THE 2022 ANNUAL STATISTICAL REPORT

COMPLETE PUBLIC VERSION

for the

SPINAL CORD INJURY MODEL SYSTEMS

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Part I

The National Spinal Cord Injury Statistical Center Activities

September 2021 – August 2026

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

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.

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

Part II

Status of the National SCI Database: Tables 1-20

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.

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 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:

'Vehicular' 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).

'Violence' 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).

'Sports' includes: Diving; Football; Trampoline; Snow skiing; Water skiing; Wrestling; Baseball/softball; Basketball/volleyball; Surfing (includes body surfing); Horseback riding; Gymnastics (includes all gymnastic activities other than trampoline); 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.).

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

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

'Other' 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

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

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

(Continued)

	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

(Continued)

	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

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

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.

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

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

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

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)

	Calendar Year of Data Collection											
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.

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

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)

	Calendar Year of Data Collection												
Post-injury year	**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

	Calendar Year of Data Collection												
Post-injury year	**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.

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

Table 10. Form I Participant Status

	Participant Status						
n (%)	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).

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

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

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).

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

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.*

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).

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

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

		AIS D	AIS ABC			Vent Dependent
Age at Injury	No SCI	Any Level	T1-S3	C5-C8	C1-C4	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

		AIS D	AIS ABC			Vent Dependent
Current Age	No SCI	Any Level	T1-S3	C5-C8	C1-C4	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

	Category of Follow-up Care					
n (%)	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

	Post-Injury Year											
Category of Follow-up Care n (%)	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

	Post-Injury Year											
Reason for Lost n (%)	**1**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**50**	**Total**
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.*

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

Table 20. How was the Interview Conducted

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

Footnote 1: Excludes 1 record reporting unknown age.

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

	Sex/gender						
n (%)	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

	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

	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

	Racial Group							
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

	Year of Injury										
Racial Group n (%)	**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

	Year of Injury										
Hispanic Origin n (%)	**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.

Table 31. Grouped Etiology

	Etiology							
n (%)	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

	Age at Injury						
Etiology n (%)	<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

	Sex		
Etiology n (%)	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.

Table 34. Grouped Etiology by Racial Group

	Racial Group							
Etiology n (%)	**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

	Hispanic Origin				
Etiology n (%)	**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

	Year of Injury										
Etiology n (%)	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

	Injury Related to Work			
n (%)	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

	Marital Status at Injury								
n (%)	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

	Post-Injury Year										
Marital Status n (%)	**1**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**Total**
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

	Post-Injury Year										
Change in Marital Status n (%)	**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

	Education Level									
n (%)	**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

	Post-Injury Year										
Education Level n (%)	**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

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

Table 43. Occupational Status at Time of Injury

	Occupational Status at 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

	Post-Injury Year										
Occupational Status n (%)	1	5	10	15	20	25	30	35	40	45	Total
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.

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.

Table 47. Job Census Code by Post-Injury Year

(Continued)

	Post-Injury Year										
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

Table 47. Job Census Code by Post-Injury Year

	Post-Injury Year										
Job Census Code n (%)	**1**	**5**	**10**	**15**	**20**	**25**	**30**	**35**	**40**	**45**	**Total**
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

	Veteran Status			
n (%)	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

	Post-Injury Year										
VA Healthcare Services Used n (%)	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

	Primary Payer									
n (%)	Private Insurance	Medicare	Medicaid	Worker's Compensation	Vet Admin	Other Government	No Pay	Private funds	Other	Total
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

	Post-Injury Year										
Primary Payer n (%)	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".

Table 52. Family Household Income Level at Time of Injury

	Family Household Income							
n (%)	<$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

	Post-Injury Year										
Family Household Income n (%)	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

	Vertebral Injury			
n (%)	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

	Associated Injury			
n (%)	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

	Spinal Surgery			
n (%)	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

	Residence at Time of Injury										
n (%)	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

	Place of Residence at Discharge											
n (%)	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

	Post-Injury Year										
Residence n (%)	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

	Year of Injury										
median (n)	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)

	Year of Injury										
median (n)	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)

	Year of Injury										
Neurologic Category median (n)	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)

	Year of Injury										
median (n)	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)

	Year of Injury										
median (n)	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)

	Year of Injury										
Neurologic Category median (n)	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)

	Year of Injury										
Neurologic Category median (n)	**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.

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

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

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

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

	Lumbar Neurologic Level						
n (% of all lesions)	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

	Sacral Neurologic Level						
n (% of all lesions)	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

	Neurologic Category at Discharge								
n (%)	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.

Table 72. Neurologic Category at Discharge by Grouped Etiology

	Neurologic Category at Discharge								
Etiology n (%)	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

	Year of Injury										
Neurologic Category n (%)	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

	Neurologic Category								
n (%)	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

	ASIA Impairment Scale						
n (%)	Complete (A)	Sensory Only (B)	Non-functional Motor (C)	Functiona Motor (D)	Recovered (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

	Neurologic Level at Discharge									
AIS n (%)	**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

	Neurologic Level at Discharge													
AIS n (%)	**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

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

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

	Neurologic Level at Discharge						
AIS n (%)	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

	AIS						
n (%)	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)

	Motor Score Totals		
Mean (n)	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)

	Respirator Use at Rehab Admit						
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
Total	13,703 (88.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

	Respirator Use at Rehab Admit						
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 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)

	Respirator Use at System Discharge						
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
Total	15,441 (99.2)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

	Respirator Use at System Discharge						
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
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 (%)	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	13,902 (74.8)	4 (0.0)	7 (0.0)	0 (0.0)	1 (0.0)	3 (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	Continuous Positive Airway Pressure (CPAP) for sleep apnea	Unkn	Total
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)

	Respirator Use at System Discharge						
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
Total	17,783 (93.7)	3 (0.0)	2 (0.0)	0 (0.0)	1 (0.0)	0 (0.0)	0 (0.0)

	Respirator Use at System Discharge						
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
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)

	Respirator Use - Paraplegia						
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
Total	8,592 (97.3)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)

	Respirator Use - Paraplegia						
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
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

	Bladder Emptying at Discharge								
n (%)	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

	Bladder Emptying at Discharge								
n (%)	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

	Bladder Collection Appliance at Discharge						
n (%)	No	Yes, condom catheter/sheath	Yes, padded brief/pad	Yes, ostomy bag	Other	Unkn	Total
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

	Bladder Collection Appliance at Discharge					
n (%)	No	Yes, PureWick for females	Yes, padded brief/pad	Yes, ostomy bag	Unkn	Total
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

	Post Injury Year									
Bladder Emptying n (%)	**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.

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

	Post Injury Year									
Bladder Emptying n (%)	**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.

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

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

	Post Injury Year									
Bladder Management n (%)	**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

	Post Injury Year									
Bladder Management n (%)	**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

	Frequency of Bladder Incontinence						
n (%)	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

	Post-Injury Year									
Bladder Incontinence n (%)	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

	Method of Bowel Management						
n (%)	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)

	Method of Bowel Management						
n (%)	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

	Post-Injury Year									
Bowel Management n (%)	**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.

Table 105. Frequency of Emptying Bowel at Initial Rehabilitation

	Frequency of Emptying Bowel							
n (%)	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

	Post-Injury Year									
Frequency of Emptying Bowel n (%)	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

	Average Time to Empty Bowel							
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

	Post-Injury Year									
Average Time to Empty Bowel n (%)	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.

Table 109. Frequency of Bowel Incontinence at Initial Rehabilitation

	Frequency of Bowel Incontinence						
n (%)	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

	Post-Injury Year									
Frequency of Bowel Incontinence n (%)	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

	Help reading hospital materials							
n (%)	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

	Post Injury Year									
mean (n)	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

	Hypertension Diagnosis					
n (%)	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

	Post-Injury Year									
Hypertension n (%)	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.

Table 120. Hyperlipidemia Diagnosis Prior to Injury

	Hyperlipidemia Diagnosis				
n (%)	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

	Post-Injury Year									
Hyperlipidemia n (%)	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

	Arthritis Diagnosis				
n (%)	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

	Post-Injury Year									
Arthritis n (%)	**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

	Diabetes Diagnosis					
n (%)	**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

	Post-Injury Year									
Diabetes n (%)	**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.

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

	Post-Injury Year									
UTI n (%)	**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

	Post-Injury Year									
Pressure Ulcer n (%)	**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.

Table 128. Patients Re-hospitalized by Post Injury Year

	Post Injury Year									
Total Number of Rehospitalizations n (%)	**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

	Post Injury Year									
mean (n)	**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.

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

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

	Depression Diagnosis				
n (%)	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

	Major Depressive Syndrome					
n (%)	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

	Post Injury Year									
Depressive Syndrome n (%)	**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

	Post Injury Year									
Mean (n)	**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.

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

	Post-Injury Year									
Sleep problems n (%)	**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

	Anxiety Diagnosis							
n (%)	**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

	Post Injury Year									
Mean (n)	**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.

Table 139. Pain Interfering with Work by Post Injury Year

	Post Injury Year									
Pain Interference n (%)	**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

	Post-Injury Year									
Fall n (%)	**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

	Post Injury Year									
Self-Perceived Health n (%)	**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.

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

	Post Injury Year									
Self-Perceived Health n (%)	**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

	Alcohol Use Disorder		
n (%)	**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

	Post-Injury Year									
Alcohol Use n (%)	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

	Tobacco							
n (%)	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

	Post-Injury Year									
Tobacco n (%)	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

	Cannabis							
n (%)	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

	Post-Injury Year									
Cannabis n (%)	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

	Cocaine							
n (%)	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

	Post-Injury Year									
Cocaine n (%)	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.

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

	Amphetamine-type							
n (%)	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

	Post-Injury Year									
Amphetamine-type n (%)	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

	Inhalants							
n (%)	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

	Post-Injury Year									
Inhalants n (%)	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

	Sedatives/Sleeping							
n (%)	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

	Post-Injury Year									
Sedatives/Sleeping n (%)	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.

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

	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

	Post-Injury Year									
Hallucinogens n (%)	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

	Opioids							
n (%)	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

	Post-Injury Year									
Opioids n (%)	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

	Other							
n (%)	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

	Post-Injury Year									
Other n (%)	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

	Post Injury Year									
Mean (n)	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

	Post Injury Year									
Mean (n)	**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

	Post Injury Year									
Mean (n)	**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

	Post Injury Year									
Mean (n)	**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

	Post Injury Year									
Mean (n)	**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

	Post Injury Year									
Mean (n)	**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

	Interview Method				
n (%)	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

	Post-Injury Year									
Interview Method n (%)	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

	Post Injury Year									
Mean (n)	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

	Post Injury Year									
Mean (n)	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

	Post Injury Year									
Mean (n)	**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

	Post Injury Year									
Mean (n)	**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

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

	Post Injury Year									
Walk 1 Street Block n (%)	**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

	Post Injury Year									
Walk 1 Fight n (%)	**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

	Post Injury Year									
Wheelchair or Scooter Use n (%)	**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.

Table 187. Type of Wheelchair or Scooter Used Most Often by Post-Injury Year

	Post Injury Year									
Type Wheelchair Used Most n (%)	**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.*

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

Table 188. Primary Mode of Transportation by Post-Injury Year

	Post-Injury Year									
Primary Mode of Transportation n (%)	**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

	CARE Self-Care Total	
Mean (n)	**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

	CARE Mobility Total	
Mean (n)	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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