



Medical Data Report

For the state of

SOUTH DAKOTA

September 2020



NCCI's **Medical Data Report** and its content are intended to be used as a reference tool and for informational purposes only. No further use, dissemination, sale, assignment, reproduction, preparation of derivative works, or other disposition of this report or any part thereof may be made without the prior written consent of NCCI.

NCCI's **Medical Data Report** is provided "as is" and includes data and information available at the time of publication only. NCCI makes no representations or warranties relating to this report, including any express, statutory, or implied warranties including the implied warranty of merchantability and fitness for a particular purpose. Additionally, NCCI does not assume any responsibility for your use of, and for any and all results derived or obtained through, the report. No employee or agent of NCCI or its affiliates is authorized to make any warranties of any kind regarding this report. Any and all results, conclusions, analyses, or decisions developed or derived from, on account of, or through your use of the report are yours; NCCI does not endorse, approve, or otherwise acquiesce in your actions, results, analyses, or decisions, nor shall NCCI or other contributors to the **Medical Data Report** have any liability thereto.



Introduction

Medical costs have been growing over the last 30 years. Today, in many states, close to 60% of workers compensation benefits are attributed to medical costs. Managing the cost and delivery of medical care is one of the major concerns facing workers compensation stakeholders now and in the foreseeable future. The availability of medical data on workers compensation claims is essential for the pricing of proposed state legislation, assessing impacts of changes to medical fee schedules, and conducting research.

This publication is a data source for regulators and others who are interested in the driving forces behind increasing medical costs in workers compensation claims. The information in this report provides important benchmarks against which cost containment strategies may be measured and gives valuable insight into the medical cost drivers that underlie the financial soundness of the workers compensation system. When making comparisons to the region and countrywide (CW), it is important to note that some states in this report do not have a fee schedule.

Knowing how payments for different services contribute to workers compensation medical benefit costs provides insight into the growth of medical benefits. This report illustrates the breakdown of services by category, namely:

- Physician
- Hospital Outpatient
- Hospital Inpatient
- Ambulatory Surgical Centers
- Drugs
- Durable Medical Equipment, Prosthetics, Orthotics and Supplies (DMEPOS)
- Other

The report drills down into these categories to show which procedures represent the greatest share of payments and which are performed the most.

Additionally, this report provides detail on payments for prescription drugs, including which drugs are being prescribed the most and which ones represent the greatest share of drug payments, as well as information on controlled substances.

There is one important caveat: Information in this report may not coincide with an analysis of a medical fee schedule change performed in the future. An analysis of a medical fee schedule change requires evaluation of the specific procedures covered by the fee schedule, which may be different from how payments are categorized in this report.

The data contained in this report represents medical transactions for Service Year 2019 (medical services delivered from January 1, 2019, to December 31, 2019), except where otherwise noted. Workers compensation insurance carriers must report paid medical transactions if they write at least 1% of the market share in any one state over the most recent three years for which NCCI is the rating or advisory organization. Once a carrier meets the eligibility criteria, the carrier is required to report for all applicable states in which it writes workers compensation insurance, even if an individual state's market share is below the 1% threshold. All carriers within an insurance group are required to report, regardless of whether they write less than 1% of the market share in the state.

For the state of South Dakota in Service Year 2019, the reported number of transactions was more than 267,100, with more than \$54,419,100 paid, for more than 13,700 claims. This represents data from 94% of the workers compensation premium written, which includes experience for large-deductible policies. Bulk payments and lump-sum settlements are not required to be reported. Also, self-insured data is not included.



Unless otherwise noted, the source for all data in this report is:

- NCCI's Medical Data Call, Service Year 2019
- Region includes data from the following states: IA, IL, IN, KS, MI, MN, MO, NE, OK, and WI.
- Countrywide includes data from the following states: AK, AL, AR, AZ, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MI, MN, MO, MS, MT, NC, NE, NH, NJ, NM, NV, OK, OR, RI, SC, SD, TN, UT, VA, VT, WI, and WV

Additional information regarding the data underlying this report is available in the Appendix.



Table of Contents

Medical Cost Statistics 6

- Medical Share of Total Benefit Costs by Accident Year 6
- Overall Medical Average Cost per Lost-Time Claim (in 000s)..... 7
- Percentage of Medical Paid by Claim Maturity 8
- Distribution of Medical Payments 9

Physicians 10

- Physician Payments as a Percentage of Medicare..... 10
- Distribution of Physician Payments by AMA Service Category 11
- Top 10 Anesthesia Procedure Codes by Amount Paid 13
- Top 10 Anesthesia Procedure Codes by Transaction Counts 14
- Top 10 Surgery Procedure Codes by Amount Paid..... 15
- Top 10 Surgery Procedure Codes by Transaction Counts..... 16
- Time Until First Treatment for Major Surgery (in Days) 17
- Top 10 Radiology Procedure Codes by Amount Paid 18
- Top 10 Radiology Procedure Codes by Transaction Counts 19
- Time Until First Treatment for Radiology (in Days) 20
- Top 10 Physical and General Medicine Procedure Codes by Amount Paid 21
- Top 10 Physical and General Medicine Procedure Codes by Transaction Counts 22
- Time Until First Treatment for Physical and General Medicine (in Days) 23
- Top 10 Evaluation and Management Procedure Codes by Amount Paid 24
- Top 10 Evaluation and Management Procedure Codes by Transaction Counts 25
- Time Until First Treatment for Evaluation and Management (in Days) 26
- Office or Other Outpatient Visit for the Evaluation and Management of a New Patient..... 27
- Office or Other Outpatient Visit for the Evaluation and Management of an Established Patient..... 28

Hospital Inpatient 29

- Hospital Inpatient Payments as a Percentage of Medicare..... 29
- Average Amount Paid per Stay for Hospital Inpatient Services 30
- Average Amount Paid per Day for Hospital Inpatient Services 30
- Average Number of Inpatient Stays per 1,000 Active Claims..... 31
- Length of Stay for Hospital Inpatient Services (in Days)..... 31
- Time Until First Treatment for Hospital Inpatient Stays (in Days)..... 32
- Top 10 Diagnosis Groups by Amount Paid for Hospital Inpatient Services 33
- Top 10 DRG Codes by Amount Paid for Hospital Inpatient Services 34



Hospital Outpatient 35

- Hospital Outpatient Payments as a Percentage of Medicare..... 35
- Average Amount Paid per Surgical Visit for Hospital Outpatient Services..... 36
- Average Number of Surgical Hospital Outpatient Visits per 1,000 Active Claims 36
- Average Amount Paid per Nonsurgical Visit for Hospital Outpatient Services 37
- Average Number of Nonsurgical Hospital Outpatient Visits per 1,000 Active Claims 37
- Time Until First Treatment for Major Surgery Outpatient Visits (in Days)..... 38
- Time Until First Treatment for All Other Outpatient Visits (in Days) 38
- Top 10 Diagnosis Groups by Amount Paid for Hospital Outpatient Services 39
- Top 10 Surgery Procedure Codes by Amount Paid for Hospital Outpatient Services 40
- Top 10 Nonsurgery Procedure Codes by Amount Paid for Hospital Outpatient Services..... 41
- Average Amount Paid per Emergency Service Visit 42
- Average Number of Emergency Service Visits per 1,000 Active Claims 42
- Emergency Room Payments by Procedure Code 43
- Emergency Room Transactions by Procedure Code..... 44

Ambulatory Surgical Centers 45

- ASC Payments as a Percentage of Medicare 45
- Average Amount Paid per Surgical Visit for ASC Services 46
- Average Number of Surgical ASC Visits per 1,000 Active Claims..... 46
- Time Until First Treatment for Surgical ASC Visits (in Days)..... 47
- Top 10 Diagnosis Groups by Amount Paid for ASC Services..... 48
- Top 10 Surgery Procedure Codes by Amount Paid for ASC Services..... 49

Prescription Drugs..... 50

- Distribution of Prescription Drug Payments by CSA Schedule 51
- Top 10 Workers Compensation Drugs by Amount Paid 52
- Top 10 Workers Compensation Drugs by Prescription Counts 53
- Distribution of Drugs by Brand Name and Generic 54
- Distribution of Drugs by Pharmacy and Nonpharmacy 55

Durable Medical Equipment, Prosthetics, Orthotics and Supplies 56

- Distribution of Payments by DMEPOS..... 56
- Top Diagnosis Groups by Amount Paid for Dates of Injury in 2018 for Claims *With* an Implant or Prosthetic 57
- Average Amount Paid per Claim *Without* an Implant or Prosthetic for Diagnosis Groups in Chart 57 57

Transportation 58

- Average Payment per Episode for Ground Ambulance Services..... 58
- Average Payment per Episode for Fixed and Rotary Wing Air Ambulance Services 59



Diagnosis Group and Body System 60
 Top Body Systems by Amount Paid for Dates of Injury in 2018 61
 Top Diagnosis Groups by Amount Paid for Dates of Injury in 2018 61

Comparison of Selected Results by Year 62

Glossary 66

Appendix 69



Medical Cost Statistics

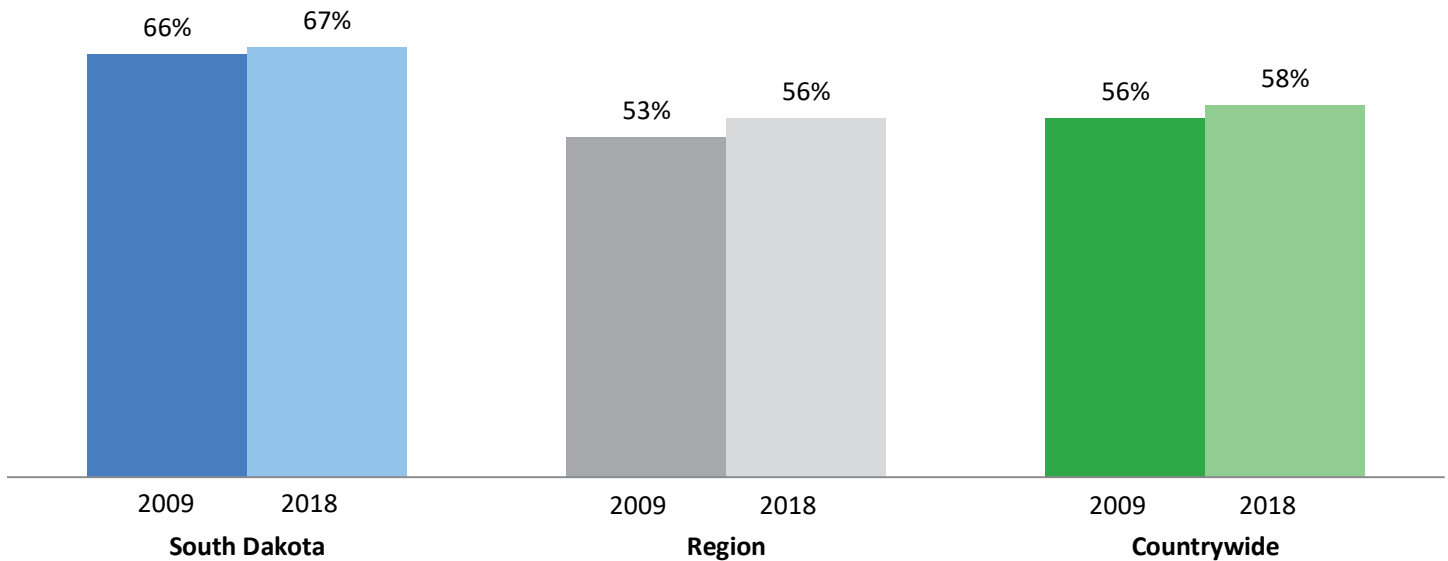
Traditional workers compensation policies cover two types of benefit payments: medical benefits and indemnity (lost wages) benefits.

Of the two, medical benefits resulting from a work-related injury or disease are the leading cost drivers for workers compensation claims on a countrywide basis. Because this is a relative measure and benefits for both indemnity and medical may vary from state to state, the share of medical benefit costs may vary across states. In particular, the medical share in a state may be large because the indemnity benefits are relatively less prominent.

Chart 1 displays the medical percentage of total benefit costs for South Dakota, the region, and countrywide for Accident Years 2009 and 2018.

Chart 1

Medical Share of Total Benefit Costs by Accident Year



Source: NCCI's Calendar-Accident Year Call for Compensation Experience. Region includes IA, IL, IN, KS, MO, NE, and OK. Countrywide data includes AK, AL, AR, AZ, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MO, MS, MT, NC, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, TX, UT, VA, VT, and WV.



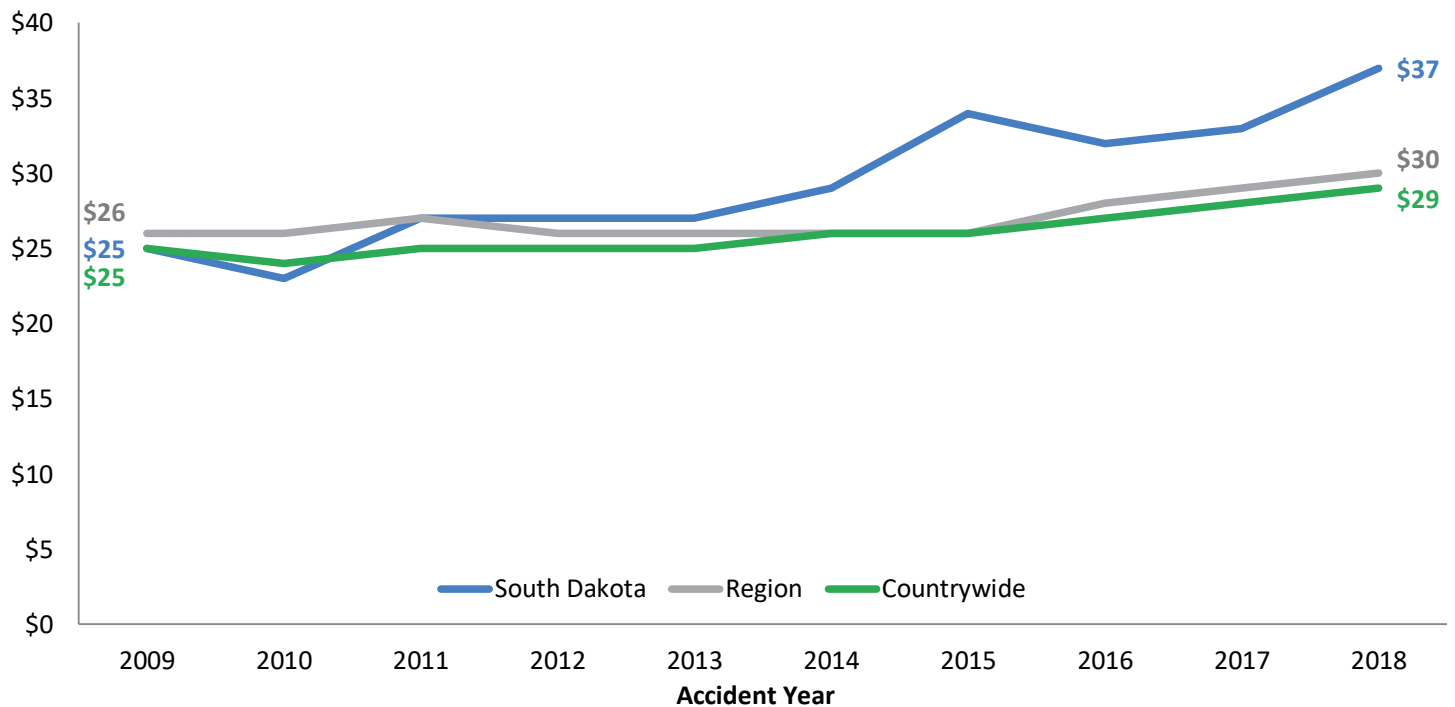
The countrywide overall medical average cost per claim has seen moderate increases in recent years, averaging about 2% from Accident Years 2009 to 2018; this has increased at a similar rate as the United States Personal Healthcare Spending per capita.¹ Chart 2 displays the historical overall medical average cost per case (per lost-time claim) for the most recent 10 accident years. Results are displayed for South Dakota, the region, and countrywide.

Medical losses are at historical benefit levels and historical dollar values—meaning that no adjustment for inflation or changes in benefits has been made. Since the data is aggregated for all medical losses by accident year, the results shown in this chart provide a high-level perspective of the average medical cost per case.

This chart illustrates how South Dakota compares to the regional and countrywide average for each individual accident year and allows for the comparison of the growth in average medical costs.

Chart 2

Overall Medical Average Cost per Lost-Time Claim (in 000s)



Source: NCCI's Calendar-Accident Year Call for Compensation Experience. Region includes IA, IL, IN, KS, MO, NE, and OK. Countrywide data AK, AL, AR, AZ, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MO, MS, MT, NC, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, TX, UT, VA, VT, and WV.

¹ State of the Line Report, *Annual Issues Symposium*, May 2020, www.ncci.com/Articles/Documents/AIS2020-SOTL-Presentation.pdf.

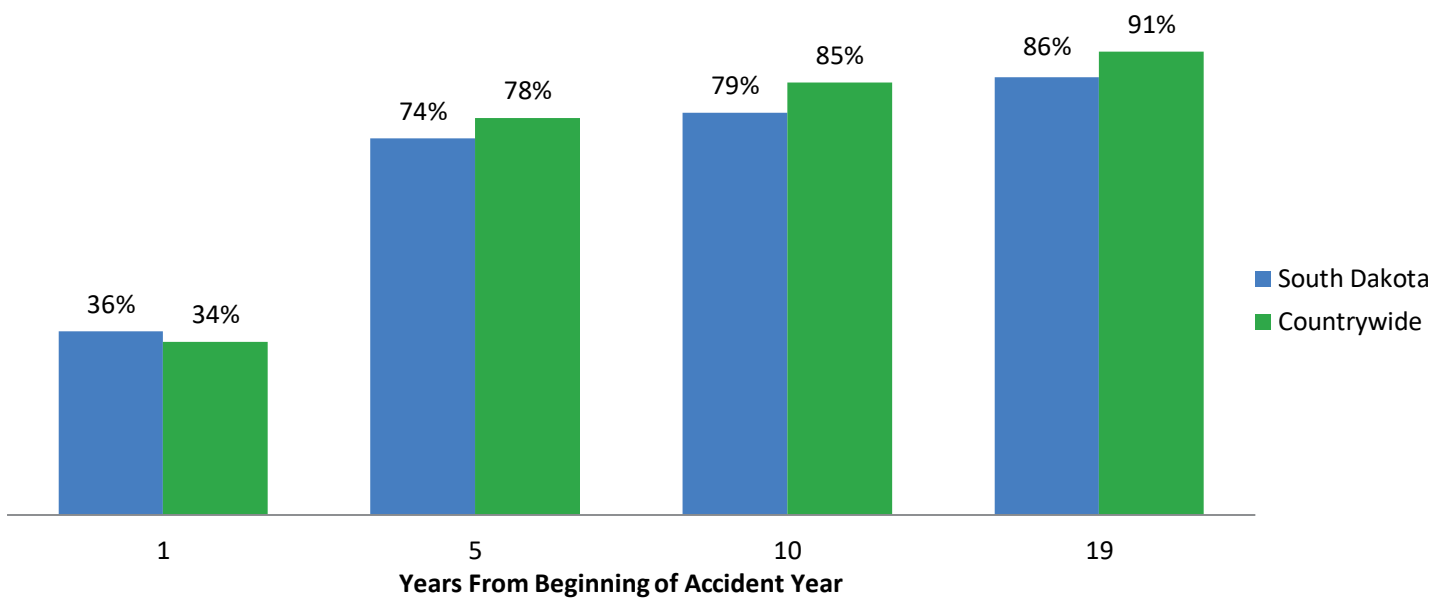
One factor that impacts medical costs is the time over which medical services are used. Payments on a workers compensation claim often continue for many years. NCCI research has found that it is likely that about 10% of the cost of medical benefits for workplace injuries that occur this year will be for services provided more than two decades into the future.

A key determinant driving payment patterns for medical services is the effectiveness of dispute resolution processes, settlement practices, and statutory provisions for medical benefits. An aging workforce and continued changes in rules for Medicare set-asides have created a shifting environment for the settlement of claims and, particularly, medical benefits.

Chart 3 shows the percentage of medical benefits paid (including medical settlements) at different claim maturities for South Dakota and countrywide.

Chart 3

Percentage of Medical Paid by Claim Maturity



Source: NCCI's Calendar-Accident Year Call for Compensation Experience. Countrywide data includes AK, AL, AR, AZ, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MD, ME, MO, MS, MT, NC, NE, NH, NM, OK, OR, RI, SC, SD, TN, UT, VA, and VT.

Knowing how payments for different medical services contribute to workers compensation medical benefit costs provides insight into the growth in medical benefits.

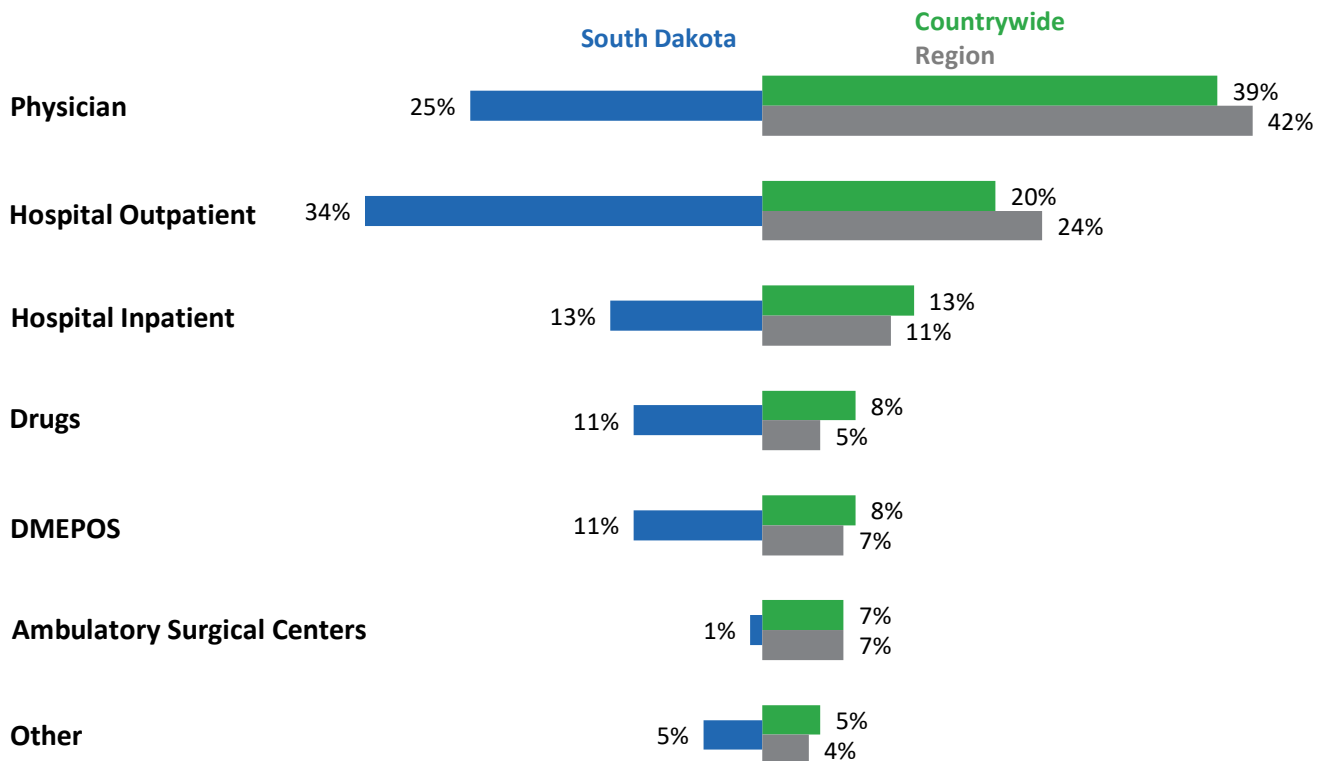
Payments are categorized as Drugs; DME, Supplies, and Implants; and Other (includes home health, transportation, vision, and dental services), based on the procedure code reported. Payments are mapped to these categories regardless of who provides the service or where the service is performed. For the remaining categories—Physicians, Hospital Outpatient, Hospital Inpatient, and Ambulatory Surgical Centers (ASC)—NCCI relies on a combination of:

- Provider taxonomy code—identifies the type of provider that billed for, and is being paid for, a medical service; see Glossary
- Procedure code—alphanumeric code used to identify procedures performed by medical professionals
- Place of services—alphanumeric code used to identify places where procedures were performed (e.g., physician’s office or ambulatory surgical center)

Chart 4 displays the distribution of medical payments by type of service.

Chart 4

Distribution of Medical Payments



Physicians

In the 1970s, fewer than a dozen states had physician fee schedules in place. In the 1990s, several states established such schedules. Today, few states remain without a physician fee schedule. Recent changes in the schedules indicate greater attention to provisions that often seek to balance cost containment with service provider availability. NCCI’s most recent study, “The Impact of Fee Schedule Updates on Physician Payments” (December 2018), shows that:

- Approximately 80% of any change in the maximum allowable reimbursement (MAR) for a physician service will be realized as a change in prices paid
- Most of the impact of a MAR change on prices paid is realized within one year from the date of a fee schedule change

One measure of workers compensation medical costs is a comparison of current payments to the Medicare rates adjusted for your state.

The chart below shows the average percentage of Medicare schedule reimbursement² amounts for physician payments by category for South Dakota, the region, and countrywide. Note that “all physician services” in Chart 5 below refers only to the five categories listed in the chart, and the state comparison reflects Medicare’s geographic adjustments. In South Dakota, 93% of “all physician services” payments are included in the chart below.

Chart 5

Physician Payments as a Percentage of Medicare

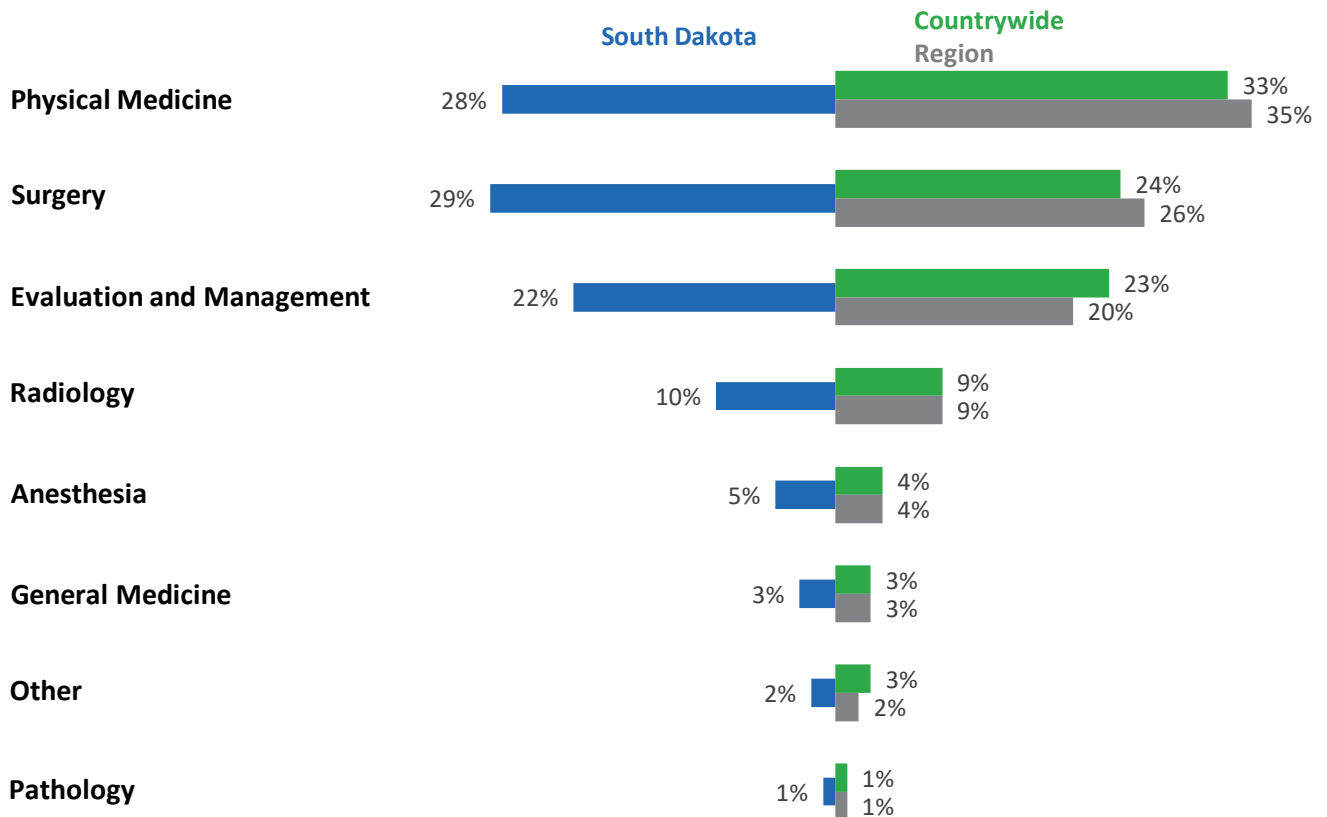
| Physician Service Category | South Dakota | Region | Countrywide |
|-------------------------------|--------------|-------------|-------------|
| General and Physical Medicine | 107% | 153% | 132% |
| Surgery | 176% | 337% | 270% |
| Evaluation and Management | 105% | 167% | 143% |
| Radiology | 218% | 312% | 228% |
| Anesthesia | 266% | 396% | 305% |
| All Physician Services | 135% | 204% | 168% |

² The calculation for Surgery takes into account Medicare’s endoscopic procedures reimbursement rules.

Chart 6 displays the distribution of physician payments by service category for South Dakota, the region, and countrywide.

Chart 6

Distribution of Physician Payments by AMA Service Category





Recently, NCCI conducted a review of physician costs in workers compensation as compared to group health (GH). Results³ show that WC physician costs are 77% higher than GH in general, with variation across states ranging from 0 to 200%. The difference in costs for physician services is due to both prices and utilization of services. Most notably, physical medicine services in WC are almost three times the costs of physical medicine services in GH, largely due to the number of services provided.

Physicians typically use current procedure terminology (CPT) codes to identify the services that they provide to claimants. These codes are specific and provide detailed information on what service was performed. The charts below display the top 10 procedure codes reported by physicians for the following service categories: anesthesia, surgery, radiology, physical and general medicine, and evaluation and management. A brief description of each procedure code is displayed in the corresponding table below each chart.

Except for anesthesia codes and physical & general medicine codes, the charts also include the average amount paid per transaction (PPT) for these codes in South Dakota, in the region, and countrywide. The average PPT is calculated by taking the total payments for the procedure code and dividing by the number of transactions for the procedure code. Other fields, such as the secondary paid procedure code, modifier, diagnosis code, place of service, and quantity/units, may need to be considered when evaluating average payments per service. The charts for the top 10 anesthesia codes and physical & general medicine codes include the average amount paid per unit (PPU) for the codes in South Dakota, in the region, and countrywide. The PPU is calculated by taking the total payments for the procedure code and dividing by the number of units for the procedure code. For these codes, a unit is typically a measurement of time (15-minute increment, 30-minute increment, 1-hour increment, etc.) but can also be one transaction. The procedure code description will indicate the unit measurement.

The Top 10 charts rank the procedure codes for each service category using two different methods. The first method ranks procedure codes by total payments. Procedure codes are sorted from highest total payments to lowest total payments. The procedure code with the highest amount paid is ranked first, the procedure code with the second highest amount paid is ranked second, and so on. This method of ranking shows those procedures that represent the highest percentage share of payments.

The second method ranks procedure codes by total count of transactions. The procedure code with the highest total transaction count is ranked first, the procedure code with the second highest total transaction count is ranked second, and so on. This method reveals the most frequently used procedures.

Additional charts show time until first treatment. Time to treatment (TTT) is a measure of the availability of medical services and is measured by the number of days between the date of injury and the date on which the worker first received medical services.

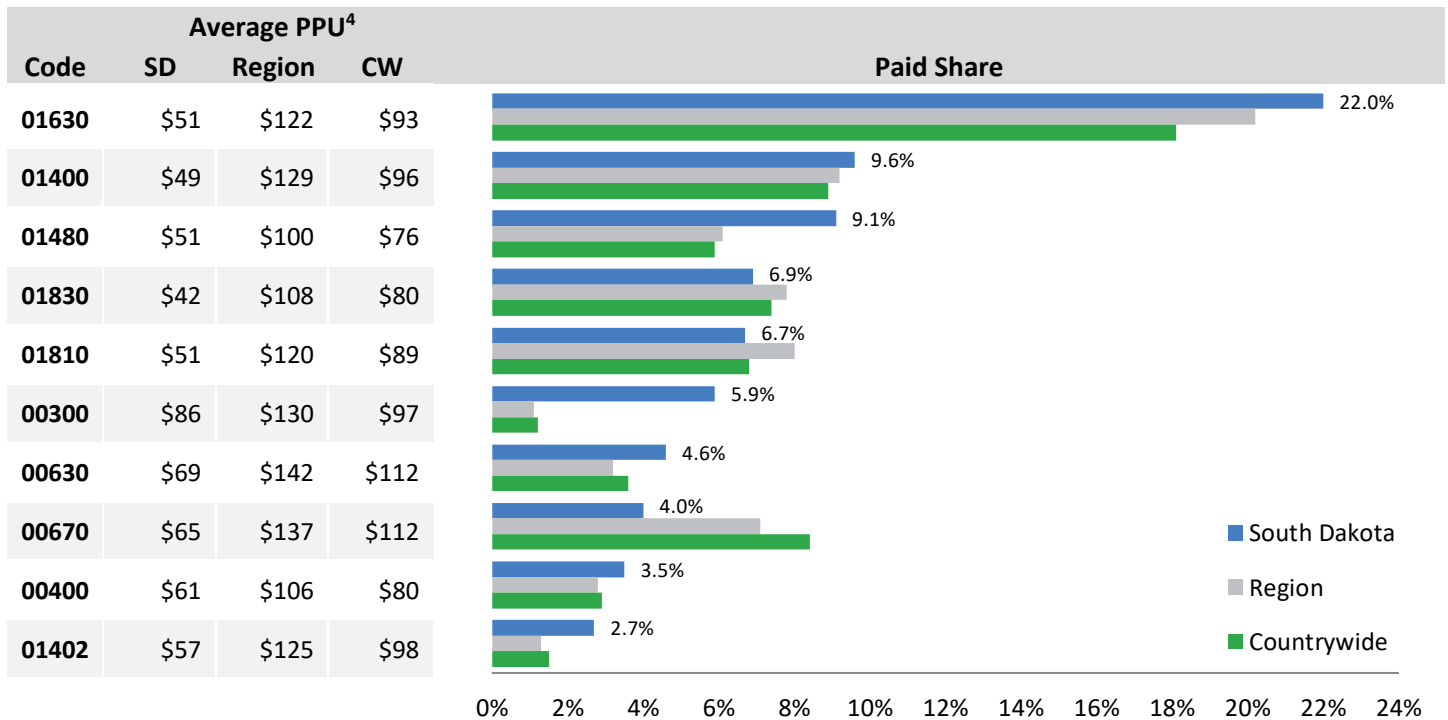
³ Lipton, B. [Channel NCCI]. (2019, May 23). *Work Comp vs. Group Health-- The Price We Pay* [Video File]. Retrieved from <https://youtu.be/fb3tnbQoMSY>.



In South Dakota, physician payments for anesthesia services provided in 2019 are, on average, 266% of Medicare-scheduled reimbursement amounts, compared to 396% in the region and 305% countrywide. Payments for these services comprise 5% of physician payments, compared to 4% in the region and 4% countrywide.

Chart 7

Top 10 Anesthesia Procedure Codes by Amount Paid

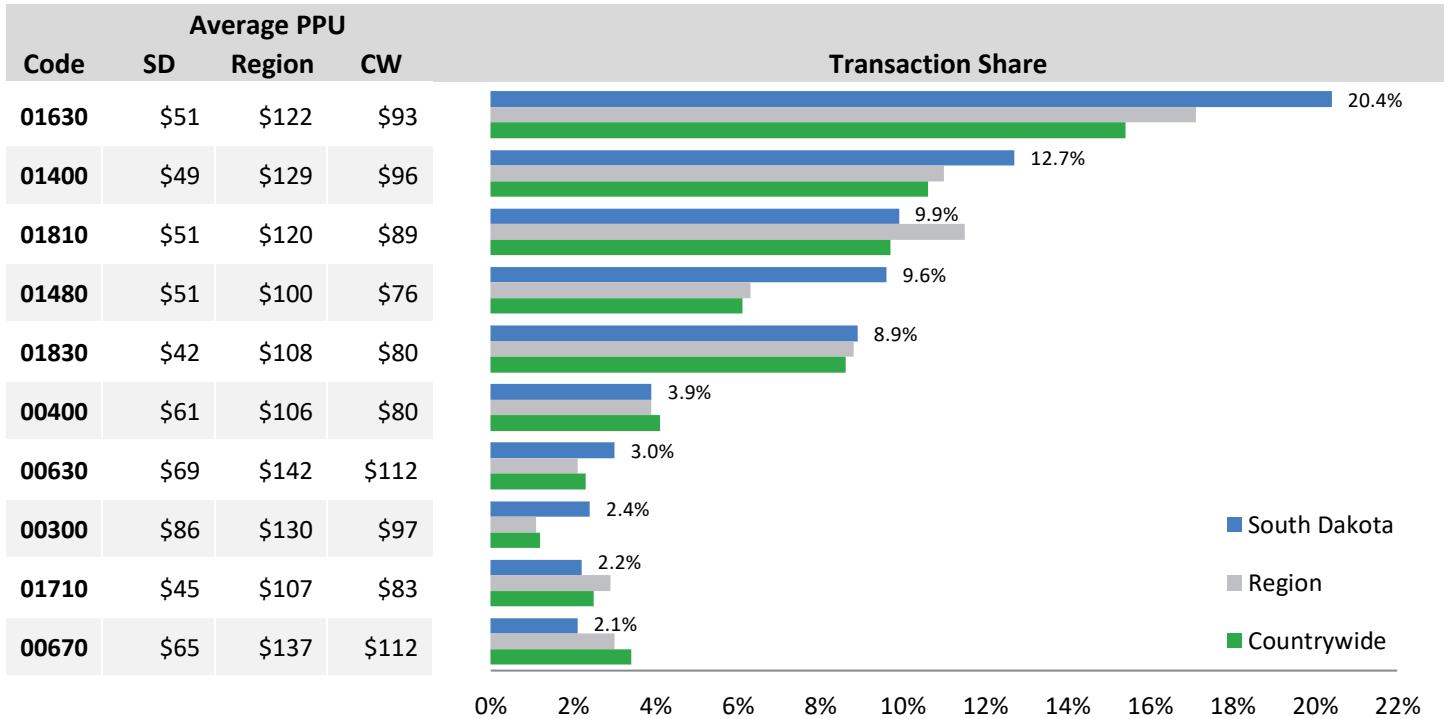


| Code | Description |
|-------|--|
| 01630 | Anesthesia for open or surgical arthroscopic procedures on humeral head and neck, sternoclavicular joint, acromioclavicular joint, and shoulder joint; not otherwise specified |
| 01400 | Anesthesia for open or surgical arthroscopic procedures on knee joint; not otherwise specified |
| 01480 | Anesthesia for open procedures on bones of lower leg, ankle, and foot; not otherwise specified |
| 01830 | Anesthesia for open or surgical arthroscopic/endoscopic procedures on distal radius, distal ulna, wrist, or hand joints; not otherwise specified |
| 01810 | Anesthesia for all procedures on nerves, muscles, tendons, fascia, and bursae of forearm, wrist, and hand |
| 00300 | Anesthesia for all procedures on the integumentary system, muscles and nerves of head, neck, and posterior trunk; not otherwise specified |
| 00630 | Anesthesia for procedures in lumbar region; not otherwise specified |
| 00670 | Anesthesia for extensive spine and spinal cord procedures (e.g., spinal instrumentation or vascular procedures) |
| 00400 | Anesthesia for procedures on the integumentary system on the extremities, anterior trunk, and perineum; not otherwise specified |
| 01402 | Anesthesia for open or surgical arthroscopic procedures on knee joint; total knee arthroplasty |

⁴ A unit is an increment of 15 minutes unless otherwise defined in the description.

Chart 8

Top 10 Anesthesia Procedure Codes by Transaction Counts



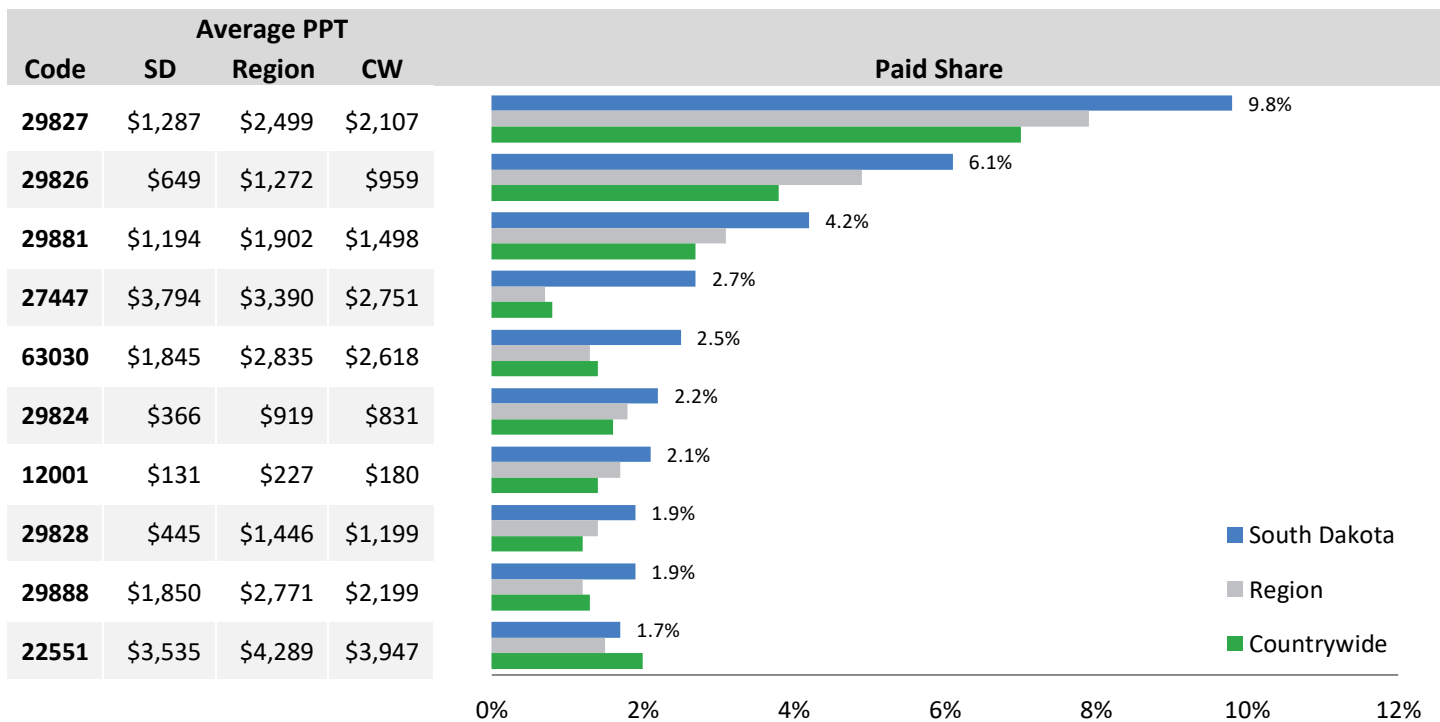
| Code | Description |
|-------|--|
| 01630 | Anesthesia for open or surgical arthroscopic procedures on humeral head and neck, sternoclavicular joint, acromioclavicular joint, and shoulder joint; not otherwise specified |
| 01400 | Anesthesia for open or surgical arthroscopic procedures on knee joint; not otherwise specified |
| 01810 | Anesthesia for all procedures on nerves, muscles, tendons, fascia, and bursae of forearm, wrist, and hand |
| 01480 | Anesthesia for open procedures on bones of lower leg, ankle, and foot; not otherwise specified |
| 01830 | Anesthesia for open or surgical arthroscopic/endoscopic procedures on distal radius, distal ulna, wrist, or hand joints; not otherwise specified |
| 00400 | Anesthesia for procedures on the integumentary system on the extremities, anterior trunk, and perineum; not otherwise specified |
| 00630 | Anesthesia for procedures in lumbar region; not otherwise specified |
| 00300 | Anesthesia for all procedures on the integumentary system, muscles and nerves of head, neck, and posterior trunk; not otherwise specified |
| 01710 | Anesthesia for procedures on nerves, muscles, tendons, fascia, and bursae of upper arm and elbow; not otherwise specified |
| 00670 | Anesthesia for extensive spine and spinal cord procedures (e.g., spinal instrumentation or vascular procedures) |



In South Dakota, physician payments for surgery services provided in 2019 are, on average, 176% of Medicare-scheduled reimbursement amounts, compared to 337% in the region and 270% countrywide. Payments for these services comprise 29% of physician payments, compared to 26% in the region and 24% countrywide.

Chart 9

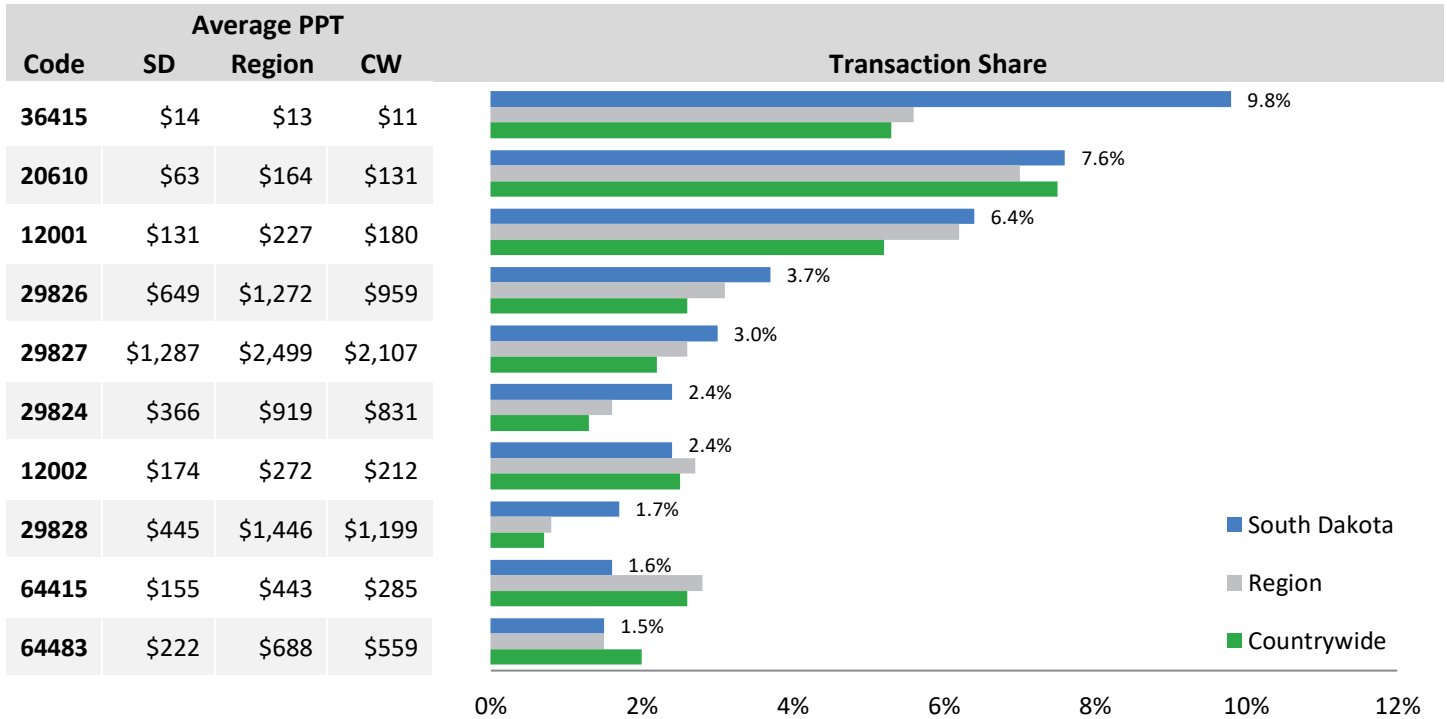
Top 10 Surgery Procedure Codes by Amount Paid



| Code | Description |
|-------|---|
| 29827 | Arthroscopy, shoulder, surgical; with rotator cuff repair |
| 29826 | Arthroscopy, shoulder, surgical; decompression of subacromial space with partial acromioplasty, with coracoacromial ligament (i.e., arch) release, when performed |
| 29881 | Arthroscopy, knee, surgical; with meniscectomy (medial or lateral, including any meniscal shaving), including debridement/shaving of articular cartilage |
| 27447 | Arthroplasty, knee condyle and plateau; medial and lateral compartments, with or without patella resurfacing (total knee arthroplasty) |
| 63030 | Laminotomy (hemilaminectomy) with decompression of nerve root(s) including partial facetectomy, foraminotomy, and/or excision of herniated intervertebral disc; 1 interspace lumbar |
| 29824 | Arthroscopy, shoulder, surgical; distal claviclectomy including distal articular surface (Mumford procedure) |
| 12001 | Simple repair of superficial wounds of scalp, neck, axillae, external genitalia, trunk, and/or extremities (including hands and feet); 2.5 cm or less |
| 29828 | Arthroscopy, shoulder, surgical; biceps tenodesis |
| 29888 | Arthroscopically aided anterior cruciate ligament repair/augmentation or reconstruction |
| 22551 | Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophyctomy, and decompression of spinal cord and/or nerve roots; cervical below C2 |

Chart 10

Top 10 Surgery Procedure Codes by Transaction Counts

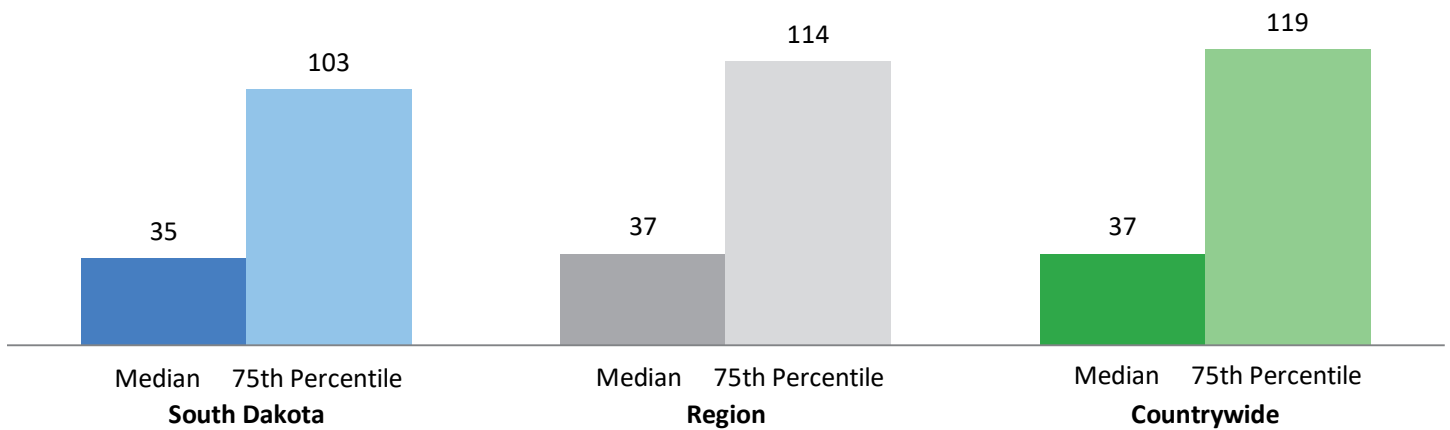


| Code | Description |
|-------|--|
| 36415 | Collection of venous blood by venipuncture |
| 20610 | Arthrocentesis, aspiration, and/or injection; major joint or bursa (e.g., shoulder, hip, knee, joint, subacromial bursa) |
| 12001 | Simple repair of superficial wounds of scalp, neck, axillae, external genitalia, trunk, and/or extremities (including hands and feet); 2.5 cm or less |
| 29826 | Arthroscopy, shoulder, surgical; decompression of subacromial space with partial acromioplasty, with coracoacromial ligament (i.e., arch) release, when performed |
| 29827 | Arthroscopy, shoulder, surgical; with rotator cuff repair |
| 29824 | Arthroscopy, shoulder, surgical; distal claviclectomy including distal articular surface (Mumford procedure) |
| 12002 | Simple repair of superficial wounds of scalp, neck, axillae, external genitalia, trunk, and/or extremities (including hands and feet); 2.6 cm to 7.5 cm |
| 29828 | Arthroscopy, shoulder, surgical; biceps tenodesis |
| 64415 | Injection, anesthetic agent; brachial plexus, single |
| 64483 | Injection(s), anesthetic agent, and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or computed tomography (CT)); lumbar or sacral, single level |

Chart 11 shows the median and 75th percentile⁵ time until first treatment for major surgery for South Dakota, the region, and countrywide. No adjustment has been made to account for injuries that may take time to develop such as an occupational disease, which may extend the time between the date a work-related injury or disease is reported and the first medical treatment takes place.

Chart 11

Time Until First Treatment for Major Surgery⁶ (in Days)



Source: NCCI’s Medical Data Call for Accident Year 2018 and Service Years 2018 and 2019.

⁵ The median is the TTT where one-half of all TTT values are higher and one-half are lower. This statistic is less affected by extremely low or extremely high values. The 75th percentile is the TTT where 75% of all TTT values are lower and 25% are higher. For example, Chart 11 indicates that out of 100 claimants, 75 will receive a major surgery within 103 days of their accident date. Comparing the median to the 75th percentile illustrates the variation in TTT between claims.

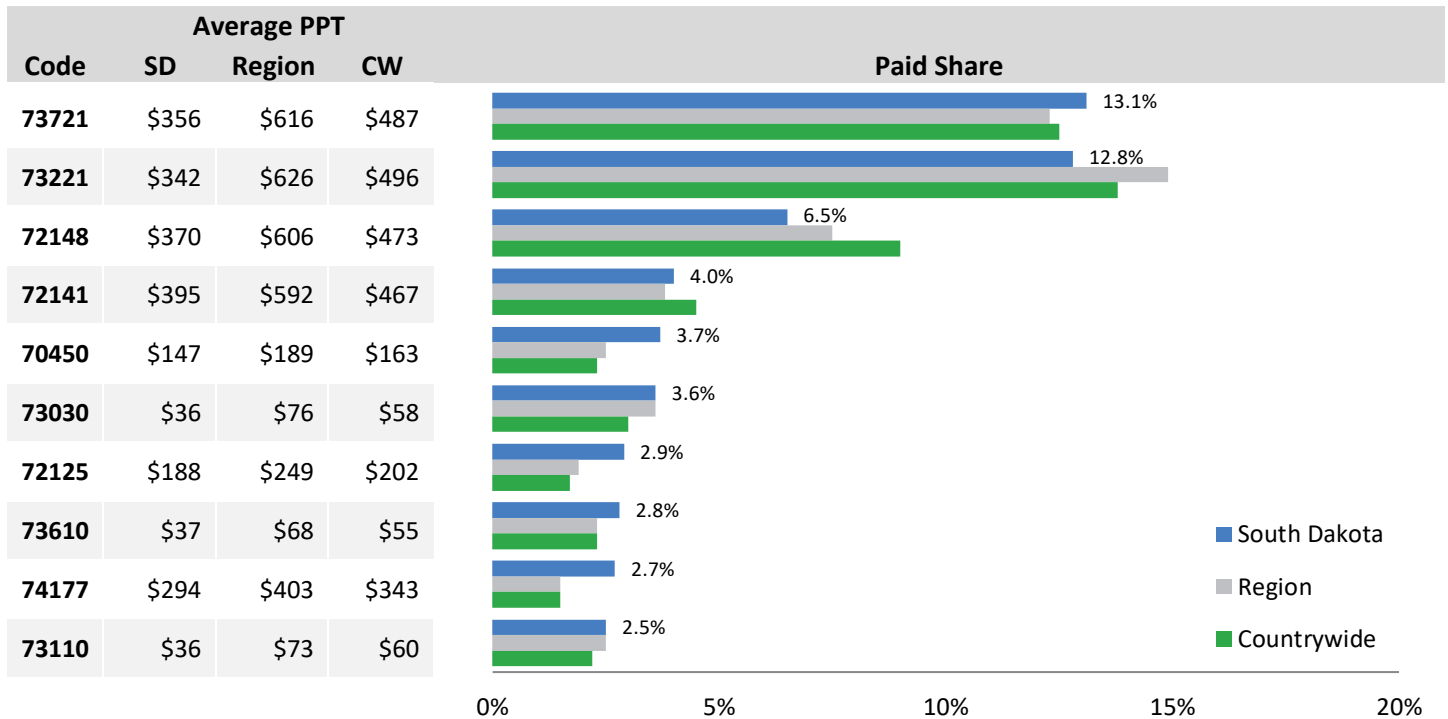
⁶ A service is classified as “surgical” if it falls within the surgical category as defined by the AMA. A service is further classified as “major surgery” if it has a global follow up period of 90 days as defined by the Centers for Medicare & Medicaid Services and is not an injection.



In South Dakota, physician payments for radiology services provided in 2019 are, on average, 218% of Medicare-scheduled reimbursement amounts, compared to 312% in the region and 228% countrywide. Payments for these services comprise 10% of physician payments, compared to 9% in the region and 9% countrywide.

Chart 12

Top 10 Radiology Procedure Codes by Amount Paid

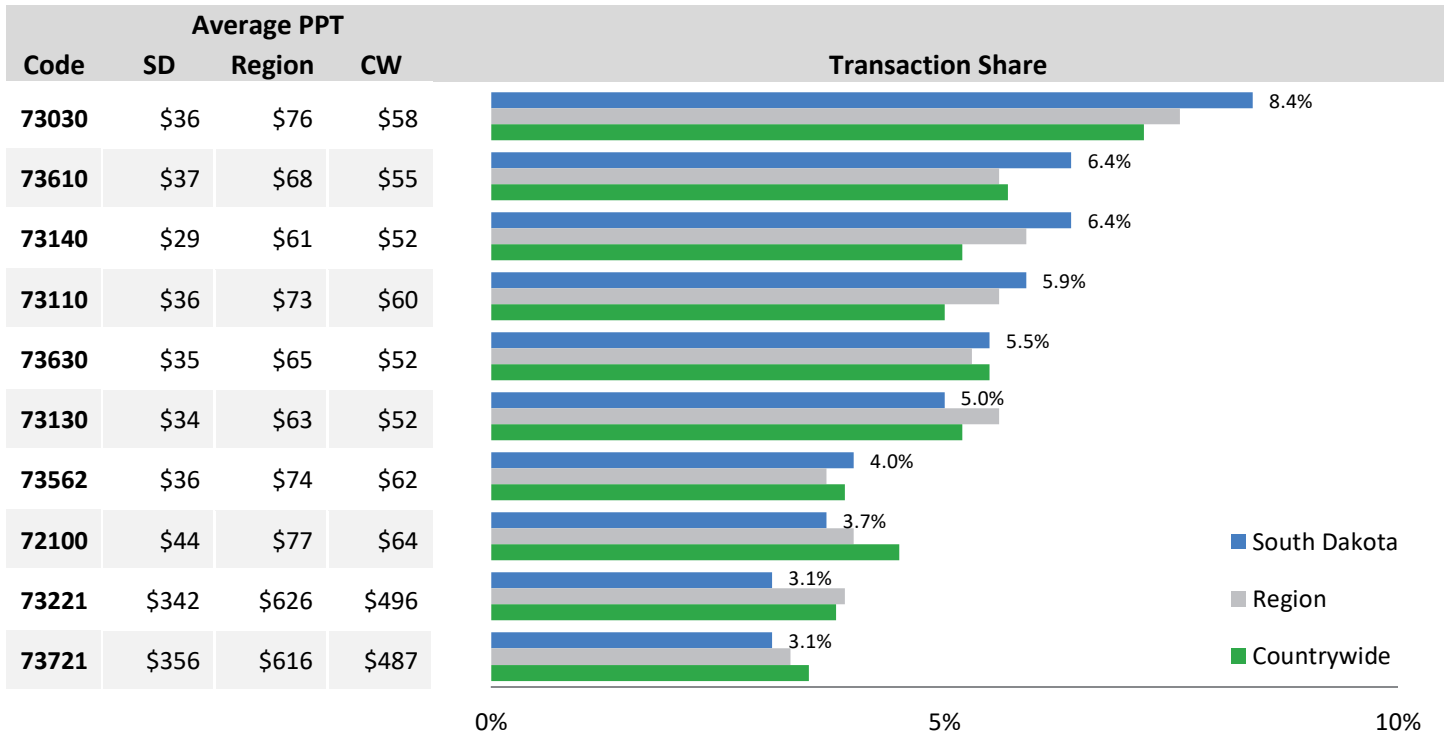


| Code | Description |
|-------|---|
| 73721 | Magnetic resonance (e.g., proton) imaging, any joint of lower extremity; without contrast material |
| 73221 | Magnetic resonance (e.g., proton) imaging, any joint of upper extremity; without contrast material |
| 72148 | Magnetic resonance (e.g., proton) imaging, spinal canal and contents, lumbar; without contrast material |
| 72141 | Magnetic resonance (e.g., proton) imaging, spinal canal and contents, cervical; without contrast material |
| 70450 | Computed tomography (CT), head or brain; without contrast material |
| 73030 | Radiologic examination, shoulder; complete minimum of 2 views |
| 72125 | Computed tomography (CT), cervical spine; without contrast material |
| 73610 | Radiologic examination, ankle; complete minimum of 3 views |
| 74177 | Computed tomography (CT), abdomen and pelvis; with contrast material |
| 73110 | Radiologic examination, wrist; complete minimum of 3 views |



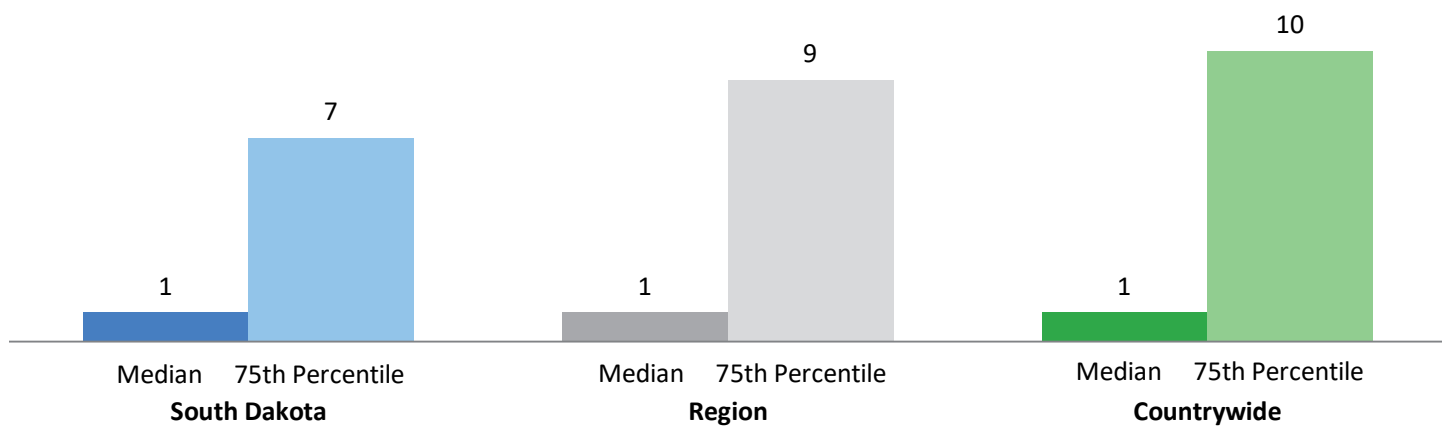
Chart 13

Top 10 Radiology Procedure Codes by Transaction Counts



| Code | Description |
|-------|--|
| 73030 | Radiologic examination, shoulder; complete minimum of 2 views |
| 73610 | Radiologic examination, ankle; complete minimum of 3 views |
| 73140 | Radiologic examination, finger(s); minimum of 2 views |
| 73110 | Radiologic examination, wrist; complete minimum of 3 views |
| 73630 | Radiologic examination, foot; complete minimum of 3 views |
| 73130 | Radiologic examination, hand; minimum of 3 views |
| 73562 | Radiologic examination, knee; 3 views |
| 72100 | Radiologic examination, spine, lumbosacral; 2 or 3 views |
| 73221 | Magnetic resonance (e.g., proton) imaging, any joint of upper extremity; without contrast material |
| 73721 | Magnetic resonance (e.g., proton) imaging, any joint of lower extremity; without contrast material |

Chart 14 shows the median and 75th percentile time until first treatment for radiology procedures for South Dakota, the region, and countrywide.

Chart 14**Time Until First Treatment for Radiology (in Days)**

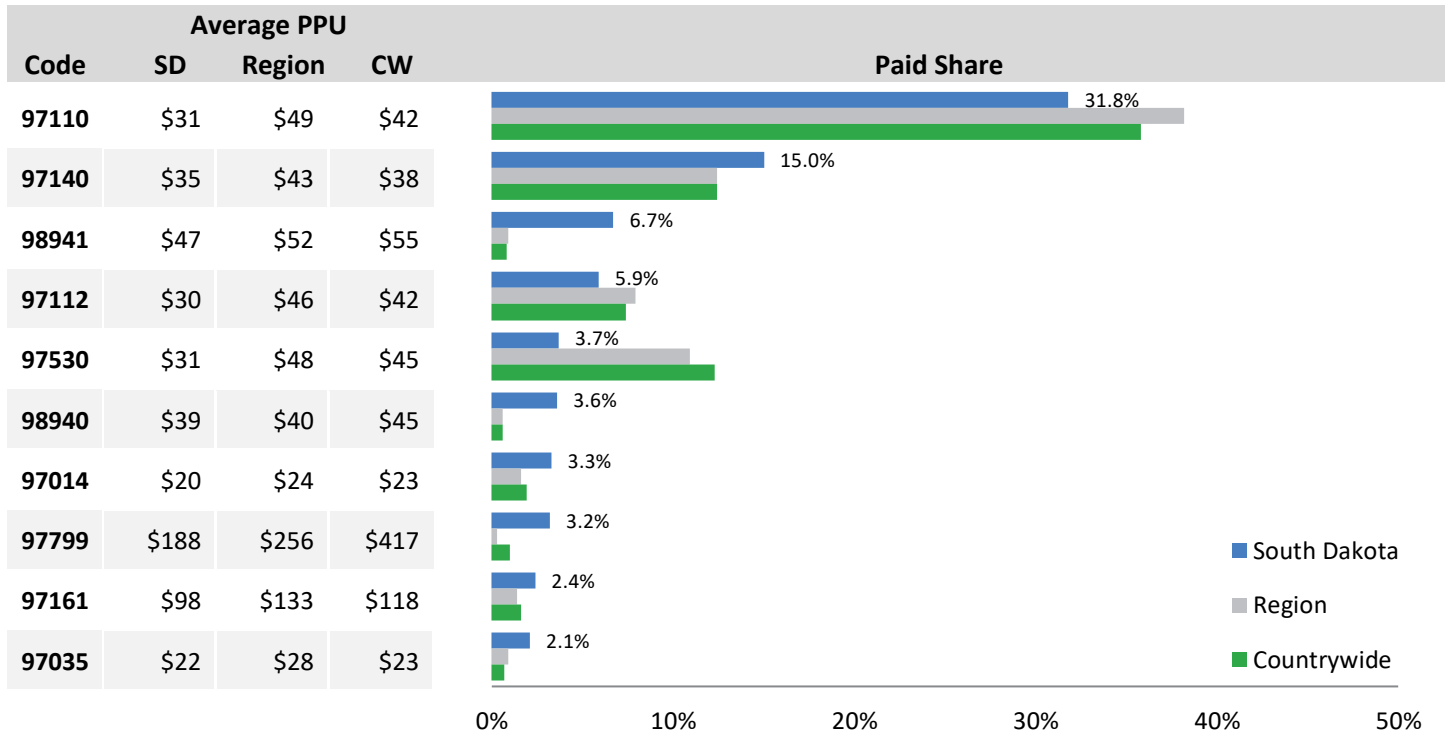
Source: NCCI's Medical Data Call for Accident Year 2018 and Service Years 2018 and 2019.



In South Dakota, physician payments for physical and general medicine services provided in 2019 are, on average, 107% of Medicare-scheduled reimbursement amounts, compared to 153% in the region and 132% countrywide. Payments for these services comprise 31% of physician payments, compared to 38% in the region and 36% countrywide.

Chart 15

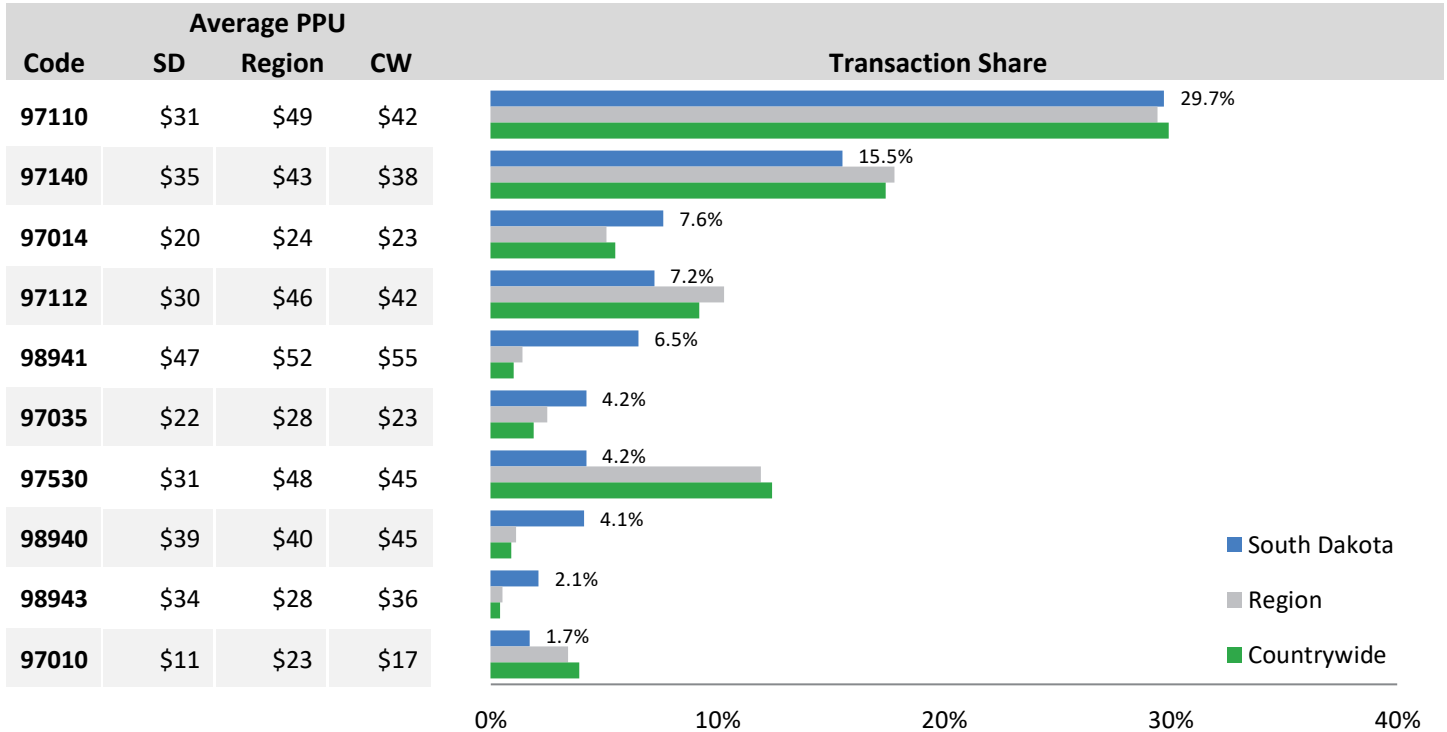
Top 10 Physical and General Medicine Procedure Codes by Amount Paid



| Code | Description |
|-------|---|
| 97110 | Therapeutic procedure, 1 or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion, and flexibility |
| 97140 | Manual therapy techniques (e.g., mobilization/manipulation, manual lymphatic drainage, manual traction), 1 or more regions, each 15 minutes |
| 98941 | Chiropractic manipulative treatment (CMT); spinal, 3-4 regions |
| 97112 | Therapeutic procedure, 1 or more areas, each 15 minutes; neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and/or proprioception for sitting and/or standing activities |
| 97530 | Therapeutic activities, direct (one-on-one) patient contact by the provider (use of dynamic activities to improve functional performance), each 15 minutes |
| 98940 | Chiropractic manipulative treatment (CMT); spinal, 1-2 regions |
| 97014 | Application of a modality to 1 or more areas; electrical stimulation (unattended) |
| 97799 | Unlisted physical medicine/rehabilitation service or procedure |
| 97161 | Physical therapy evaluation of low complexity; typically, 20 minutes are spent with the patient and/or family |
| 97035 | Application of a modality to 1 or more areas; ultrasound, each 15 minutes |

Chart 16

Top 10 Physical and General Medicine Procedure Codes by Transaction Counts

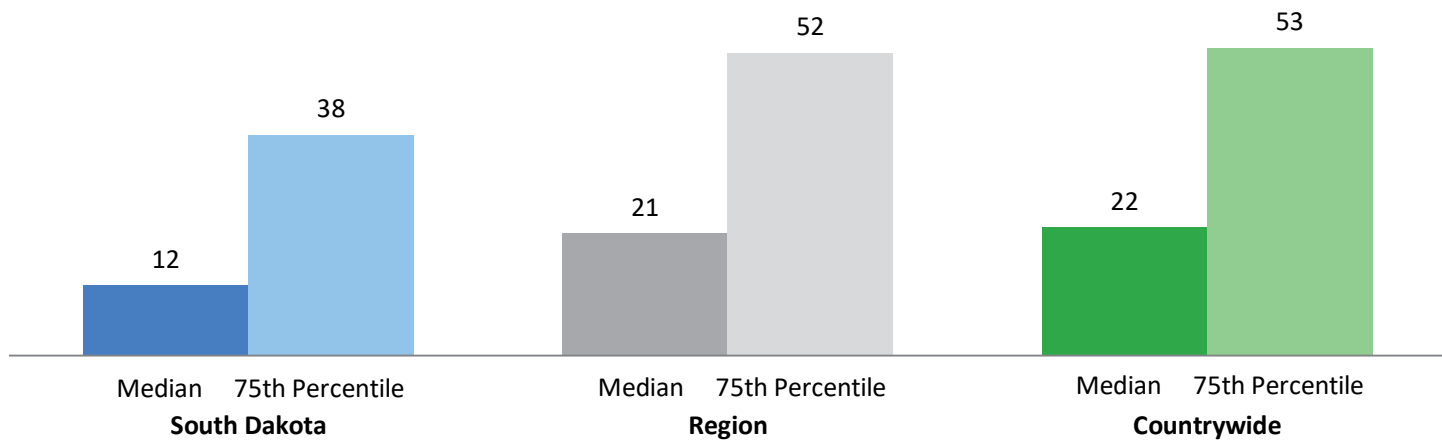


| Code | Description |
|-------|---|
| 97110 | Therapeutic procedure, 1 or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion, and flexibility |
| 97140 | Manual therapy techniques (e.g., mobilization/manipulation, manual lymphatic drainage, manual traction), 1 or more regions, each 15 minutes |
| 97014 | Application of a modality to 1 or more areas; electrical stimulation (unattended) |
| 97112 | Therapeutic procedure, 1 or more areas, each 15 minutes; neuromuscular reeducation of movement, balance, coordination, kinesthetic sense, posture, and/or proprioception for sitting and/or standing activities |
| 98941 | Chiropractic manipulative treatment (CMT); spinal, 3-4 regions |
| 97035 | Application of a modality to 1 or more areas; ultrasound, each 15 minutes |
| 97530 | Therapeutic activities, direct (one-on-one) patient contact by the provider (use of dynamic activities to improve functional performance), each 15 minutes |
| 98940 | Chiropractic manipulative treatment (CMT); spinal, 1-2 regions |
| 98943 | Chiropractic manipulative treatment (CMT); extraspinal, 1 or more regions |
| 97010 | Application of a modality to 1 or more areas; hot or cold packs |

Chart 17 shows the median and 75th percentile time until first treatment for physical and general medicine procedures for South Dakota, the region, and countrywide.

Chart 17

Time Until First Treatment for Physical and General Medicine (in Days)



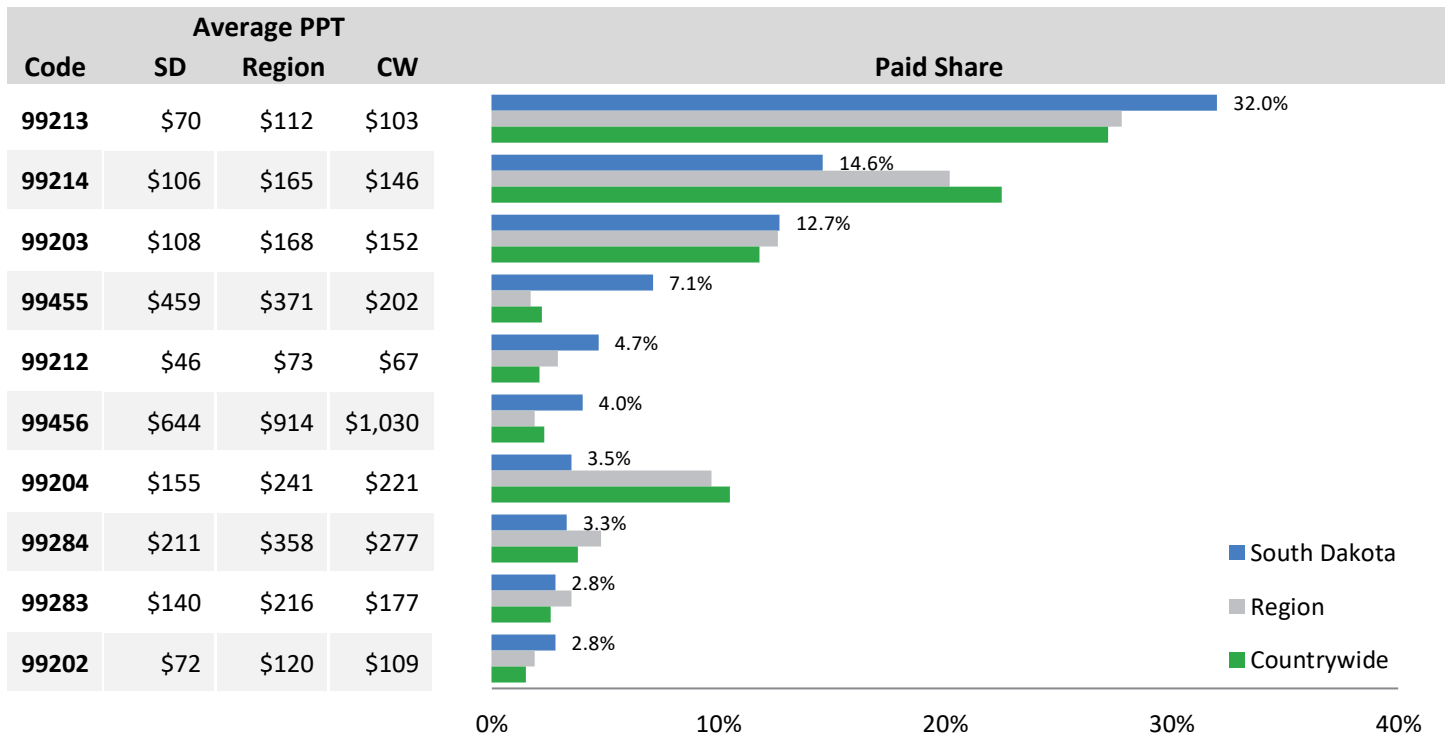
Source: NCCI's Medical Data Call for Accident Year 2018 and Service Years 2018 and 2019.



In South Dakota, physician payments for evaluation and management services provided in 2019 are, on average, 105% of Medicare-scheduled reimbursement amounts, compared to 167% in the region and 143% countrywide. Payments for these services comprise 22% of physician payments, compared to 20% in the region and 23% countrywide.

Chart 18

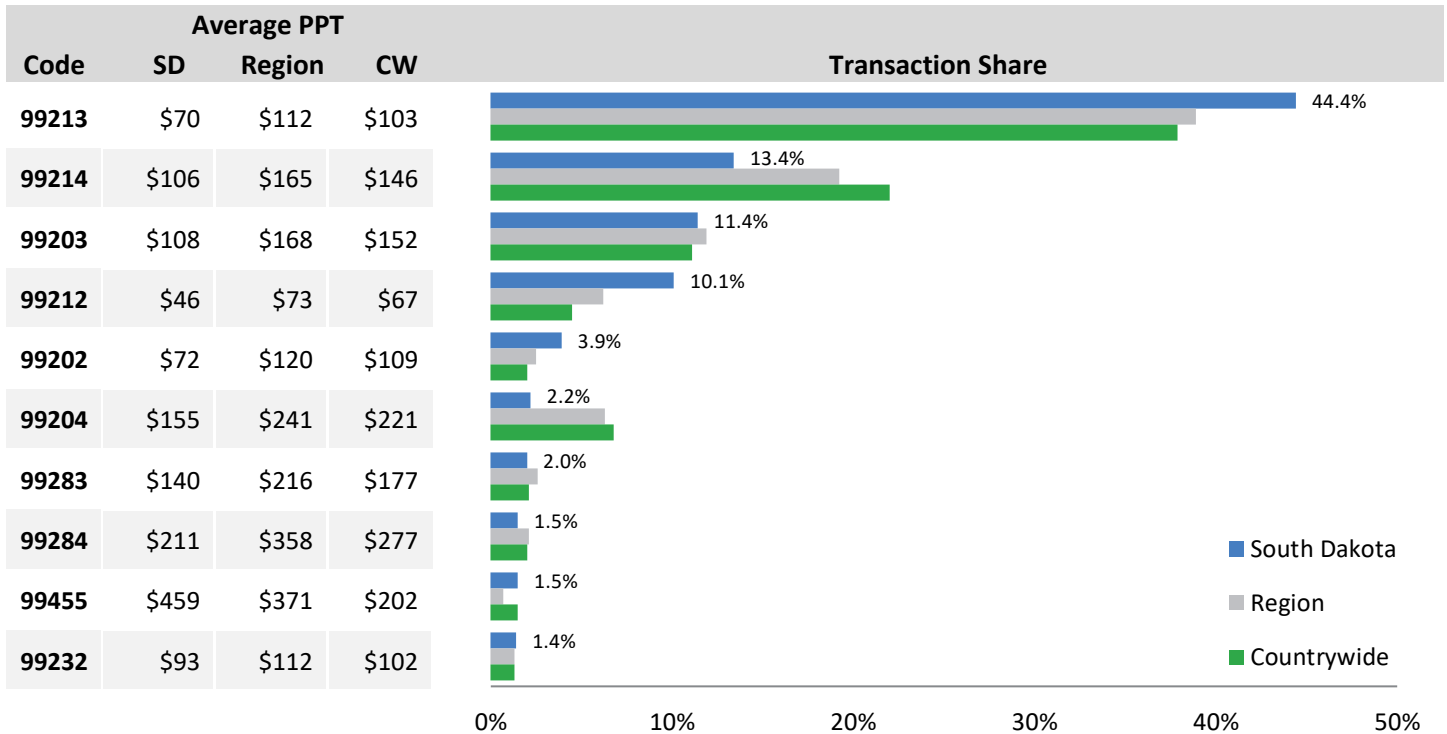
Top 10 Evaluation and Management Procedure Codes by Amount Paid



| Code | Description |
|-------|--|
| 99213 | Office or other outpatient visit for the evaluation and management of an established patient. Usually the presenting problem(s) are of low to moderate severity. Physicians typically spend 15 minutes face-to-face with the patient and/or family. |
| 99214 | Office or other outpatient visit for the evaluation and management of an established patient. Usually the presenting problem(s) are of moderate to high severity. Physicians typically spend 25 minutes face-to-face with the patient and/or family. |
| 99203 | Office or other outpatient visit for the evaluation and management of a new patient. Usually the presenting problem(s) are of moderate severity. Physicians typically spend 30 minutes face-to-face with the patient and/or family. |
| 99455 | Work related or medical disability examination by the treating physician. |
| 99212 | Office or other outpatient visit for the evaluation and management of an established patient. Usually the presenting problem(s) are self limited or minor. Physicians typically spend 10 minutes face-to-face with the patient and/or family. |
| 99456 | Work related or medical disability examination by other than the treating physician. |
| 99204 | Office or other outpatient visit for the evaluation and management of a new patient. Usually the presenting problem(s) are of moderate to high severity. Physicians typically spend 45 minutes face-to-face with the patient and/or family. |
| 99284 | Emergency department visit. Usually the presenting problem(s) are of high severity and require urgent evaluation by the physician but do not pose an immediate significant threat to life or physiologic function. |
| 99283 | Emergency department visit. Usually the presenting problem(s) are of moderate severity. |
| 99202 | Office or other outpatient visit for the evaluation and management of a new patient. Usually the presenting problem(s) are of low to moderate severity. Physicians typically spend 20 minutes face-to-face with the patient and/or family. |

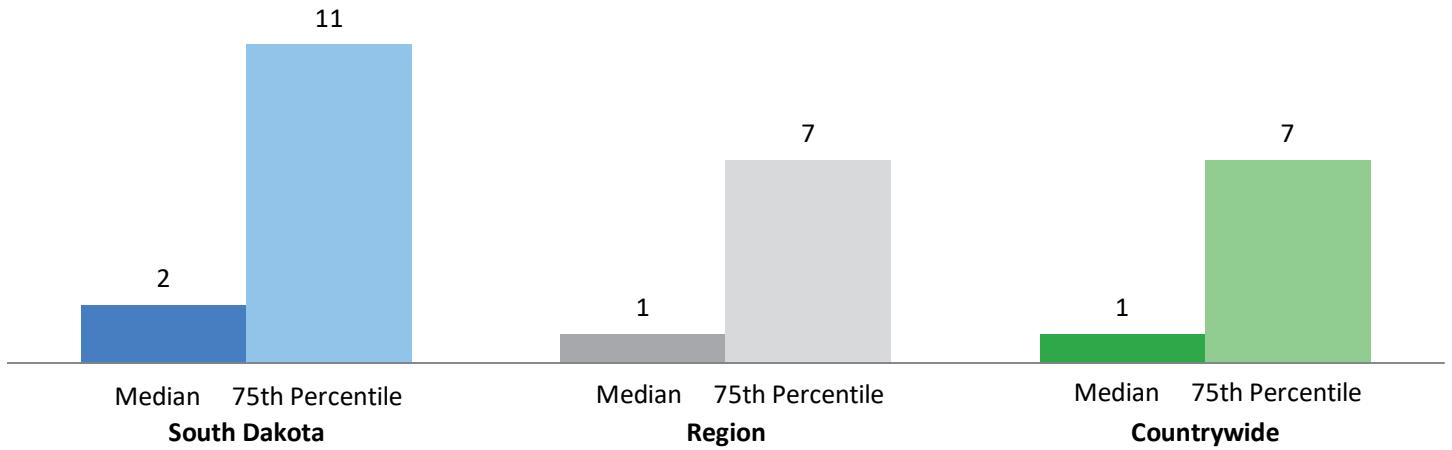
Chart 19

Top 10 Evaluation and Management Procedure Codes by Transaction Counts



| Code | Description |
|-------|---|
| 99213 | Office or other outpatient visit for the evaluation and management of an established patient. Usually the presenting problem(s) are of low to moderate severity. Physicians typically spend 15 minutes face-to-face with the patient and/or family. |
| 99214 | Office or other outpatient visit for the evaluation and management of an established patient. Usually the presenting problem(s) are of moderate to high severity. Physicians typically spend 25 minutes face-to-face with the patient and/or family. |
| 99203 | Office or other outpatient visit for the evaluation and management of a new patient. Usually the presenting problem(s) are of moderate severity. Physicians typically spend 30 minutes face-to-face with the patient and/or family. |
| 99212 | Office or other outpatient visit for the evaluation and management of an established patient. Usually the presenting problem(s) are self limited or minor. Physicians typically spend 10 minutes face-to-face with the patient and/or family. |
| 99202 | Office or other outpatient visit for the evaluation and management of a new patient. Usually the presenting problem(s) are of low to moderate severity. Physicians typically spend 20 minutes face-to-face with the patient and/or family. |
| 99204 | Office or other outpatient visit for the evaluation and management of a new patient. Usually the presenting problem(s) are of moderate to high severity. Physicians typically spend 45 minutes face-to-face with the patient and/or family. |
| 99283 | Emergency department visit. Usually the presenting problem(s) are of moderate severity. |
| 99284 | Emergency department visit. Usually the presenting problem(s) are of high severity and require urgent evaluation by the physician but do not pose an immediate significant threat to life or physiologic function. |
| 99455 | Work related or medical disability examination by the treating physician. |
| 99232 | Subsequent hospital care per day for the evaluation and management of a patient. Usually the patient is responding inadequately to therapy or has developed a minor complication. Physicians typically spend 25 minutes at the bedside and on the patient's hospital floor or unit. |

Chart 20 shows the median and 75th percentile time until first treatment for evaluation and management procedures for South Dakota, the region, and countrywide.

Chart 20**Time Until First Treatment for Evaluation and Management (in Days)**

Source: NCCI's Medical Data Call for Accident Year 2018 and Service Years 2018 and 2019.



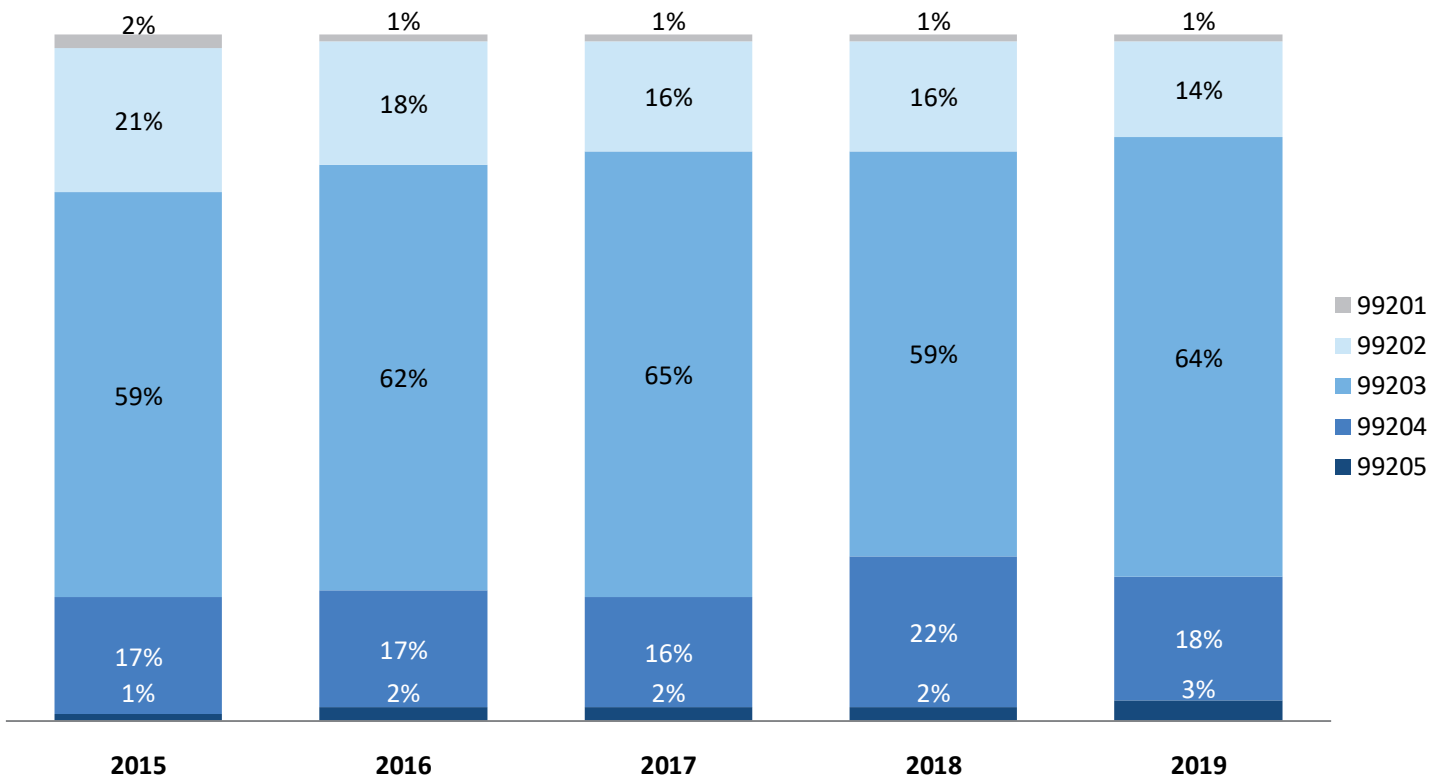
Evaluation and Management services consist largely of office or outpatient visits for a new patient or an established patient.

There are five periods of time spent with a *new* patient, ranging from 10 minutes for Procedure Code 99201 to 60 minutes for Procedure Code 99205. Chart 21 shows a five-year snapshot of experience for each procedure type and the average amount paid per transaction for new patients.

Chart 21

Office or Other Outpatient Visit for the Evaluation and Management of a New Patient

Distribution of Payments by Procedure Code



Source: NCCI's Medical Data Call, Service Years 2015 to 2019.

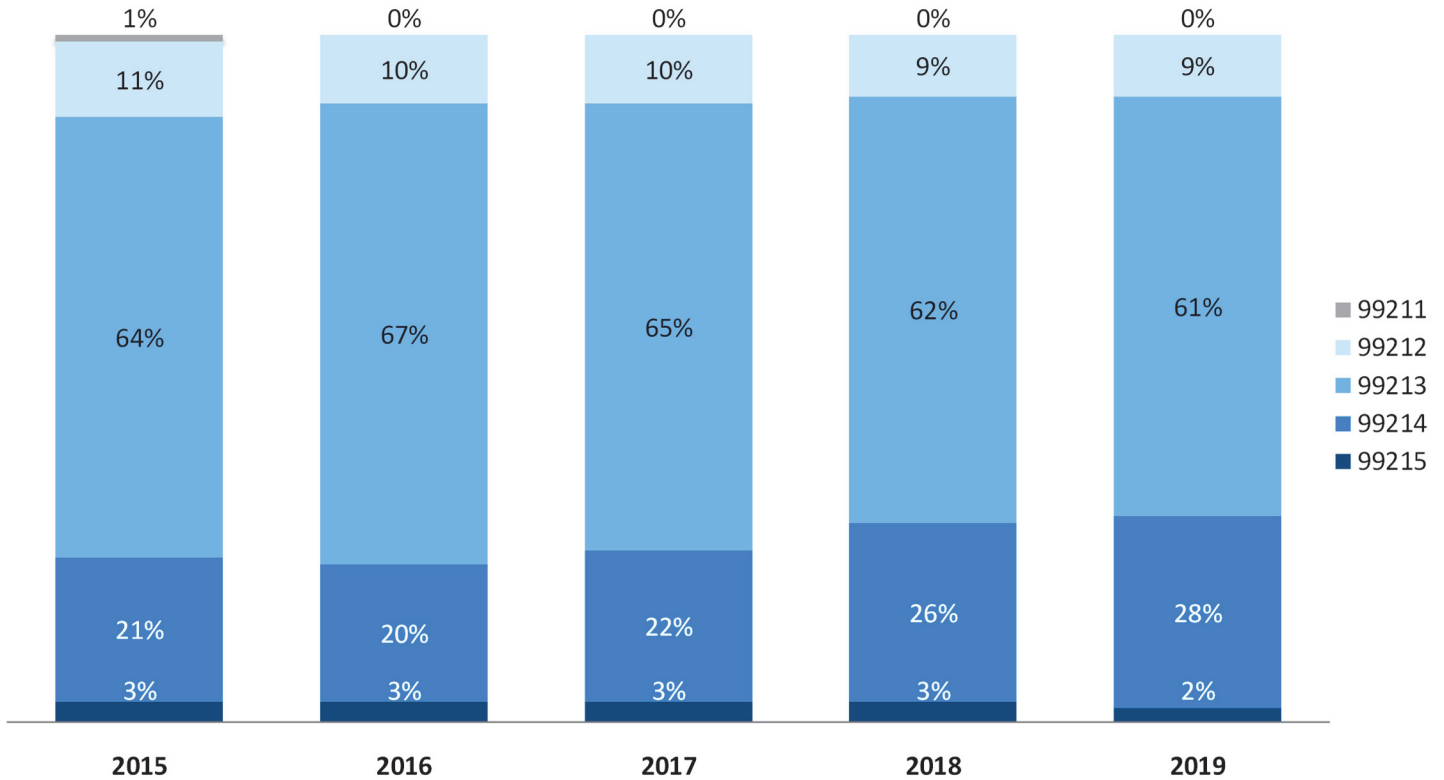
| Code | Severity/Time | Average PPT | | | | |
|-------|---|-------------|-------|-------|-------|-------|
| | | 2015 | 2016 | 2017 | 2018 | 2019 |
| 99201 | Low to Moderate; 10 minutes with patient | \$44 | \$43 | \$44 | \$43 | \$46 |
| 99202 | Low to Moderate; 20 minutes with patient | \$69 | \$70 | \$70 | \$71 | \$72 |
| 99203 | Moderate; 30 minutes with patient | \$103 | \$104 | \$105 | \$108 | \$108 |
| 99204 | Moderate to High; 45 minutes with patient | \$149 | \$149 | \$149 | \$152 | \$155 |
| 99205 | Moderate to High; 60 minutes with patient | \$189 | \$207 | \$214 | \$223 | \$202 |

Similarly, for established patients, there are five periods of time spent with the patient, ranging from five minutes for Procedure Code 99211 to 40 minutes for Procedure Code 99215. Chart 22 shows a five-year snapshot of experience for each procedure type and the average amount paid per transaction for an established patient.

Chart 22

Office or Other Outpatient Visit for the Evaluation and Management of an Established Patient

Distribution of Payments by Procedure Code



Source: NCCI's Medical Data Call, Service Years 2015 to 2019.

| Code | Severity/Time | Average PPT | | | | |
|-------|---|-------------|-------|-------|-------|-------|
| | | 2015 | 2016 | 2017 | 2018 | 2019 |
| 99211 | Low to Moderate; 5 minutes with patient | \$26 | \$25 | \$25 | \$27 | \$25 |
| 99212 | Low to Moderate; 10 minutes with patient | \$44 | \$44 | \$44 | \$44 | \$46 |
| 99213 | Moderate; 15 minutes with patient | \$67 | \$68 | \$69 | \$70 | \$70 |
| 99214 | Moderate to High; 25 minutes with patient | \$102 | \$104 | \$105 | \$106 | \$106 |
| 99215 | Moderate to High; 40 minutes with patient | \$140 | \$151 | \$148 | \$152 | \$153 |



Hospital Inpatient

Payments attributed to facilities represent hospital inpatient services, hospital outpatient services, and ambulatory surgical center services. General healthcare trends may be the primary driver of the cost distribution; however, the fee schedule may also play a role. In many states, the fee schedule varies by type of facility, which may help explain differences observed between states.

Hospital inpatient fee schedules in workers compensation vary across jurisdictions. Some states have fee schedules based on a group of facility services related to the hospital admission, such as a diagnosis-related group (DRG); others are on a per-diem basis, with some variation on the per-diem amount by type of admission. Other states have provisions for the reimbursement to be a certain percentage of hospital charges. Several states remain without any regulation today.

A hospital inpatient stay is typically reported with one of two types of codes: DRG code or revenue code. Data reporters are instructed to report the code that is consistent with how the reimbursement was determined.

If the hospital inpatient fee schedule is a Medicare-based fee schedule, then a greater share of payments reported by DRG codes would be expected. DRG codes are a system of hospital payment classifications that group patients with similar clinical problems who are expected to require similar amounts of hospital resources. DRG codes provide detailed information about the type of services performed during the inpatient stay. In South Dakota, 50% of hospital inpatient payments are reported with a DRG code.

Due to differences in fee schedules, which may result in varied reporting of codes across jurisdictions, the region, and countrywide, comparisons by procedure code for inpatient costs should be interpreted with caution. Some measures for hospital inpatient services include the average cost of an inpatient stay, the average length of stay, or the average cost per day.

A measure of workers compensation hospital inpatient costs is a comparison of current payments to the Medicare rates. The chart below shows the average percentage of Medicare-scheduled reimbursement amounts for hospital inpatient payments for South Dakota, the region, and countrywide, based on hospital episodes that are reported with a DRG code.

Chart 23

Hospital Inpatient Payments as a Percentage of Medicare

| Medical Cost Category | South Dakota | Region | Countrywide |
|-----------------------|--------------|--------|-------------|
| Hospital Inpatient | 244% | 192% | 195% |

Source: NCCI's Medical Data Call for Service Year 2019. Region includes IA, IL, IN, KS, MI, MN, MO, NE, OK, and WI. Countrywide data includes AK, AL, AR, AZ, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MI, MN, MO, MS, MT, NC, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, UT, VA, VT, WI, and WV.



The distribution of medical payments for Hospital Inpatient is 13% for South Dakota, 11% for the region, and 13% for CW. One comparative measure of inpatient service costs is the average payment per inpatient stay. An inpatient stay is defined as any hospital service or set of services provided to a claimant during the period of time when the claimant is in an inpatient setting, for a specific diagnosis. Any stay may have more than one procedure performed, and any claimant may have more than one stay.

Chart 24 displays the average amount paid per stay for hospital inpatient services, while Chart 25 displays the average amount paid per day for hospital inpatient services for South Dakota, the region, and countrywide. Note that there are no controls for mix of diagnosis or severity of claims between jurisdictions.

Chart 24

Average Amount Paid per Stay for Hospital Inpatient Services

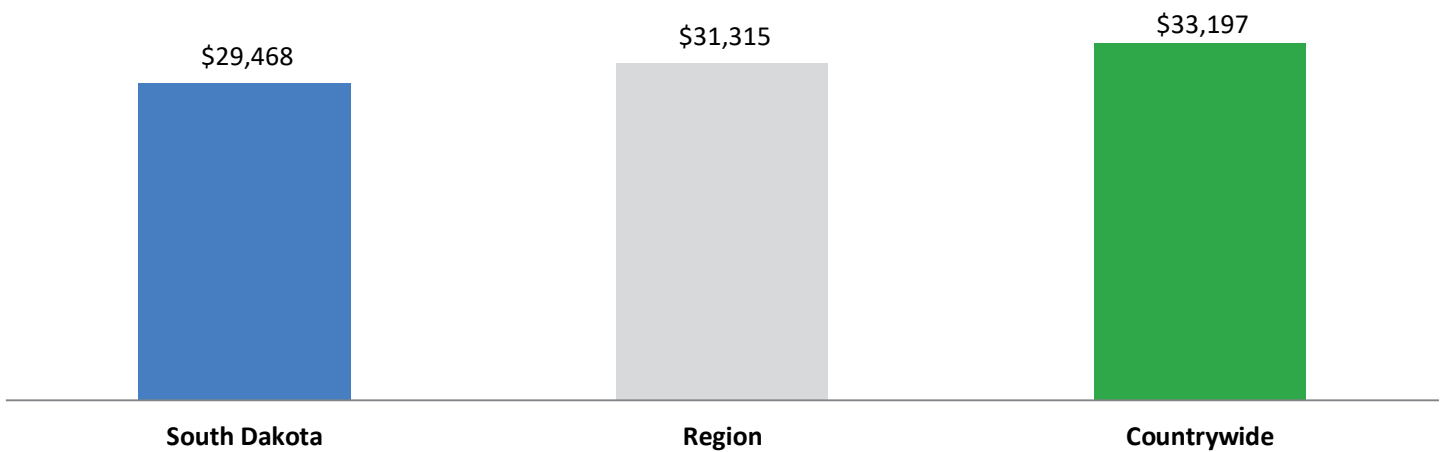


Chart 25

Average Amount Paid per Day for Hospital Inpatient Services

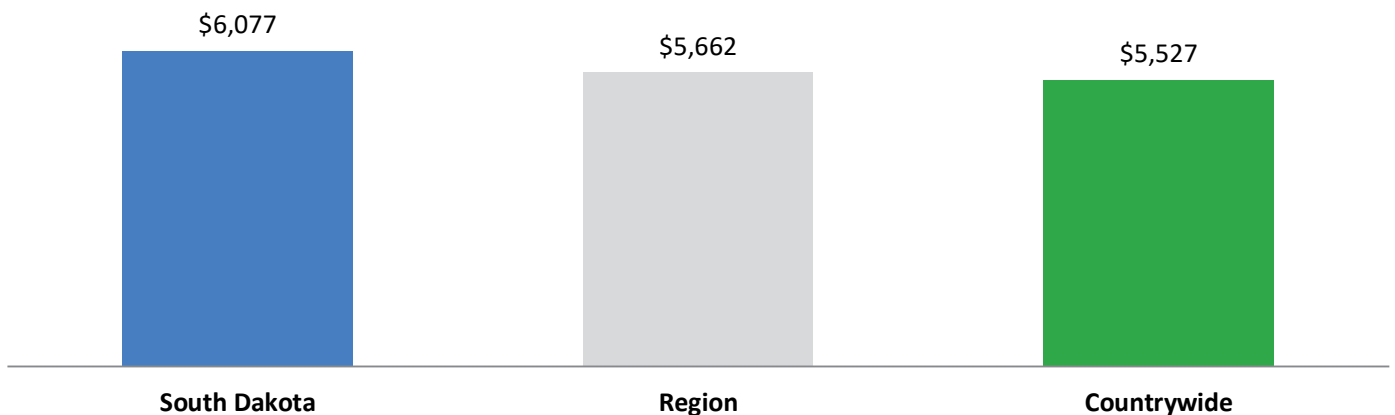




Chart 26 displays the average number of hospital inpatient stays per 1,000 active claims in 2019 for South Dakota, the region, and countrywide. An active claim is a workers compensation claim for which there is at least one medical service provided during that service year. Chart 27 displays the average and median length of stay for hospital inpatient services for South Dakota, the region, and countrywide. Note that there are no controls for mix of diagnosis or severity of claims between jurisdictions.

Chart 26

Average Number of Inpatient Stays per 1,000 Active Claims

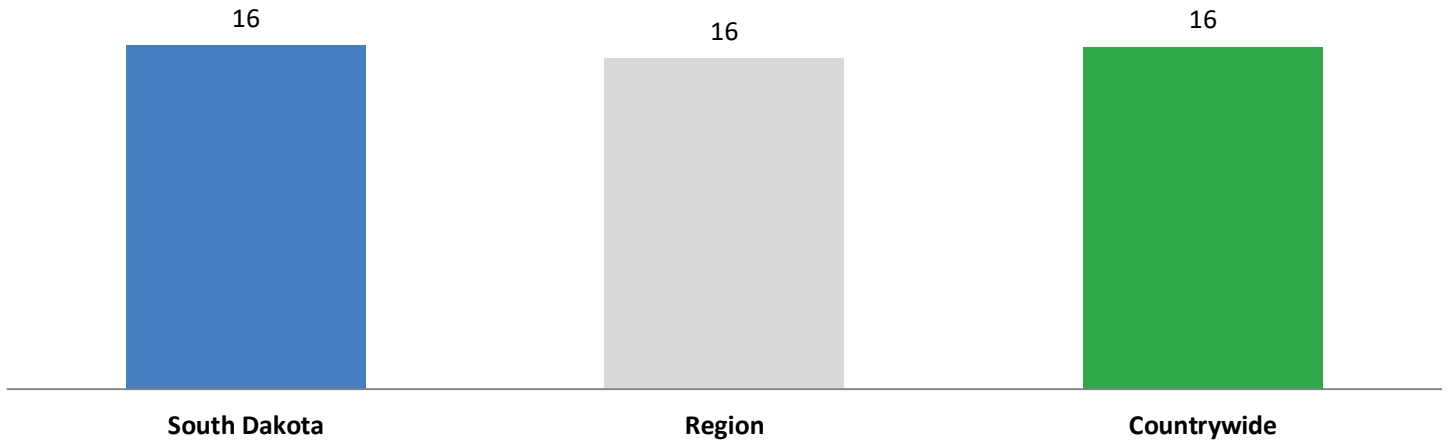


Chart 27

Length of Stay for Hospital Inpatient Services (in Days)

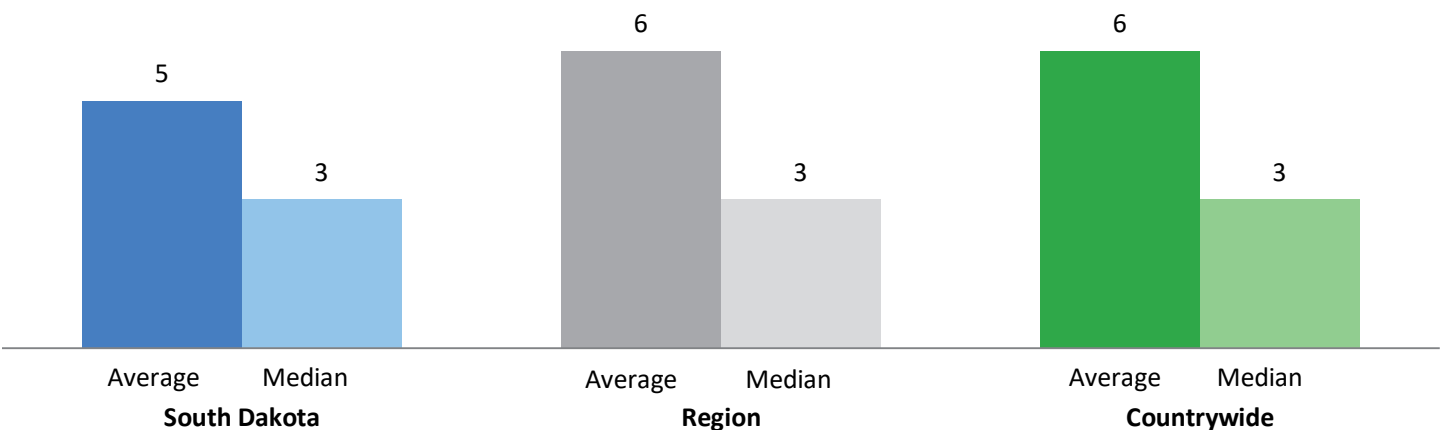
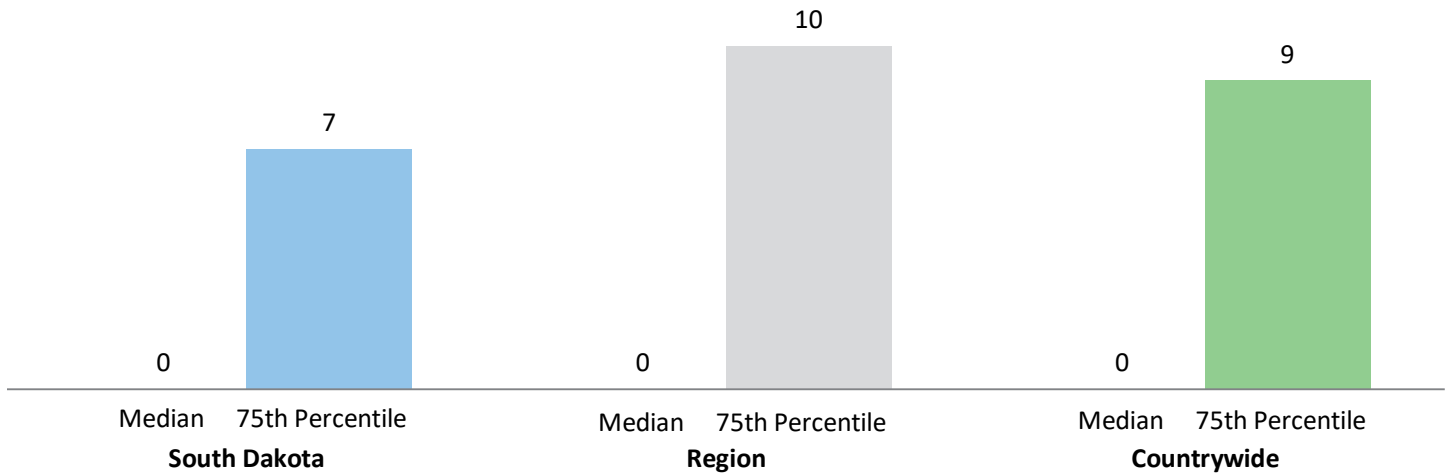


Chart 28 shows the median and 75th percentile time until first treatment for inpatient stays, other than emergency room visits, for South Dakota, the region, and countrywide.

Chart 28**Time Until First Treatment for Hospital Inpatient Stays (in Days)**

Source: NCCI's Medical Data Call for Accident Year 2018 and Service Years 2018 and 2019.



Charts 29 and 30 display the top 10 diagnosis groups and top 10 DRG codes for hospital inpatient services, showing the most prevalent types of hospital inpatient stays. Diagnosis group is identified for each visit based on ICD-10 (International Classification of Diseases) code. The diagnosis groups and DRG codes are ranked based on total payments in South Dakota. A brief description of each DRG code is displayed in the table below chart 30.

Chart 29

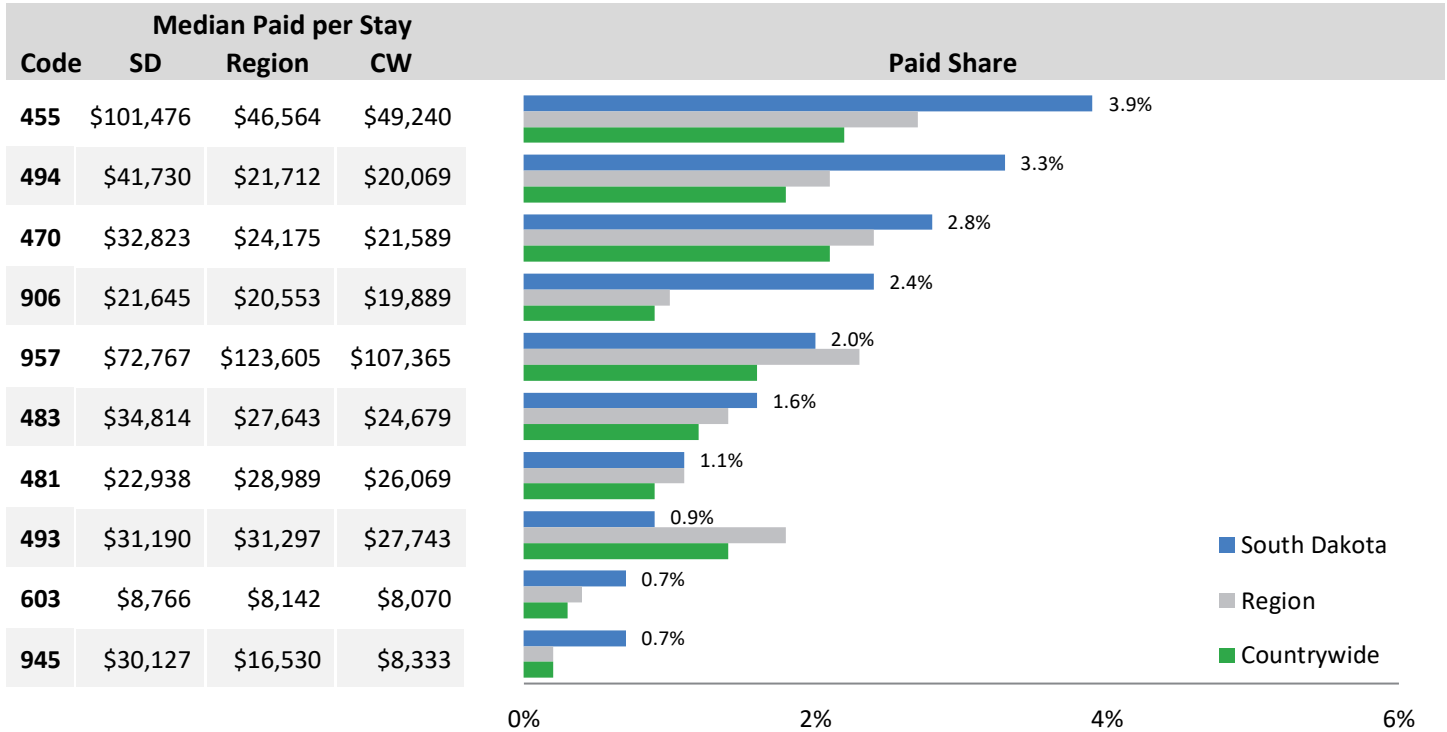
Top 10 Diagnosis Groups by Amount Paid for Hospital Inpatient Services

| Diagnosis Group | Paid Share | Median Amount Paid per Stay | | |
|---|------------|-----------------------------|----------|-------------|
| | | South Dakota | Region | Countrywide |
| Hip/pelvis fracture/major trauma | 7.6% | \$22,882 | \$22,373 | \$20,806 |
| Tibia/fibula fracture | 6.7% | \$26,713 | \$23,559 | \$21,778 |
| Lumbar spine degeneration | 5.9% | \$41,154 | \$34,286 | \$34,704 |
| Traumatic brain injury | 4.9% | \$17,587 | \$24,441 | \$25,494 |
| Femur fracture | 4.6% | \$30,202 | \$26,540 | \$22,998 |
| Lumbosacral intervertebral disc disorders | 4.2% | \$46,690 | \$28,020 | \$28,668 |
| Ankle fracture | 3.2% | \$23,209 | \$20,881 | \$19,439 |
| Complication from surgical device | 2.7% | \$25,683 | \$21,101 | \$22,547 |
| Hand/wrist fracture | 2.6% | \$16,344 | \$18,414 | \$17,179 |
| Crush injury, hand/wrist | 2.5% | \$23,950 | \$20,367 | \$17,750 |

Source: NCCI's Medical Data Call for Service Years 2018 and 2019.

Chart 30

Top 10 DRG Codes by Amount Paid for Hospital Inpatient Services



| Code | Description |
|------|--|
| 455 | Combined anterior/posterior spinal fusion without complications or comorbidities/major complications or comorbidities |
| 494 | Lower extremity and humerus procedures except hip, foot, and femur without complications or comorbidities/major complications or comorbidities |
| 470 | Major joint replacement or reattachment of lower extremity without major complications or comorbidities |
| 906 | Hand procedures for injuries |
| 957 | Other operation room procedures for multiple significant trauma with major complications or comorbidities |
| 483 | Major joint/limb reattachment procedure of upper extremities |
| 481 | Hip and femur procedures except major joint with complications or comorbidities |
| 493 | Lower extremity and humerus procedures except hip, foot, and femur with complications or comorbidities |
| 603 | Cellulitis without major complications or comorbidities |
| 945 | Rehabilitation with complications or comorbidities/major complications or comorbidities |

Source: NCCI's Medical Data Call for Service Years 2018 and 2019. Region includes IA, IL, IN, KS, MI, MN, MO, NE, OK, and WI. Countrywide data includes AK, AL, AR, AZ, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MD, MI, MN, MO, MS, MT, NC, NE, NH, NM, NV, OK, OR, RI, SC, SD, TN, UT, VA, VT, WI, and WV.



Hospital Outpatient

Hospital outpatient services are reported with several types of procedure codes. Data reporters are instructed to report the code that is consistent with the way the reimbursement was determined.

If the hospital outpatient fee schedule is a Medicare-based fee schedule, then a greater share of payments reported by current procedure terminology (CPT) or other healthcare common procedure coding system (HCPCS) codes would be expected. These codes are very specific and provide detailed information about the actual services performed. Some payments are also reported by a specific ambulatory payment classification (APC) code. An APC code represents a group of services provided by the facility on an outpatient basis.

If the hospital outpatient fee schedule is based on a discount from charged amounts, then revenue codes may be the more prevalent code type. Revenue codes are very generic and do not provide much information about the specific services that were performed.

Due to these differences in fee schedules, which may result in varied reporting of codes across jurisdictions, the region, and countrywide, comparisons by procedure code for outpatient benefits should be interpreted with caution. One comparative measure of outpatient service costs is the average cost per outpatient visit. A visit is defined as any service or set of services provided to a claimant on a specific date. Any visit may have more than one procedure performed, and any claim may have more than one visit.

Hospital outpatient visits can vary in nature. A surgical visit includes at least one surgical service, while a nonsurgical visit does not. A service is classified as “surgical” if it falls within the surgical category as defined by the AMA. A service is further classified as “major surgery” if it has a global follow up period of 90 days as defined by the Centers for Medicare & Medicaid Services and is not an injection. In this section, we provide measures of hospital outpatient payments that account for the type of visit because the level of reimbursement varies considerably by type of visit.

One measure of workers compensation hospital outpatient costs is a comparison of current payments to the Medicare rates. The chart below shows the average percentage of Medicare-scheduled reimbursement amounts for hospital outpatient payments for South Dakota, the region, and countrywide. In South Dakota, 61% of hospital outpatient payments are included in the chart below.

Chart 31

Hospital Outpatient Payments as a Percentage of Medicare

| Medical Cost Category | South Dakota | Region | Countrywide |
|------------------------------|---------------------|---------------|--------------------|
| Hospital Outpatient | 260% | 265% | 247% |

Source: NCCI’s Medical Data Call for Service Year 2019. Region includes IA, IL, IN, KS, MI, MN, MO, NE, OK, and WI. Countrywide data includes AK, AL, AR, AZ, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MI, MN, MO, MS, MT, NC, NE, NH, NJ, NM, NV, OK, OR, RI, SC, SD, TN, UT, VA, VT, WI, and WV.



The distribution of medical payments for Hospital Outpatient is 34% for South Dakota, 24% for the region, and 20% for countrywide. Surgical services represent 71% of hospital outpatient payments in South Dakota. Chart 32 displays the average amount paid per surgical visit for hospital outpatient services, while Chart 33 displays the average number of surgical visits per 1,000 active claims for hospital outpatient services for South Dakota, the region, and countrywide. Note that there are no controls for mix of diagnosis or severity of claims between jurisdictions.

Chart 32

Average Amount Paid per Surgical Visit for Hospital Outpatient Services

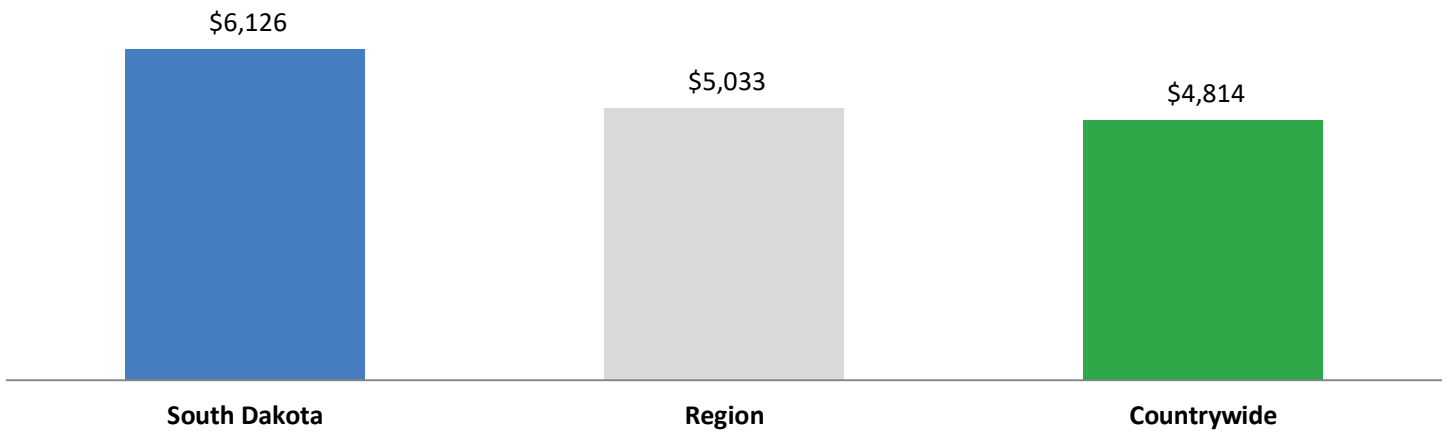
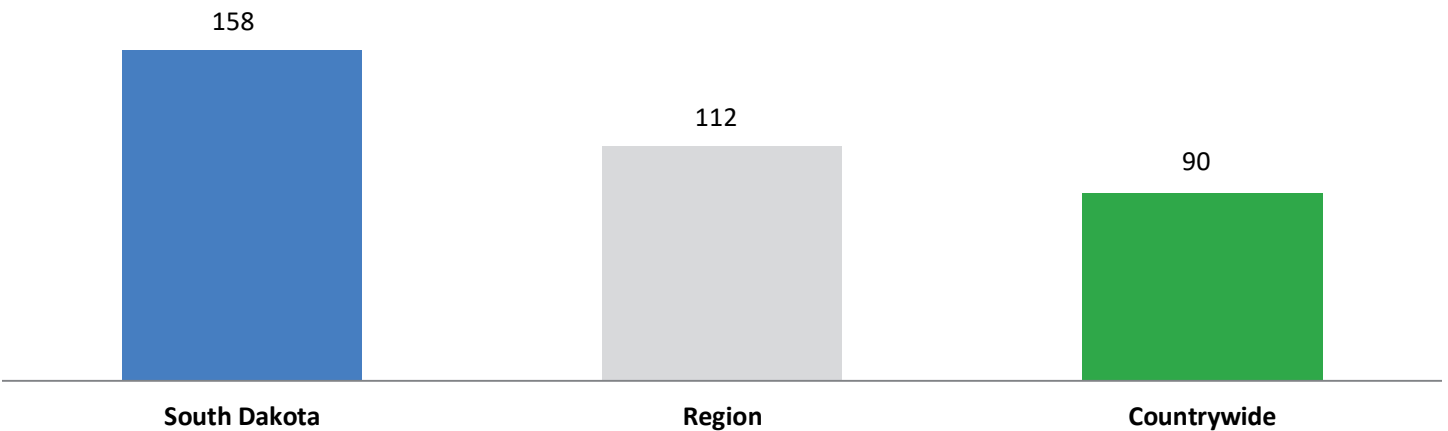


Chart 33

Average Number of Surgical Hospital Outpatient Visits per 1,000 Active Claims





Nonsurgical services (such as physical therapy) represent 29% of hospital outpatient payments in South Dakota. Chart 34 displays the average amount paid per nonsurgical visit for hospital outpatient services, while Chart 35 displays the average number of nonsurgical visits per 1,000 active claims for hospital outpatient services. Both charts display information for South Dakota, the region, and countrywide. Note that there are no controls for mix of diagnosis or severity of claims between jurisdictions.

Chart 34

Average Amount Paid per Nonsurgical Visit for Hospital Outpatient Services

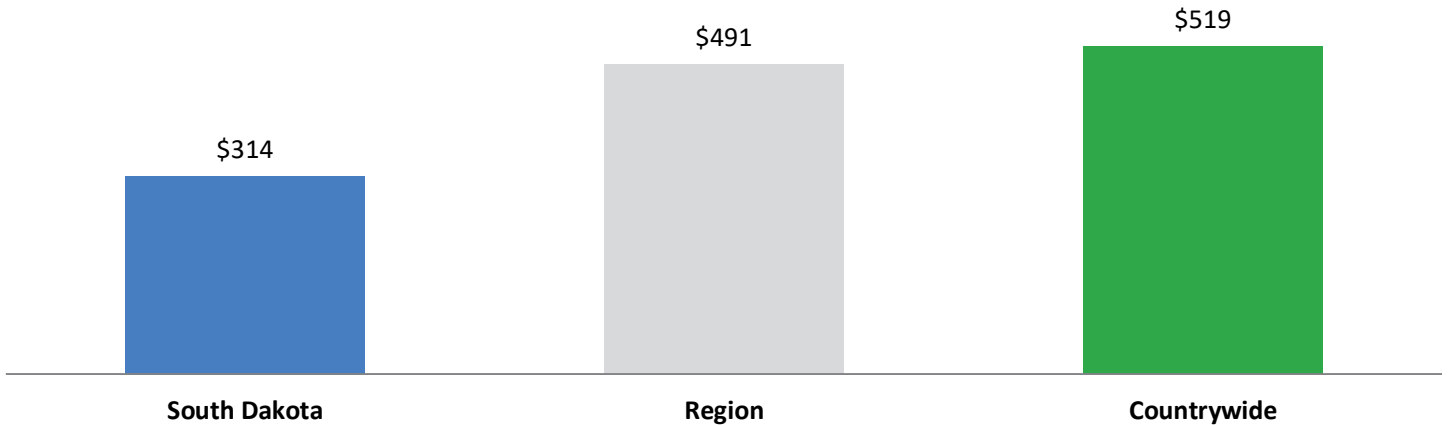


Chart 35

Average Number of Nonsurgical Hospital Outpatient Visits per 1,000 Active Claims

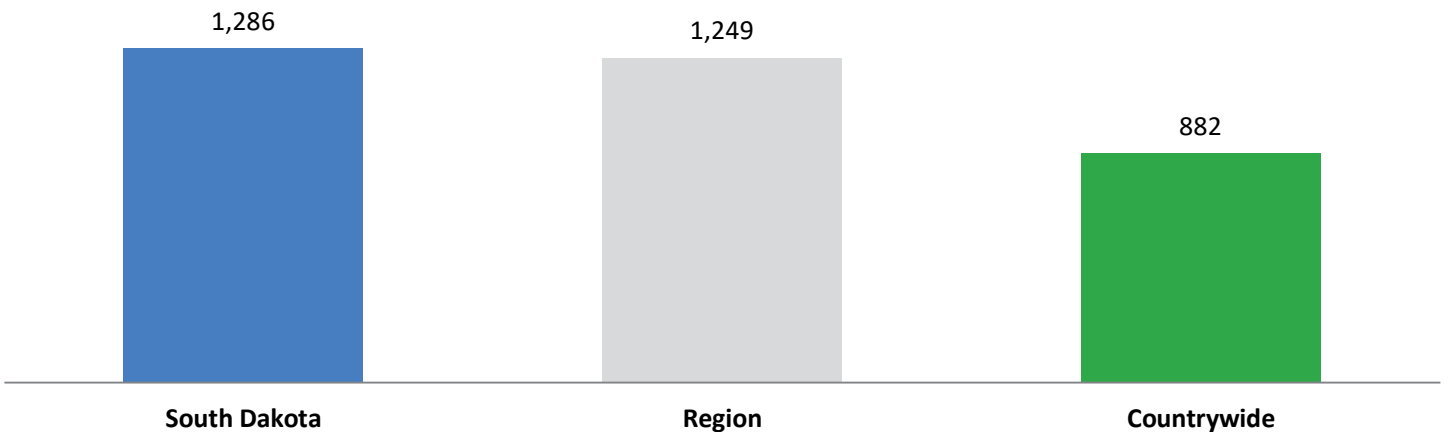




Chart 36 shows the median and 75th percentile time until first treatment for major surgery outpatient visits. Chart 37 shows the median and 75th percentile time until first treatment for all other outpatient visits, other than emergency room visits, for South Dakota, the region, and countrywide.

Chart 36

Time Until First Treatment for Major Surgery Outpatient Visits (in Days)

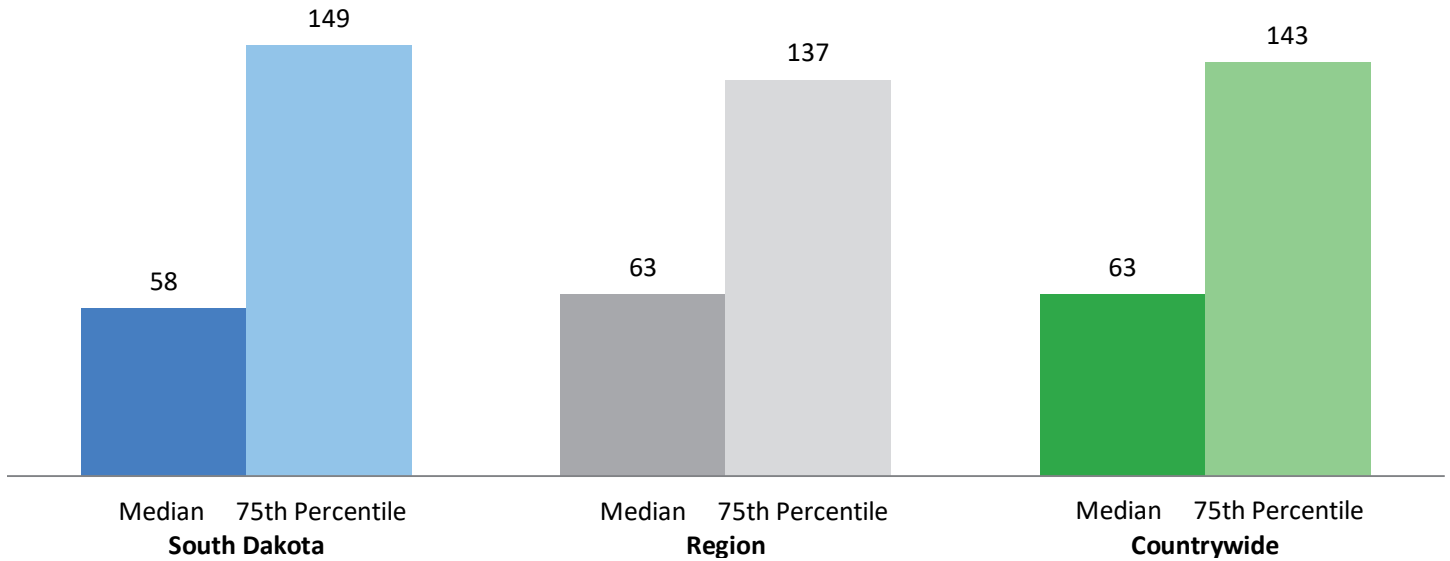
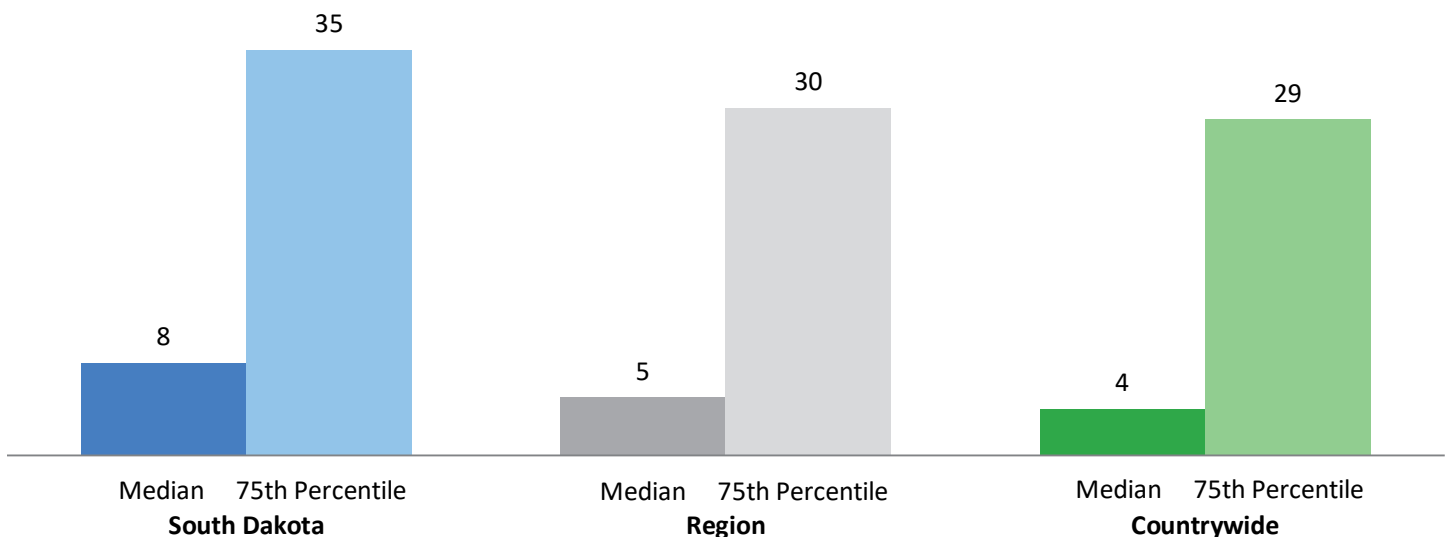


Chart 37

Time Until First Treatment for All Other Outpatient Visits (in Days)



Source: NCCI's Medical Data Call for Accident Year 2018 and Service Years 2018 and 2019.

Chart 38 displays the median amount paid per visit for outpatient services in South Dakota, the region, and countrywide for the top 10 diagnosis groups in South Dakota. The diagnosis groups are ranked based on total payments in South Dakota.

Chart 38

Top 10 Diagnosis Groups by Amount Paid for Hospital Outpatient Services

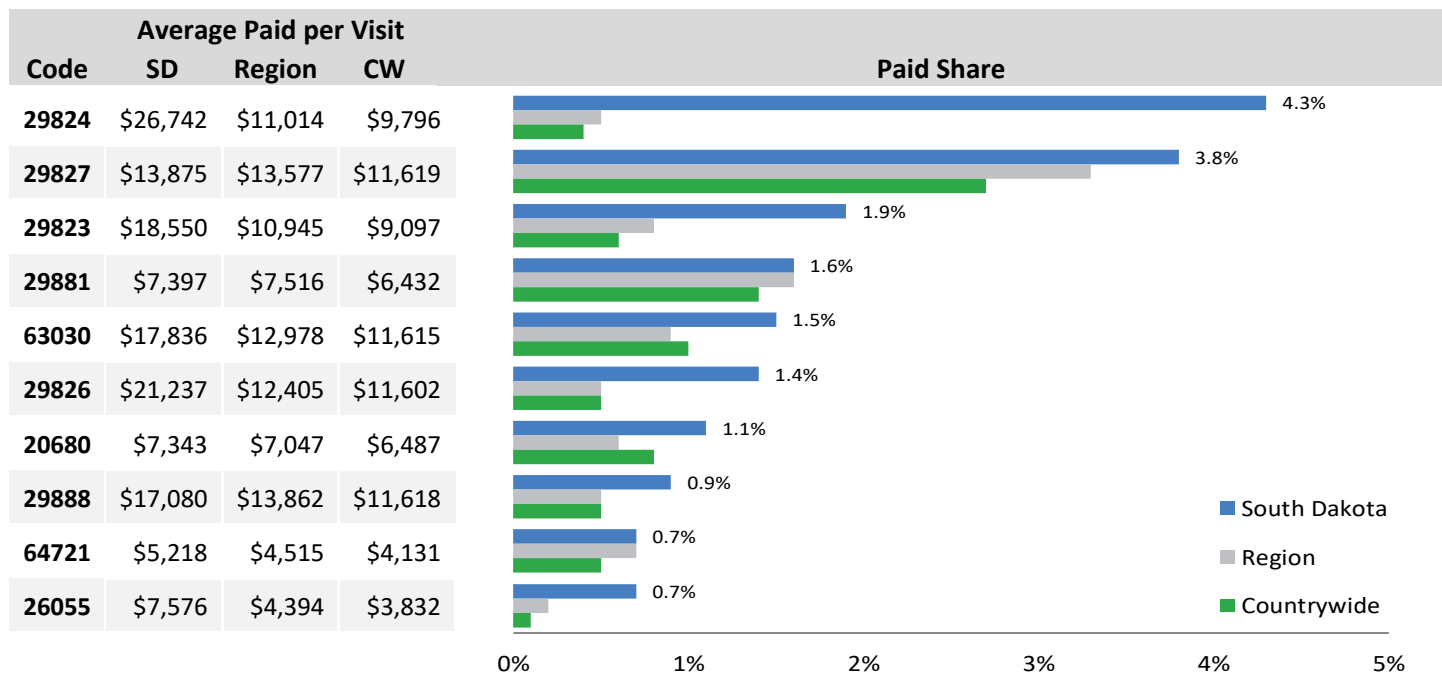
| Diagnosis Group | Paid Share | Median Amount Paid Per Visit | | |
|---|------------|------------------------------|--------|-------------|
| | | South Dakota | Region | Countrywide |
| Rotator cuff tear | 10.3% | \$110 | \$257 | \$213 |
| Minor shoulder injury | 5.3% | \$99 | \$229 | \$197 |
| Degenerative shoulder | 4.9% | \$861 | \$308 | \$298 |
| Hand/wrist fracture | 4.1% | \$142 | \$286 | \$281 |
| Minor hand/wrist injuries | 3.7% | \$234 | \$325 | \$332 |
| Knee internal derangement - meniscus injury | 3.7% | \$2,255 | \$357 | \$303 |
| Lumbosacral intervertebral disc disorders | 3.5% | \$1,041 | \$315 | \$318 |
| Shoulder impingement syndrome | 2.4% | \$138 | \$243 | \$218 |
| Lumbar spine degeneration | 2.3% | \$965 | \$382 | \$386 |
| Minor knee injury | 2.0% | \$97 | \$247 | \$223 |



Charts 39 and 40 display the average amount paid per visit for outpatient services in South Dakota, the region, and countrywide for the top 10 surgery CPT and nonsurgery CPT codes in South Dakota. The codes are ranked based on total payments in South Dakota, where the code shown below is the code with the highest total paid on a visit.⁷ In 2019, 66% of Hospital Outpatient costs were reported with a CPT code being the highest paid code. A brief description of each code is displayed in the table below.

Chart 39

Top 10 Surgery Procedure Codes by Amount Paid for Hospital Outpatient Services

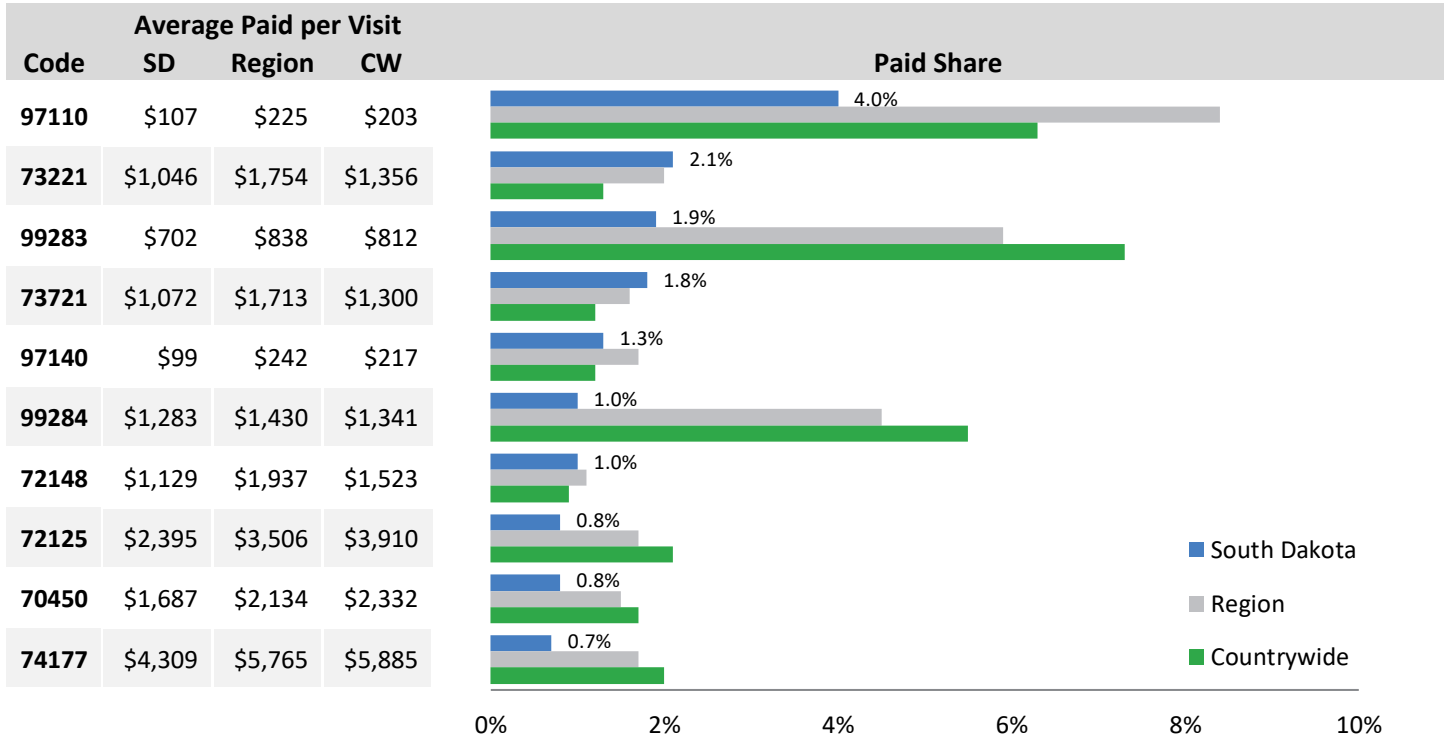


| Code | Description |
|-------|---|
| 29824 | Arthroscopy, shoulder, surgical; distal claviclectomy including distal articular surface (Mumford procedure) |
| 29827 | Arthroscopy, shoulder, surgical; with rotator cuff repair |
| 29823 | Arthroscopy, shoulder, surgical; debridement, extensive |
| 29881 | Arthroscopy, knee, surgical; with meniscectomy (medial or lateral, including any meniscal shaving), including debridement/shaving of articular cartilage |
| 63030 | Laminotomy (hemilaminectomy) with decompression of nerve root(s) including partial facetectomy, foraminotomy, and/or excision of herniated intervertebral disc; 1 interspace lumbar |
| 29826 | Arthroscopy, shoulder, surgical; decompression of subacromial space with partial acromioplasty, with coracoacromial ligament (i.e., arch) release, when performed |
| 20680 | Removal of implant; deep (e.g., buried wire, pin, screw, metal, band, nail, rod, or plate) |
| 29888 | Arthroscopically aided anterior cruciate ligament repair/augmentation or reconstruction |
| 64721 | Neuroplasty and/or transposition; median nerve at carpal tunnel |
| 26055 | Tendon sheath incision (e.g., for trigger finger) |

⁷ A visit is defined as any hospital outpatient service or set of services provided to a claimant on a specific date. Any visit may have more than one procedure performed, and any claimant may have more than one visit.

Chart 40

Top 10 Nonsurgery Procedure Codes by Amount Paid for Hospital Outpatient Services



| Code | Description |
|-------|--|
| 97110 | Therapeutic procedure, 1 or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion, and flexibility |
| 73221 | Magnetic resonance (e.g., proton) imaging, any joint of upper extremity; without contrast material |
| 99283 | Emergency department visit. Usually the presenting problem(s) are of moderate severity. |
| 73721 | Magnetic resonance (e.g., proton) imaging, any joint of lower extremity; without contrast material |
| 97140 | Manual therapy techniques (e.g., mobilization/manipulation, manual lymphatic drainage, manual traction), 1 or more regions, each 15 minutes |
| 99284 | Emergency department visit. Usually the presenting problem(s) are of high severity and require urgent evaluation by the physician but do not pose an immediate significant threat to life or physiologic function. |
| 72148 | Magnetic resonance (e.g., proton) imaging, spinal canal and contents, lumbar; without contrast material |
| 72125 | Computed tomography (CT), cervical spine; without contrast material |
| 70450 | Computed tomography (CT), head or brain; without contrast material |
| 74177 | Computed tomography (CT), abdomen and pelvis; with contrast material |



In South Dakota, 12% of the payments associated with facilities (ASC, hospital outpatient, and hospital inpatient) are for emergency service payments, compared to 18% countrywide.

Chart 41 displays the average amount paid per visit for emergency services for South Dakota, the region, and countrywide. The average amount paid includes all payments for an emergency service visit such as payments for facility services, physician services, and drugs. Note that there are no controls for mix of diagnosis or severity of claims between jurisdictions. Chart 42 displays the number of visits per year per 1,000 active claims for emergency services for South Dakota, as well as for the region and countrywide.

Chart 41

Average Amount Paid per Emergency Service Visit

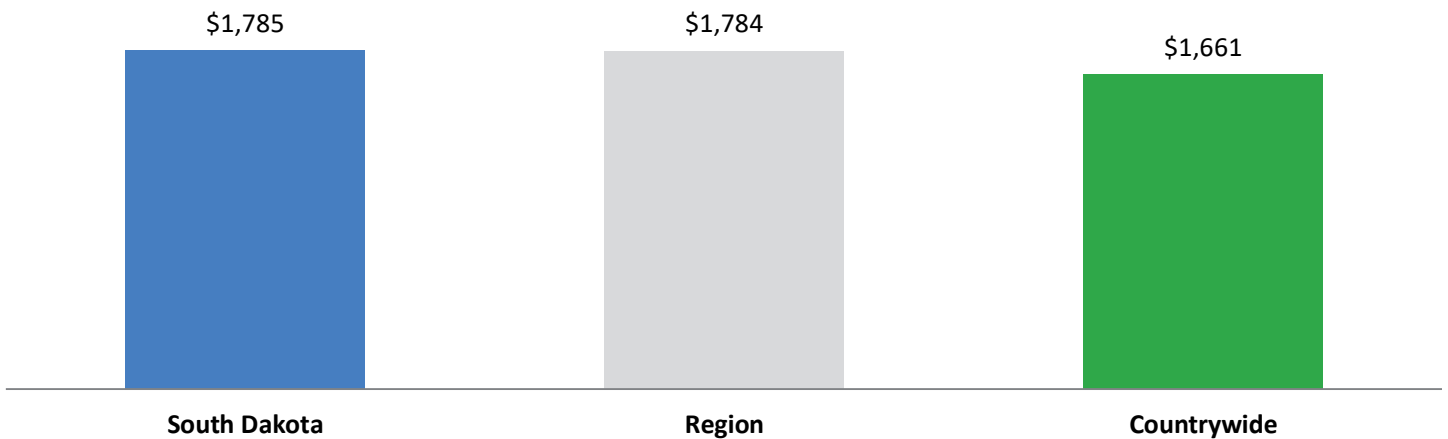
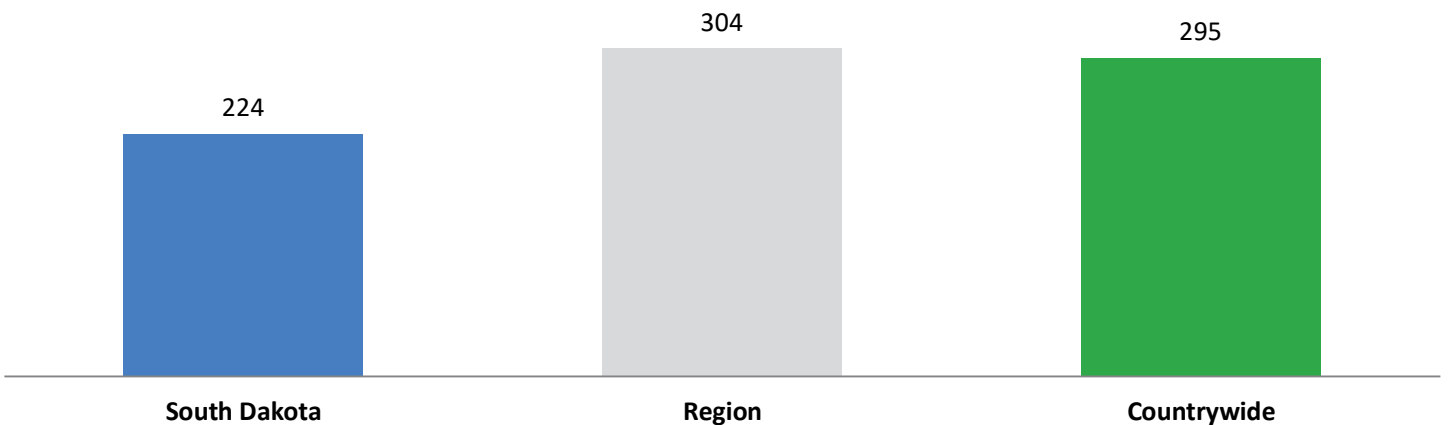


Chart 42

Average Number of Emergency Service Visits per 1,000 Active Claims

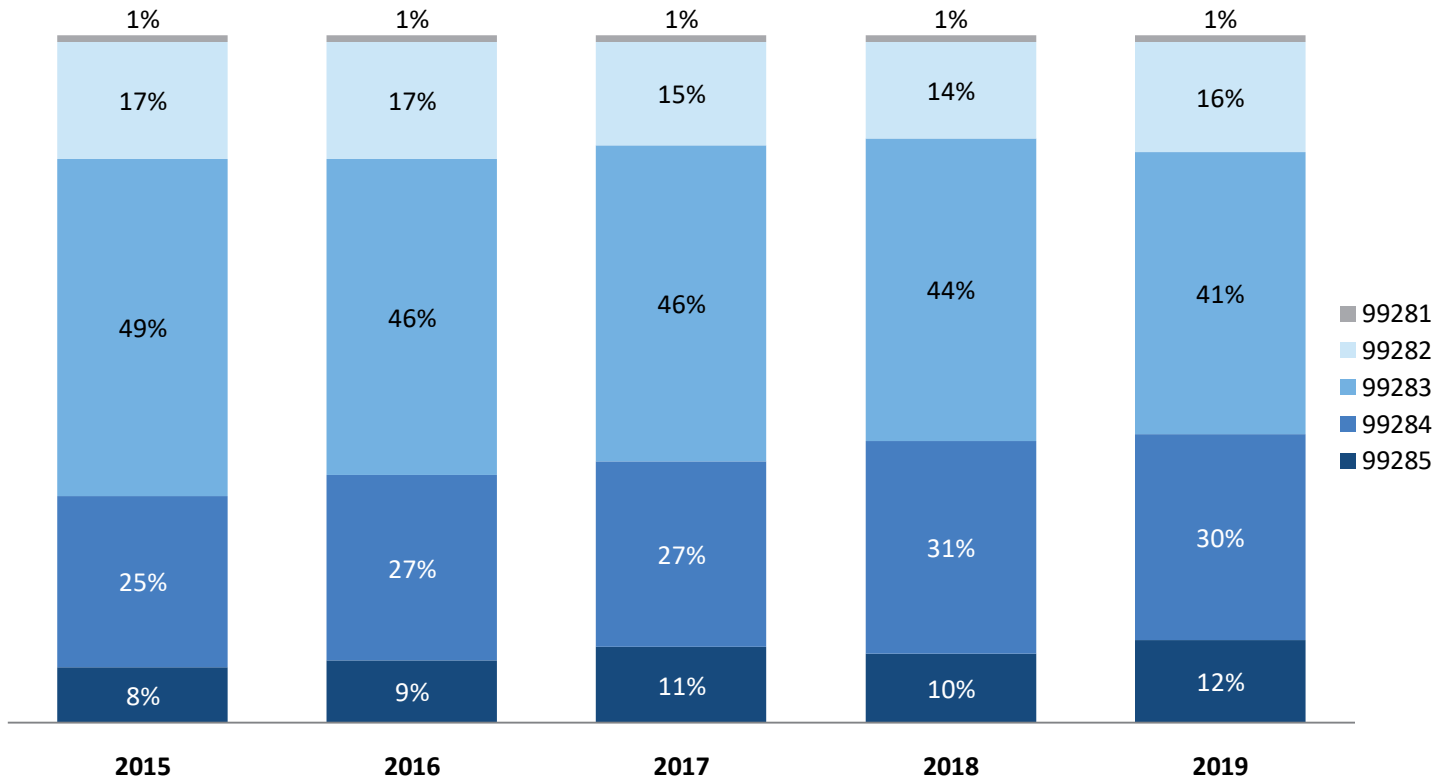




For emergency room visits, there are five levels of severity, ranging from limited or minor problems reported with Procedure Code 99281 to life-threatening situations reported with Procedure Code 99285. Chart 43 shows a five-year snapshot of experience for each procedure type and the average payment per transaction.

Chart 43

Emergency Room Payments by Procedure Code



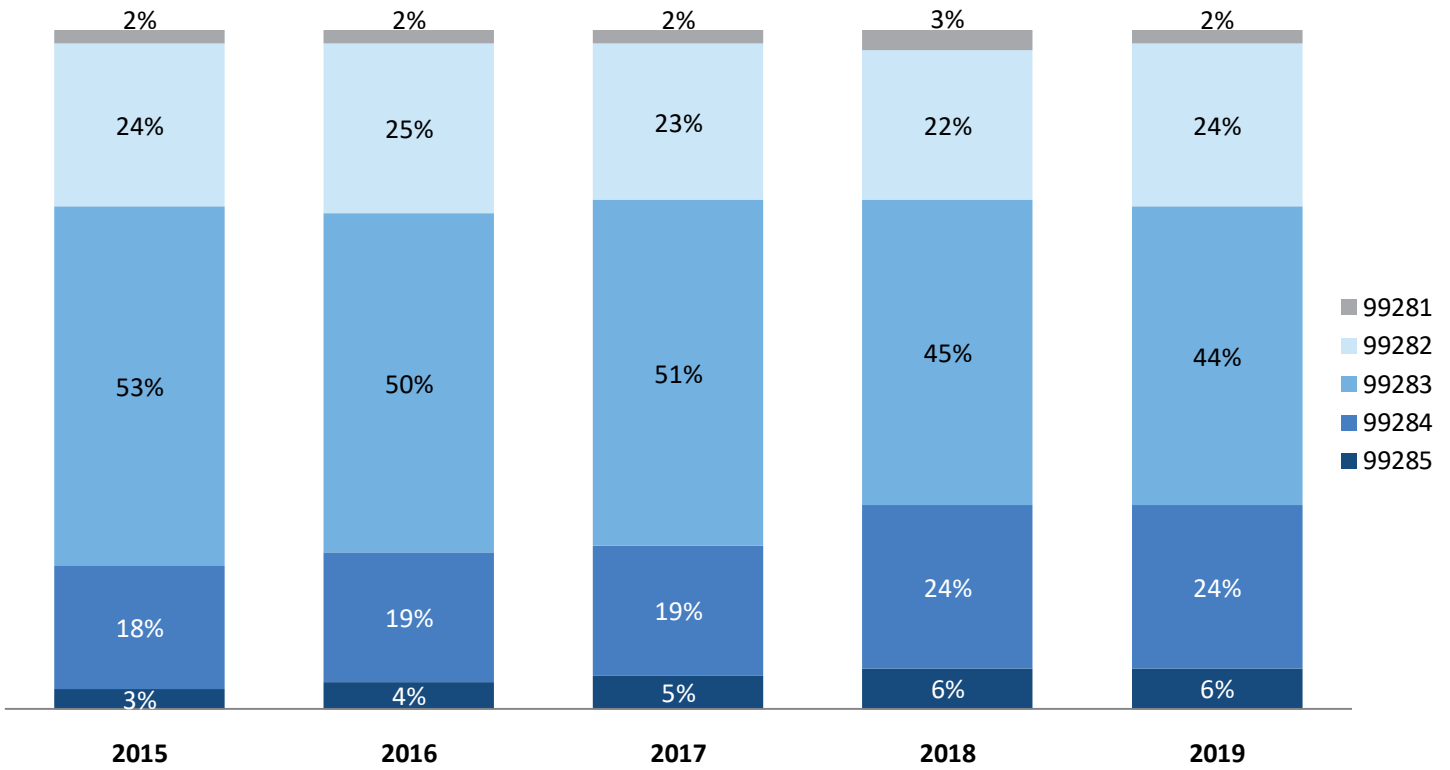
Source: NCCI's Medical Data Call, Service Years 2015 to 2019.

| Code | Severity | Average PPT | | | | |
|-------|---------------------------------------|-------------|-------|-------|-------|-------|
| | | 2015 | 2016 | 2017 | 2018 | 2019 |
| 99281 | Minor | \$78 | \$91 | \$86 | \$71 | \$80 |
| 99282 | Low to moderate | \$133 | \$141 | \$152 | \$157 | \$171 |
| 99283 | Moderate | \$177 | \$193 | \$212 | \$231 | \$236 |
| 99284 | High | \$262 | \$305 | \$322 | \$321 | \$320 |
| 99285 | High and immediately life-threatening | \$446 | \$451 | \$461 | \$414 | \$478 |

Chart 44 shows a five-year snapshot of experience for each procedure type per service year.

Chart 44

Emergency Room Transactions by Procedure Code



Source: NCCI's Medical Data Call, Service Years 2015 to 2019.

| Code | Severity |
|-------|---------------------------------------|
| 99281 | Minor |
| 99282 | Low to moderate |
| 99283 | Moderate |
| 99284 | High |
| 99285 | High and immediately life-threatening |



Ambulatory Surgical Centers

ASCs are often used as an alternative facility to hospitals for conducting outpatient surgeries. The distribution of medical payments for ASCs is 1% for South Dakota, 7% for the region, and 7% for countrywide.

One measure of workers compensation ASC costs is a comparison of current payments to the Medicare rates. The chart below shows the average percentage of Medicare-scheduled reimbursement amounts for ASC payments for South Dakota, the region, and countrywide. In South Dakota, 56% of ASC payments are included in the chart below.

Chart 45

ASC Payments as a Percentage of Medicare

| Medical Cost Category | South Dakota | Region | Countrywide |
|----------------------------|--------------|--------|-------------|
| Ambulatory Surgical Center | 184% | 313% | 274% |

Source: NCCI's Medical Data Call for Service Year 2019. Region includes IA, IL, IN, KS, MI, MN, MO, NE, OK, and WI. Countrywide data includes AK, AL, AR, AZ, CO, CT, DC, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, ME, MI, MN, MO, MS, MT, NC, NE, NH, NJ, NM, NV, OK, OR, RI, SC, SD, TN, UT, VA, VT, WI, and WV.



Chart 46 displays the average amount paid per surgical visit for ASC services for South Dakota, the region, and countrywide. Note that there are no controls for mix of diagnosis or severity of claims between jurisdictions. Chart 47 displays the number of surgical ASC visits per year per 1,000 active claims for South Dakota, the region, and countrywide.

Chart 46

Average Amount Paid per Surgical Visit for ASC Services

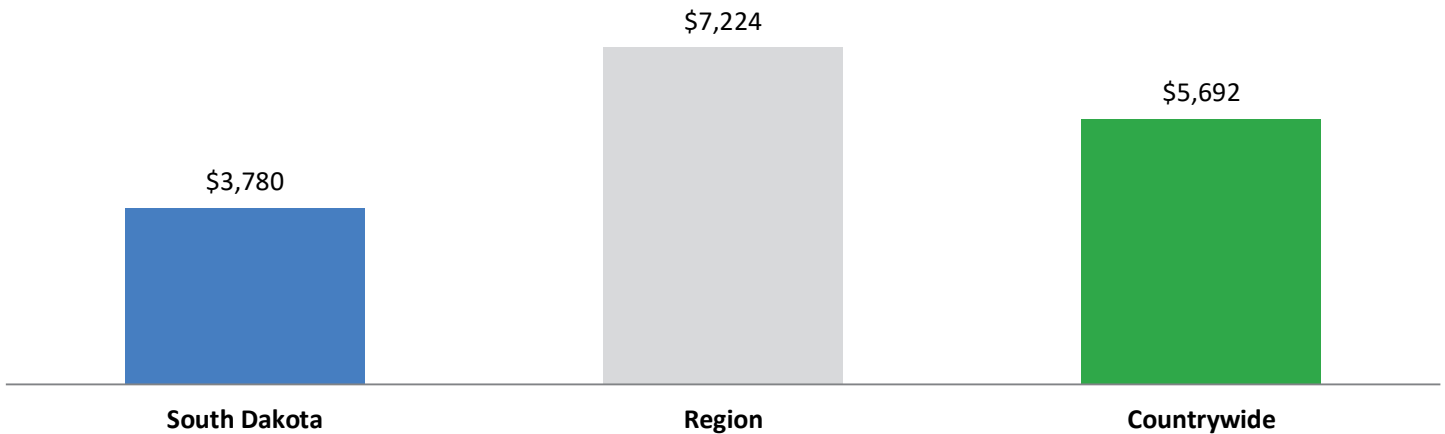


Chart 47

Average Number of Surgical ASC Visits per 1,000 Active Claims

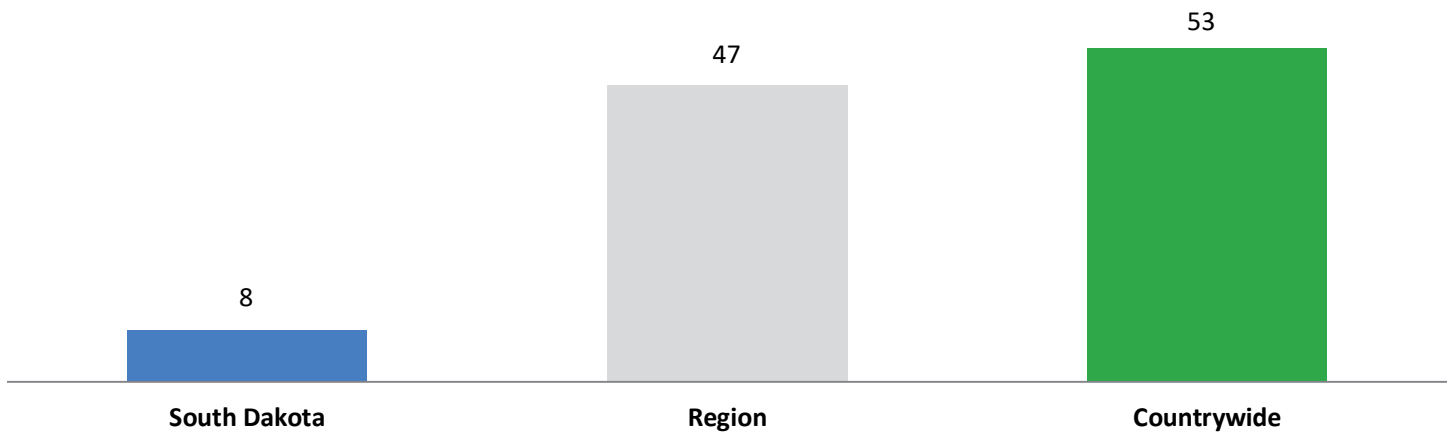
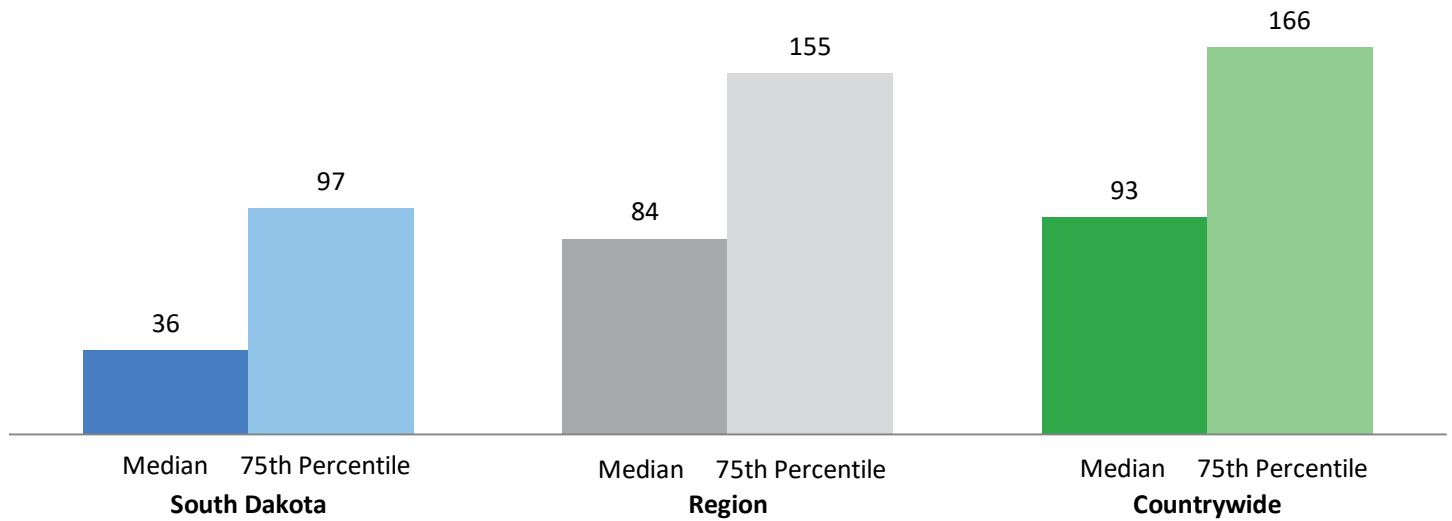




Chart 48 shows the median and 75th percentile time until first treatment for surgical ASC visits for South Dakota, the region, and countrywide.

Chart 48

Time Until First Treatment for Surgical ASC Visits (in Days)



Source: NCCI's Medical Data Call for Accident Year 2018 and Service Years 2018 and 2019.



Chart 49 displays the top 10 diagnosis groups for surgical ASC visits. The diagnosis groups are ranked based on total payments in South Dakota.

Chart 49

Top 10 Diagnosis Groups by Amount Paid for ASC Services

| Diagnosis Group | Paid Share | Median Amount Paid per Visit | | |
|--|------------|------------------------------|---------|-------------|
| | | South Dakota | Region | Countrywide |
| Lumbosacral intervertebral disc disorders | 19.8% | \$1,457 | \$2,131 | \$1,562 |
| Other and unspecified dorsopathies, not elsewhere classified | 5.9% | \$2,627 | \$1,998 | \$1,262 |
| Knee internal derangement - meniscus injury | 5.7% | \$7,967 | \$5,094 | \$4,136 |
| Lumbar radiculopathy/sciatica | 4.3% | \$2,021 | \$1,778 | \$1,385 |
| Hand/wrist fracture | 3.2% | \$2,806 | \$5,893 | \$5,185 |
| Carpal tunnel syndrome | 3.1% | \$1,856 | \$3,389 | \$2,925 |
| Neck pain | 2.9% | \$395 | \$1,567 | \$1,928 |
| Synovitis/tenosynovitis, hand/wrist | 2.8% | \$3,498 | \$3,811 | \$2,748 |
| Lumbar spine degeneration | 2.6% | \$2,413 | \$2,419 | \$1,989 |
| Minor hand/wrist injuries | 2.1% | \$1,639 | \$4,136 | \$3,702 |

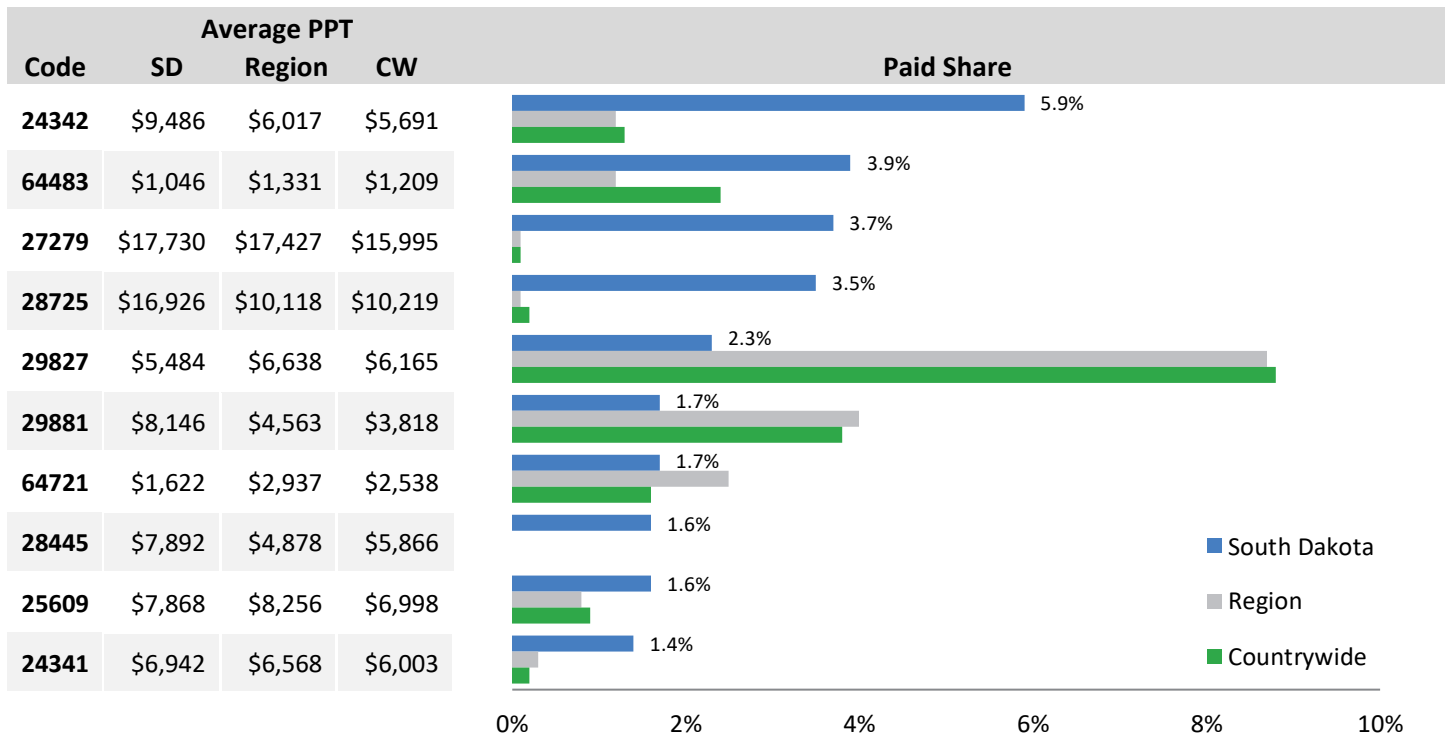


Typically, only surgery-related services are performed in ASCs. The most prevalent procedure code types reported are CPT codes and revenue codes. The predominant revenue code reported for ASC services is code 0490—Ambulatory Surgical Care. In South Dakota, code 0490 represents 97% of ASC payments reported by revenue codes.

Chart 50 displays the top 10 surgery CPT codes for ASC services. The procedure codes are ranked based on total payments in South Dakota. A brief description of each procedure code is displayed in the table below.

Chart 50

Top 10 Surgery Procedure Codes by Amount Paid for ASC Services



| Code | Description |
|-------|--|
| 24342 | Reinsertion of ruptured biceps or triceps tendon, distal, with or without tendon graft |
| 64483 | Injection(s), anesthetic agent, and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or computed tomography (CT)); lumbar or sacral, single level |
| 27279 | Arthrodesis, sacroiliac joint, percutaneous or minimally invasive (indirect visualization), with image guidance, includes obtaining bone graft when performed, and placement of transfixing device |
| 28725 | Arthrodesis; subtalar |
| 29827 | Arthroscopy, shoulder, surgical; with rotator cuff repair |
| 29881 | Arthroscopy, knee, surgical; with meniscectomy (medial or lateral, including any meniscal shaving), including debridement/shaving of articular cartilage |
| 64721 | Neuroplasty and/or transposition; median nerve at carpal tunnel |
| 28445 | Open treatment of talus fracture, includes internal fixation, when performed |
| 25609 | Open treatment of distal radial intra-articular fracture or epiphyseal separation; with internal fixation of 3 or more fragments |
| 24341 | Repair, tendon or muscle, upper arm or elbow, each tendon or muscle, primary or secondary (excludes rotator cuff) |



Prescription Drugs

The distribution of medical payments for drugs is 11% for South Dakota, 5% for the region, and 8% for countrywide. Prescription drugs are uniquely identified by a national drug code (NDC). Charts 51 through 55 provide greater detail on payments for prescription drugs reported with an NDC, whether the drugs were provided in a pharmacy, physician's office, hospital, or other place of service. Payments are categorized as drugs if the code reported on the transaction is an NDC. Payments for drugs can also be reported using codes other than NDCs, such as revenue codes, HCPCS codes, and other state-specific procedure codes. The results in these charts are based only on payments reported with an NDC.

The Controlled Substances Act (CSA) was passed in 1970 to regulate the manufacture, distribution, possession, and use of certain drugs. There are five schedules, or groups of drugs, determined by varying qualifications, such as the drug’s medical uses, if any, and its potential for abuse. For example, Schedule V drugs are defined as having the lowest potential for abuse, while Schedule I drugs are illegal at the federal level, mainly because they are defined as having no currently accepted medical uses and a high potential for abuse.

In South Dakota, the share of claims observed in Service Year 2019 with at least one controlled substance was 9%. This compares to the region and countrywide shares of 9% and 10%, respectively. In 2019, South Dakota spent \$0.7M on Schedule II and Schedule III drugs for workers compensation claims.

Chart 51 shows the distribution of prescription drug payments by CSA schedule in South Dakota, the region, and countrywide.

Chart 51

Distribution of Prescription Drug Payments by CSA Schedule

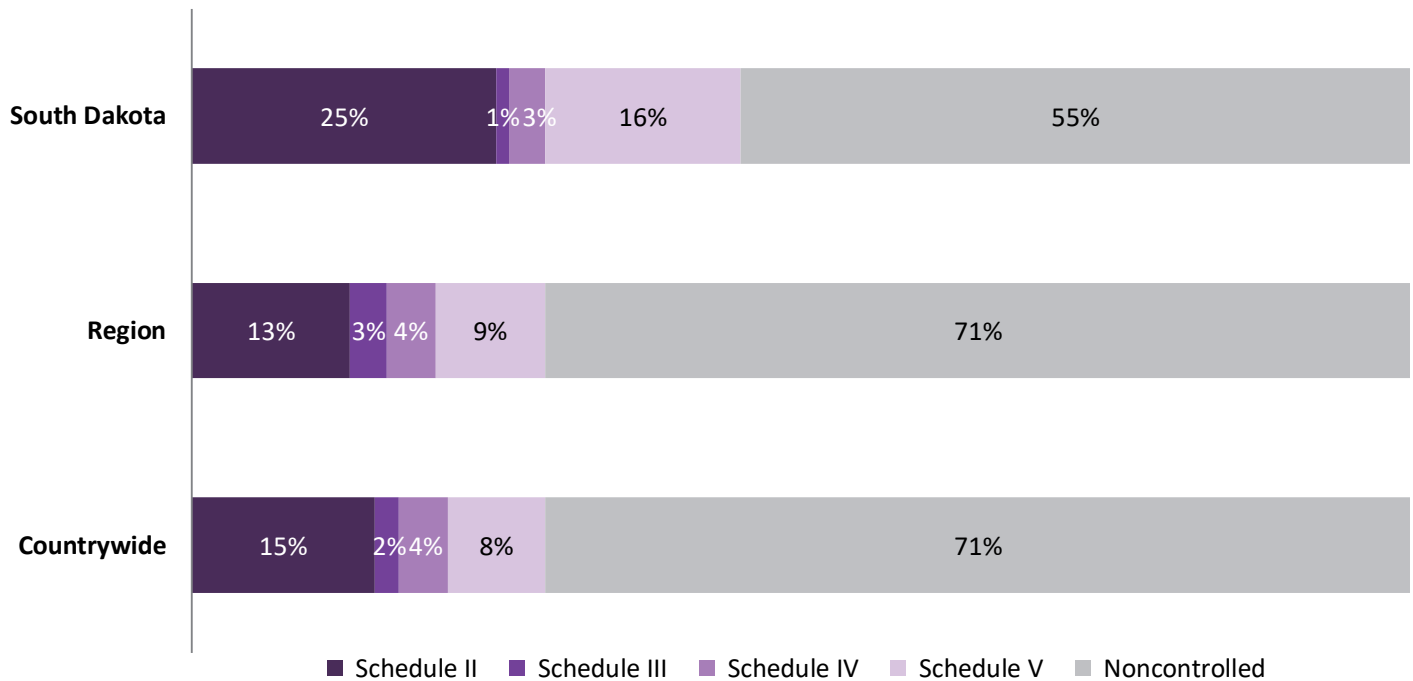




Chart 52 displays the shares of the payments of prescription medication for the top 10 drugs used in workers compensation treatment, by amount paid in South Dakota. This chart also indicates whether the drugs are generic (G) or brand name (B); for generic drugs, a commonly used brand name equivalent is also provided. This method of ranking shows which drugs have the highest percentage share of payments. Also included is the average price per unit (PPU). (See Glossary for the definition of *unit*.)

Chart 52

Top 10 Workers Compensation Drugs by Amount Paid

| Drug Name | Average PPU | | | South Dakota Paid Share |
|----------------|-------------|---------|----------|-------------------------|
| | SD | Region | CW | |
| Lyrica® | \$8.10 | \$8.14 | \$8.18 | 12.2% |
| Oxycontin® | \$7.99 | \$9.37 | \$9.54 | 6.4% |
| Fentora® | \$127.59 | N/A | \$125.93 | 5.7% |
| Duloxetine HCl | \$3.80 | \$4.29 | \$4.71 | 5.2% |
| Gabapentin | \$0.76 | \$0.86 | \$0.97 | 4.3% |
| Nucynta® | \$7.49 | \$7.67 | \$7.97 | 3.3% |
| Pregabalin | \$3.83 | \$4.41 | \$4.53 | 3.3% |
| Lidocaine | \$4.90 | \$8.12 | \$7.01 | 2.4% |
| Meloxicam | \$2.37 | \$2.98 | \$3.12 | 2.1% |
| Nucynta ER® | \$15.32 | \$14.10 | \$14.65 | 2.0% |

| Drug Name | B/G | Common Brand Name | Category | CSA Schedule | CW Rank |
|----------------|-----|-------------------|--|--------------|---------|
| Lyrica® | B | N/A | Miscellaneous Central Nervous System Agents | V | 1 |
| Oxycontin® | B | N/A | Analgesics/Antipyretics | II | 3 |
| Fentora® | B | N/A | Analgesics/Antipyretics | II | 100 |
| Duloxetine HCl | G | Cymbalta® | Psychotherapeutic Agents | None | 8 |
| Gabapentin | G | Neurontin® | Anticonvulsants | None | 2 |
| Nucynta® | B | N/A | Analgesics/Antipyretics | II | 21 |
| Pregabalin | G | Lyrica® | Miscellaneous Central Nervous System Agents | V | 11 |
| Lidocaine | G | Lidoderm® | Antipruritics/Local Anesthesia, Skin/Mucous Membrane | None | 4 |
| Meloxicam | G | Mobic® | Analgesics/Antipyretics | None | 6 |
| Nucynta ER® | B | N/A | Analgesics/Antipyretics | II | 25 |



Chart 53 displays the top 10 drugs used in workers compensation treatment, according to the number of prescriptions in South Dakota. This chart reveals the most frequently prescribed drugs and the average PPU.

Chart 53

Top 10 Workers Compensation Drugs by Prescription Counts

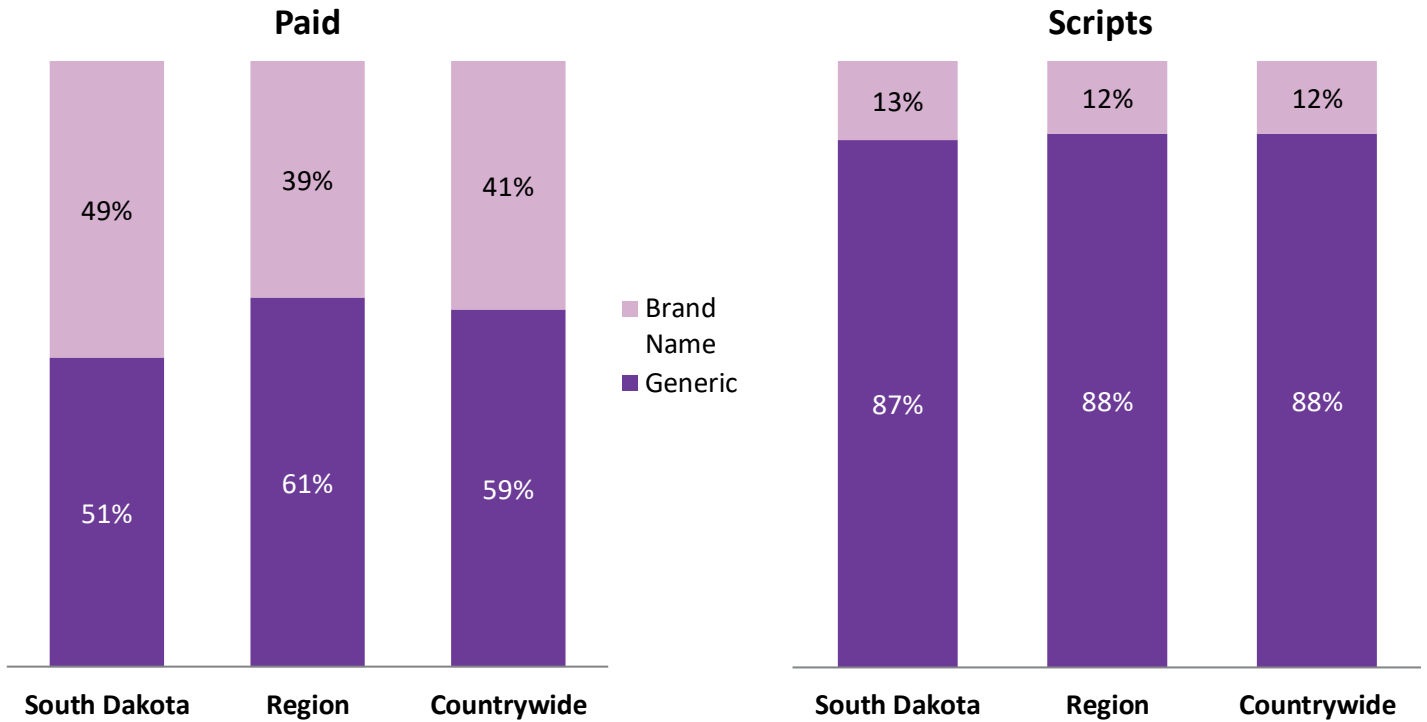
| Drug Name | Average PPU | | | South Dakota Prescription Share |
|--------------------------------------|-------------|--------|--------|---------------------------------|
| | SD | Region | CW | |
| Gabapentin | \$0.76 | \$0.86 | \$0.97 | 6.8% |
| Hydrocodone Bitartrate-Acetaminophen | \$0.53 | \$0.56 | \$0.56 | 6.6% |
| Tramadol HCl | \$0.67 | \$1.04 | \$1.08 | 6.4% |
| Duloxetine HCl | \$3.80 | \$4.29 | \$4.71 | 4.9% |
| Cyclobenzaprine HCl | \$1.04 | \$1.39 | \$1.58 | 4.4% |
| Meloxicam | \$2.37 | \$2.98 | \$3.12 | 3.9% |
| Oxycodone HCl | \$0.75 | \$0.82 | \$0.91 | 3.2% |
| Lyrica® | \$8.10 | \$8.14 | \$8.18 | 3.0% |
| Oxycodone HCl-Acetaminophen | \$1.12 | \$1.36 | \$1.51 | 2.6% |
| Baclofen | \$1.56 | \$1.75 | \$1.80 | 2.1% |

| Drug Name | B/G | Common Brand Name | Category | CSA Schedule | CW Rank |
|--------------------------------------|-----|-------------------|---|--------------|---------|
| Gabapentin | G | Neurontin® | Anticonvulsants | None | 2 |
| Hydrocodone Bitartrate-Acetaminophen | G | Vicodin® | Analgesics/Antipyretics | II | 1 |
| Tramadol HCl | G | Ultram® | Analgesics/Antipyretics | IV | 6 |
| Duloxetine HCl | G | Cymbalta® | Psychotherapeutic Agents | None | 12 |
| Cyclobenzaprine HCl | G | Flexeril® | Muscle Relaxants, Skeletal | None | 3 |
| Meloxicam | G | Mobic® | Analgesics/Antipyretics | None | 5 |
| Oxycodone HCl | G | Oxycontin® | Analgesics/Antipyretics | II | 10 |
| Lyrica® | B | N/A | Miscellaneous Central Nervous System Agents | V | 15 |
| Oxycodone HCl-Acetaminophen | G | Percocet® | Analgesics/Antipyretics | II | 7 |
| Baclofen | G | Lioresal® | Muscle Relaxants, Skeletal | None | 17 |

Chart 54 shows the distribution of prescription drugs by brand name and generic for South Dakota, the region, and countrywide. The share between brand name and generic is displayed based on the prescription counts and the payments. Typically, a higher percentage of drugs is given in the generic form; however, higher costs occur when brand name drugs are prescribed. In many states, a prescription drug fee schedule includes rules regarding the dispensing and reimbursement rates for brand name and generic drugs.

Chart 54

Distribution of Drugs by Brand Name and Generic

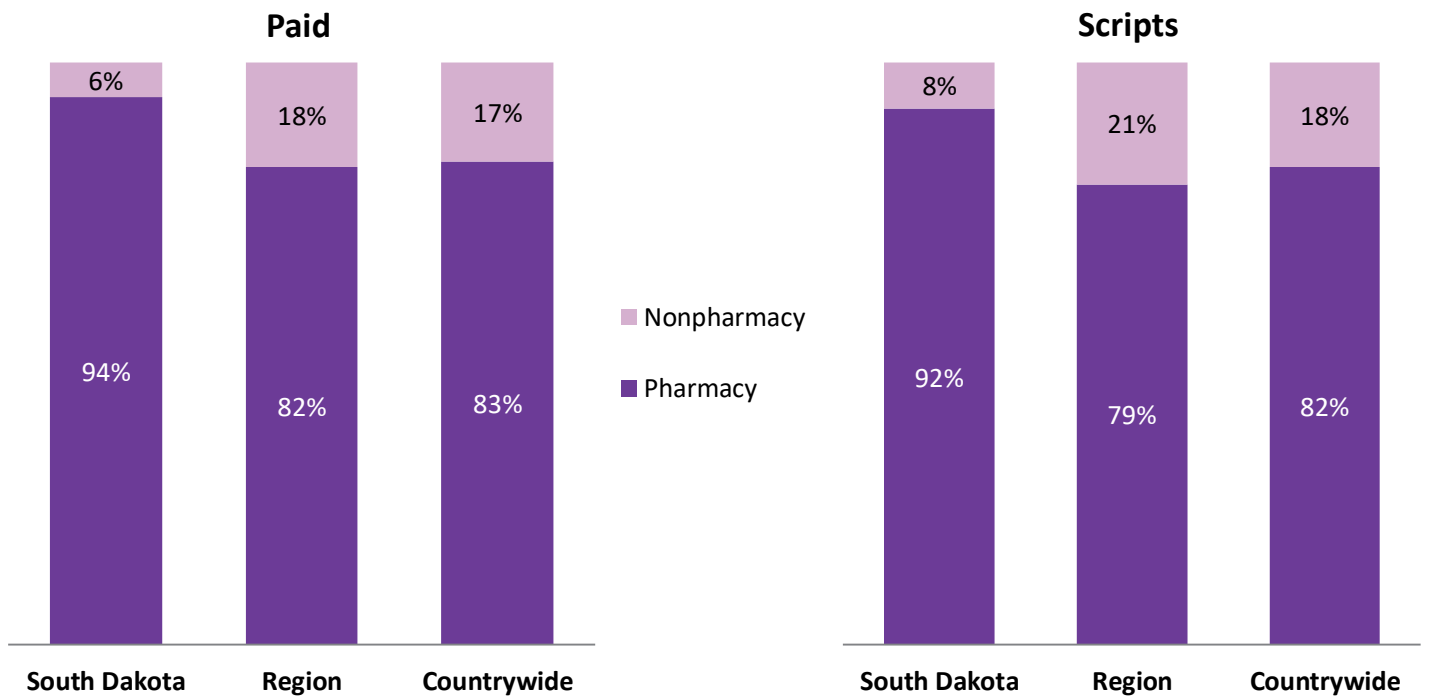


The rules on drug dispensing vary from state to state. Some states allow physician dispensing of drugs, while other states limit or prohibit physician dispensing. Analysis of the share of drugs dispensed from a pharmacy and from a nonpharmacy (e.g., physicians and hospitals) may provide insight into the drivers of drug costs.

Chart 55 shows the distribution of prescription drugs dispensed by pharmacies and nonpharmacies. The share between pharmacy-dispensed and nonpharmacy-dispensed is displayed, based on both prescription counts and payments, for South Dakota, the region, and countrywide.

Chart 55

Distribution of Drugs by Pharmacy and Nonpharmacy



Durable Medical Equipment, Prosthetics, Orthotics and Supplies

The distribution of medical payments for DMEPOS is 11% for South Dakota, 7% for the region, and 8% for countrywide.

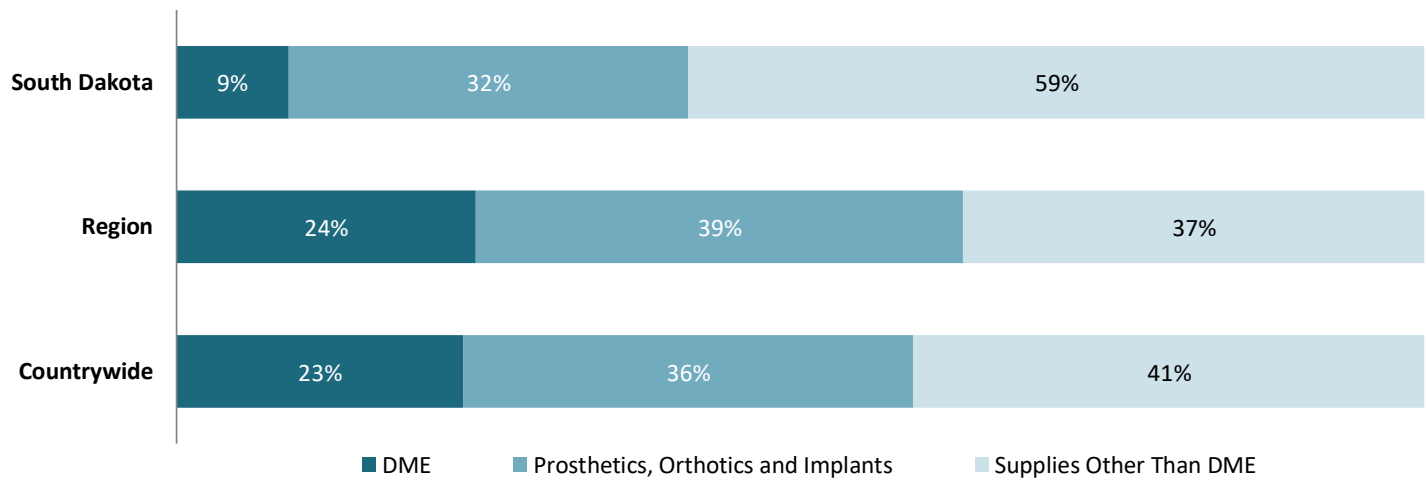
Chart 56 displays the distribution of payments among three separate DMEPOS categories:

- Durable Medical Equipment (DME)
- Prosthetics, Orthotics and Implants
- Supplies Other Than DME

Payments are mapped to each of these categories based on the procedure code reported, regardless of who provides the service or where the service is performed.

Chart 56

Distribution of Payments by DMEPOS





Injuries that include an implant or prosthetic device tend to be more expensive than other injuries. Chart 57 shows the top 10 diagnosis groups for claims that include an implant or a prosthetic device, by total paid amount. Chart 58 shows the same diagnosis groups with the average amount paid per claim for claims that do not include an implant or prosthetic.

Chart 57

Top Diagnosis Groups by Amount Paid for Dates of Injury in 2018 for Claims *With* an Implant or Prosthetic

| Diagnosis Group | Paid Share | Average Amount Paid Per Claim | | |
|--|------------|-------------------------------|-----------|-------------|
| | | South Dakota | Region | Countrywide |
| Rotator cuff tear | 14.5% | \$49,119 | \$42,471 | \$38,968 |
| Femur fracture | 6.8% | \$376,939 | \$109,659 | \$106,938 |
| Hip/pelvis fracture/major trauma | 4.2% | \$86,495 | \$75,232 | \$82,633 |
| Minor shoulder injury | 2.9% | \$28,222 | \$33,713 | \$29,941 |
| Hand/wrist fracture | 2.7% | \$21,649 | \$26,406 | \$27,006 |
| Crush injury, hand/wrist | 2.6% | \$218,691 | \$56,339 | \$62,789 |
| Knee internal derangement - cruciate ligament tear | 2.4% | \$39,336 | \$37,717 | \$34,439 |
| Ankle fracture | 2.3% | \$37,694 | \$30,952 | \$35,742 |
| Degenerative shoulder | 2.2% | \$45,932 | \$44,071 | \$42,675 |
| Tibia/fibula fracture | 1.9% | \$40,461 | \$77,335 | \$80,160 |

Chart 58

Average Amount Paid per Claim *Without* an Implant or Prosthetic for Diagnosis Groups in Chart 57

| Diagnosis Group | Average Amount Paid Per Claim | | |
|--|-------------------------------|----------|-------------|
| | South Dakota | Region | Countrywide |
| Rotator cuff tear | \$20,618 | \$25,160 | \$20,199 |
| Femur fracture | \$116,997 | \$41,228 | \$47,049 |
| Hip/pelvis fracture/major trauma | \$19,198 | \$39,939 | \$38,260 |
| Minor shoulder injury | \$2,788 | \$4,739 | \$3,950 |
| Hand/wrist fracture | \$4,550 | \$6,038 | \$6,001 |
| Crush injury, hand/wrist | \$1,929 | \$2,939 | \$3,018 |
| Knee internal derangement - cruciate ligament tear | \$21,846 | \$26,430 | \$22,472 |
| Ankle fracture | \$18,432 | \$14,855 | \$14,179 |
| Degenerative shoulder | \$17,062 | \$19,584 | \$18,193 |
| Tibia/fibula fracture | \$6,562 | \$18,771 | \$17,907 |

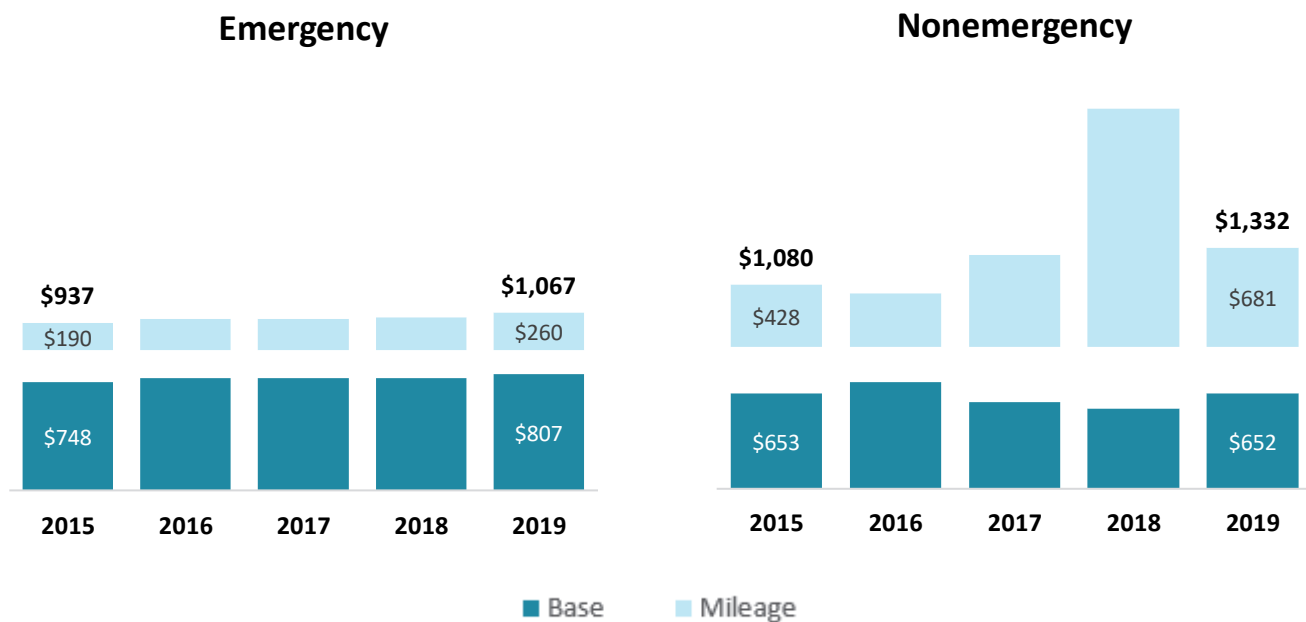
Transportation

For Service Year 2019, transportation services represent less than 2% of total medical costs countrywide. The share of payments varies across jurisdictions, ranging from less than 1% to about 4% of total medical costs. Ambulance services, both ground and air, are the primary driver of transportation costs.

Ground ambulance can be split into two categories: emergency and nonemergency. In 2019, 97% of ground ambulance episodes⁸ were emergencies in South Dakota. Chart 59 displays the average payment per episode for emergency and nonemergency ground ambulance episodes, and it shows this separately for the base payment and mileage payment in South Dakota. The base payment reflects the service intensity of the transport and is higher for emergency services. The mileage payment per episode is higher for nonemergency services due to the average number of miles travelled; typically, nonemergency episodes travel farther than emergency and the intensity of the service is greatly reduced.

Chart 59

Average Payment per Episode for Ground Ambulance Services



⁸An episode refers to a service or set of services provided to a claimant on a specific date.

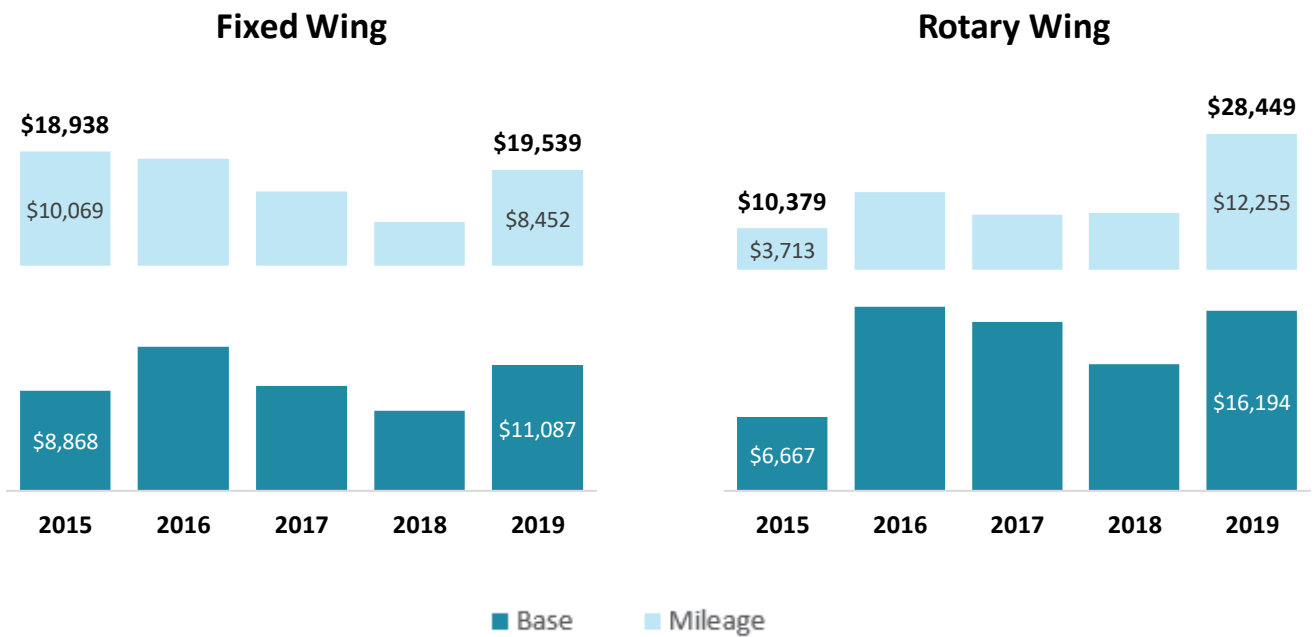


Air ambulance episodes represent about 4% of all ambulance episodes countrywide in 2019 but account for approximately half of all ambulance payments. Air ambulance is split into two categories: rotary wing (helicopter) and fixed wing (airplane). Rotary wing episodes represent more than 85% of both payments and episodes for air ambulance services on a countrywide basis. Chart 60 displays the average payment per fixed wing and rotary wing episodes in South Dakota separately for the base payment and mileage payment.

The base rate for fixed wing transport is generally less than rotary wing because rotary wing is typically used in emergencies and fixed wing for nonemergency transport. The countrywide average distance per fixed wing transport is approximately four times that of the average rotary wing transport, making the average total payment for fixed wing transport typically higher than rotary wing transport.

Chart 60

Average Payment per Episode for Fixed and Rotary Wing Air Ambulance Services





Diagnosis Group and Body System

Charts 61 and 62 display the top 10 body systems and diagnosis groups, respectively. Body system and diagnosis group are identified for each claim based on ICD-10 code. The ICD-10 code indicates the condition for which the care is provided. NCCI assigns an ICD-10 code to each workers compensation claim based on the severity of the ICD-10 codes reported on bills by medical providers for services provided to the injured worker.

The top 10 body systems and diagnosis groups are ranked by total claim payments for South Dakota. This method of ranking shows which body systems and diagnosis groups have the highest percentage share of payments. Payments are based on claims with dates of injury between January 1, 2018, and December 31, 2018, and they include all reported services provided for those claims through December 31, 2019. As these claims mature, the mix of ICD-10 codes may change, thus impacting the percentage share of payments for a specific code over time. This mix may also affect how costs per code in South Dakota compare to countrywide costs. The state, region, and countrywide average payments per claim are also displayed for each body system and diagnosis group.

Chart 61

Top Body Systems by Amount Paid for Dates of Injury in 2018

| Body System | Paid Share | Average Amount Paid Per Claim | | |
|--------------|------------|-------------------------------|----------|-------------|
| | | South Dakota | Region | Countrywide |
| Shoulder | 24.1% | \$11,580 | \$12,036 | \$9,901 |
| Knee | 9.6% | \$5,243 | \$6,851 | \$5,972 |
| Hand/wrist | 9.5% | \$1,860 | \$2,635 | \$2,365 |
| Lumbar spine | 8.8% | \$3,420 | \$5,120 | \$4,669 |
| Leg | 7.1% | \$8,442 | \$6,779 | \$6,430 |
| Ankle/foot | 4.9% | \$3,023 | \$3,754 | \$3,491 |
| Neck | 3.7% | \$3,498 | \$6,442 | \$5,798 |
| Arm | 3.5% | \$4,181 | \$5,841 | \$5,513 |
| Head | 3.3% | \$2,532 | \$3,844 | \$3,822 |
| Abdomen | 2.3% | \$10,160 | \$8,309 | \$7,779 |

Chart 62

Top Diagnosis Groups by Amount Paid for Dates of Injury in 2018

| Diagnosis Group | Paid Share | Average Amount Paid Per Claim | | |
|---|------------|-------------------------------|----------|-------------|
| | | South Dakota | Region | Countrywide |
| Rotator cuff tear | 11.3% | \$27,892 | \$28,731 | \$23,487 |
| Minor shoulder injury | 4.3% | \$3,537 | \$5,616 | \$4,559 |
| Knee internal derangement - meniscus injury | 3.2% | \$13,487 | \$15,268 | \$13,461 |
| Hand/wrist fracture | 3.1% | \$5,998 | \$7,715 | \$7,514 |
| Minor hand/wrist injuries | 3.0% | \$755 | \$1,460 | \$1,304 |
| Femur fracture | 2.9% | \$272,963 | \$68,435 | \$71,533 |
| Lumbosacral intervertebral disc disorders | 2.8% | \$19,335 | \$23,805 | \$20,178 |
| Low back pain | 2.4% | \$1,717 | \$2,526 | \$2,427 |
| Degenerative shoulder | 2.2% | \$21,873 | \$23,553 | \$22,024 |
| Hip/pelvis fracture/major trauma | 1.9% | \$46,117 | \$52,981 | \$54,073 |



Comparison of Selected Results by Year

The charts in this section provide a comparison of results for South Dakota. These comparisons are over the latest five service years unless otherwise noted. Analysis in the growth of shares may provide additional insight into medical cost drivers above and beyond an analysis at a specific point in time.

Results in the charts below may vary compared to medical reports from previous years. This is due to a lag in reporting, as well as improved derivations affecting categories for certain charts.

Distribution of Medical Payments (Chart 4)

| Medical Category | 2015 | 2016 | 2017 | 2018 | 2019 |
|---------------------|------|------|------|------|------|
| Physician | 27% | 26% | 25% | 25% | 25% |
| Hospital Outpatient | 30% | 31% | 32% | 32% | 34% |
| Hospital Inpatient | 16% | 13% | 13% | 15% | 13% |
| Drugs | 12% | 13% | 13% | 11% | 11% |
| DMEPOS | 9% | 10% | 11% | 12% | 11% |
| ASC | 3% | 4% | 3% | 2% | 1% |
| Other | 3% | 3% | 3% | 3% | 5% |

Distribution of Physician Payments by AMA Service Category (Chart 6)

| AMA Service Category | 2015 | 2016 | 2017 | 2018 | 2019 |
|---------------------------|------|------|------|------|------|
| Physical Medicine | 28% | 27% | 30% | 27% | 28% |
| Surgery | 26% | 27% | 28% | 30% | 29% |
| Evaluation and Management | 23% | 23% | 21% | 22% | 22% |
| Radiology | 10% | 11% | 10% | 10% | 10% |
| Anesthesia | 5% | 5% | 5% | 6% | 5% |
| General Medicine | 6% | 4% | 4% | 3% | 3% |
| Other | 1% | 2% | 1% | 1% | 2% |
| Pathology | 1% | 1% | 1% | 1% | 1% |



Median Time Until First Treatment (in Days) (Charts 11, 14, 17, 20, 28, 36, 37, and 48)⁹

| Medical Category | AY 2014 | AY 2015 | AY 2016 | AY 2017 | AY 2018 |
|--|---------|---------|---------|---------|---------|
| Physicians – Major Surgery | 41 | 36 | 33 | 33 | 35 |
| Physicians – Radiology | 1 | 1 | 1 | 1 | 1 |
| Physicians – Physical and General Medicine | 9 | 10 | 12 | 12 | 12 |
| Physicians – Evaluation and Management | 2 | 2 | 1 | 2 | 2 |
| Hospital Inpatient | 0 | 0 | 0 | 0 | 0 |
| Hospital Outpatient – Major Surgery | 65 | 59 | 67 | 55 | 58 |
| Hospital Outpatient – All Other | 4 | 4 | 5 | 6 | 8 |
| ASC – Surgery | 48 | 56 | 46 | 57 | 36 |

75th Percentile of Time Until First Treatment (in Days) (Charts 11, 14, 17, 20, 28, 36, 37, and 48)⁹

| Medical Category | AY 2014 | AY 2015 | AY 2016 | AY 2017 | AY 2018 |
|--|---------|---------|---------|---------|---------|
| Physicians – Major Surgery | 115 | 111 | 109 | 102 | 103 |
| Physicians – Radiology | 8 | 7 | 7 | 7 | 7 |
| Physicians – Physical and General Medicine | 32 | 34 | 37 | 36 | 38 |
| Physicians – Evaluation and Management | 10 | 9 | 8 | 10 | 11 |
| Hospital Inpatient | 7 | 4 | 5 | 15 | 7 |
| Hospital Outpatient – Major Surgery | 133 | 135 | 145 | 127 | 149 |
| Hospital Outpatient – All Other | 31 | 30 | 30 | 34 | 35 |
| ASC – Surgery | 112 | 119 | 118 | 124 | 97 |

Hospital Inpatient Statistics (Charts 24 and 26)

| Hospital Inpatient Statistics | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|----------|----------|----------|----------|----------|
| Average Amount Paid Per Stay | \$31,648 | \$29,681 | \$28,803 | \$27,802 | \$29,468 |
| Number of Stays per 1,000 Active Claims | 17 | 15 | 16 | 17 | 16 |

⁹ In the charts displaying the distribution of time until first treatment, data is organized by the year in which the injury occurred, rather than by service year and include services performed within 365 days of the date of injury.



Distribution of Hospital Outpatient Payments by Surgery and Nonsurgery (Paragraphs preceding Charts 32 and 34)

| Visit Type | 2015 | 2016 | 2017 | 2018 | 2019 |
|------------|------|------|------|------|------|
| Surgery | 57% | 59% | 64% | 66% | 71% |
| Nonsurgery | 43% | 41% | 36% | 34% | 29% |

Hospital Outpatient Surgery Statistics (Charts 32 and 33)

| Hospital Outpatient Surgery Statistics | 2015 | 2016 | 2017 | 2018 | 2019 |
|--|---------|---------|---------|---------|---------|
| Average Amount Paid Per Visit | \$4,227 | \$4,506 | \$4,868 | \$5,083 | \$6,126 |
| Number of Visits per 1,000 Active Claims | 138 | 138 | 154 | 159 | 158 |

Hospital Outpatient Nonsurgery Statistics (Charts 34 and 35)

| Hospital Outpatient Nonsurgery Statistics | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|-------|-------|-------|-------|-------|
| Average Amount Paid Per Visit | \$328 | \$377 | \$323 | \$313 | \$314 |
| Number of Visits per 1,000 Active Claims | 1,362 | 1,150 | 1,326 | 1,359 | 1,286 |

Emergency Service Statistics (Charts 41 and 42)

| Emergency Service Statistics | 2015 | 2016 | 2017 | 2018 | 2019 |
|--|---------|---------|---------|---------|---------|
| Average Amount Paid Per Visit | \$1,373 | \$1,596 | \$1,634 | \$1,569 | \$1,785 |
| Number of Visits per 1,000 Active Claims | 211 | 209 | 221 | 237 | 224 |

ASC Surgery Statistics (Charts 46 and 47)

| ASC Surgery Statistics | 2015 | 2016 | 2017 | 2018 | 2019 |
|--|---------|---------|---------|---------|---------|
| Average Amount Paid Per Visit | \$3,589 | \$4,727 | \$4,914 | \$4,342 | \$3,780 |
| Number of Visits per 1,000 Active Claims | 26 | 26 | 24 | 21 | 8 |

Distribution of Prescription Drug Payments by CSA Schedule (Chart 51)

| CSA Schedule | 2015 | 2016 | 2017 | 2018 | 2019 |
|---------------------|-------------|-------------|-------------|-------------|-------------|
| Schedule II | 31% | 30% | 29% | 25% | 25% |
| Schedule III | 1% | 1% | 1% | 1% | 1% |
| Schedule IV | 7% | 5% | 4% | 4% | 3% |
| Schedule V | 11% | 14% | 16% | 17% | 16% |
| Noncontrolled | 50% | 50% | 50% | 53% | 55% |

Distribution of Drug Payments by Brand Name and Generic (Chart 54)

| Type of Drug | 2015 | 2016 | 2017 | 2018 | 2019 |
|---------------------|-------------|-------------|-------------|-------------|-------------|
| Brand Name | 44% | 47% | 48% | 50% | 49% |
| Generic | 56% | 53% | 52% | 50% | 51% |

Distribution of Drug Payments by Pharmacy and Nonpharmacy (Chart 55)

| Type of Provider | 2015 | 2016 | 2017 | 2018 | 2019 |
|-------------------------|-------------|-------------|-------------|-------------|-------------|
| Pharmacy | 96% | 97% | 94% | 92% | 94% |
| Nonpharmacy | 4% | 3% | 6% | 8% | 6% |

Distribution of Payments by DMEPOS (Chart 56)

| Category | 2015 | 2016 | 2017 | 2018 | 2019 |
|-------------------------------------|-------------|-------------|-------------|-------------|-------------|
| DME | 8% | 7% | 9% | 7% | 9% |
| Prosthetics, Orthotics and Implants | 44% | 43% | 41% | 45% | 32% |
| Supplies Other Than DME | 48% | 50% | 50% | 48% | 59% |



Glossary

75th Percentile: The point on a distribution that is higher than 75% of observations and lower than 25% of observations.

Accident Year: A loss accounting definition in which experience is summarized by the calendar year in which an accident occurred.

Ambulatory Payment Classification (APC): Unit of payment under Medicare’s Outpatient Prospective Payment System (OPPS) for hospital outpatient services where individual services are grouped based on similar characteristics and similar costs.

Ambulatory Surgical Center (ASC): A state-licensed facility that is used mainly to perform outpatient surgery, has a staff of physicians, has continuous physician and nursing care, and does not provide for overnight stays. An ASC can bill for facility fees much like a hospital, but it generally has a separate fee schedule.

Controlled Substances: Drugs that are regulated by the Controlled Substances Act (CSA) of 1970. Each controlled substance is contained in one of five schedules based on its medical use(s) and its potential for abuse and addiction.

CPT Code Modifiers: Modifiers are codes added to a CPT code that further describe the procedure performed without changing the meaning of the original code.

Current Procedure Terminology (CPT): A numeric coding system maintained by the American Medical Association (AMA). The CPT coding system consists of five-digit codes that are primarily used to identify medical services and procedures performed by physicians and other healthcare professionals.

Diagnosis Groups: Based on ICD-10 codes; groups based on similar injuries and parts of body.

Diagnosis-Related Groups (DRG): A system of hospital payment classifications that groups patients with similar clinical problems who are expected to require similar amounts of hospital resources.

Drugs: Includes any data reported by a National Drug Code (NDC). Also included are data for revenue codes, the Healthcare Common Procedure Code System (HCPCS), and other state-specific codes that represent drugs.

Durable Medical Equipment (DME): Equipment that is primarily and customarily used to serve a medical purpose, can withstand repeated use, could normally be rented and used by successive patients, is appropriate for use in the home, and is not generally useful to a person in the absence of an illness or injury.

Emergency Services: Services performed for patients requiring immediate attention.

Healthcare Common Procedure Coding System (HCPCS): Alphanumeric codes that include mostly nonphysician items or services such as medical supplies, ambulatory services, prostheses, etc. These are items and services not covered by Current Procedure Terminology (CPT) procedures.

ICD-10 Codes: The *International Classification of Diseases, Tenth Revision*, is a system used by physicians and other healthcare providers to classify and code all diagnoses, symptoms, and procedures recorded in conjunction with hospital care in the United States.

Injury or poisoning not otherwise classified: Body system grouping consisting of ICD-10 codes without a specific body part or system related to the injury. An example is ICD-10 code T31.0 which is “Burns involving less than 10% of body surface”.



Inpatient Hospital Service: Services for a patient who is admitted to a hospital for treatment that requires at least one overnight stay (more than 24 hours in a hospital).

Inpatient Hospital Stay: A hospital admission of a patient requiring hospitalization of at least one 24-hour period.

International Statistical Classification of Diseases and Related Health Problems (ICD-10): A classification of diseases and other health problems based on diagnosis maintained by the World Health Organization (WHO).

Length of Stay: The amount of time, in days, between admission to a hospital and discharge.

Medical Data Call: Captures transaction-level detail for medical billings that were processed on or after July 1, 2010. All medical transactions with the jurisdiction state in any applicable Medical Data Call state are reportable. This includes all workers compensation claims, including medical-only claims.

Outpatient Hospital Service: Any type of medical or surgical care performed at a hospital that is not expected to result in an overnight hospital stay (less than 24 hours in a hospital).

(Paid) Procedure Code: A code from the jurisdiction-approved code table that identifies the procedure associated with the reimbursement. Examples include CPT code or revenue code.

Revenue Code: A numeric coding system used in hospital billings that provides broad classifications of the types of services provided. Some examples are emergency room, operating room, recovery room, room and board, and supplies.

Service Year: A loss accounting definition where experience is summarized by the calendar year in which a medical service was provided.

Surgery Visit: A visit in which at least one surgery procedure is performed based on the reported procedure code.

Taxonomy Code: A code that identifies the type of provider that billed for, and is being paid for, a medical service. Data reporters are instructed to use the provider taxonomy list of standard codes maintained by the National Uniform Claim Committee.

Time to Treatment (TTT): The amount of time, measured in days, between the date on which an accident occurs and the date on which the first medical service in a given category is provided.

Transaction: A line item of a medical bill.

Units: The number of units of service performed or the quantity of drugs dispensed. For Paid Procedure Codes related to medications, the quantity/units depend on the type of drug:

- For tablets, capsules, suppositories, nonfilled syringes, etc., *units* represent the actual number of the drug provided. For example, a bottle of 30 pills would have 30 units.
- For liquids, suspensions, solutions, creams, ointments, bulk powders, etc., dispensed in standard packages, the units are specified by the procedure code. For example, a cream is dispensed in a standard tube, which is defined as a single unit.
- For liquids, suspensions, solutions, creams, ointments, bulk powders, etc., that are not dispensed in standard packages, the number of units is the amount provided in its standard unit of measurement (e.g., milliliters, grams, ounces). For example, codeine cough syrup dispensed by a pharmacist into a four-ounce bottle would be reported as four units.



Visit: Any hospital outpatient or ASC service or set of services provided to a claimant on a specific date. Any visit may have more than one procedure performed, and any claimant may have more than one visit.



Appendix

The data contained in this report is reported under the jurisdiction state—the state under whose workers compensation act the claimant’s benefits are being paid. Medical transactions must continue to be reported until the transactions no longer occur (i.e., the claim is closed) or 30 years from the accident date. There are nearly 30 data elements reported.

Wherever possible, standard industry codes are used because they provide a clear definition of the data, improve its accuracy and quality, and increase efficiency of computer systems.

Carriers differ in their handling of medical data reporting. Some carriers retain all medical claims handling internally and submit the data themselves. Others use business partners for various aspects of medical claim handling, such as third party administrators or medical bill review vendors. It is possible for a carrier to authorize its vendor to report the data on its behalf. Some carriers may use a combination of direct reporting and vendors. Although data may have been provided by an authorized vendor on behalf of a carrier, the quality, timeliness, and completeness of the data is the responsibility of the carrier.

Before a medical data provider can send files, each submitter’s electronic data file must pass certification testing. This ensures that all connections, data files, and systems are functioning and processing correctly. Each medical data provider within a reporting group is required to pass certification testing. If a medical data provider reports data for more than one reporting group, that data must be certified for each group.

For more information about the Medical Data Call, please refer to the ***Medical Data Call Reporting Guidebook*** on **ncci.com**.