4) | 148 (6.2) | 122 (6.8) | 74 (5.1) | 59 (5.5) | 53 (5.6) | 35 (4.9) | 35 (3.7) | 30 (3.9) | 6 (2.9) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 157. Substance Abuse in the 3 Months Prior to Injury – Hallucinogens

| n (%) | Never | Once or twice | Monthly | Weekly | Daily or almost daily | Declined | Unkn | Total |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| Total | 3,820 (93.7) | 52 (1.3) | 20 (0.5) | 4 (0.1) | 3 (0.1) | 14 (0.3) | 163 (4.0) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

## Table 158. Substance Abuse in the Last 3 Months by Post-Injury Year – Hallucinogens

| Hallucinogens n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Never | 2,939 (90.9) | 2,216 (92.4) | 1,637 (90.9) | 1,348 (92.8) | 991 (92.3) | 889 (93.8) | 674 (95.2) | 895 (95.8) | 743 (95.9) | 204 (97.1) |
| Once or twice in last 3 months | 19 (0.6) | 17 (0.7) | 15 (0.8) | 6 (0.4) | 2 (0.2) | 3 (0.3) | 0 (0.0) | 0 (0.0) | 3 (0.4) | 0 (0.0) |
| Monthly | 5 (0.2) | 1 (0.0) | 1 (0.1) | 5 (0.3) | 2 (0.2) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Weekly | 1 (0.0) | 2 (0.1) | 2 (0.1) | 2 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Daily or almost daily | 1 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Declined | 31 (1.0) | 15 (0.6) | 21 (1.2) | 19 (1.3) | 19 (1.8) | 4 (0.4) | 0 (0.0) | 5 (0.5) | 0 (0.0) | 1 (0.5) |
| Unkn | 239 (7.4) | 146 (6.1) | 124 (6.9) | 73 (5.0) | 59 (5.5) | 52 (5.5) | 33 (4.7) | 34 (3.6) | 29 (3.7) | 5 (2.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

## Table 159. Substance Abuse in the 3 Months Prior to Injury – Opioids

| n (%) | Opioids | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Never** | **Once or twice** | **Monthly** | **Weekly** | **Daily or almost daily** | **Declined** | **Unkn** | **Total** |
| Total | 3,830 (94.0) | 13 (0.3) | 12 (0.3) | 12 (0.3) | 33 (0.8) | 15 (0.4) | 161 (3.9) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

## Table 160. Substance Abuse in the Last 3 Months by Post-Injury Year – Opioids

| Opioids n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Never | 2,876 (88.9) | 2,129 (88.8) | 1,589 (88.3) | 1,298 (89.3) | 942 (87.7) | 859 (90.6) | 654 (92.4) | 882 (94.4) | 733 (94.6) | 199 (94.8) |
| Once or twice in last 3 months | 8 (0.2) | 21 (0.9) | 9 (0.5) | 8 (0.6) | 8 (0.7) | 6 (0.6) | 3 (0.4) | 0 (0.0) | 3 (0.4) | 1 (0.5) |
| Monthly | 7 (0.2) | 2 (0.1) | 4 (0.2) | 1 (0.1) | 3 (0.3) | 0 (0.0) | 2 (0.3) | 0 (0.0) | 2 (0.3) | 0 (0.0) |
| Weekly | 4 (0.1) | 7 (0.3) | 4 (0.2) | 5 (0.3) | 5 (0.5) | 1 (0.1) | 1 (0.1) | 0 (0.0) | 1 (0.1) | 0 (0.0) |
| Daily or almost daily | 72 (2.2) | 78 (3.3) | 50 (2.8) | 46 (3.2) | 35 (3.3) | 26 (2.7) | 15 (2.1) | 12 (1.3) | 6 (0.8) | 4 (1.9) |
| Declined | 32 (1.0) | 15 (0.6) | 21 (1.2) | 20 (1.4) | 21 (2.0) | 4 (0.4) | 0 (0.0) | 5 (0.5) | 2 (0.3) | 1 (0.5) |
| Unkn | 236 (7.3) | 145 (6.0) | 123 (6.8) | 75 (5.2) | 60 (5.6) | 52 (5.5) | 33 (4.7) | 35 (3.7) | 28 (3.6) | 5 (2.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Participants must be at least 18 years old.*

## Table 161. Substance Abuse in the 3 Months Prior to Injury – Other

| n (%) | Other | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Never** | **Once or twice** | **Monthly** | **Weekly** | **Daily or almost daily** | **Declined** | **Unkn** | **Total** |
| Total | 3,860 (94.7) | 9 (0.2) | 4 (0.1) | 3 (0.1) | 7 (0.2) | 14 (0.3) | 179 (4.4) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Other (GHB, bath salts, etc. Exclude Alcohol).*
*Footnote 3: Participants must be at least 18 years old.*

## Table 162. Substance Abuse in the Last 3 Months by Post-Injury Year – Other

| Other n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Never | 2,948 (91.1) | 2,204 (91.9) | 1,637 (90.9) | 1,338 (92.1) | 976 (90.9) | 879 (92.7) | 663 (93.6) | 878 (94.0) | 718 (92.6) | 188 (89.5) |
| Once or twice in last 3 months | 2 (0.1) | 1 (0.0) | 0 (0.0) | 3 (0.2) | 2 (0.2) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Monthly | 0 (0.0) | 2 (0.1) | 1 (0.1) | 1 (0.1) | 1 (0.1) | 0 (0.0) | 2 (0.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Weekly | 1 (0.0) | 3 (0.1) | 1 (0.1) | 2 (0.1) | 1 (0.1) | 1 (0.1) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Daily or almost daily | 3 (0.1) | 7 (0.3) | 5 (0.3) | 3 (0.2) | 2 (0.2) | 1 (0.1) | 2 (0.3) | 2 (0.2) | 3 (0.4) | 1 (0.5) |
| Declined | 31 (1.0) | 18 (0.8) | 23 (1.3) | 22 (1.5) | 21 (2.0) | 5 (0.5) | 0 (0.0) | 6 (0.6) | 3 (0.4) | 2 (1.0) |
| Unkn | 250 (7.7) | 162 (6.8) | 133 (7.4) | 84 (5.8) | 71 (6.6) | 62 (6.5) | 41 (5.8) | 48 (5.1) | 51 (6.6) | 19 (9.0) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Other (GHB, bath salts, etc. Excludes Alcohol).*
*Footnote 3: Participants must be at least 18 years old.*

## Table 163. Satisfaction With Life Scale - Total Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Total | 15.8 (12,573) | 17.3 (8,667) | 17.9 (6,428) | 18.4 (5,306) | 18.9 (4,461) | 19.2 (3,722) | 19.3 (2,907) | 19.6 (2,050) | 20.2 (989) | 20.3 (202) |

*Footnote 1: Form IIs entered into the database since January 1, 1996.*
*Footnote 2: Total score is based on 4 items, ranging from 4 to 28.*

## Table 164. SCI QoL Resilience T Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Total | 51.1 (2,910) | 51.6 (2,183) | 51.5 (1,626) | 52.4 (1,339) | 52.5 (969) | 52.6 (875) | 52.7 (661) | 53.4 (874) | 52.8 (715) | 52.6 (202) |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100.*
*Footnote 3: Participants must be at least 18 years old*

## Table 165. CHART Physical Independence Subscale Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Total | 71.8 (13,057) | 77.5 (8,923) | 78.4 (6,597) | 81.0 (5,411) | 83.0 (4,577) | 82.6 (3,755) | 84.4 (2,935) | 85.8 (2,061) | 86.6 (990) | 85.0 (195) |

*Footnote 1: Form IIs entered into the database since January 1, 1996.*
*Footnote 2: Score ranges from 0 to 100.*

## Table 166. CHART Mobility Subscale Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Total | 73.0 (12,962) | 76.9 (8,870) | 77.1 (6,559) | 78.1 (5,395) | 77.8 (4,565) | 77.6 (3,738) | 75.9 (2,927) | 74.8 (2,051) | 74.1 (972) | 69.6 (200) |

*Footnote 1: Form IIs entered into the database since January 1, 1996.*
*Footnote 2: Total ranges from 0 to 100.*

## Table 167. CHART Occupational Subscale Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Total | 49.0 (12,842) | 58.0 (8,809) | 59.1 (6,539) | 61.4 (5,363) | 62.6 (4,538) | 64.0 (3,730) | 62.6 (2,902) | 59.6 (2,050) | 57.5 (990) | 52.8 (201) |

*Footnote 1: Form IIs entered into the database since January 1, 1996.*
*Footnote 2: Total ranges from 0 to 100.*

## Table 168. CHART Social Integration Subscale Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Total | 86.6 (12,759) | 86.2 (8,742) | 85.7 (6,522) | 86.4 (5,350) | 86.3 (4,519) | 86.5 (3,707) | 85.9 (2,898) | 86.0 (2,047) | 84.8 (984) | 86.0 (200) |

*Footnote 1: Form IIs entered into the database since January 1, 1996.*
*Footnote 2: Total ranges from 0 to 100.*

## Table 169. SCI– FI AT Interview Method at Initial Rehabilitation

| n (%) | Interview Method | | | | |
| --- | --- | --- | --- | --- | --- |
| | NSCISC Web | Desktop | Short Forms | Interview Not Done, Age < 18, No System rehab admit | Total |
| Total | 10 (0.2) | 312 (7.7) | 3,495 (85.7) | 259 (6.4) | 4,076 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*

## Table 170. SCI– FI AT Interview Method by Post-Injury Year

| Interview Method n (%) | Post-Injury Year | | | | | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| NSCISC Web | 119 (3.7) | 61 (2.5) | 87 (4.8) | 45 (3.1) | 38 (3.5) | 28 (3.0) | 12 (1.7) | 10 (1.1) | 11 (1.4) | 3 (1.4) |
| Desktop | 288 (8.9) | 294 (12.3) | 213 (11.8) | 211 (14.5) | 131 (12.2) | 84 (8.9) | 58 (8.2) | 70 (7.5) | 62 (8.0) | 11 (5.2) |
| Short Forms | 2,504 (77.4) | 1,824 (76.1) | 1,345 (74.7) | 1,092 (75.2) | 820 (76.4) | 770 (81.2) | 601 (84.9) | 808 (86.5) | 663 (85.5) | 191 (91.0) |
| Interview not done, age < 18 | 324 (10.0) | 218 (9.1) | 155 (8.6) | 105 (7.2) | 85 (7.9) | 66 (7.0) | 37 (5.2) | 46 (4.9) | 39 (5.0) | 5 (2.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*

## Table 171. SCI–FI Basic Mobility T Score at Initial Rehabilitation

| | Basic Mobility T Score | | | | |
| --- | --- | --- | --- | --- | --- |
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 3,755 | 48.4 | 10.0 | 0 | 75 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100*
*Footnote 3: Participants must be at least 18 years old*

## Table 172. SCI–FI Basic Mobility T Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Total | 52.4 (2,870) | 53.8 (2,162) | 52.8 (1,627) | 53.0 (1,330) | 53.2 (978) | 52.8 (876) | 52.8 (668) | 51.0 (883) | 51.0 (731) | 49.5 (203) |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100.*
*Footnote 3: Participants must be at least 18 years old.*

## Table 173. SCI–FI Self-Care T Score at Initial Rehabilitation

| | Self-Care T Score | | | | |
|---|---|---|---|---|---|
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 3,722 | 48.7 | 11.8 | 1 | 70 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100*
*Footnote 3: Participants must be at least 18 years old*

## Table 174. SCI–FI Self-Care T Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Total | 54.0 (2,861) | 56.1 (2,155) | 55.8 (1,615) | 56.6 (1,318) | 57.0 (973) | 56.9 (873) | 57.8 (663) | 56.2 (879) | 56.3 (726) | 55.0 (204) |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100.*
*Footnote 3: Participants must be at least 18 years old.*

## Table 175. SCI–FI Fine Motor T Score at Initial Rehabilitation

| | Fine Motor T Score | | | | |
|---|---|---|---|---|---|
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 3,735 | 47.5 | 12.5 | 0 | 70 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100*
*Footnote 3: Participants must be at least 18 years old*

## Table 176. SCI–FI Fine Motor T Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Total | 50.9 (2,855) | 52.8 (2,159) | 52.6 (1,616) | 52.8 (1,317) | 53.2 (969) | 53.5 (871) | 53.8 (664) | 52.7 (875) | 52.7 (725) | 52.1 (203) |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100.*
*Footnote 3: Participants must be at least 18 years old.*

## Table 177. SCI–FI Ambulation T Score at Initial Rehabilitation

| | Ambulation T Score | | | | |
|---|---|---|---|---|---|
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 1,170 | 58.5 | 6.4 | 1 | 81 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100*
*Footnote 3: Participants must be at least 18 years old*

## Table 178. SCI–FI Ambulation T Score by Post-Injury Year

| Mean (n) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Total | 61.3 (1,264) | 61.8 (916) | 60.9 (613) | 61.2 (445) | 60.2 (299) | 60.4 (219) | 60.9 (138) | 60.1 (161) | 59.6 (145) | 60.5 (28) |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100.*
*Footnote 3: Participants must be at least 18 years old.*

## Table 179. SCI–FI Manual Wheelchair Mobility T Score at Initial Rehabilitation

| | Manual Wheelchair Mobility T Score | | | | |
|---|---|---|---|---|---|
| | N | Mean | Standard Deviation | Minimum | Maximum |
| Total | 1,964 | 52.2 | 8.8 | 1 | 100 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100*
*Footnote 3: Participants must be at least 18 years old*

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 180. SCI–FI Manual Wheelchair Mobility T Score by Post-Injury Year

| | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Mean (n)** | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Total | 54.8 (1,208) | 57.4 (898) | 57.0 (706) | 57.2 (628) | 57.1 (511) | 57.9 (473) | 57.6 (385) | 56.3 (484) | 56.0 (396) | 55.5 (97) |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100.*
*Footnote 3: Participants must be at least 18 years old.*

## Table 181. SCI–FI Power Wheelchair Mobility T Score at Initial Rehabilitation

| | Power Wheelchair Mobility T Score | | | | |
|---|---|---|---|---|---|
| | **N** | **Mean** | **Standard Deviation** | **Minimum** | **Maximum** |
| Total | 1,523 | 41.6 | 10.1 | 0 | 65 |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100*
*Footnote 3: Participants must be at least 18 years old*

## Table 182. SCI–FI Power Wheelchair Mobility T Score by Post-Injury Year

| | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Mean (n)** | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| Total | 43.8 (862) | 45.6 (657) | 46.4 (555) | 46.7 (451) | 47.7 (320) | 46.3 (285) | 46.8 (211) | 46.5 (310) | 47.6 (270) | 48.6 (97) |

*Footnote 1: Form IIs obtained since October 1, 2016.*
*Footnote 2: Score ranges from 0 to 100.*
*Footnote 3: Participants must be at least 18 years old.*

## Table 183. Ambulation Ability-Walk for 150 Feet by Post-Injury Year

| | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Walk 150 Feet n (%)** | **1** | **5** | **10** | **15** | **20** | **25** | **30** | **35** | **40** | **45** |
| No | 5,860 (55.9) | 4,246 (59.9) | 3,518 (66.0) | 2,863 (69.8) | 2,514 (73.7) | 2,539 (77.8) | 2,399 (80.0) | 1,712 (80.5) | 831 (79.8) | 180 (85.7) |
| Yes | 4,021 (38.4) | 2,538 (35.8) | 1,628 (30.5) | 1,061 (25.9) | 748 (21.9) | 614 (18.8) | 539 (18.0) | 381 (17.9) | 187 (18.0) | 27 (12.9) |
| Unknown/Not Done | 598 (5.7) | 304 (4.3) | 185 (3.5) | 178 (4.3) | 149 (4.4) | 109 (3.3) | 62 (2.1) | 34 (1.6) | 23 (2.2) | 3 (1.4) |
| Total | 10,479 | 7,088 | 5,331 | 4,102 | 3,411 | 3,262 | 3,000 | 2,127 | 1,041 | 210 |

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

## Table 184. Ambulation Ability-Walk for 1 Street Block by Post-Injury Year

| Walk 1 Street Block n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No | 6,410 (61.2) | 4,573 (64.5) | 3,754 (70.4) | 3,006 (73.3) | 2,613 (76.6) | 2,609 (80.0) | 2,460 (82.0) | 1,768 (83.1) | 873 (83.9) | 183 (87.1) |
| Yes | 3,463 (33.0) | 2,206 (31.1) | 1,390 (26.1) | 912 (22.2) | 649 (19.0) | 542 (16.6) | 477 (15.9) | 324 (15.2) | 144 (13.8) | 24 (11.4) |
| Unknown/Not Done | 606 (5.8) | 309 (4.4) | 187 (3.5) | 184 (4.5) | 149 (4.4) | 111 (3.4) | 63 (2.1) | 35 (1.6) | 24 (2.3) | 3 (1.4) |
| Total | 10,479 | 7,088 | 5,331 | 4,102 | 3,411 | 3,262 | 3,000 | 2,127 | 1,041 | 210 |

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

## Table 185. Ambulation Ability-Walk up 1 Flight of Stairs by Post-Injury Year

| Walk 1 Fight n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No | 6,440 (61.5) | 4,536 (64.0) | 3,670 (68.8) | 2,947 (71.8) | 2,561 (75.1) | 2,573 (78.9) | 2,426 (80.9) | 1,759 (82.7) | 856 (82.2) | 181 (86.2) |
| Yes | 3,424 (32.7) | 2,238 (31.6) | 1,473 (27.6) | 967 (23.6) | 699 (20.5) | 579 (17.7) | 509 (17.0) | 333 (15.7) | 160 (15.4) | 26 (12.4) |
| Unknown/Not Done | 615 (5.9) | 314 (4.4) | 188 (3.5) | 188 (4.6) | 151 (4.4) | 110 (3.4) | 65 (2.2) | 35 (1.6) | 25 (2.4) | 3 (1.4) |
| Total | 10,479 | 7,088 | 5,331 | 4,102 | 3,411 | 3,262 | 3,000 | 2,127 | 1,041 | 210 |

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

## Table 186. Wheelchair or Scooter Use by Post-Injury Year

| Wheelchair or Scooter Use n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| No | 3,681 (35.1) | 2,332 (32.9) | 1,549 (29.1) | 1,045 (25.5) | 770 (22.6) | 639 (19.6) | 560 (18.7) | 459 (21.6) | 239 (23.0) | 40 (19.0) |
| Yes | 6,211 (59.3) | 4,482 (63.2) | 3,602 (67.6) | 2,886 (70.4) | 2,493 (73.1) | 2,521 (77.3) | 2,381 (79.4) | 1,635 (76.9) | 780 (74.9) | 167 (79.5) |
| Unknown/Not Done | 587 (5.6) | 274 (3.9) | 180 (3.4) | 171 (4.2) | 148 (4.3) | 102 (3.1) | 59 (2.0) | 33 (1.6) | 22 (2.1) | 3 (1.4) |
| Total | 10,479 | 7,088 | 5,331 | 4,102 | 3,411 | 3,262 | 3,000 | 2,127 | 1,041 | 210 |

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

Source: National Spinal Cord Injury Statistical Center, University of Alabama at Birmingham, 2022 Annual Statistical Report – Complete Public Version

## Table 187. Type of Wheelchair or Scooter Used Most Often by Post-Injury Year

| Type Wheelchair Used Most    n (%) | Post Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| Manual Wheelchair | 3,611 (34.5) | 2,471 (34.9) | 2,016 (37.8) | 1,705 (41.6) | 1,510 (44.3) | 1,546 (47.4) | 1,404 (46.8) | 953 (44.8) | 427 (41.0) | 82 (39.0) |
| Power Wheelchair | 2,433 (23.2) | 1,872 (26.4) | 1,467 (27.5) | 1,110 (27.1) | 914 (26.8) | 918 (28.1) | 902 (30.1) | 625 (29.4) | 318 (30.5) | 76 (36.2) |
| Power-Assist Wheelchair | 113 (1.1) | 97 (1.4) | 70 (1.3) | 47 (1.1) | 37 (1.1) | 35 (1.1) | 44 (1.5) | 40 (1.9) | 30 (2.9) | 6 (2.9) |
| Scooter | 20 (0.2) | 23 (0.3) | 31 (0.6) | 19 (0.5) | 22 (0.6) | 18 (0.6) | 25 (0.8) | 11 (0.5) | 5 (0.5) | 2 (1.0) |
| Hoveround* | 0 (0.0) | 1 (0.0) | 0 (0.0) | 1 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Other | 5 (0.0) | 5 (0.1) | 3 (0.1) | 1 (0.0) | 2 (0.1) | 0 (0.0) | 1 (0.0) | 1 (0.0) | 0 (0.0) | 0 (0.0) |
| Non-user | 3,681 (35.1) | 2,332 (32.9) | 1,549 (29.1) | 1,045 (25.5) | 770 (22.6) | 639 (19.6) | 560 (18.7) | 459 (21.6) | 239 (23.0) | 40 (19.0) |
| Unknown/Not Done | 616 (5.9) | 287 (4.0) | 195 (3.7) | 174 (4.2) | 155 (4.5) | 106 (3.2) | 64 (2.1) | 38 (1.8) | 22 (2.1) | 4 (1.9) |
| Total | 10,479 | 7,088 | 5,331 | 4,102 | 3,411 | 3,262 | 3,000 | 2,127 | 1,041 | 210 |

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

Footnote:* code was added in October 2016.

## Table 188. Primary Mode of Transportation by Post-Injury Year

| Primary Mode of Transportation n (%) | Post-Injury Year | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 5 | 10 | 15 | 20 | 25 | 30 | 35 | 40 | 45 |
| None | 42 (1.3) | 19 (0.8) | 14 (0.8) | 6 (0.4) | 13 (1.2) | 6 (0.6) | 1 (0.1) | 5 (0.5) | 6 (0.8) | 1 (0.5) |
| Private car, truck, or van | 2,327 (71.9) | 1,866 (77.8) | 1,399 (77.7) | 1,169 (80.5) | 823 (76.6) | 728 (76.8) | 569 (80.4) | 763 (81.7) | 657 (84.8) | 177 (84.3) |
| Public transportation | 136 (4.2) | 99 (4.1) | 88 (4.9) | 71 (4.9) | 58 (5.4) | 62 (6.5) | 40 (5.6) | 41 (4.4) | 32 (4.1) | 3 (1.4) |
| Taxicab | 61 (1.9) | 22 (0.9) | 14 (0.8) | 14 (1.0) | 5 (0.5) | 7 (0.7) | 6 (0.8) | 4 (0.4) | 8 (1.0) | 2 (1.0) |
| Special transit for people with disabilities | 455 (14.1) | 223 (9.3) | 166 (9.2) | 102 (7.0) | 84 (7.8) | 74 (7.8) | 53 (7.5) | 71 (7.6) | 36 (4.6) | 16 (7.6) |
| Personal mobility device (wheelchair, bike, etc.) | 19 (0.6) | 20 (0.8) | 18 (1.0) | 9 (0.6) | 15 (1.4) | 15 (1.6) | 6 (0.8) | 10 (1.1) | 8 (1.0) | 3 (1.4) |
| Other (ambulance) | 32 (1.0) | 17 (0.7) | 8 (0.4) | 12 (0.8) | 10 (0.9) | 1 (0.1) | 5 (0.7) | 10 (1.1) | 4 (0.5) | 3 (1.4) |
| Walk | 11 (0.3) | 4 (0.2) | 2 (0.1) | 1 (0.1) | 4 (0.4) | 3 (0.3) | 0 (0.0) | 0 (0.0) | 0 (0.0) | 0 (0.0) |
| Unknown, Interview not done | 152 (4.7) | 127 (5.3) | 91 (5.1) | 69 (4.7) | 62 (5.8) | 52 (5.5) | 28 (4.0) | 30 (3.2) | 24 (3.1) | 5 (2.4) |
| Total | 3,235 | 2,397 | 1,800 | 1,453 | 1,074 | 948 | 708 | 934 | 775 | 210 |

*Footnote 1: Form IIs obtained since October 1, 2016.*


## Table 189. CARE Self-Care Total (Mean) at Rehabilitation Admission and Discharge

| Mean (n) | CARE Self-Care Total | |
|---|---|---|
| | Rehab Admit | Rehab Discharge |
| Total | 14.0 (3,616) | 28.1 (3,566) |

*Footnote 1: Form Is admitted to the System since October 1, 2016.*
*Footnote 2: The total score is calculated based on CMS guideline.*

## Table 190. CARE Mobility Total (Mean) at Rehabilitation Admission and Discharge

| Mean (n) | CARE Mobility Total | |
| --- | --- | --- |
| | **Rehab Admit** | **Rehab Discharge** |
| Total | 23.1 (3,531) | 51.9 (3,506) |

*Footnote 1: The total score is calculated based on CMS guideline.*
*Footnote 2: Form Is admitted to the System since October 1, 2016.*

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