



# Medical Data Report

For the state of

# SOUTH DAKOTA

September 2018



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## Introduction

Medical costs have consistently been on the rise over the last 30 years. Today, in many states, close to 60% of workers compensation benefits are attributed to medical costs. The rising cost of medical care is one of the major issues 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 threaten the financial soundness of the workers compensation system.

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 (DME), Supplies, and Implants
- Other

Next, the report drills down into these categories to show which particular 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.

Unless otherwise noted, the source for all data in this report is NCCI's Medical Data Call, Service Year 2017. 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.



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## Medical Cost Statistics

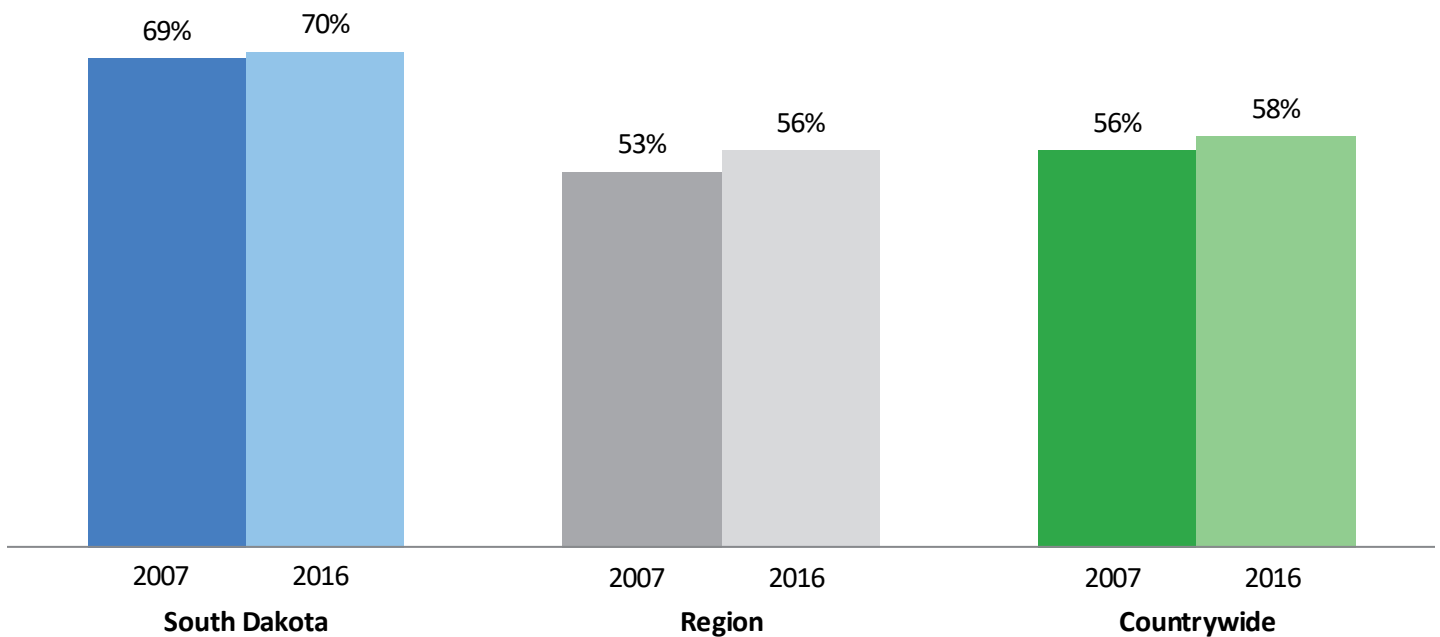
Traditional workers compensation policies cover two types of benefit payments: medical benefits and indemnity (lost wages) benefits.

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 local share of medical benefit costs may vary. 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 (AY) 2007 and 2016.

**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.

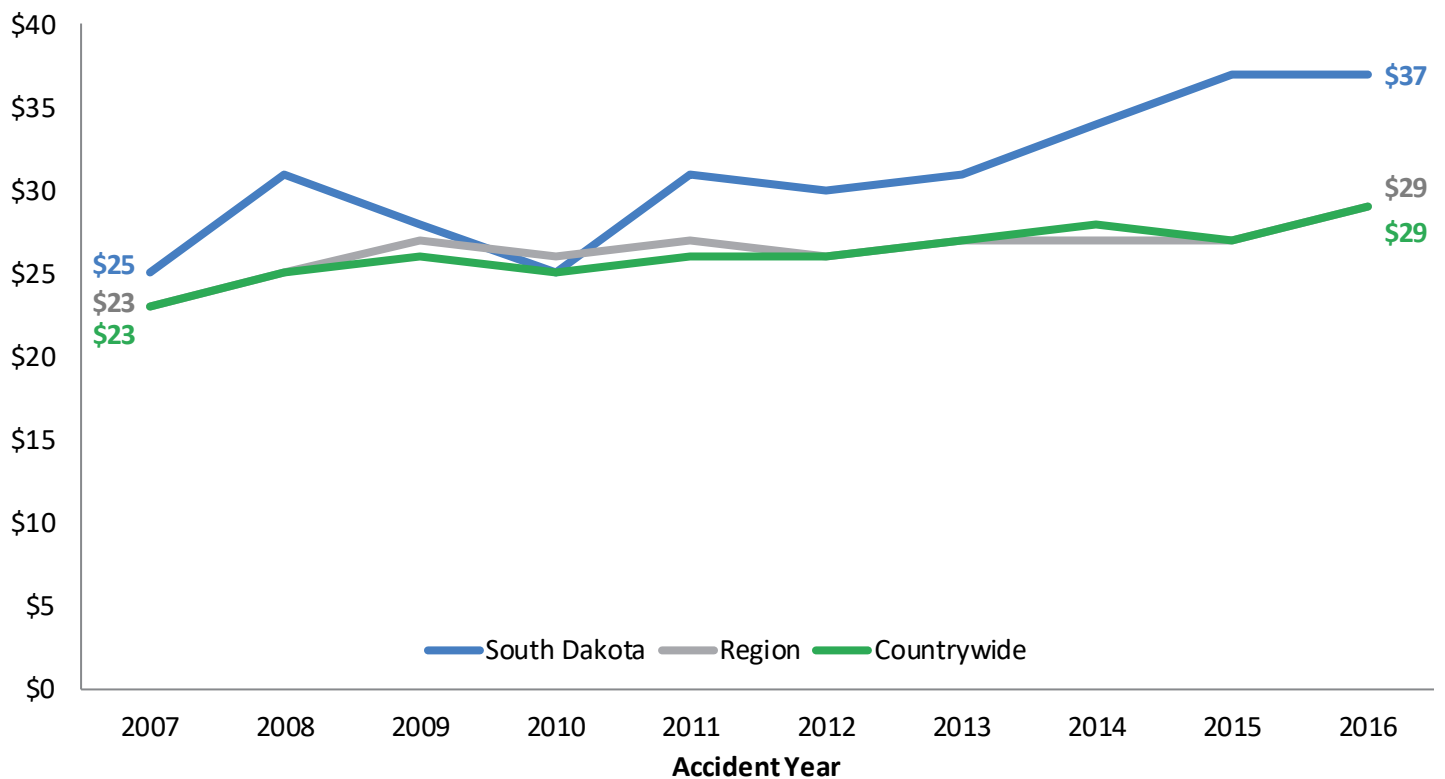


The countrywide overall medical average cost per claim has seen moderate increases in recent years, averaging 3% from Accident Years 2007 to 2016; this has tracked annual growth for the United States Personal Healthcare Spending per capita.<sup>1</sup> Chart 2 displays the historical overall medical 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 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, and VT.

<sup>1</sup> State of the Line Report, *Annual Issues Symposium*, May 2018, [www.ncci.com/Articles/Documents/AIS2018-SOTL-Presentation.pdf](http://www.ncci.com/Articles/Documents/AIS2018-SOTL-Presentation.pdf).



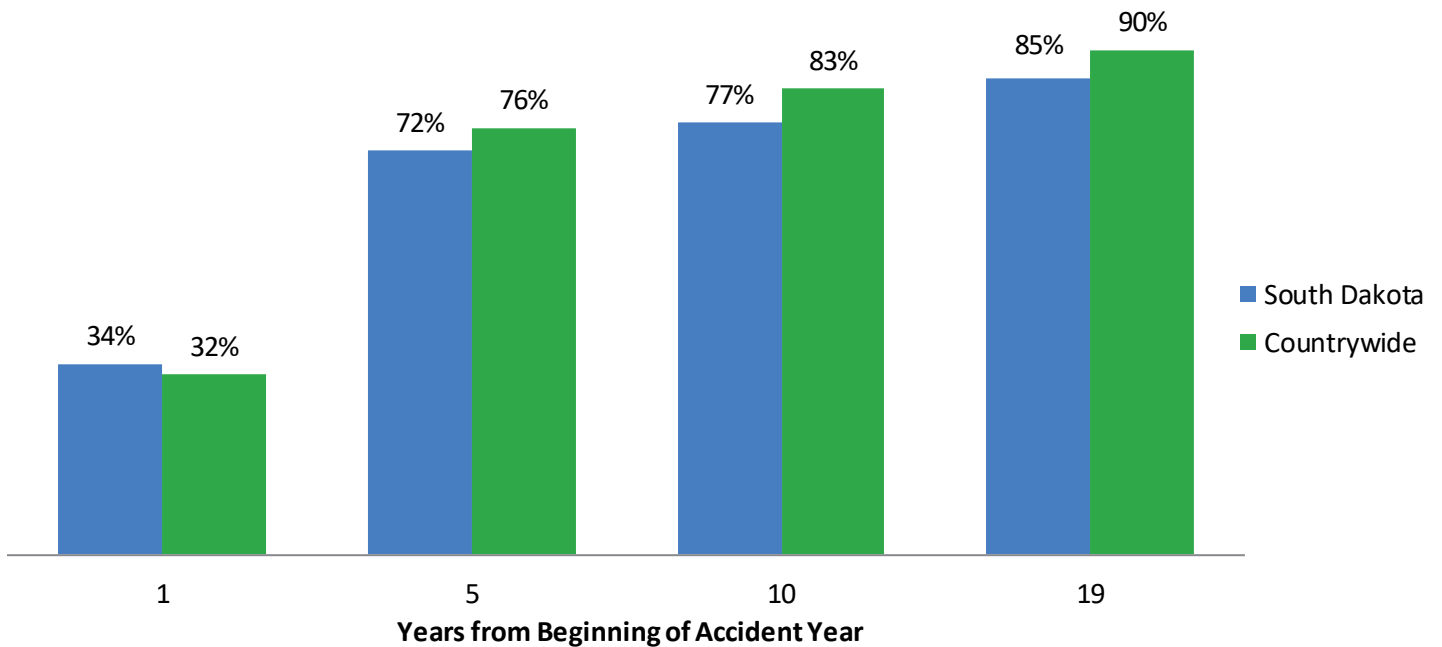
One factor that impacts medical costs is the time over which medical services are used. Payments on a workers compensation claim often continue for many years. Recent NCCI research has found that it is likely that more than 10% of the cost of medical benefits for workplace injuries that occur this year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

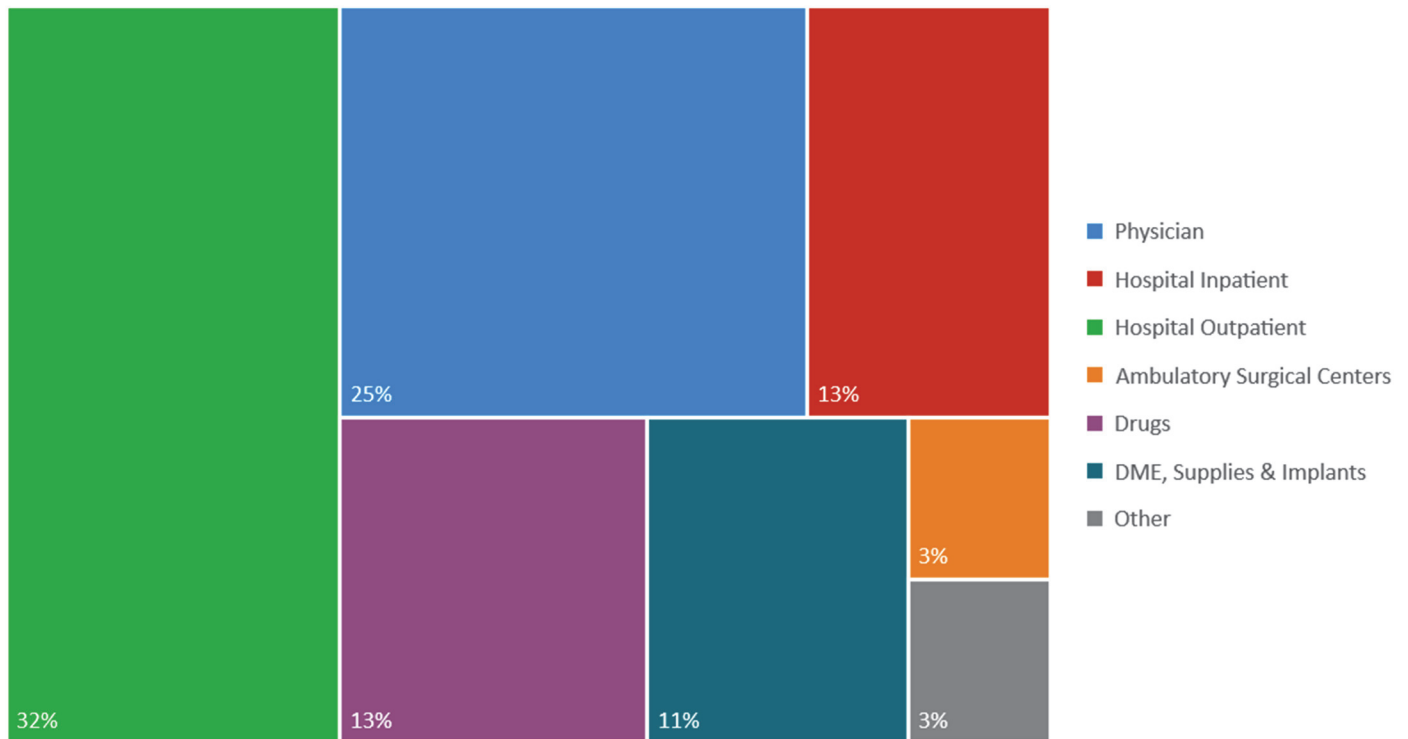
Knowing how payments for different medical services contribute to workers compensation medical benefit costs provides insight into the growth in medical benefits.

Payments are categorized as Drugs; Durable Medical Equipment (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, ambulatory surgical center)

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

**Chart 4**  
**Distribution of Medical Payments for South Dakota**



## Physicians

Results from NCCI’s study, [“The Price Impact of Physician Fee Schedules”](#) (April 2014), show that the median workers compensation price for a physician service is always at, or very near, the maximum allowable reimbursement (MAR) amount set by the fee schedule. 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.

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

The chart below shows the average percentage of Medicare schedule reimbursement<sup>2</sup> 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 four categories listed in the chart.

**Chart 5**

**Physician Payments as a Percentage of Medicare**

| Physician Service Category    | South Dakota | Region      | Countrywide |
|-------------------------------|--------------|-------------|-------------|
| Surgery                       | 176%         | 332%        | 275%        |
| Radiology                     | 217%         | 321%        | 236%        |
| General and Physical Medicine | 105%         | 150%        | 131%        |
| Evaluation and Management     | 103%         | 165%        | 141%        |
| <b>All Physician Services</b> | <b>129%</b>  | <b>199%</b> | <b>167%</b> |

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

Chart 6 displays the percentage of medical payments for physician services for South Dakota, the region, and countrywide.

**Chart 6**

**Distribution of Medical Payments for Physicians**

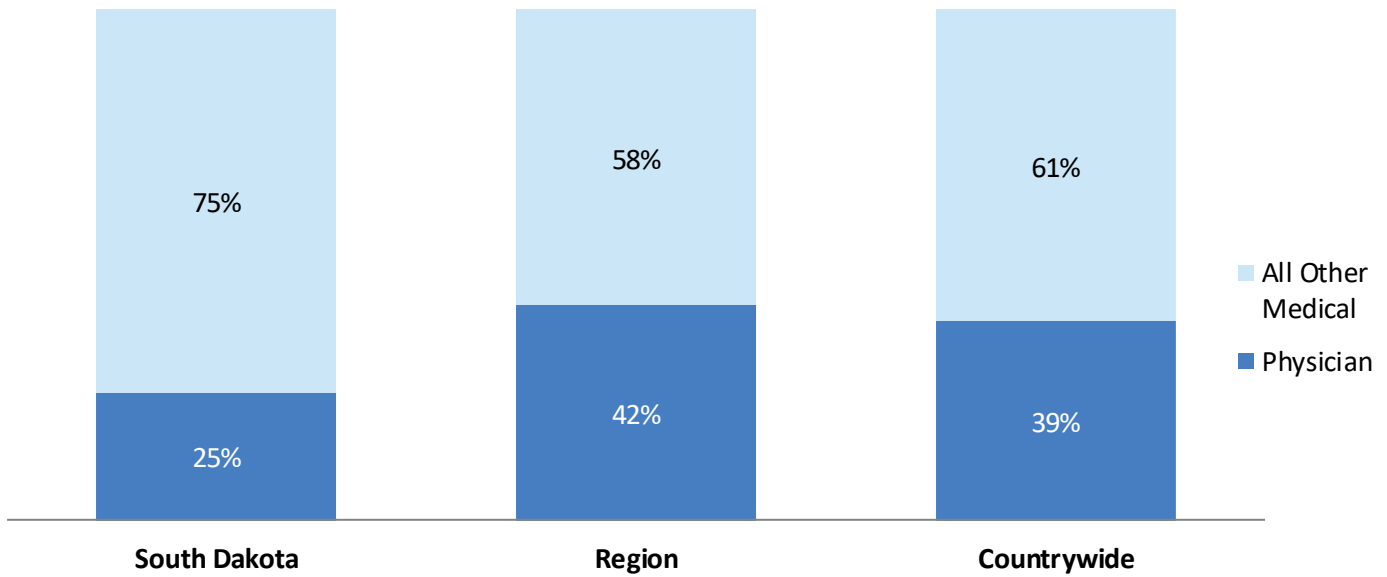
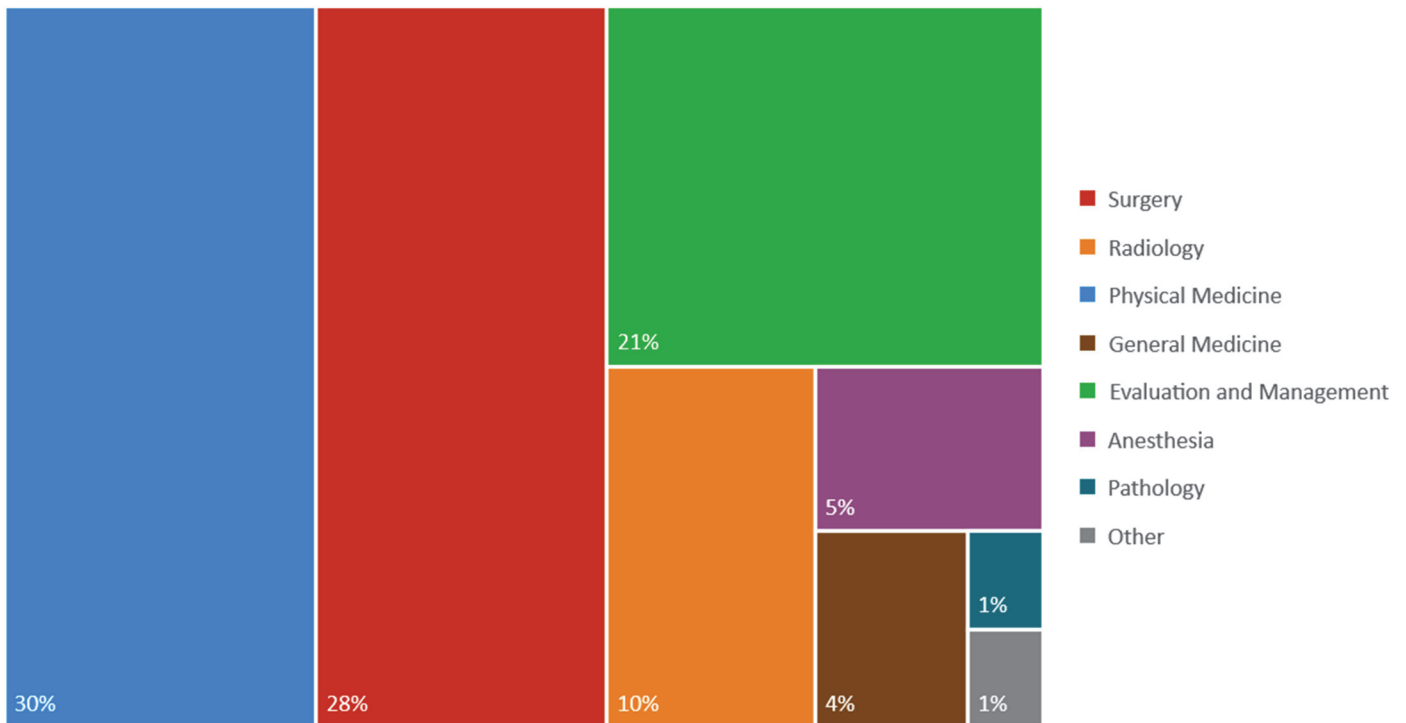


Chart 7 shows the distribution of physician payments by service category. Service categories are defined by the American Medical Association (AMA). Services involving office visits and consultations are included in the Evaluation and Management category. The Other category includes any codes not included in the AMA service categories, such as state-defined codes.

Since many states' medical fee schedule payment levels vary by service categories, an analysis of physician payments provides insights into the effectiveness of the fee schedule. For example, if the share of payments is high for a particular category compared to other states, a driver of the higher share could be higher maximum payment levels for that service category provided in the fee schedule.

**Chart 7**

**Distribution of Physician Payments by AMA Service Category for South Dakota**



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. Charts 8 through 16 display the top 10 procedure codes reported by physicians for the following service categories: 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.

The charts also include the average amount paid per transaction (PPT) for these codes in South Dakota, in the region, and across the country. The average amount paid per transaction 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 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.

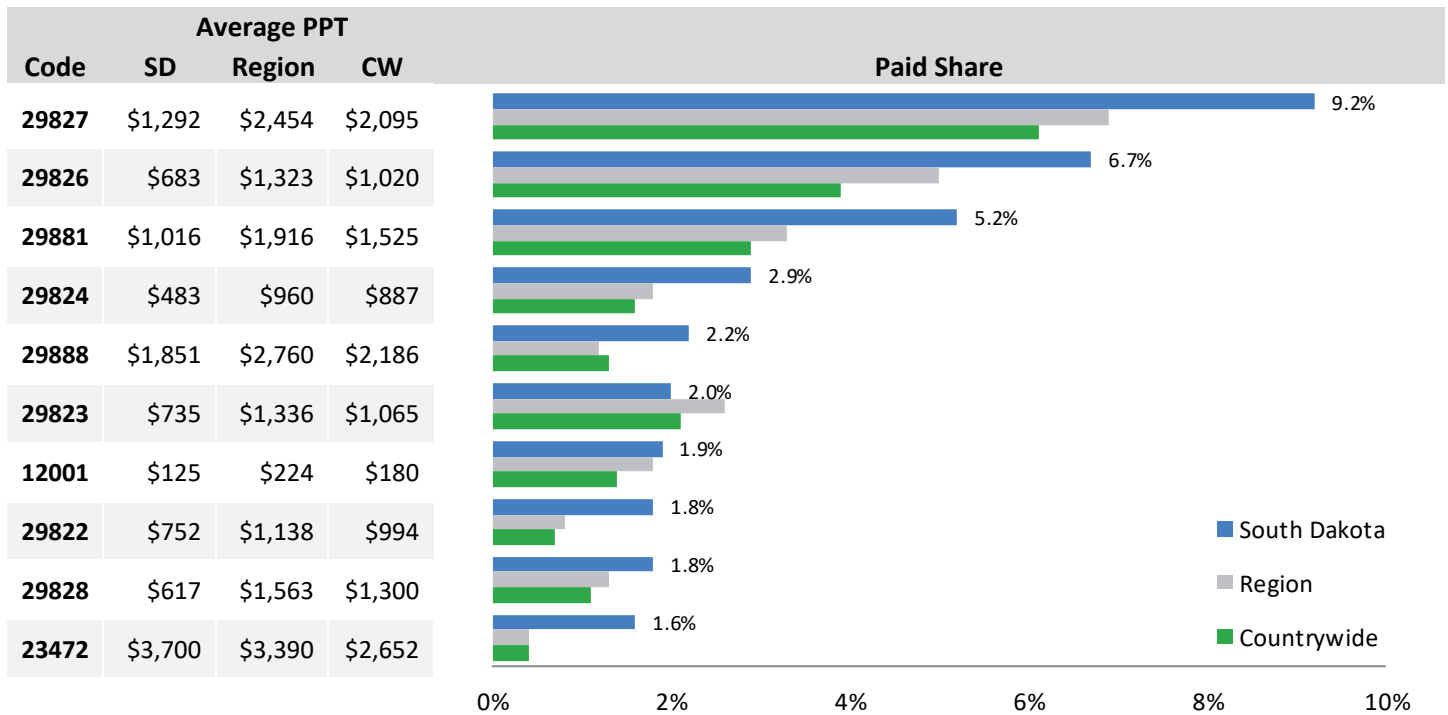
Results from NCCI's study, ["The Price Impact of Physician Fee Schedules"](#) (April 2014), show that the influence of fee schedules is quite different between the high-volume Evaluation and Management (E&M) service category and the small-volume Surgery category. For Surgery, many workers compensation payments are well below the MAR but are considerably above group health payments. In contrast, for E&M, workers compensation payments are closer to the MAR than those for Surgery and are more in line with those for group health.



In South Dakota, physician payments for surgery services provided in 2017 are, on average, 176% of Medicare scheduled reimbursement amounts, compared to 332% in the region and 275% countrywide. Payments for these services comprise 28% of physician payments, compared to 27% in the region and 25% countrywide.

Chart 8

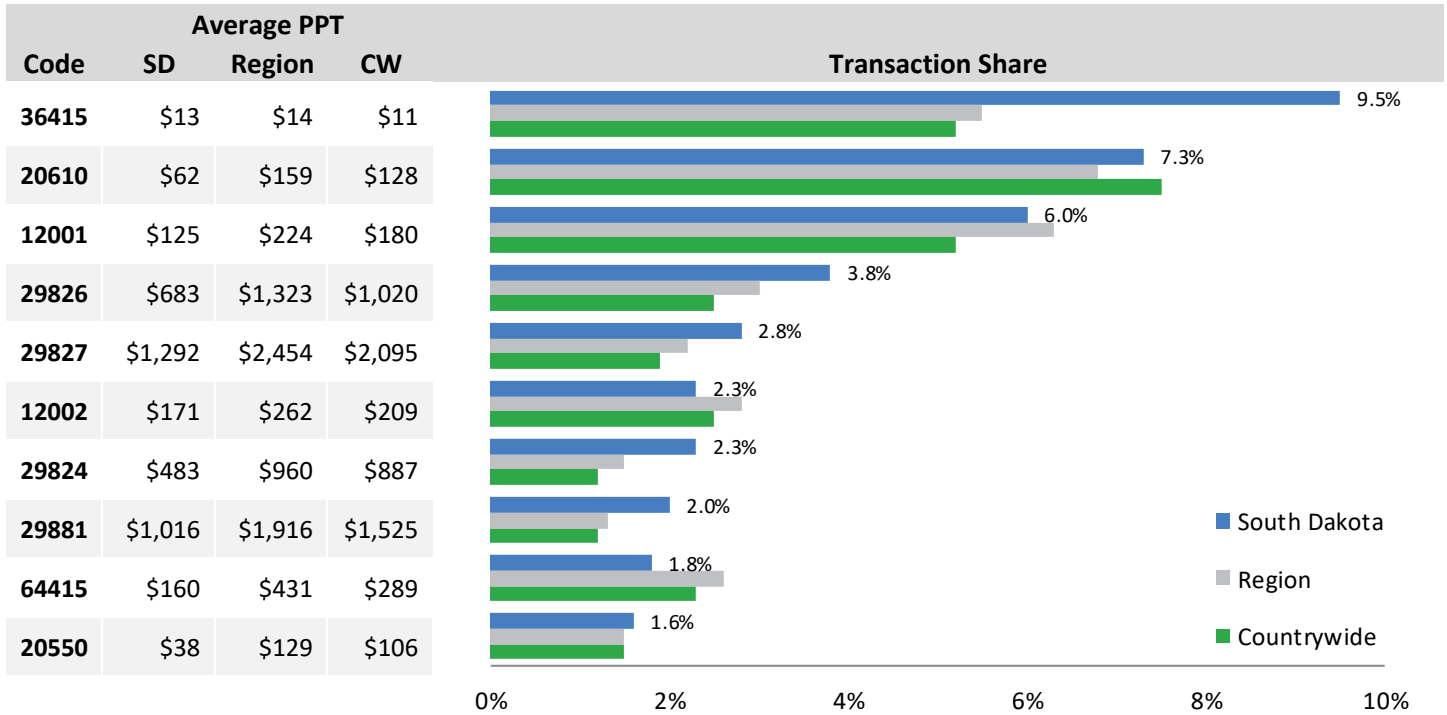
Top 10 Surgery Procedure Codes by Amount Paid



| 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          |
| 29824 | Arthroscopy, shoulder, surgical; distal claviclectomy including distal articular surface (Mumford procedure)   |
| 29888 | Arthroscopically aided anterior cruciate ligament repair/augmentation or reconstruction  |
| 29823 | Arthroscopy, shoulder, surgical; debridement extensive   |
| 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            |
| 29822 | Arthroscopy, shoulder, surgical; debridement limited   |
| 29828 | Arthroscopy, shoulder, surgical; biceps tenodesis  |
| 23472 | Arthroplasty, glenohumeral joint; glenoid and proximal humeral (total shoulder) replacement  |

### Chart 9

#### 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  |
| 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          |
| 29824 | Arthroscopy, shoulder, surgical; distal claviclectomy including distal articular surface (Mumford procedure)   |
| 29881 | Arthroscopy, knee, surgical; with meniscectomy (medial or lateral including any meniscal shaving), including debridement/shaving of articular cartilage          |
| 64415 | Injection, anesthetic agent; brachial plexus, single   |
| 20550 | Injection(s); single tendon sheath or ligament aponeurosis (e.g., plantar fascia)  |

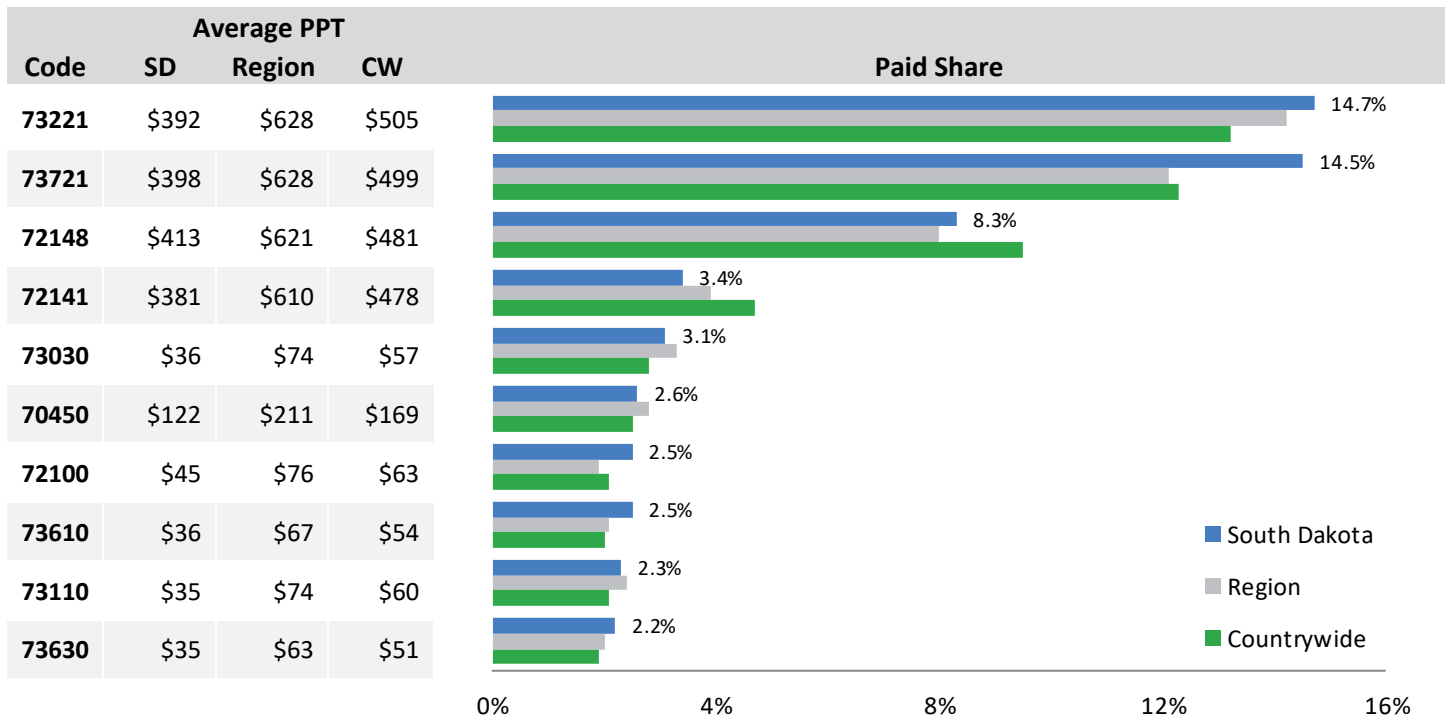




In South Dakota, physician payments for radiology services provided in 2017 are, on average, 217% of Medicare scheduled reimbursement amounts, compared to 321% in the region and 236% countrywide. Payments for these services comprise 10% of physician payments, compared to 10% in the region and 9% countrywide.

Chart 10

Top 10 Radiology Procedure Codes by Amount Paid

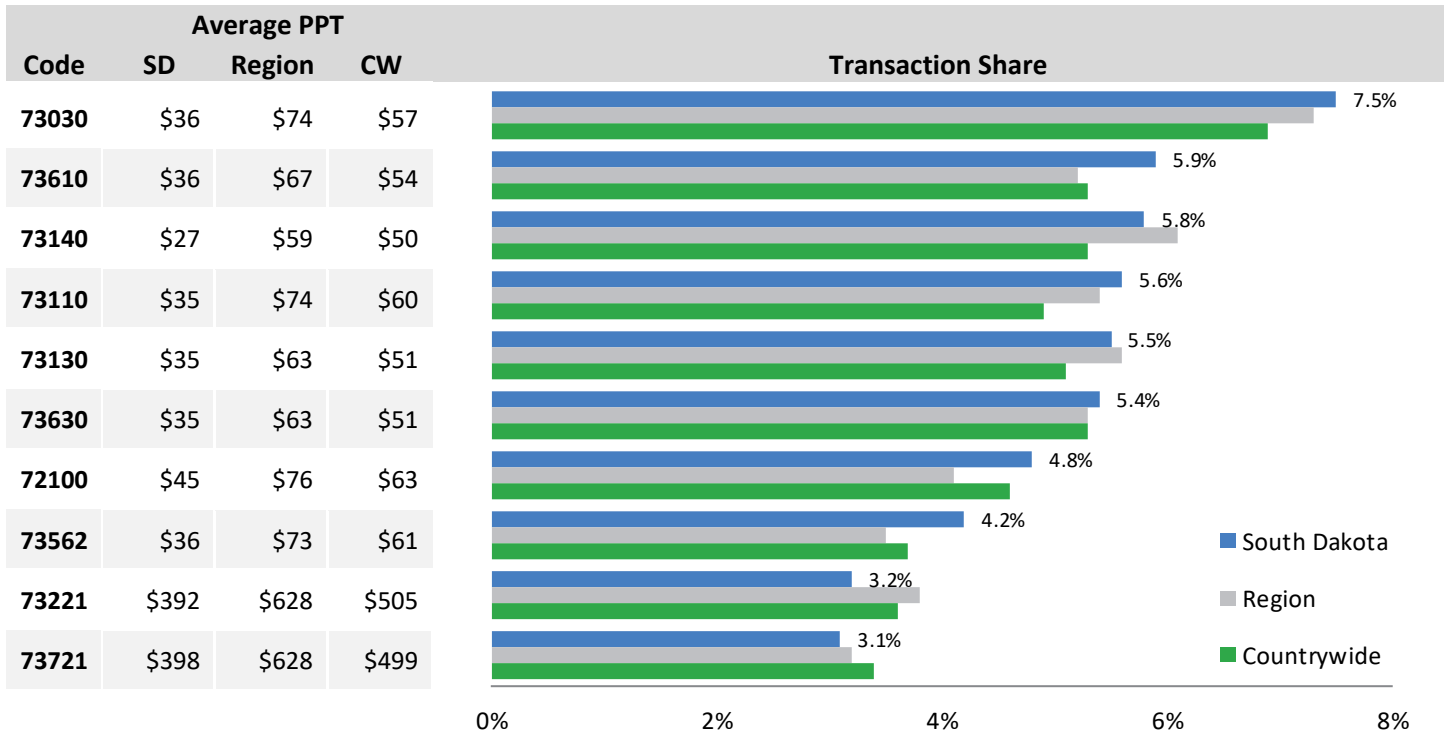


| Code  | Description   |
|-------|---|
| 73221 | Magnetic resonance (e.g., proton) imaging, any joint of upper extremity; without contrast material        |
| 73721 | Magnetic resonance (e.g., proton) imaging, any joint of lower extremity; without contrast material        |
| 72148 | Magnetic resonance (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 |
| 73030 | Radiologic examination, shoulder; complete minimum of 2 views   |
| 70450 | Computed tomography (CT) head or brain; without contrast material   |
| 72100 | Radiologic examination, spine, lumbosacral; 2 or 3 views  |
| 73610 | Radiologic examination, ankle; complete minimum of 3 views  |
| 73110 | Radiologic examination, wrist; complete minimum of 3 views  |
| 73630 | Radiologic examination, foot; complete minimum of 3 views   |



Chart 11

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   |
| 73130 | Radiologic examination, hand; minimum of 3 views   |
| 73630 | Radiologic examination, foot; complete minimum of 3 views  |
| 72100 | Radiologic examination, spine, lumbosacral; 2 or 3 views   |
| 73562 | Radiologic examination, knee; 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 |



Radiology procedures consist of two components. There is a technical component, which is the performance of the examination, and a professional component for the interpretation of the results. Radiology services may be billed for the entire procedure, or they may be billed separately for each component. If billed by component, a modifier is typically reported along with the CPT code. These modifiers may be “26” for the professional component or “TC” for the technical component. In South Dakota, 12% of radiology payments are reported with a TC modifier, 31% of payments are reported with a 26 modifier, and 57% of payments are reported with no TC or 26 modifier.

Chart 12 shows the average payment for the identified top 10 radiology procedures, by amount paid, in South Dakota.

**Chart 12**

**Average Amount Paid per Transaction by Modifier Code for South Dakota**

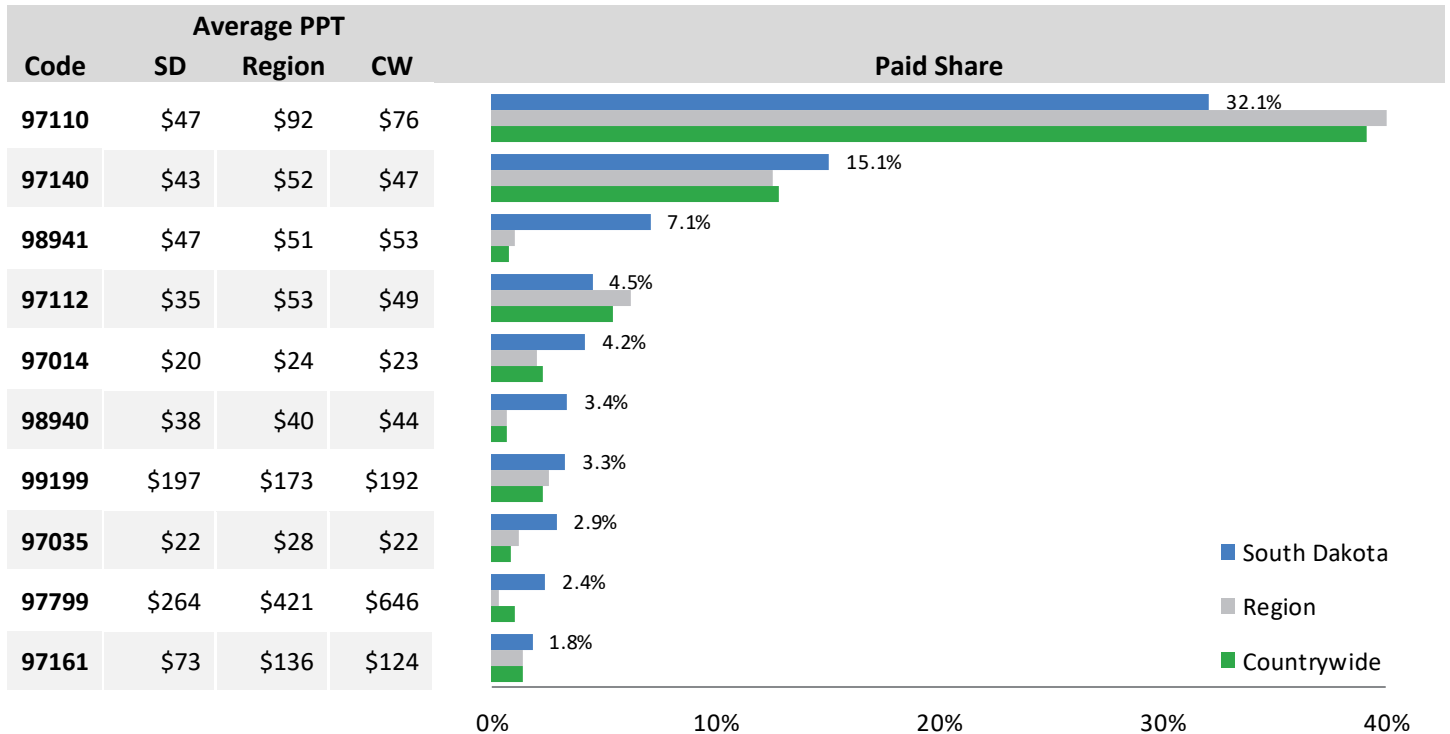
| Code  | No TC or 26 Modifier | Professional | Technical |
|-------|----------------------|--------------|-----------|
| 73221 | \$802                | \$167        | \$775     |
| 73721 | \$784                | \$170        | \$726     |
| 72148 | \$907                | \$174        | \$678     |
| 72141 | \$892                | \$169        | \$666     |
| 73030 | \$46                 | \$19         | \$29      |
| 70450 | \$439                | \$92         | \$284     |
| 72100 | \$58                 | \$23         | \$36      |
| 73610 | \$48                 | \$18         | \$33      |
| 73110 | \$47                 | \$19         | \$29      |
| 73630 | \$47                 | \$19         | \$29      |



In South Dakota, physician payments for physical and general medicine services provided in 2017 are, on average, 105% of Medicare scheduled reimbursement amounts, compared to 150% in the region and 131% countrywide. Payments for these services comprise 34% of physician payments, compared to 36% in the region and 34% countrywide.

Chart 13

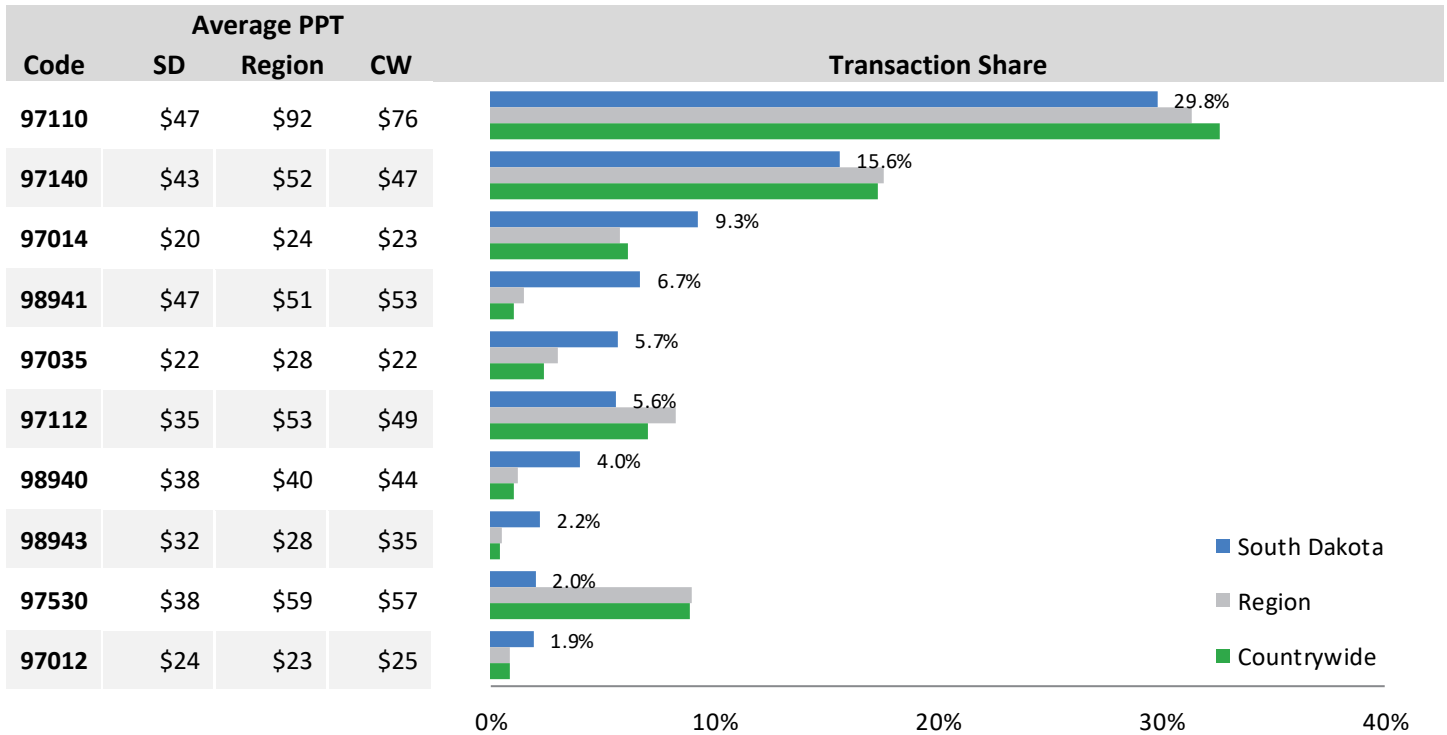
Top 10 Physical and General Medicine Procedure Codes by Amount Paid



| 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 |
| 97014 | Application of a modality to 1 or more areas; electrical stimulation (unattended)   |
| 98940 | Chiropractic manipulative treatment (CMT); spinal, 1-2 regions  |
| 99199 | Unlisted special service procedure or report  |
| 97035 | Application of a modality to 1 or more areas; ultrasound, each 15 minutes   |
| 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   |

Chart 14

Top 10 Physical and General Medicine Procedure Codes by Transaction Counts



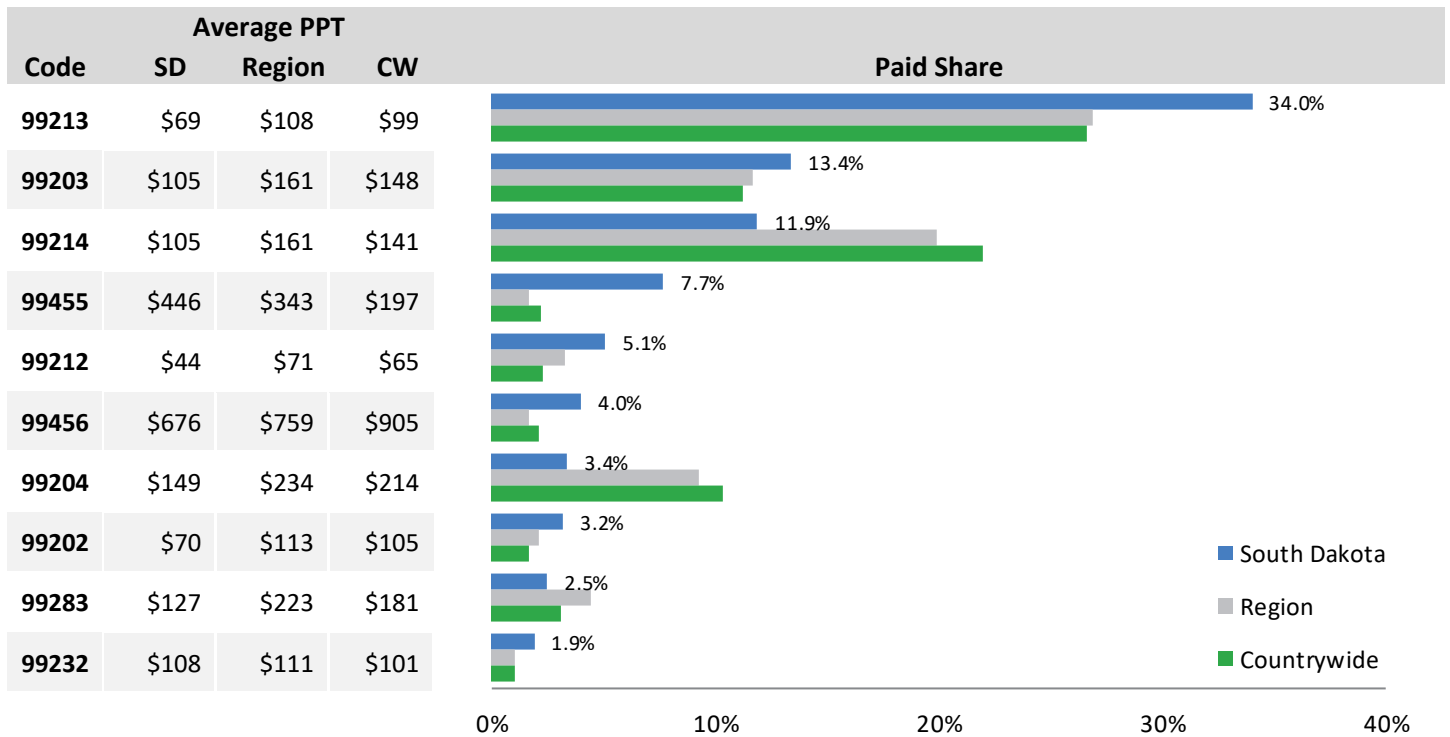
| Code  | Description   |
|-------|---|
| 97110 | Therapeutic procedure, 1 or more areas, each 15 minutes; therapeutic exercises to develop strength and endurance, range of motion, and flexibility  |
| 97140 | Manual therapy techniques (e.g., mobilization/manipulation, manual lymphatic drainage, manual traction), 1 or more regions, each 15 minutes   |
| 97014 | Application of a modality to 1 or more areas; electrical stimulation (unattended)   |
| 98941 | Chiropractic manipulative treatment (CMT); spinal 3-4 regions   |
| 97035 | Application of a modality to 1 or more areas; ultrasound, each 15 minutes   |
| 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 |
| 98940 | Chiropractic manipulative treatment (CMT); spinal, 1-2 regions  |
| 98943 | Chiropractic manipulative treatment (CMT); extraspinal, 1 or more regions   |
| 97530 | Therapeutic activities, direct (one-on-one) patient contact by the provider (use of dynamic activities to improve functional performance), each 15 minutes  |
| 97012 | Application of a modality to 1 or more areas; traction, mechanical  |



In South Dakota, physician payments for evaluation and management services provided in 2017 are, on average, 103% of Medicare scheduled reimbursement amounts, compared to 165% in the region and 141% countrywide. Payments for these services comprise 21% of physician payments, compared to 20% in the region and 23% countrywide.

Chart 15

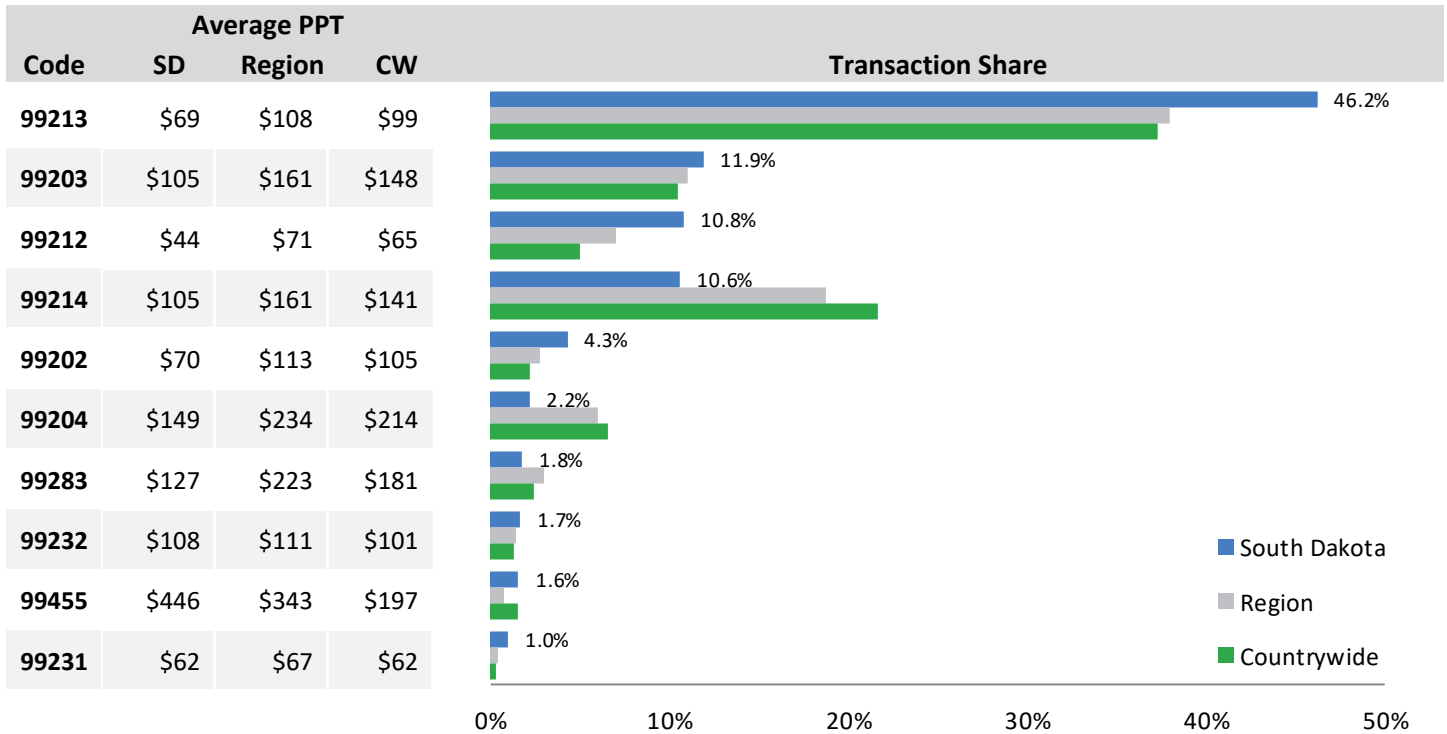
Top 10 Evaluation and Management Procedure Codes by Amount Paid



| 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.                                 |
| 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.   |
| 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.                                |
| 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.   |
| 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.  |
| 99283 | Emergency department visit. Usually the presenting problem(s) are of moderate severity.   |
| 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 16

#### 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.                                 |
| 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.                                       |
| 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.                                |
| 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.   |
| 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. |
| 99455 | Work related or medical disability examination by the treating physician.   |
| 99231 | Subsequent hospital care, per day, for the evaluation and management of a patient, for low complexity problem(s). Typically, 15 minutes are spent at the bedside and on the patient's hospital floor or unit.   |

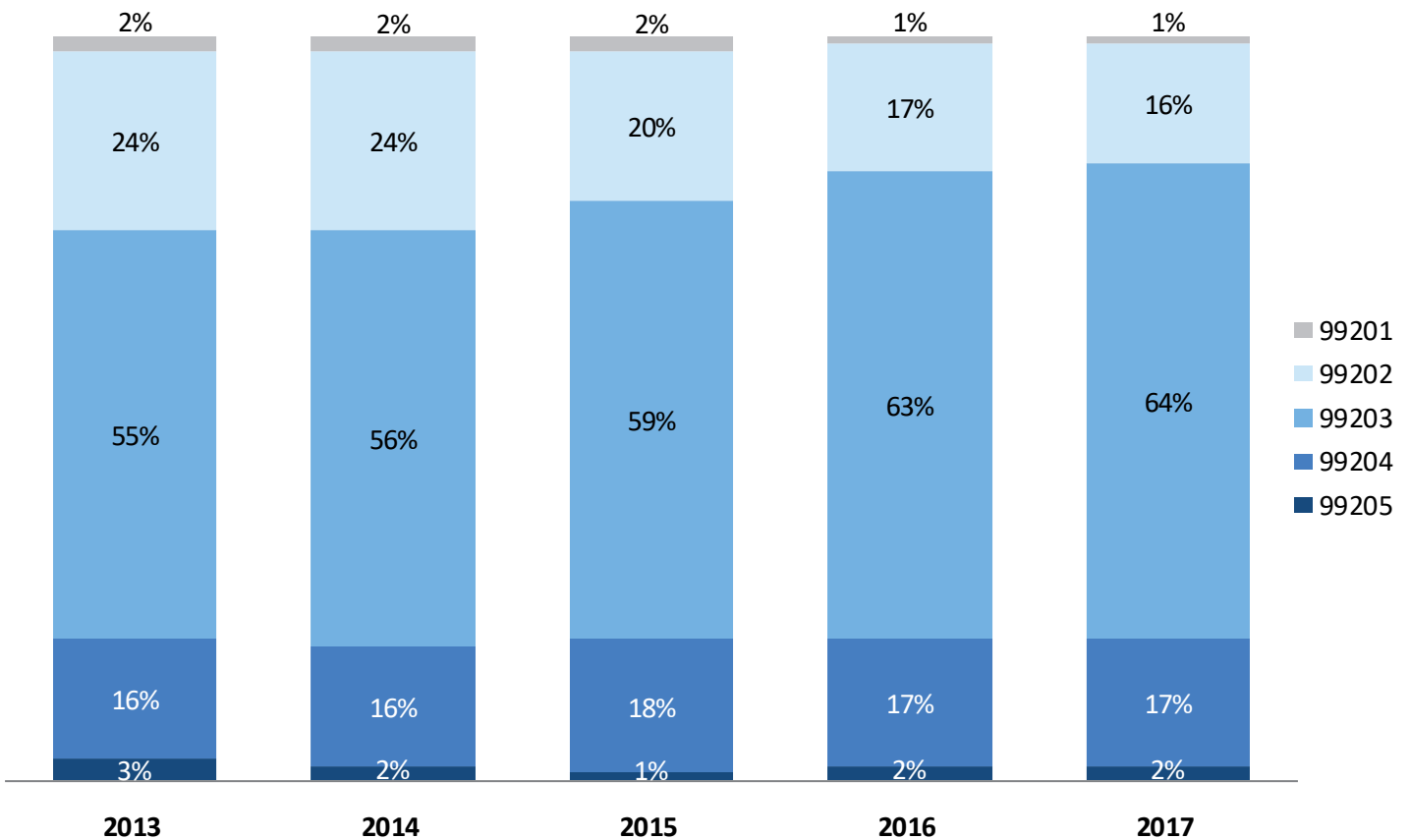


Evaluation and Management services consist largely of office or outpatient visits for a new patient or an established patient.

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 17 shows a five-year snapshot of experience for each procedure type and the average amount paid per transaction.

Chart 17

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



Source: NCCI's Medical Data Call, Service Years 2013 to 2017.

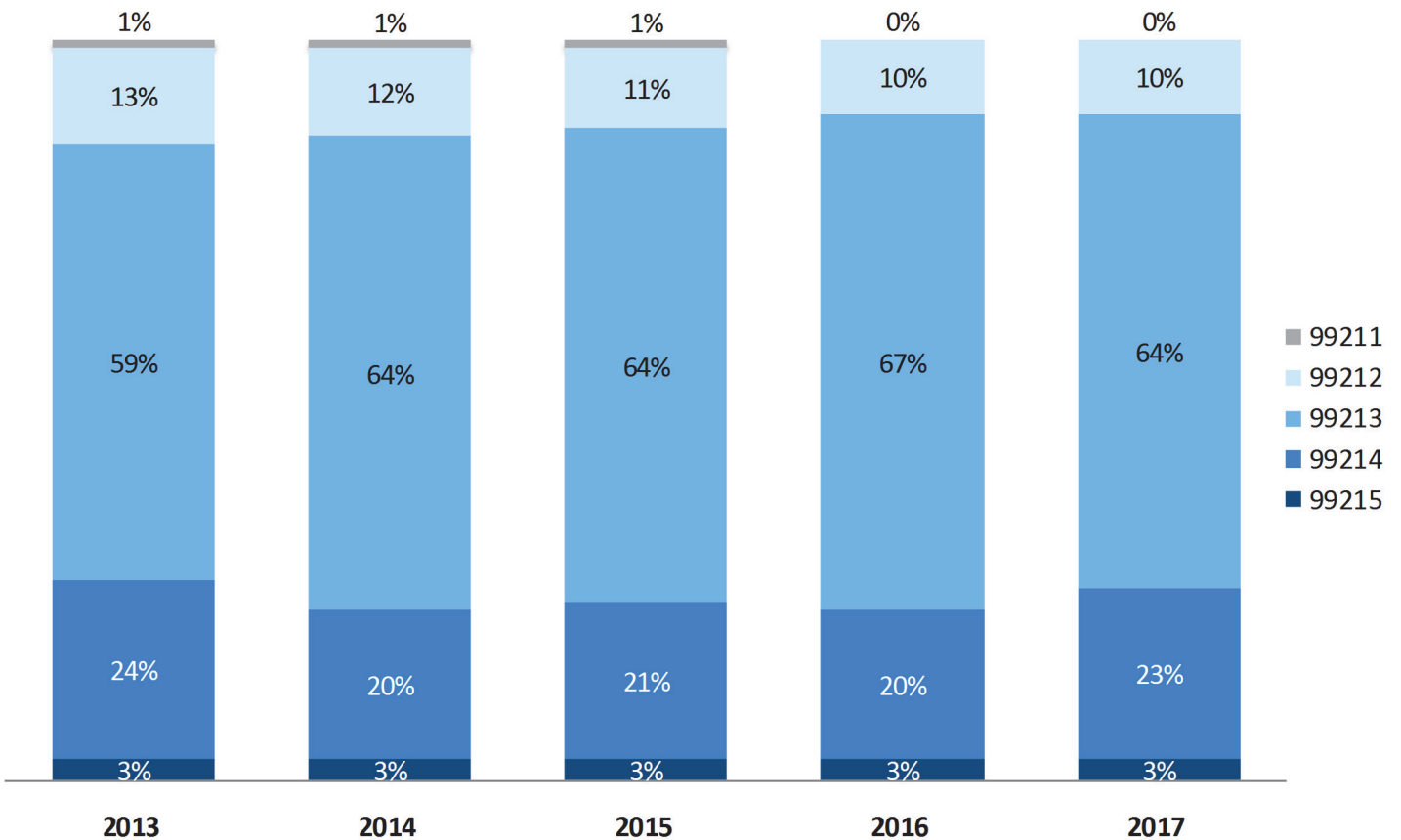
| Code  | Severity/Time                             | Average PPT |       |       |       |       |
|-------|---|-------------|-------|-------|-------|-------|
|       |   | 2013        | 2014  | 2015  | 2016  | 2017  |
| 99201 | Low to Moderate; 10 minutes with patient  | \$42        | \$44  | \$44  | \$43  | \$44  |
| 99202 | Low to Moderate; 20 minutes with patient  | \$68        | \$69  | \$69  | \$70  | \$70  |
| 99203 | Moderate; 30 minutes with patient         | \$103       | \$103 | \$103 | \$104 | \$105 |
| 99204 | Moderate to High; 45 minutes with patient | \$147       | \$150 | \$150 | \$149 | \$149 |
| 99205 | Moderate to High; 60 minutes with patient | \$188       | \$184 | \$193 | \$208 | \$214 |



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 18 shows a five-year snapshot of experience for each procedure type and the average amount paid per transaction.

**Chart 18**

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



Source: NCCI's Medical Data Call, Service Years 2013 to 2017.

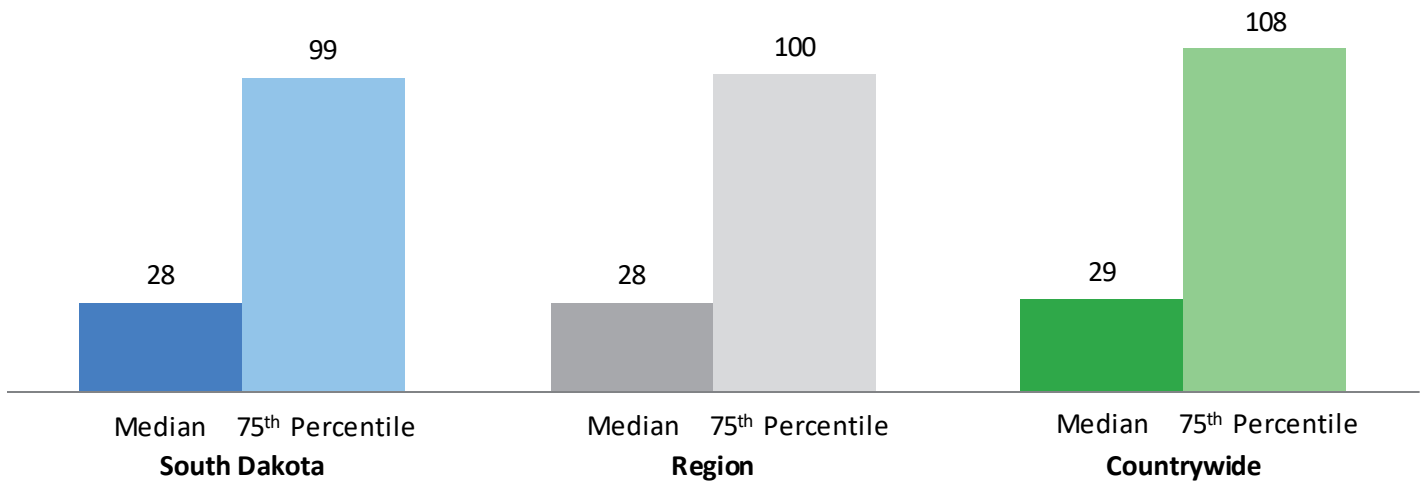
| Code  | Severity/Time                             | Average PPT |       |       |       |       |
|-------|---|-------------|-------|-------|-------|-------|
|       |   | 2013        | 2014  | 2015  | 2016  | 2017  |
| 99211 | Low to Moderate; 5 minutes with patient   | \$26        | \$26  | \$26  | \$25  | \$25  |
| 99212 | Low to Moderate; 10 minutes with patient  | \$43        | \$44  | \$44  | \$44  | \$44  |
| 99213 | Moderate; 15 minutes with patient         | \$66        | \$68  | \$67  | \$68  | \$69  |
| 99214 | Moderate to High; 25 minutes with patient | \$98        | \$101 | \$102 | \$104 | \$105 |
| 99215 | Moderate to High; 40 minutes with patient | \$135       | \$144 | \$141 | \$150 | \$148 |



One measure of the availability of medical services is time until first treatment. Time to treatment (TTT) is measured by the number of days between date of injury and the date on which the worker first received medical services. Charts 19 through 22 show the median and 75th percentile<sup>3</sup> TTT by physician service category 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, that may extend the time between the date a work-related injury or disease is reported to a workers compensation insurer and the first medical treatment an insurer is responsible for.

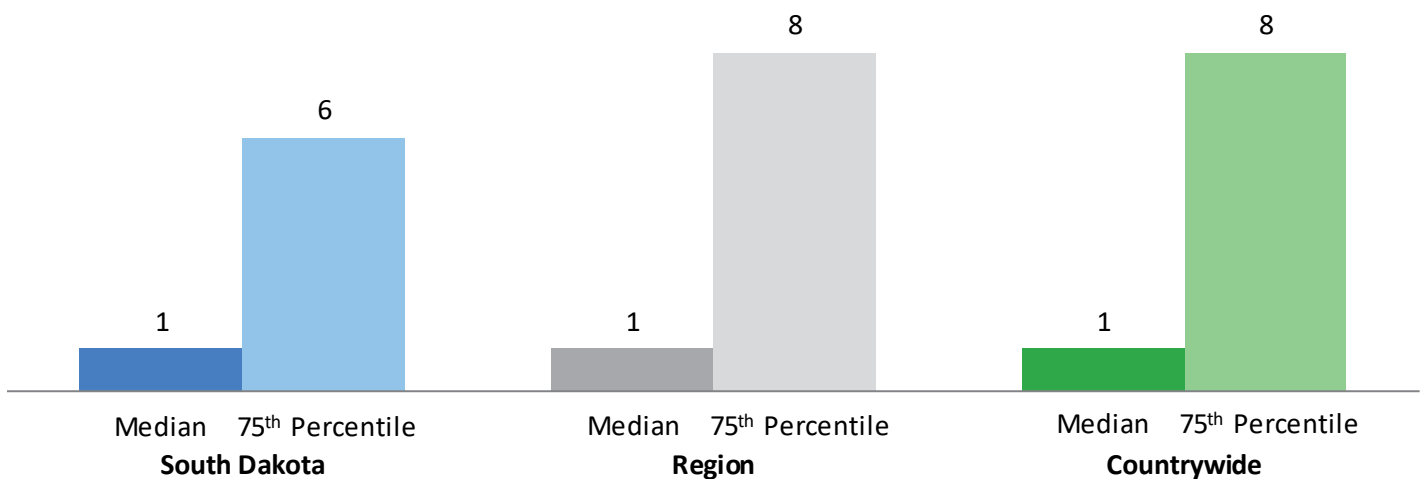
### Chart 19

#### Time Until First Treatment for Major Surgery<sup>4</sup> (in Days)



### Chart 20

#### Time Until First Treatment for Radiology (in Days)



Source: NCCI's Medical Data Call for Accident Year 2016 and Service Years 2016 and 2017.

<sup>3</sup> 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 19 indicates that out of 100 claimants, 75 will receive major surgical treatment within 99 days of their accident date. Comparing the median to the 75th percentile illustrates the variation in TTT between claims.

<sup>4</sup> A surgical service is defined as "major surgery" or "minor surgery" within the surgical category as defined by the AMA.



Chart 21

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

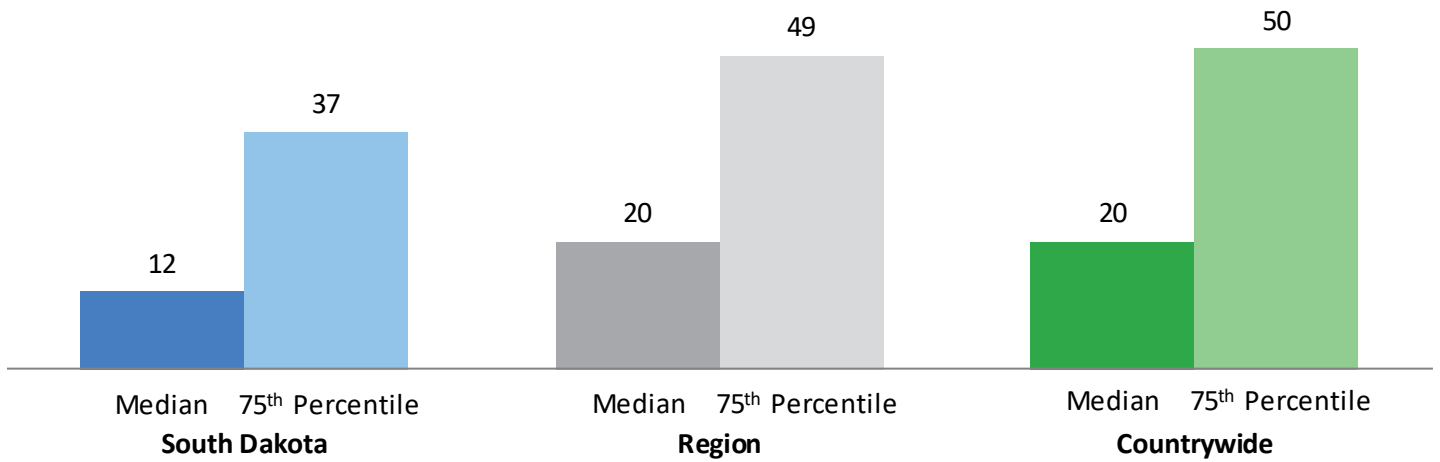
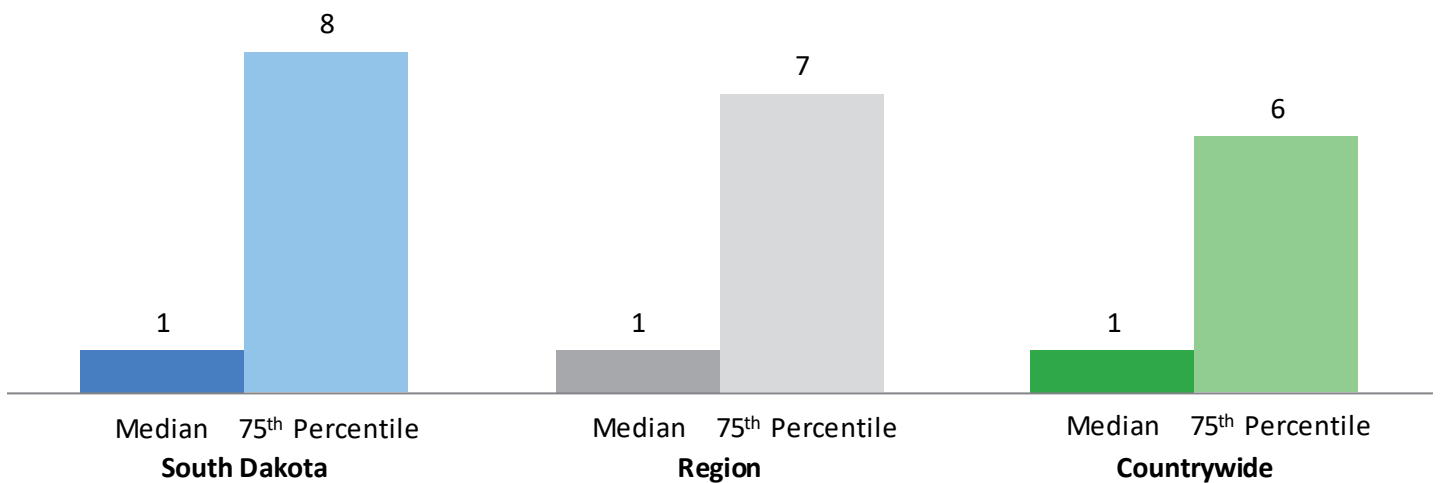


Chart 22

Time Until First Treatment for Evaluation and Management Visit (in Days)



Source: NCCI's Medical Data Call for Accident Year 2016 and Service Years 2016 and 2017.



### 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 were mostly established in the last decade. Several states remain without such regulation today. Unlike physician fee schedules, hospital inpatient fee schedules vary a great deal. Some are based on Medicare, others reflect a discount off the charge master established by the hospitals, and yet others are based on per diem rates.

A hospital inpatient stay is typically reported with one of two types of codes: a diagnosis-related group (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, 42% 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 schedule reimbursement amounts for hospital inpatient payments for South Dakota, the region, and countrywide.

Chart 23

#### Hospital Inpatient Payments as a Percentage of Medicare

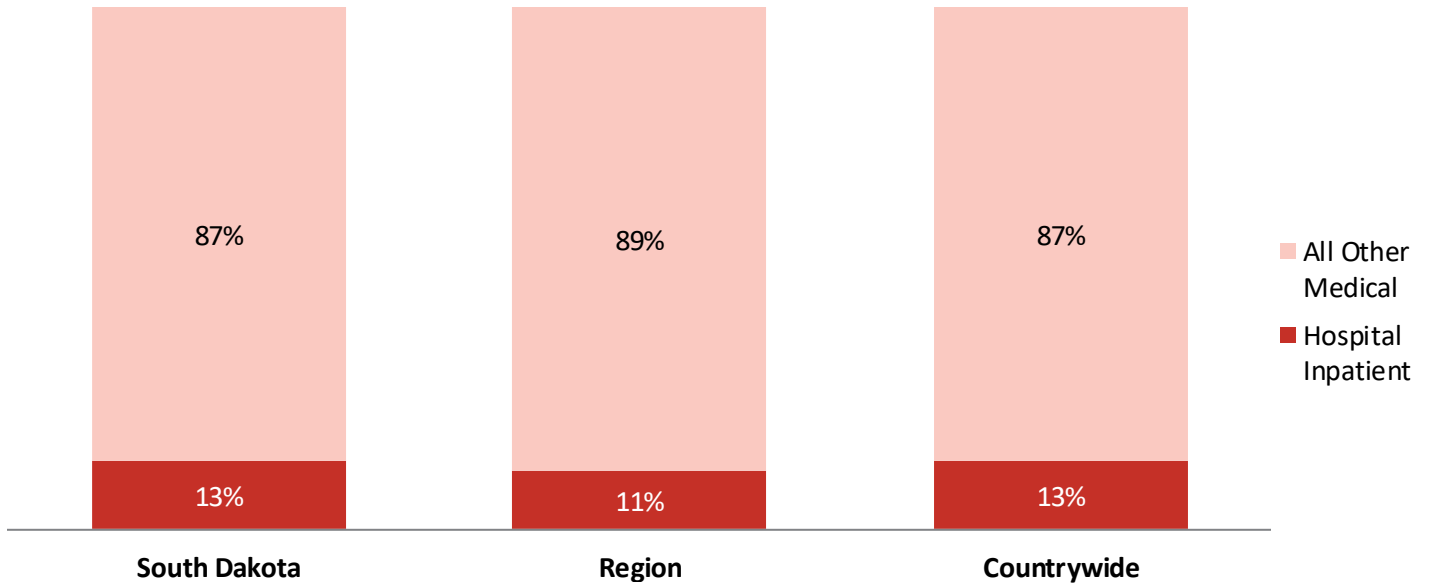
| Medical Cost Category | South Dakota | Region | Countrywide |
|-----------------------|--------------|--------|-------------|
| Hospital Inpatient    | 254%         | 190%   | 191%        |

Source: NCCI’s Medical Data Call for Service Year 2017. 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 24 displays the percentage of medical payments for hospital inpatient services for South Dakota, the region, and countrywide.

**Chart 24**

**Distribution of Medical Payments for Hospital Inpatient**

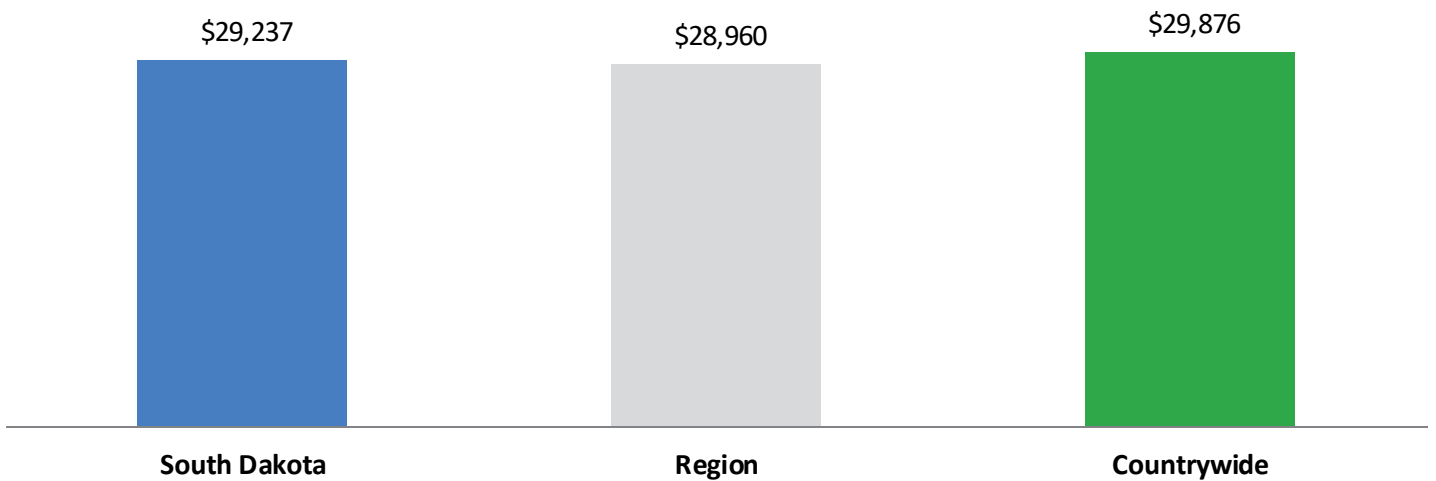


One comparative measure of inpatient service costs is the average payment per inpatient stay. An inpatient stay is defined as any hospital service or set of services provided to a claimant during the period of time when the claimant is in an inpatient setting, for a specific diagnosis. Any stay may have more than one procedure performed, and any claimant may have more than one stay.

Chart 25 displays the average amount paid per stay for hospital inpatient services, while Chart 26 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 25**

**Average Inpatient Amount Paid per Stay for Hospital Inpatient Services**



**Chart 26**

**Average Inpatient Amount Paid per Day for Hospital Inpatient Services**

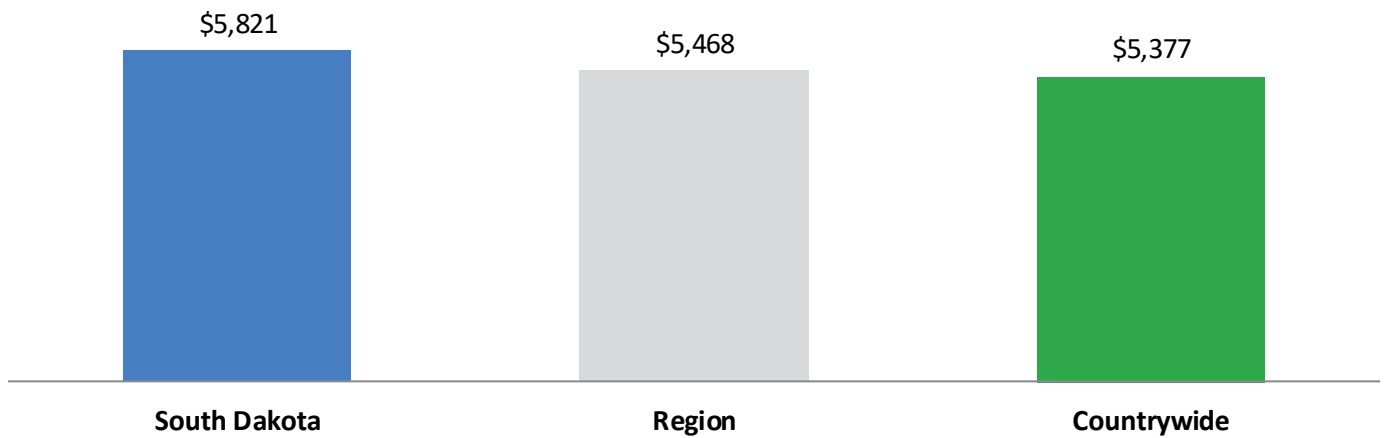
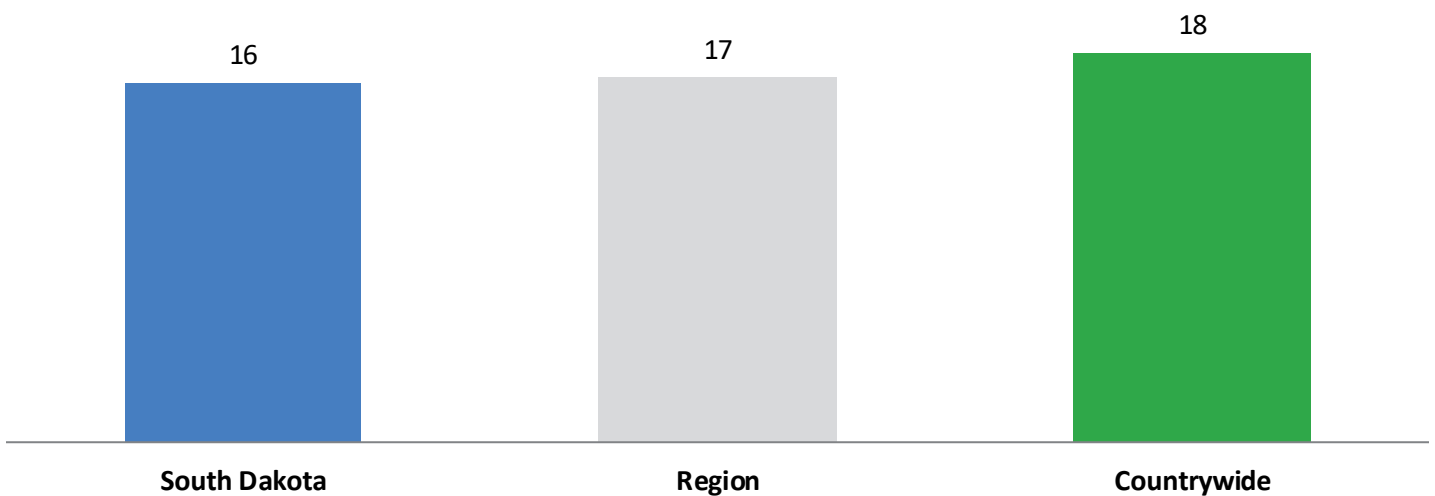




Chart 27 displays the average number of hospital inpatient stays per 1,000 active claims in 2017 for South Dakota, the region, and countrywide. An active claim is a workers compensation claim for which there is at least one medical service provided during that service year. Chart 28 displays the average 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 27

#### Average Number of Inpatient Stays per 1,000 Active Claims



### Chart 28

#### Length of Stay for Hospital Inpatient Services

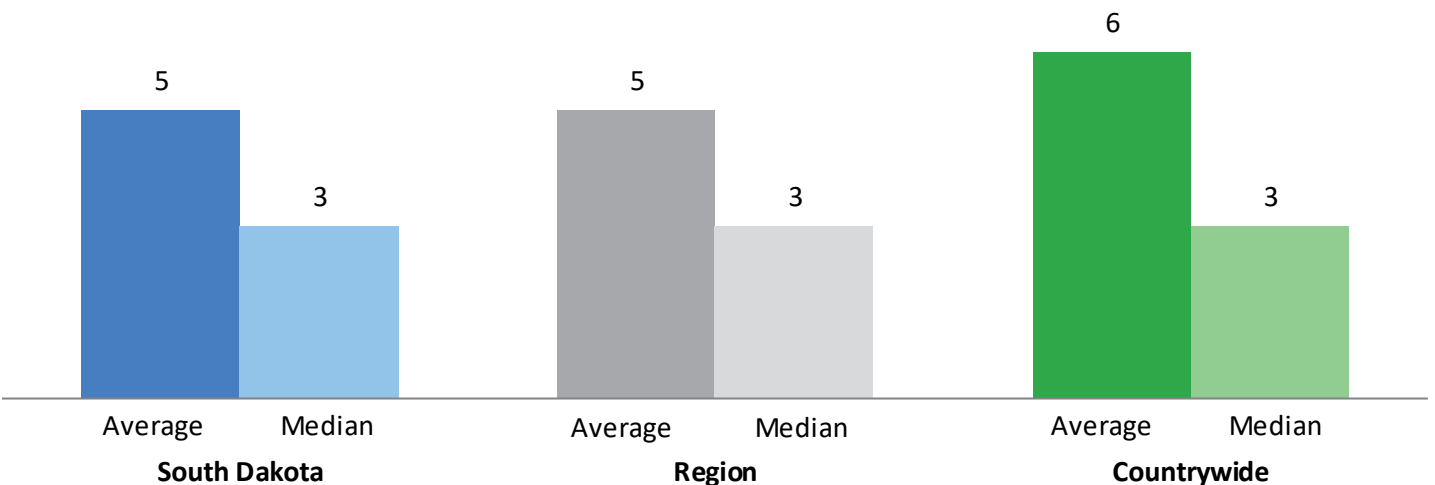
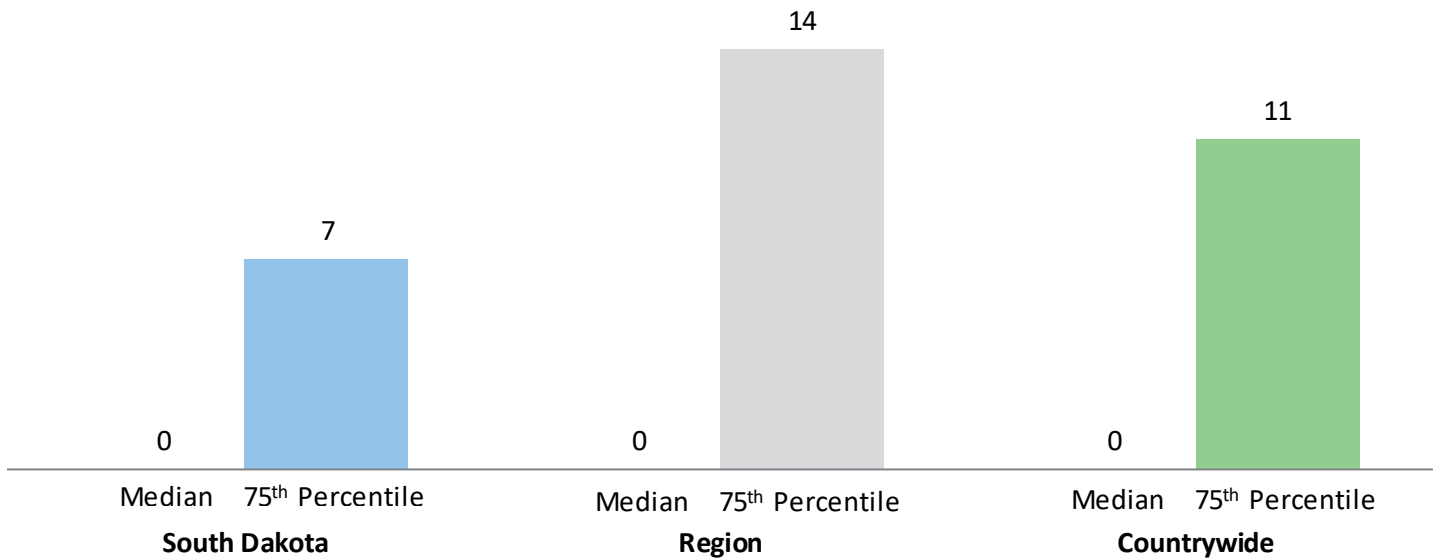


Chart 29 shows the median and 75th percentile time until first treatment for inpatient stays, other than emergency room visits, for South Dakota, the region, and countrywide.

**Chart 29**

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



Source: NCCI's Medical Data Call for Accident Year 2016 and Service Years 2016 and 2017.



Charts 30 and 31 display the top 10 diagnosis groups and top 10 DRG codes for hospital inpatient services, revealing the most prevalent types of hospital inpatient stays. Diagnosis group and body system are 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 31.

**Chart 30**

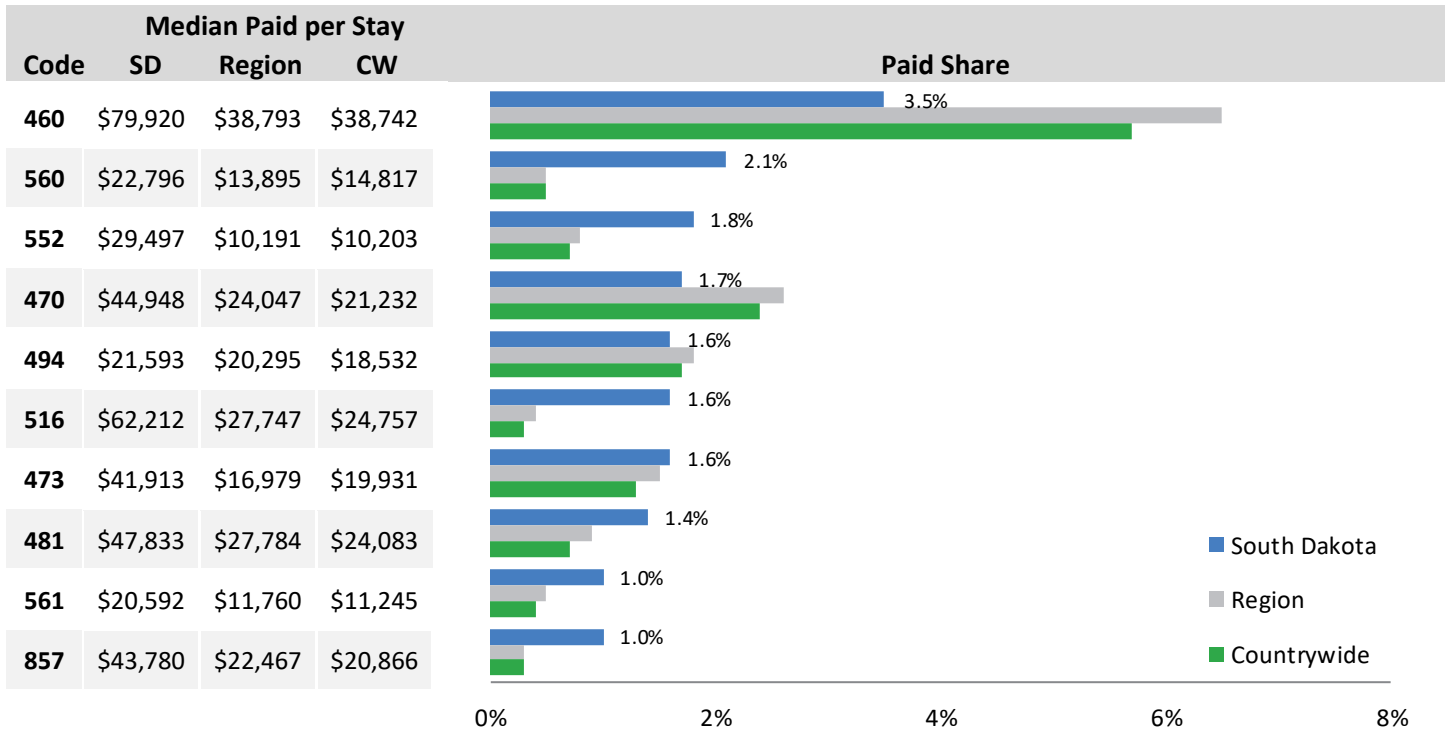
**Top 10 Diagnosis Groups by Amount Paid for Hospital Inpatient Services**

| Diagnosis Group  | Paid Share | Median Amount Paid per Stay |          |             |
|--|------------|-----------------------------|----------|-------------|
|  |            | South Dakota                | Region   | Countrywide |
| Fracture of lower leg, including ankle                                       | 8.5%       | \$21,593                    | \$19,333 | \$18,514    |
| Lumbosacral intervertebral disc disorders                                    | 6.1%       | \$43,643                    | \$25,688 | \$25,084    |
| Hip/pelvis fracture/major trauma   | 6.0%       | \$17,333                    | \$20,447 | \$19,257    |
| Intracranial injury  | 5.1%       | \$26,715                    | \$20,314 | \$21,210    |
| Fracture of lumbar spine and pelvis  | 4.7%       | \$29,600                    | \$17,624 | \$18,820    |
| Complications of internal orthopedic prosthetic devices, implants and grafts | 3.8%       | \$29,648                    | \$19,403 | \$21,011    |
| Lumbar spine degeneration  | 3.6%       | \$32,747                    | \$29,360 | \$30,504    |
| Paraplegia (paraparesis) and quadriplegia (quadriparesis)                    | 3.2%       | \$150,767                   | \$23,530 | \$23,886    |
| Fracture of rib(s), sternum and thoracic spine                               | 3.1%       | \$15,493                    | \$17,588 | \$16,118    |
| Knee degenerative/overuse injuries   | 2.9%       | \$20,932                    | \$21,698 | \$18,562    |

Source: NCCI's Medical Data Call for Service Years 2016 and 2017

Chart 31

Top 10 DRG Codes by Amount Paid for Hospital Inpatient Services



| Code | Description  |
|------|--|
| 460  | Spinal fusion, except cervical, without major complications or comorbidities   |
| 560  | Aftercare, musculoskeletal system and connective tissue with complications or comorbidities  |
| 552  | Medical back problems without major complications or comorbidities   |
| 470  | Major joint replacement or reattachment of lower extremity without major complications or comorbidities  |
| 494  | Lower extremity and humerus procedures except hip, foot, and femur without complications or comorbidities/major complications or comorbidities |
| 516  | Other musculoskeletal system and connective tissue operating room procedures with complications or comorbidities                               |
| 473  | Cervical spinal fusion without complications or comorbidities/major complications or comorbidities   |
| 481  | Hip and femur procedures except major joint with complications or comorbidities  |
| 561  | Aftercare, musculoskeletal system and connective tissue without complications or comorbidities/major complications or comorbidities            |
| 857  | Postoperative or posttraumatic infections with operating room procedure with complications or comorbidities                                    |

Source: NCCI's Medical Data Call for Service Years 2016 and 2017



### 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 surgical service is defined as “major surgery” or “minor surgery” within the surgical category defined by the AMA. In this section, we provide measures of hospital outpatient payments that take into account 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 schedule reimbursement amounts for hospital outpatient payments for South Dakota, the region, and countrywide.

Chart 32

Hospital Outpatient Payments as a Percentage of Medicare

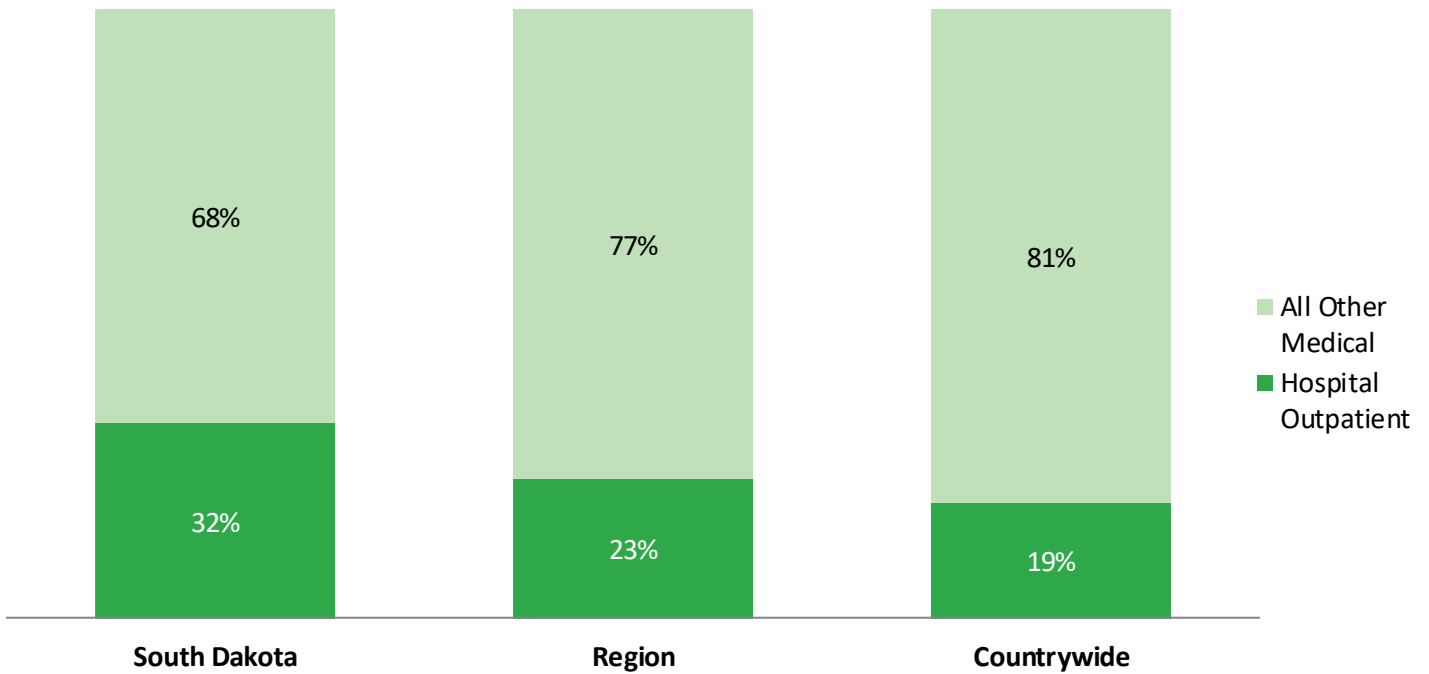
| Medical Cost Category | South Dakota | Region | Countrywide |
|-----------------------|--------------|--------|-------------|
| Hospital Outpatient   | 251%         | 273%   | 256%        |

Source: NCCI’s Medical Data Call for Service Year 2017. 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 33 displays percentage of medical payments for hospital outpatient services for South Dakota, the region, and countrywide.

**Chart 33**

**Distribution of Medical Payments for Hospital Outpatient**

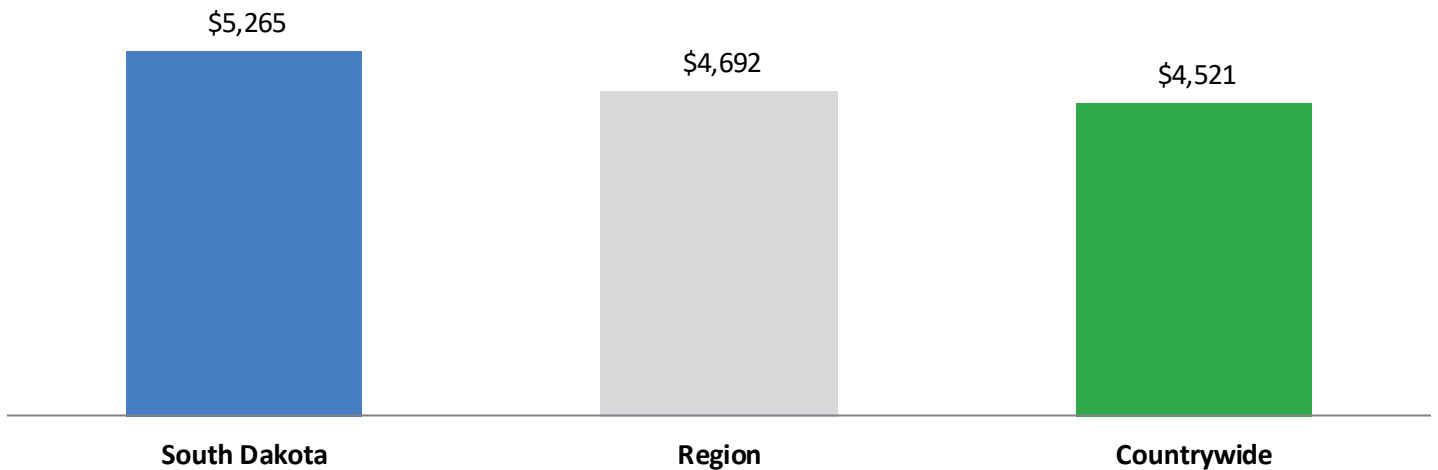




Surgical services represent 63% of hospital outpatient payments in South Dakota. Chart 34 displays the average amount paid per visit for hospital outpatient surgical services, while Chart 35 displays the average number of visits per year per 1,000 active claims for hospital outpatient surgical services for South Dakota, the region, and countrywide. Note that there are no controls for mix of diagnosis or severity of claims between jurisdictions.

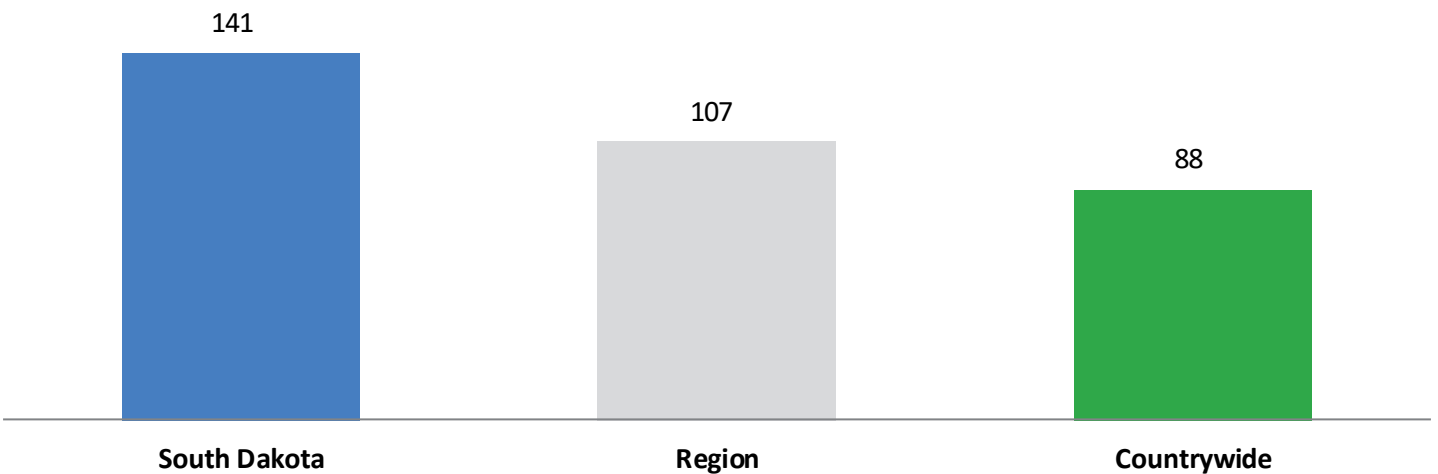
**Chart 34**

**Average Amount Paid per Surgical Visit for Hospital Outpatient Services**



**Chart 35**

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

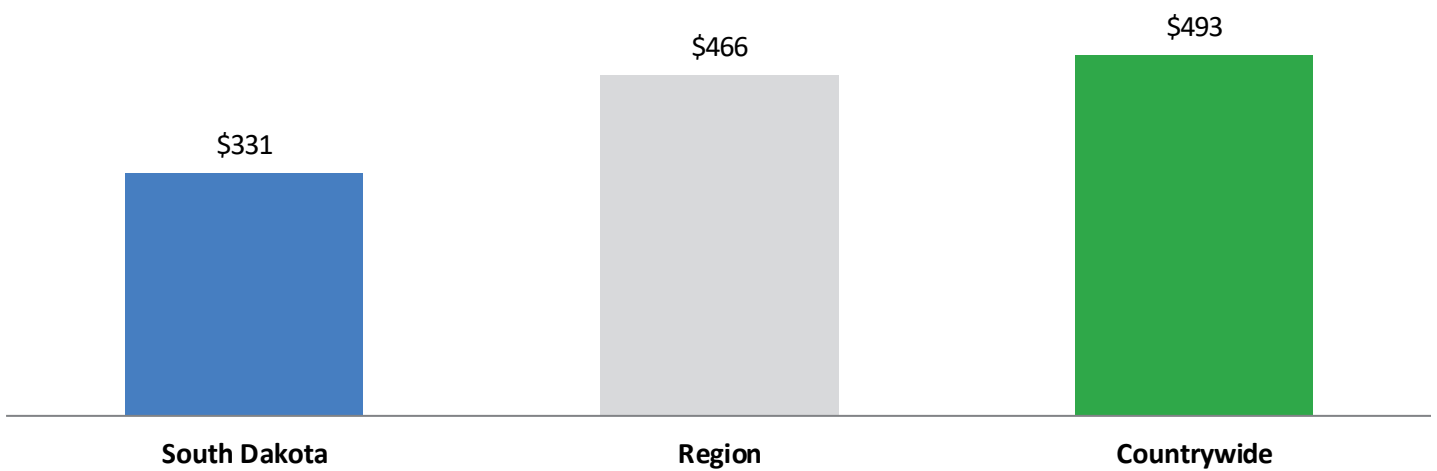




Nonsurgical services (such as physical therapy) represent 37% of hospital outpatient payments in South Dakota. Chart 36 displays the average amount paid per visit for hospital outpatient nonsurgical services, while Chart 37 displays the average number of visits per year per 1,000 active claims for hospital outpatient nonsurgical 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 36

#### Average Amount Paid per Nonsurgical Visit for Hospital Outpatient Services



### Chart 37

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

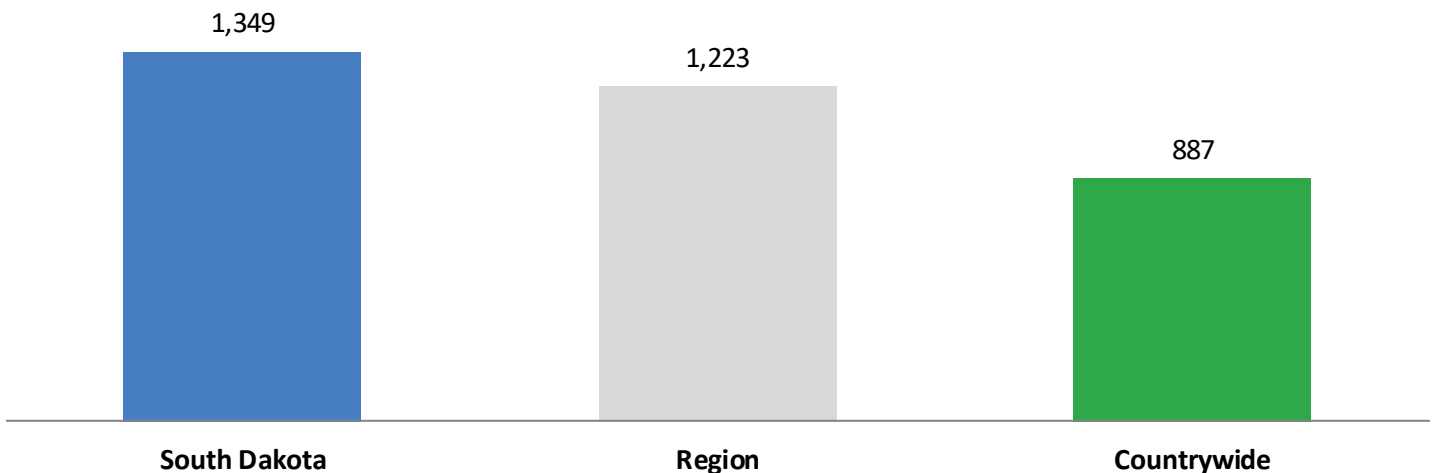
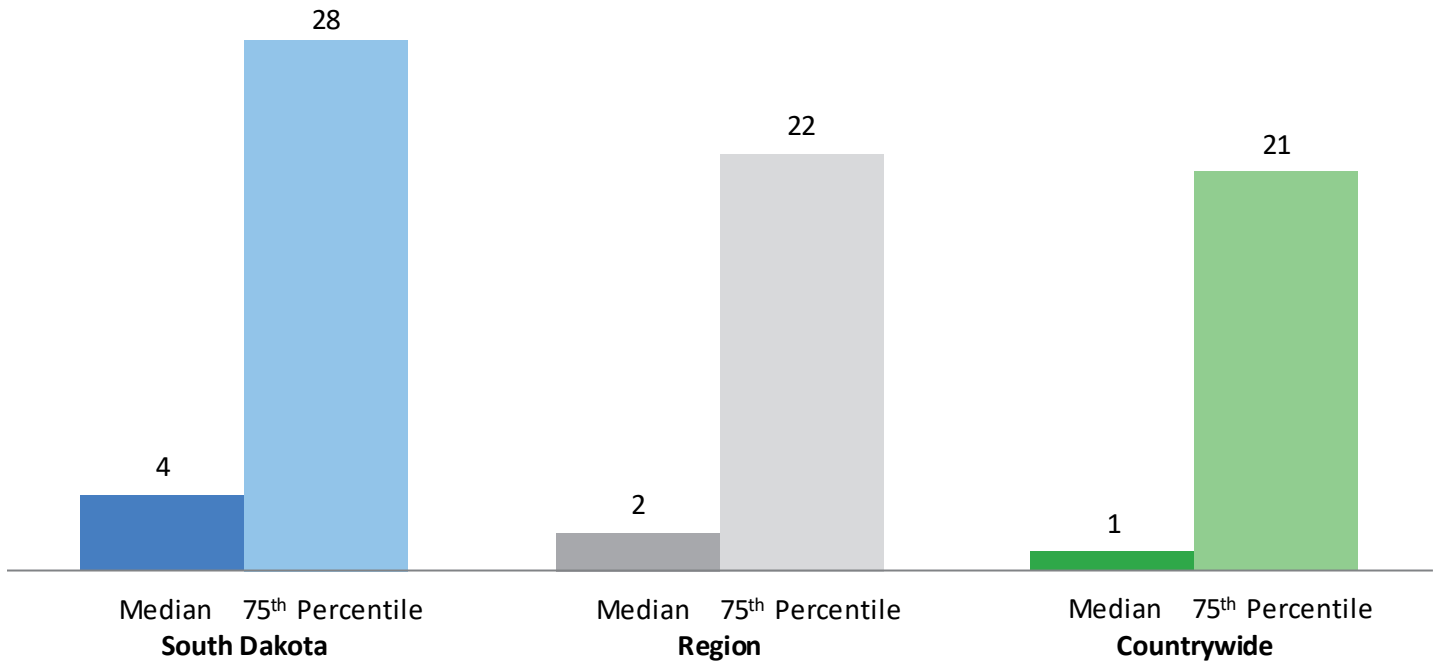


Chart 38 shows the median and 75th percentile time until first treatment for outpatient visits, other than emergency room visits, for South Dakota, the region, and countrywide.

### Chart 38

#### Time Until First Treatment for Outpatient Visits (in Days)



Source: NCCI's Medical Data Call for Accident Year 2016 and Service Years 2016 and 2017.



Chart 39 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 39

**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                              | 9.8%       | \$114                        | \$235  | \$204       |
| Other joint disorder, not elsewhere classified | 5.8%       | \$98                         | \$209  | \$183       |
| Knee internal derangement - meniscus injury    | 4.4%       | \$811                        | \$369  | \$333       |
| Other and unspecified osteoarthritis           | 3.7%       | \$1,181                      | \$276  | \$288       |
| Fracture of lower leg, including ankle         | 2.8%       | \$98                         | \$252  | \$224       |
| Lumbosacral intervertebral disc disorders      | 2.7%       | \$262                        | \$334  | \$304       |
| Fracture of forearm                            | 2.6%       | \$108                        | \$263  | \$248       |
| Minor shoulder injury                          | 2.5%       | \$284                        | \$271  | \$232       |
| Open wound of wrist, hand and fingers          | 2.4%       | \$461                        | \$511  | \$507       |
| Fracture at wrist and hand level               | 2.3%       | \$250                        | \$294  | \$292       |

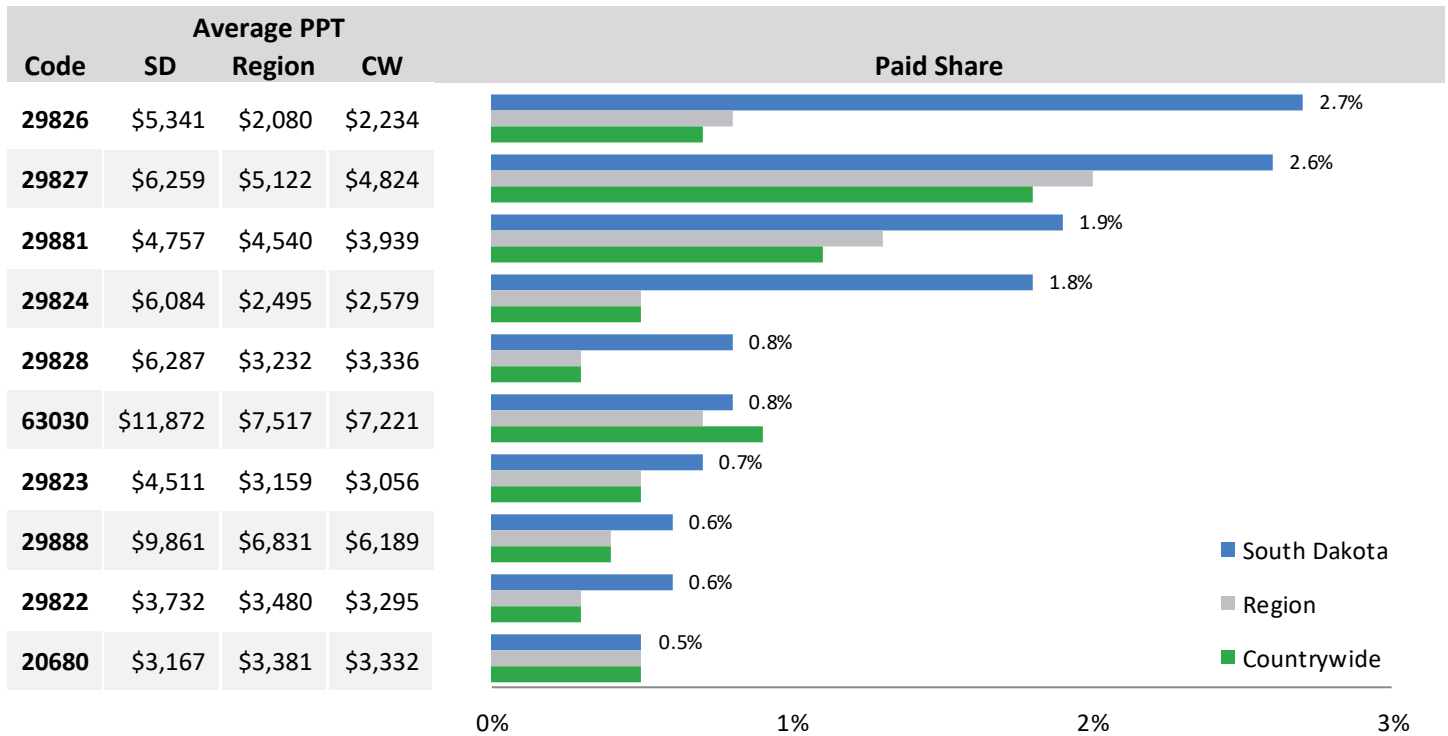




Charts 40 and 41 display the average amount paid per visit for outpatient services in South Dakota, the region, and countrywide for the top 10 surgery CPT and nonsurgery CPT codes in South Dakota. In 2017, 64% of Hospital Outpatient costs were reported with a CPT code. The codes are ranked based on total payments in South Dakota. A brief description of each code is displayed in the table below.

Chart 40

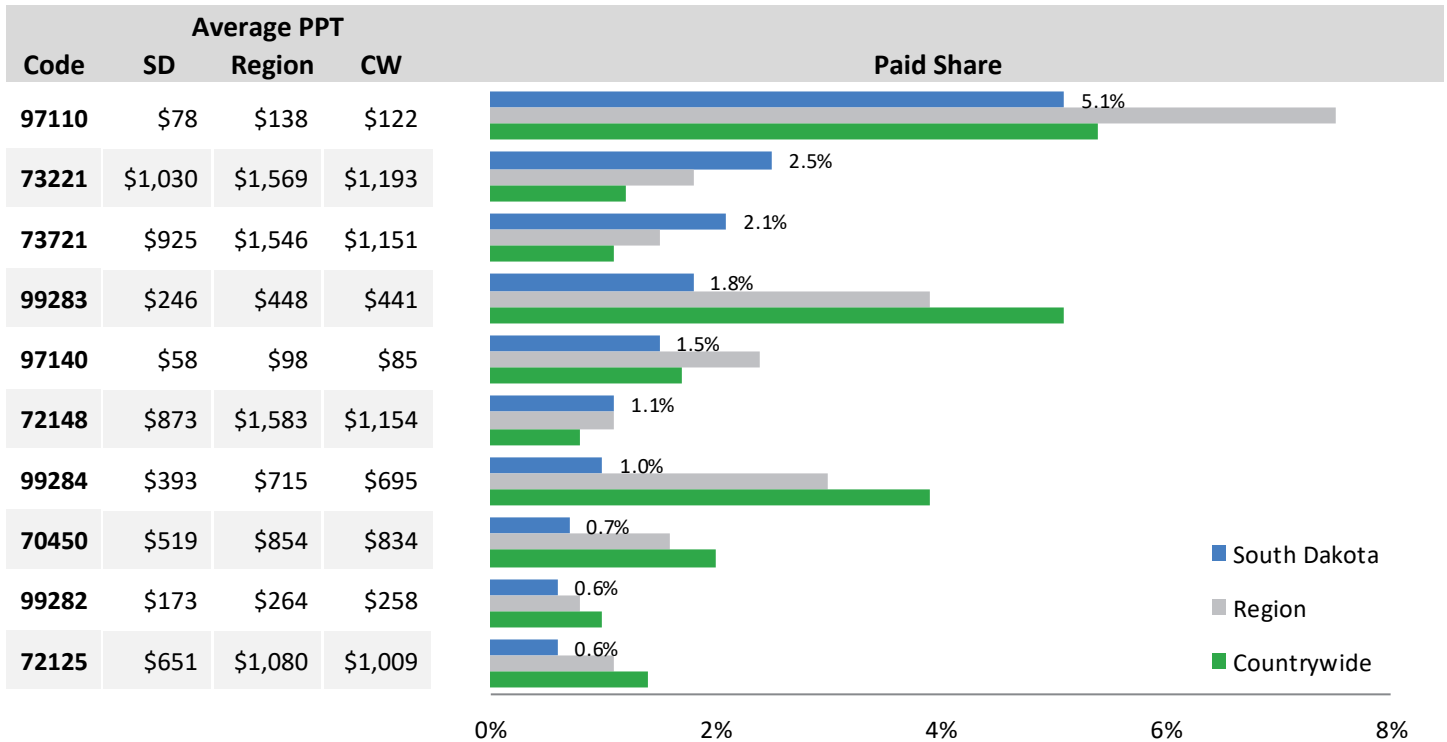
Top 10 Surgery Procedure Codes by Amount Paid for Hospital Outpatient Services



| Code  | Description   |
|-------|---|
| 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   |
| 29881 | Arthroscopy, knee, surgical; with meniscectomy (medial or lateral including any meniscal shaving), including debridement/shaving of articular cartilage                             |
| 29824 | Arthroscopy, shoulder, surgical; distal claviclectomy including distal articular surface (Mumford procedure)  |
| 29828 | Arthroscopy, shoulder, surgical; biceps tenodesis   |
| 63030 | Laminotomy (hemilaminectomy) with decompression of nerve root(s) including partial facetectomy, foraminotomy, and/or excision of herniated intervertebral disc; 1 interspace lumbar |
| 29823 | Arthroscopy, shoulder, surgical; debridement extensive  |
| 29888 | Arthroscopically aided anterior cruciate ligament repair/augmentation or reconstruction   |
| 29822 | Arthroscopy, shoulder, surgical; debridement limited  |
| 20680 | Removal of implant; deep (e.g., buried wire, pin, screw, metal, band, nail, rod or plate)   |

### Chart 41

#### 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   |
| 73721 | Magnetic resonance (e.g., proton) imaging, any joint of lower extremity; without contrast material   |
| 99283 | Emergency department visit. Usually the presenting problem(s) are of moderate severity.  |
| 97140 | Manual therapy techniques (e.g., mobilization/manipulation, manual lymphatic drainage, manual traction), 1 or more regions, each 15 minutes  |
| 72148 | Magnetic resonance (e.g., proton) imaging, spinal canal and contents, lumbar; without contrast material  |
| 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. |
| 70450 | Computed tomography (CT) head or brain; without contrast material  |
| 99282 | Emergency department visit. Usually the presenting problem(s) are of low to moderate severity.   |
| 72125 | Computed tomography (CT), cervical spine; without contrast material  |

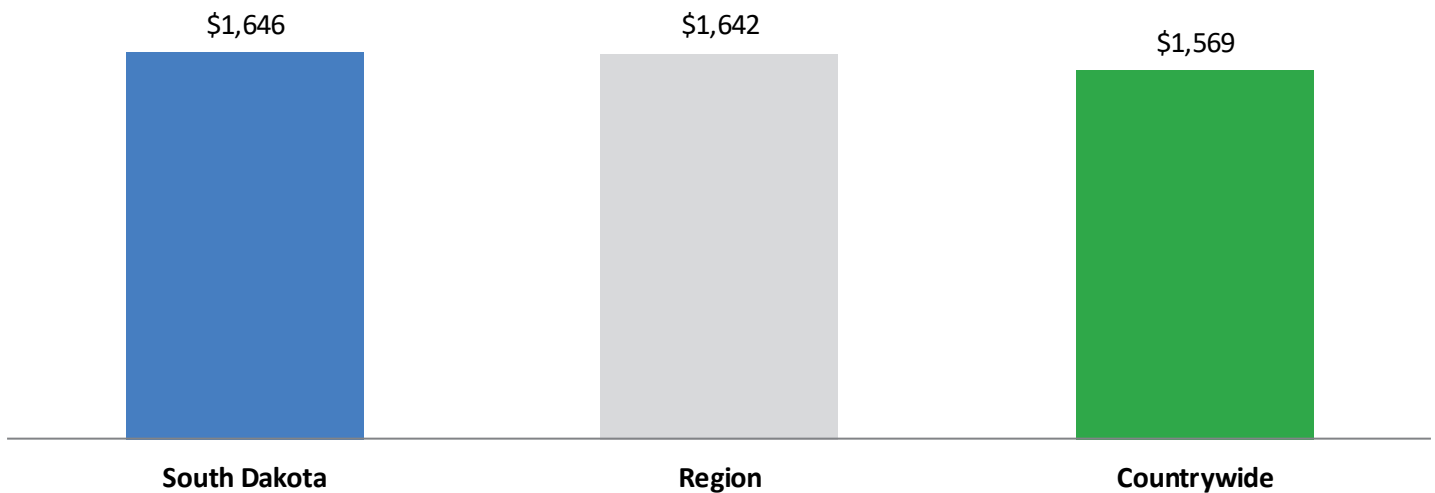


In South Dakota, 13% of the payments associated with facilities (ASC, hospital outpatient, and hospital inpatient) are for emergency room payments, compared to 18% countrywide.

Chart 42 displays the average amount paid per visit for emergency room services for South Dakota, the region, and countrywide. The average amount paid includes all payments for an emergency room 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 43 displays the number of visits per year per 1,000 active claims for emergency room services for South Dakota, as well as for the region and countrywide.

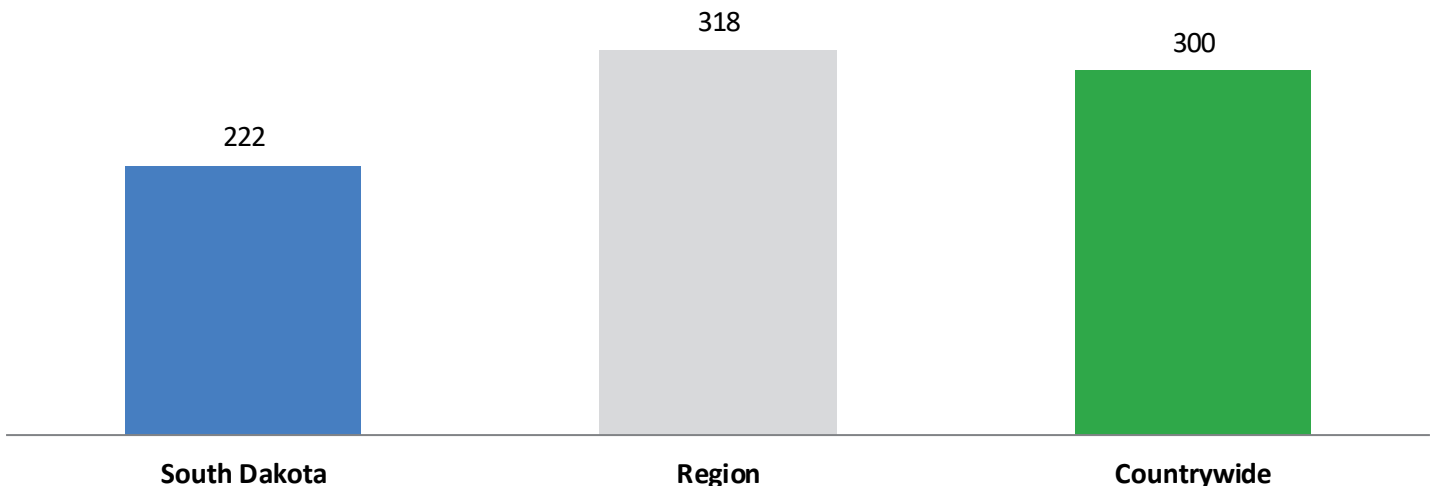
**Chart 42**

**Average Amount Paid per Emergency Room Visit**



**Chart 43**

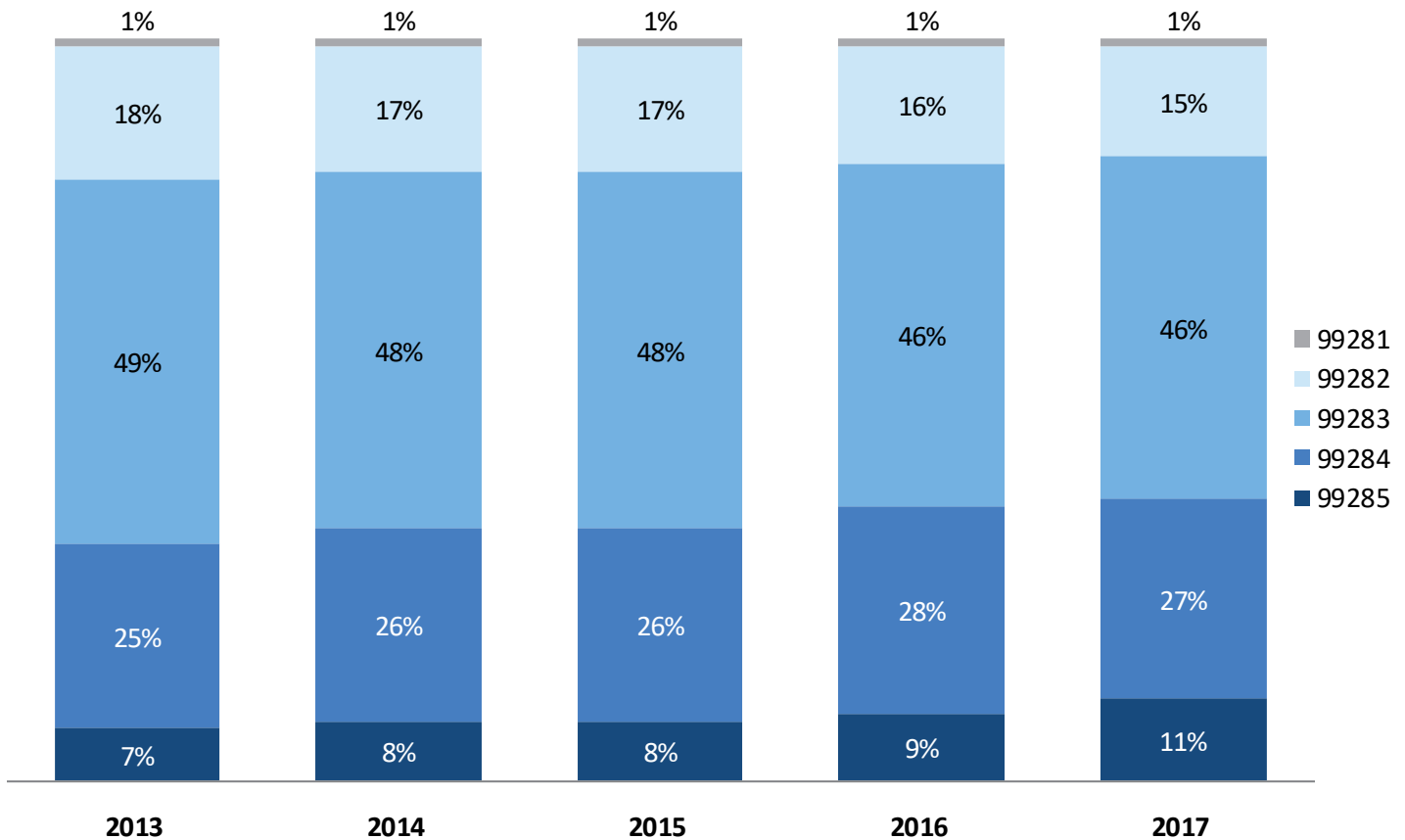
**Average Number of Emergency Room Visits per 1,000 Active Claims**



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 44 shows a five-year snapshot of experience for each procedure type and the average payment per transaction.

**Chart 44**

**Emergency Room Payments by Procedure Code for South Dakota**



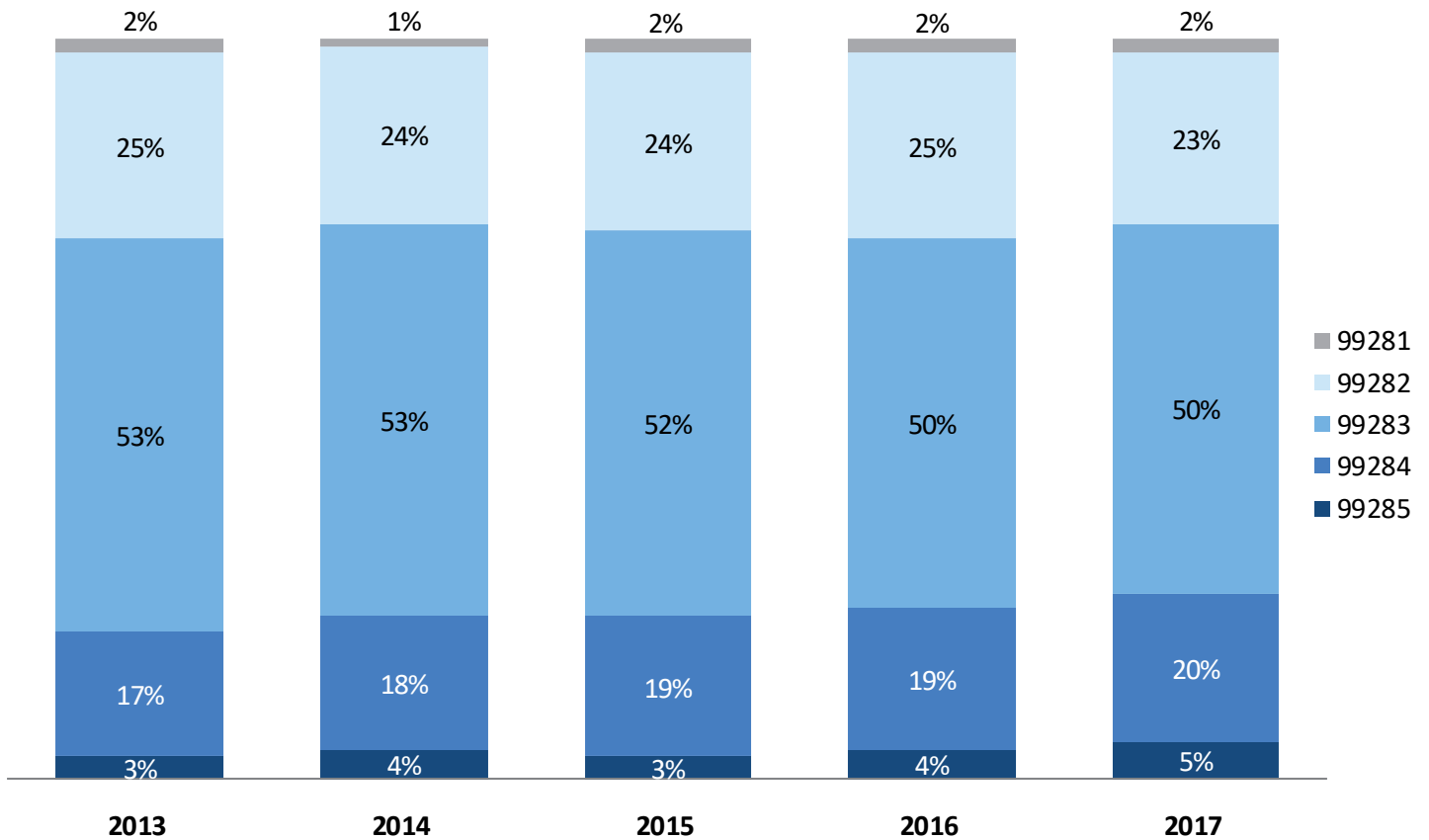
Source: NCCI's Medical Data Call, Service Years 2013 to 2017.

| Code  | Severity                              | Average PPT |       |       |       |       |
|-------|---------------------------------------|-------------|-------|-------|-------|-------|
|       |                                       | 2013        | 2014  | 2015  | 2016  | 2017  |
| 99281 | Minor                                 | \$64        | \$71  | \$77  | \$94  | \$85  |
| 99282 | Low to moderate                       | \$118       | \$125 | \$136 | \$142 | \$152 |
| 99283 | Moderate                              | \$160       | \$170 | \$178 | \$193 | \$210 |
| 99284 | High                                  | \$249       | \$259 | \$264 | \$308 | \$313 |
| 99285 | High and immediately life-threatening | \$397       | \$356 | \$443 | \$462 | \$456 |

Chart 45 shows a five-year snapshot of experience for each procedure type per service year.

**Chart 45**

**Emergency Room Transactions by Procedure Code for South Dakota**



Source: NCCI's Medical Data Call, Service Years 2013 to 2017.

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



### Ambulatory Surgical Centers

Ambulatory surgical centers are often used as an alternative facility to hospitals for conducting outpatient surgeries. 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 schedule reimbursement amounts for ASC payments for South Dakota, the region, and countrywide.

Chart 46

#### ASC Payments as a Percentage of Medicare

| Medical Cost Category      | South Dakota | Region | Countrywide |
|----------------------------|--------------|--------|-------------|
| Ambulatory Surgical Center | 229%         | 319%   | 285%        |

Source: NCCI's Medical Data Call for Service Year 2017. 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 47 displays percentage of medical payments for ASC services for South Dakota, the region, and countrywide.

**Chart 47**

**Distribution of Medical Payments for ASC**

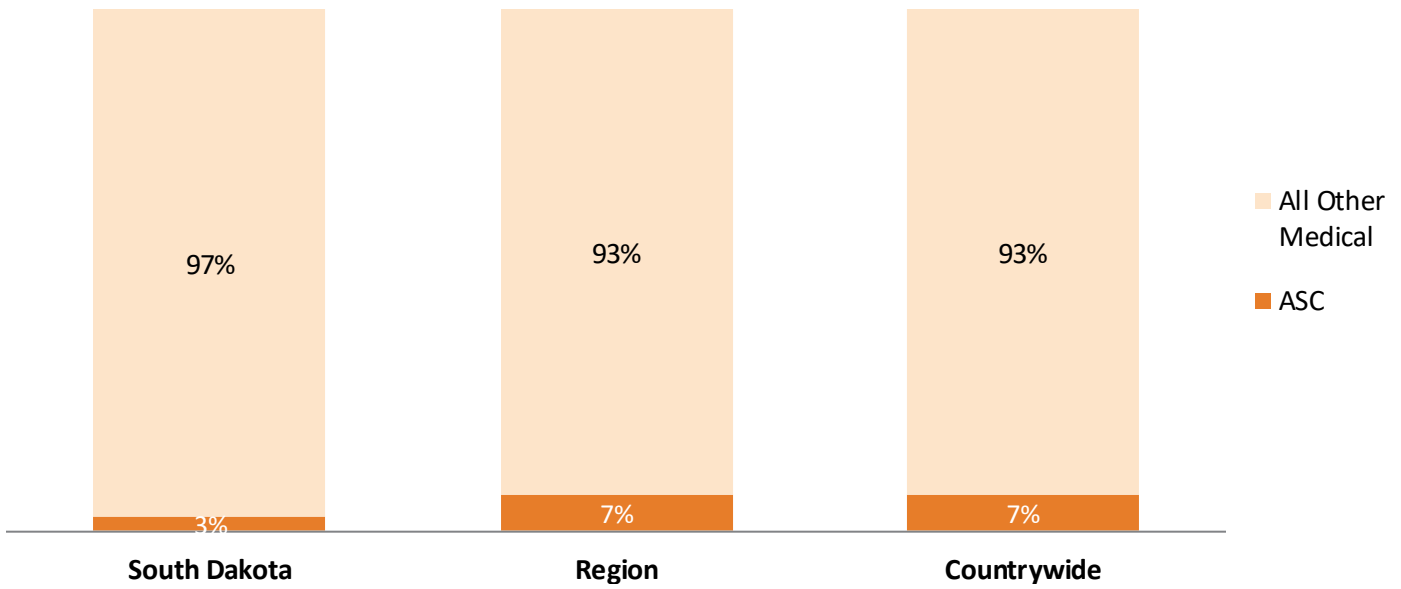
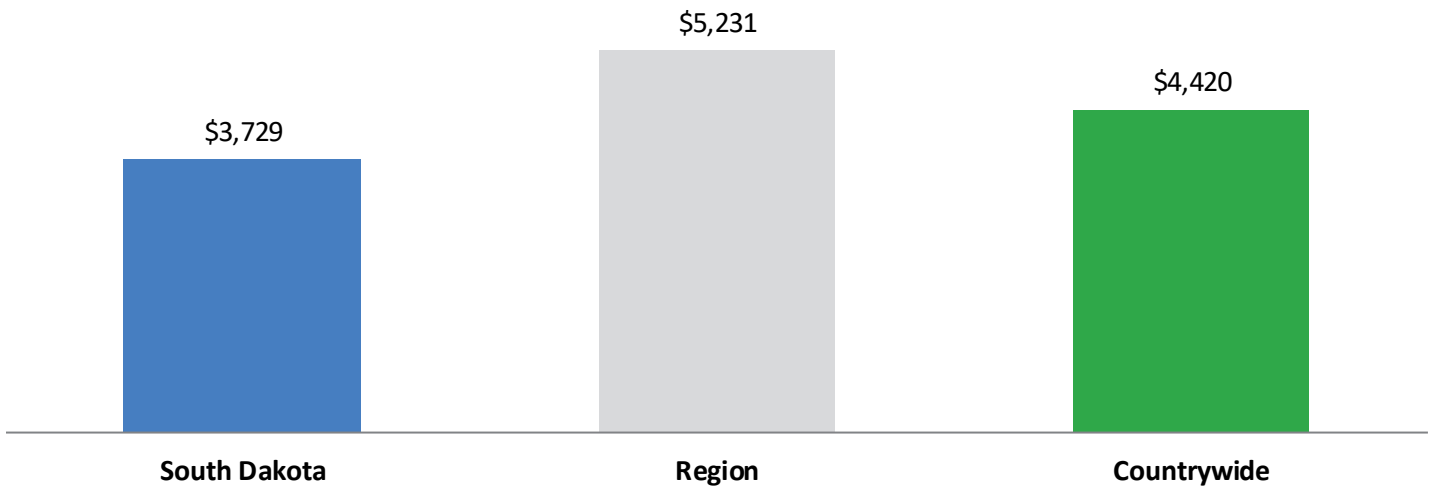




Chart 48 displays the average amount paid per visit for ASC services for South Dakota, the region, and countrywide. Note that there are no controls for mix of diagnosis or severity of claims between jurisdictions. Chart 49 displays the number of ASC visits per year per 1,000 active claims for South Dakota, the region, and countrywide.

**Chart 48**

**Average Amount Paid per Visit for ASC Services**



**Chart 49**

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

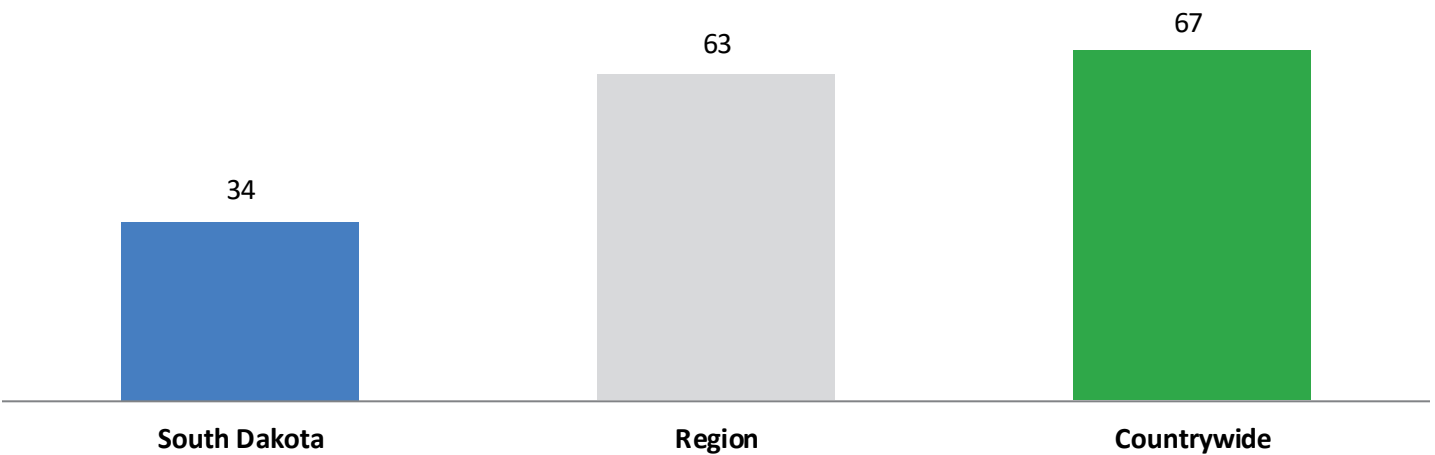
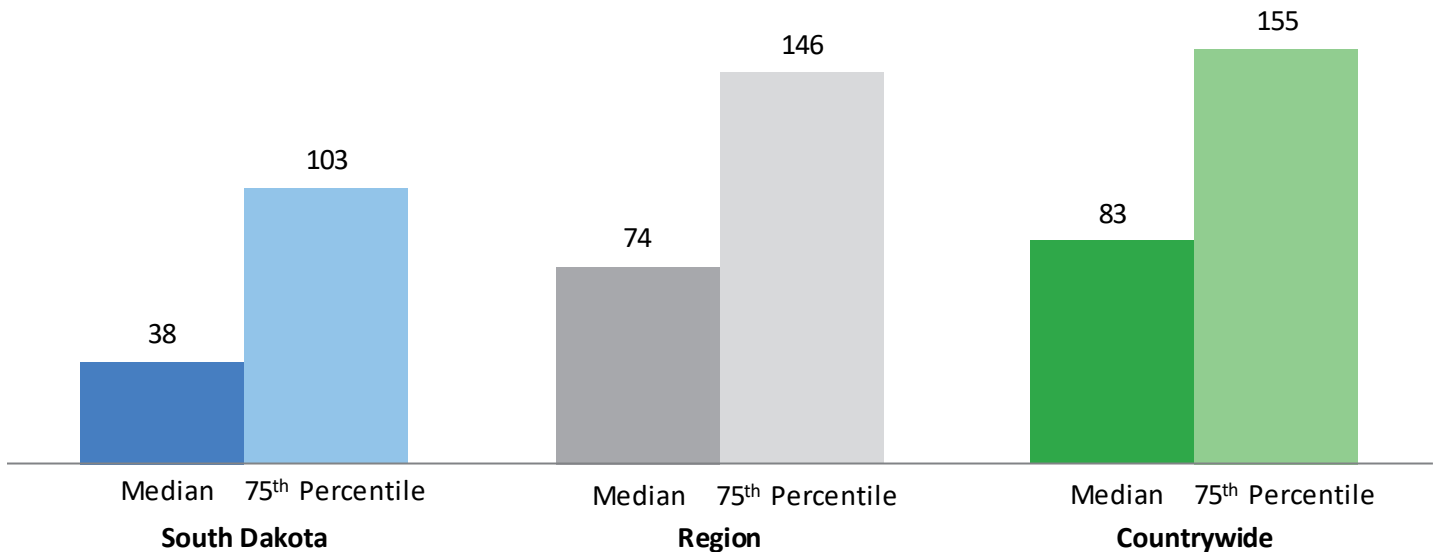




Chart 50 shows the median and 75th percentile time until first treatment for ASC visits for South Dakota, the region, and countrywide.

**Chart 50**

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



Source: NCCI's Medical Data Call for Accident Year 2016 and Service Years 2016 and 2017.



Chart 51 displays the top 10 diagnosis groups for ASC visits. The diagnosis groups are ranked based on total payments in South Dakota.

Chart 51

Top 10 Diagnosis Groups by Amount Paid for ASC Services

| Diagnosis Group   | Paid Share | Median Amount Paid per Visit |          |             |
|---|------------|------------------------------|----------|-------------|
|   |            | South Dakota                 | Region   | Countrywide |
| Rotator cuff tear   | 10.5%      | \$10,110                     | \$10,687 | \$8,684     |
| Lumbosacral intervertebral disc disorders                     | 7.6%       | \$1,205                      | \$1,485  | \$1,264     |
| Knee internal derangement - cruciate ligament tear            | 5.5%       | \$14,808                     | \$10,284 | \$8,865     |
| Knee internal derangement - meniscus injury                   | 5.0%       | \$4,965                      | \$4,669  | \$3,692     |
| Dorsalgia   | 4.7%       | \$104                        | \$1,491  | \$1,172     |
| Superior labral tear from anterior to posterior (SLAP) lesion | 3.2%       | \$10,846                     | \$8,558  | \$7,676     |
| Bicipital tendinitis  | 3.1%       | \$13,556                     | \$11,265 | \$8,917     |
| Fracture of forearm   | 3.0%       | \$7,490                      | \$7,585  | \$6,843     |
| Minor shoulder injury   | 2.9%       | \$6,474                      | \$6,747  | \$5,676     |
| Shoulder impingement syndrome                                 | 2.9%       | \$9,634                      | \$8,694  | \$7,374     |

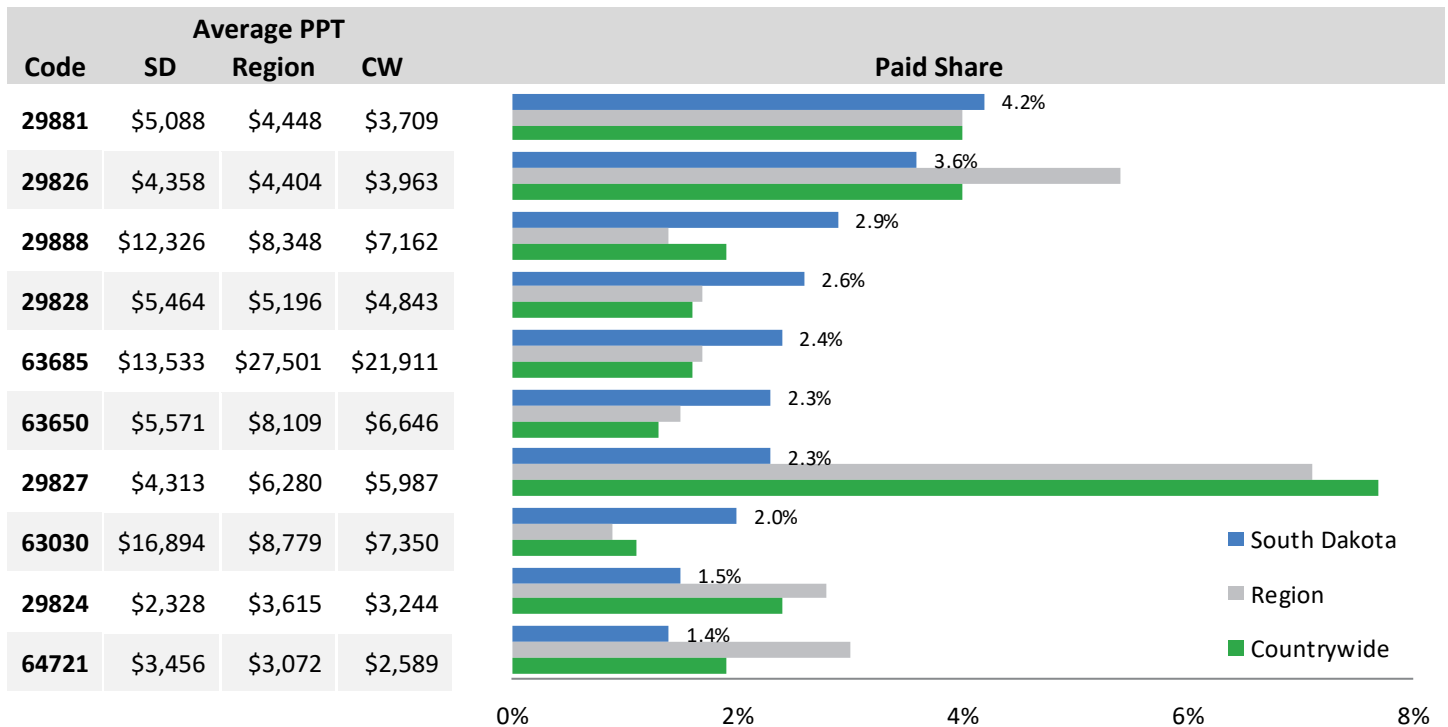


Typically, only surgery-related services are performed in ASCs. The most prevalent procedure code types reported are CPT codes and revenue codes. The predominant revenue code reported for ASC services is code 0490—Ambulatory Surgical Care. In South Dakota, code 0490 represents 86% of ASC payments reported by revenue codes.

Chart 52 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 52

#### Top 10 Surgery Procedure Codes by Amount Paid for ASC Services



| Code  | Description   |
|-------|---|
| 29881 | Arthroscopy, knee, surgical; with meniscectomy (medial or lateral including any meniscal shaving), including debridement/shaving of articular cartilage                             |
| 29826 | Arthroscopy, shoulder, surgical; decompression of subacromial space with partial acromioplasty, with coracoacromial ligament (i.e., arch) release when performed                    |
| 29888 | Arthroscopically aided anterior cruciate ligament repair/augmentation or reconstruction   |
| 29828 | Arthroscopy, shoulder, surgical; biceps tenodesis   |
| 63685 | Insertion or replacement of spinal neurostimulator pulse generator or receiver, direct or inductive coupling  |
| 63650 | Percutaneous implantation of neurostimulator electrode array, epidural  |
| 29827 | Arthroscopy, shoulder, surgical; with rotator cuff repair   |
| 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)  |
| 64721 | Neuroplasty and/or transposition; median nerve at carpal tunnel   |

## Prescription Drugs

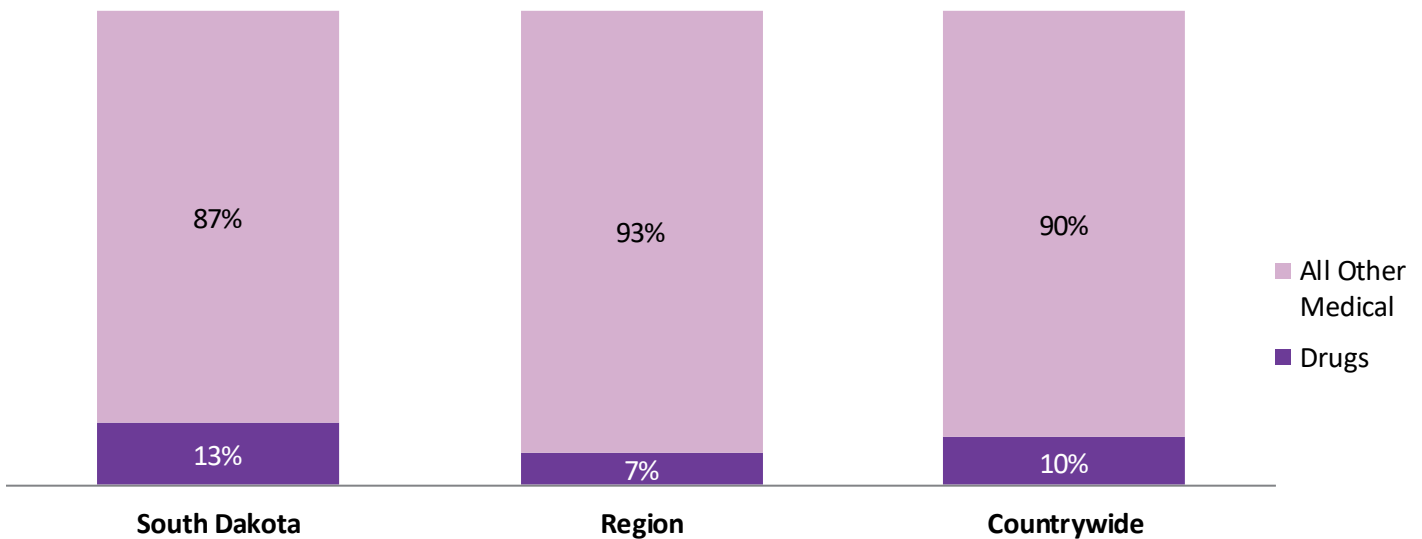
According to NCCI’s research<sup>5</sup>, the narcotics oxycodone and hydrocodone bitartrate-acetaminophen (commonly known as Oxycontin® and Vicodin®, respectively) were among the most widely prescribed drugs in workers compensation for Service Year 2016.

Drugs are uniquely identified by a national drug code (NDC). Charts 54 through 58 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.

Chart 53 displays percentage of medical payments for drugs for South Dakota, the region, and countrywide.

**Chart 53**

**Distribution of Medical Payments for Drugs**



<sup>5</sup> "Opioids—Killer Pain Relief", presented at *Annual Issues Symposium*, May 2018

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 2017 with at least one controlled substance was 11%. This compares to the region and countrywide shares of 12% and 14% , respectively. In 2017, South Dakota spent \$1.1M on Schedule II and Schedule III drugs for workers compensation claims.

Chart 54 shows the distribution of prescription drug payments by CSA schedule in South Dakota, the region and countrywide.

**Chart 54**

**Distribution of Prescription Drug Payments by CSA Schedule**

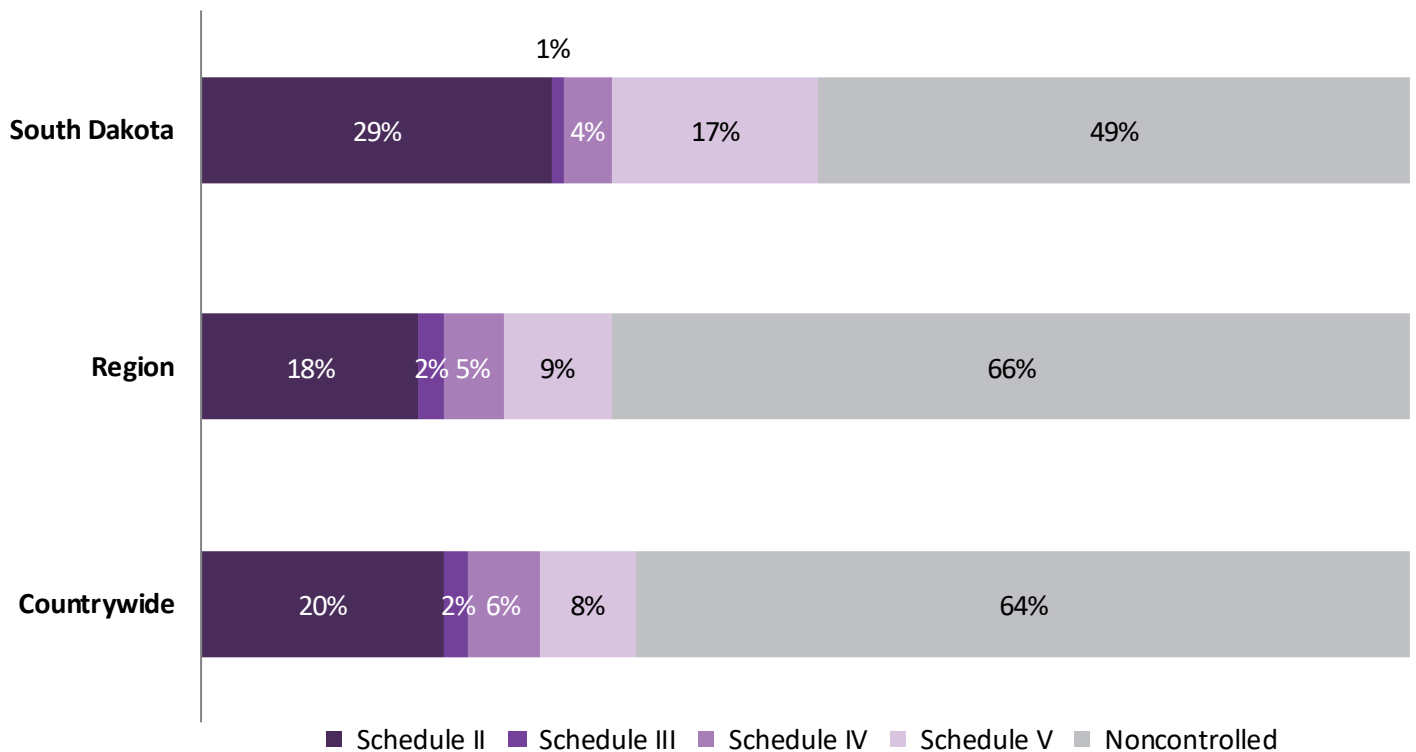


Chart 55 displays the shares of the payments of prescription medication for the top 10 drugs used in workers compensation treatment, by amount paid in South Dakota. This chart also indicates whether the drugs are generic (G) or brand name (B); for generic drugs, a commonly used brand name equivalent 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 55**

**Top 10 Workers Compensation Drugs by Amount Paid**

| Drug Name      | Average PPU |        |          | South Dakota Paid Share |
|----------------|-------------|--------|----------|-------------------------|
|                | SD          | Region | CW       |                         |
| Lyrica®        | \$7.09      | \$7.08 | \$7.10   | 16.4%                   |
| Oxycontin®     | \$8.59      | \$8.44 | \$8.84   | 8.1%                    |
| Duloxetine HCl | \$4.73      | \$4.96 | \$5.18   | 4.9%                    |
| Gabapentin     | \$1.00      | \$1.11 | \$1.18   | 4.1%                    |
| Fentora®       | \$119.24    | -      | \$116.85 | 3.5%                    |
| Nucynta®       | \$6.34      | \$6.55 | \$6.74   | 3.2%                    |
| Lidocaine      | \$6.05      | \$6.95 | \$7.04   | 2.9%                    |
| Tramadol HCl   | \$0.72      | \$1.08 | \$1.14   | 2.6%                    |
| Oxycodone HCl  | \$1.25      | \$1.21 | \$1.28   | 2.4%                    |
| Meloxicam      | \$2.84      | \$3.19 | \$3.25   | 2.1%                    |

| 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           | 2       |
| Duloxetine HCl | G   | Cymbalta®         | Psychotherapeutic Agents                             | None         | 7       |
| Gabapentin     | G   | Neurontin®        | Anticonvulsants                                      | None         | 3       |
| Fentora®       | B   | N/A               | Analgesics/Antipyretics                              | II           | 80      |
| Nucynta®       | B   | N/A               | Analgesics/Antipyretics                              | II           | 19      |
| Lidocaine      | G   | Lidoderm®         | Antipruritics/Local Anesthesia, Skin/Mucous Membrane | None         | 6       |
| Tramadol HCl   | G   | Ultram®           | Analgesics/Antipyretics                              | IV           | 9       |
| Oxycodone HCl  | G   | Oxycontin®        | Analgesics/Antipyretics                              | II           | 10      |
| Meloxicam      | G   | Mobic®            | Analgesics/Antipyretics                              | None         | 5       |



Chart 56 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 56

Top 10 Workers Compensation Drugs by Prescription Counts

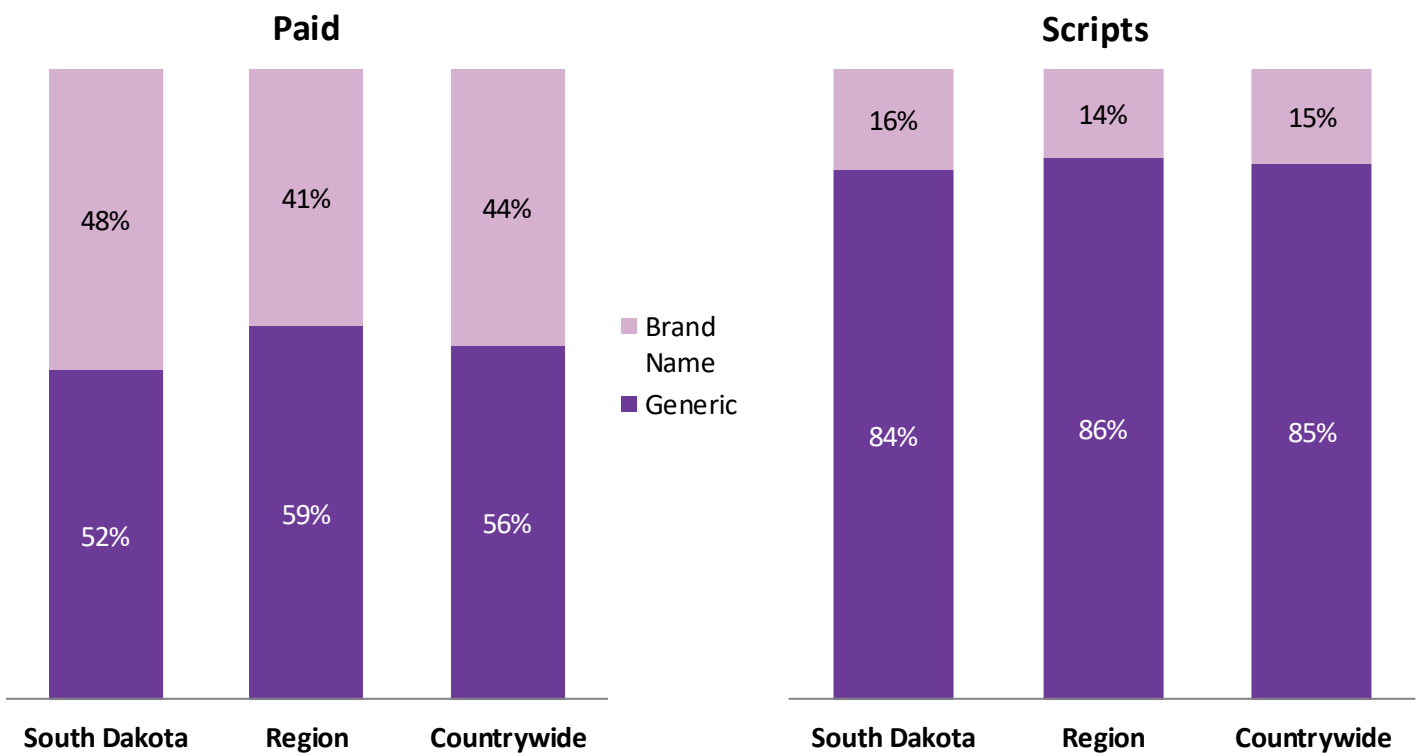
| Drug Name                            | Average PPU |        |        | South Dakota Prescription Share |
|--------------------------------------|-------------|--------|--------|---------------------------------|
|                                      | SD          | Region | CW     |                                 |
| Hydrocodone Bitartrate-Acetaminophen | \$0.56      | \$0.58 | \$0.58 | 8.5%                            |
| Tramadol HCl                         | \$0.72      | \$1.08 | \$1.14 | 7.1%                            |
| Gabapentin                           | \$1.00      | \$1.11 | \$1.18 | 5.5%                            |
| Lyrica®                              | \$7.09      | \$7.08 | \$7.10 | 4.6%                            |
| Duloxetine HCl                       | \$4.73      | \$4.96 | \$5.18 | 4.1%                            |
| Cyclobenzaprine HCl                  | \$0.78      | \$1.41 | \$1.43 | 3.8%                            |
| Oxycodone HCl                        | \$1.25      | \$1.21 | \$1.28 | 3.6%                            |
| Meloxicam                            | \$2.84      | \$3.19 | \$3.25 | 3.3%                            |
| Oxycodone HCl-Acetaminophen          | \$1.33      | \$1.62 | \$1.70 | 2.9%                            |
| Oxycontin®                           | \$8.59      | \$8.44 | \$8.84 | 2.2%                            |

| Drug Name                            | B/G | Common Brand Name | Category                                    | CSA Schedule | CW Rank |
|--------------------------------------|-----|-------------------|---|--------------|---------|
| Hydrocodone Bitartrate-Acetaminophen | G   | Vicodin®          | Analgesics/Antipyretics                     | II           | 1       |
| Tramadol HCl                         | G   | Ultram®           | Analgesics/Antipyretics                     | IV           | 4       |
| Gabapentin                           | G   | Neurontin®        | Anticonvulsants                             | None         | 2       |
| Lyrica®                              | B   | N/A               | Miscellaneous Central Nervous System Agents | V            | 10      |
| Duloxetine HCl                       | G   | Cymbalta®         | Psychotherapeutic Agents                    | None         | 12      |
| Cyclobenzaprine HCl                  | G   | Flexeril®         | Muscle Relaxants, Skeletal                  | None         | 3       |
| Oxycodone HCl                        | G   | Oxycontin®        | Analgesics/Antipyretics                     | II           | 8       |
| Meloxicam                            | G   | Mobic®            | Analgesics/Antipyretics                     | None         | 6       |
| Oxycodone HCl-Acetaminophen          | G   | Percocet®         | Analgesics/Antipyretics                     | II           | 5       |
| Oxycontin®                           | B   | N/A               | Analgesics/Antipyretics                     | II           | 18      |

Chart 57 shows the distribution of prescription drugs by brand name and generics for South Dakota, the region, and countrywide. The share between brand name and generics 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 several states, a prescription drug fee schedule includes rules regarding the dispensing and reimbursement rates for brand name and generic drugs.

**Chart 57**

**Distribution of Drugs by Brand Name and Generic**



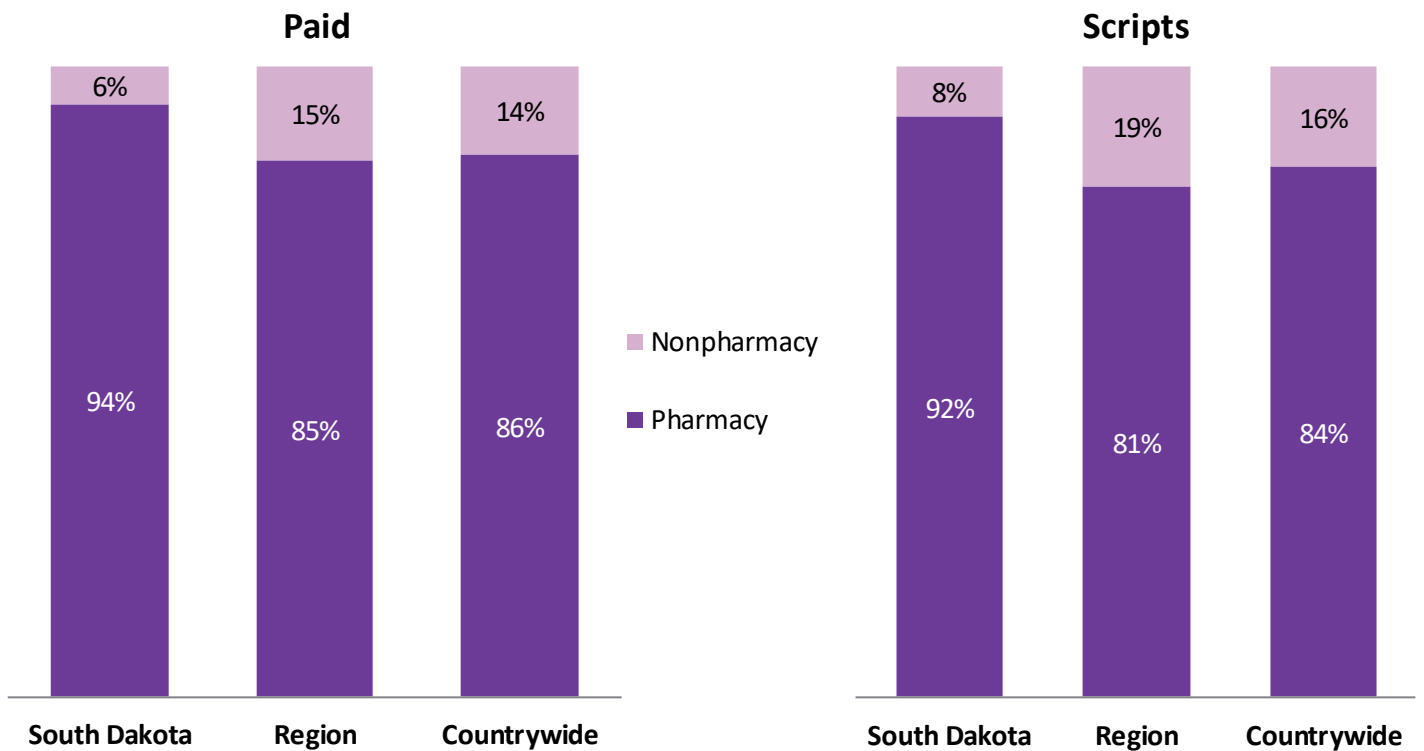


The rules on drug dispensing vary from state to state. Some states allow physician dispensing of drugs, while other states limit or prohibit physician dispensing. Analysis of the share of drugs dispensed from a pharmacy and from a nonpharmacy (e.g., physicians and hospitals) may provide insight into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

Chart 58 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 58**

**Distribution of Drugs by Pharmacy and Nonpharmacy**



## Durable Medical Equipment, Supplies, and Implants

Chart 59 displays the distribution of medical payments by type of service for Durable Medical Equipment (DME), supplies, and implants for South Dakota, the region, and countrywide.

**Chart 59**

**Distribution of Medical Payments for DME, Supplies, and Implants**

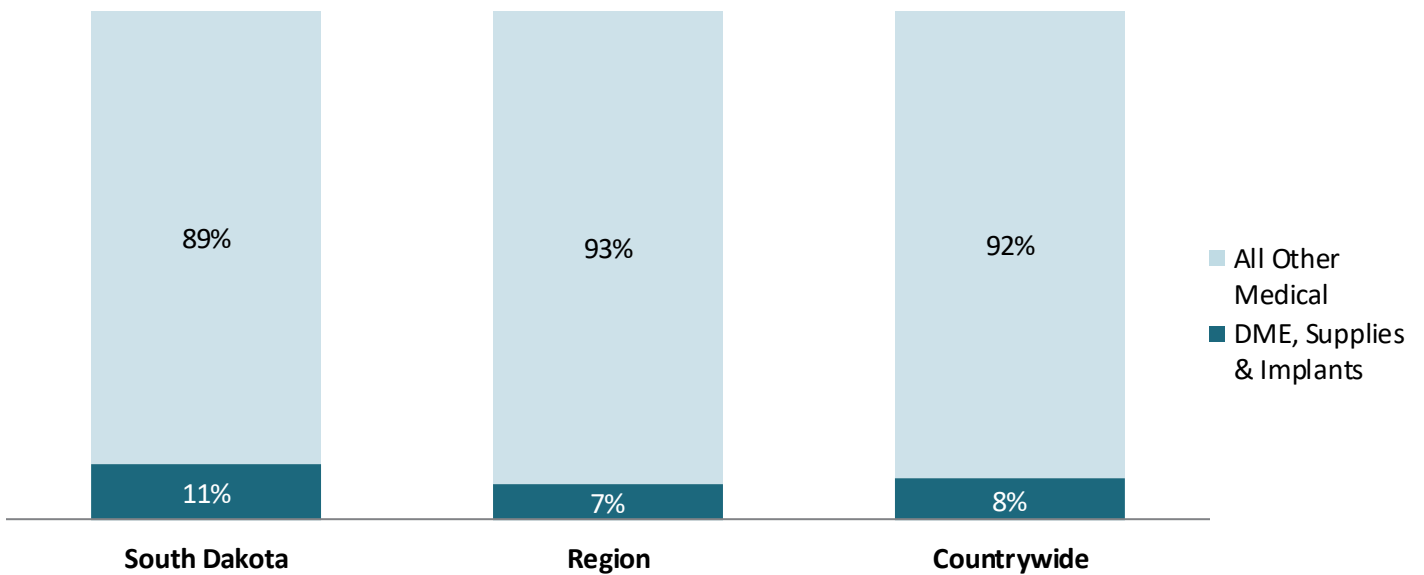


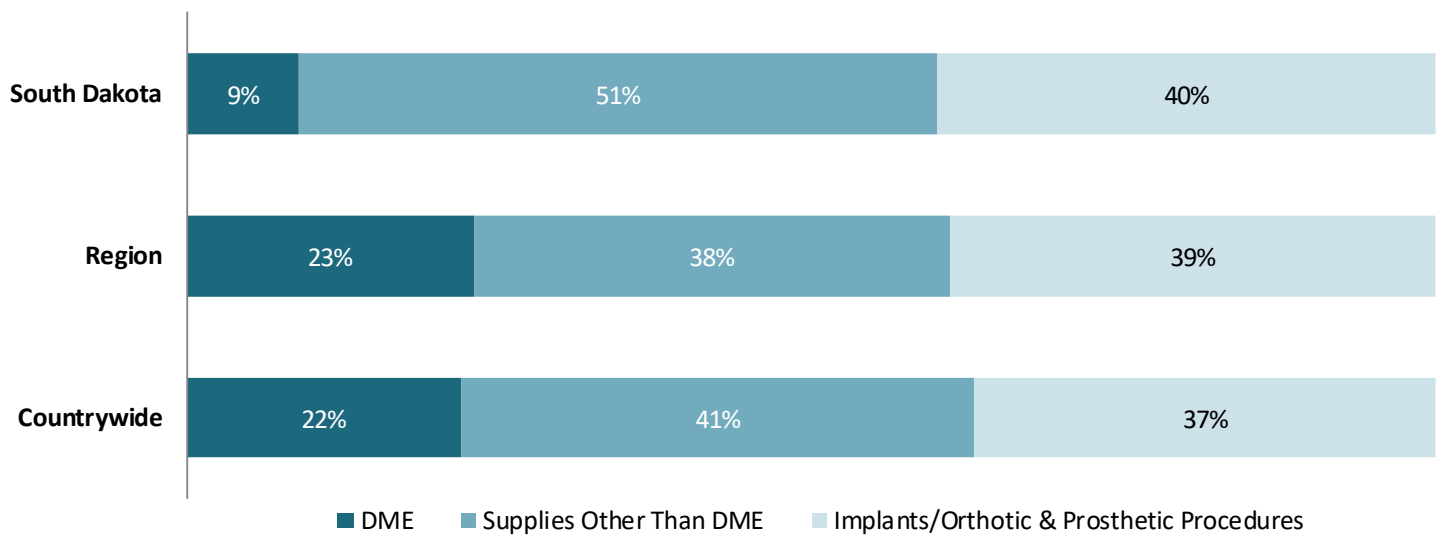
Chart 60 displays the distribution of payments among three separate categories:

- Durable Medical Equipment
- Supplies Other Than DME
- Implants/Orthotics and Prosthetics

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 60**

**Distribution of Payments by DME, Supplies, and Implants**



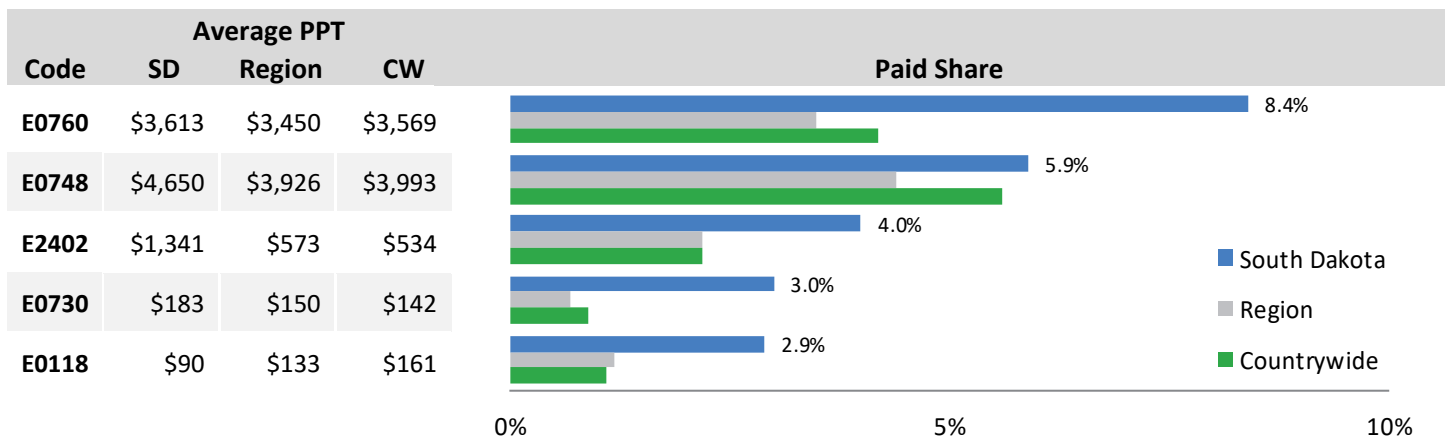


The most prevalent procedure code types reported for DMEs are Healthcare Common Procedure Coding System (HCPCS) codes. The predominant HCPCS code reported for DME is E1399—Durable Medical Equipment, Miscellaneous. In South Dakota, code E1399 represents 41% of DME payments.

Chart 61 displays the top five HCPCS codes for DME other than code E1399. The codes are ranked based on total payments in South Dakota. A brief description of each procedure code is displayed in the table below.

### Chart 61

#### Top Five DME HCPCS Codes by Amount Paid



| Code  | Description  |
|-------|--|
| E0760 | Osteogenesis stimulator, low intensity ultrasound, noninvasive   |
| E0748 | Osteogenesis stimulator, electrical, noninvasive, spinal applications                                      |
| E2402 | Negative pressure wound therapy electrical pump, stationary or portable                                    |
| E0730 | Transcutaneous electrical nerve stimulation (TENS) device, 4 or more leads, for multiple nerve stimulation |
| E0118 | Crutch substitute, lower leg platform, with or without wheels, each  |

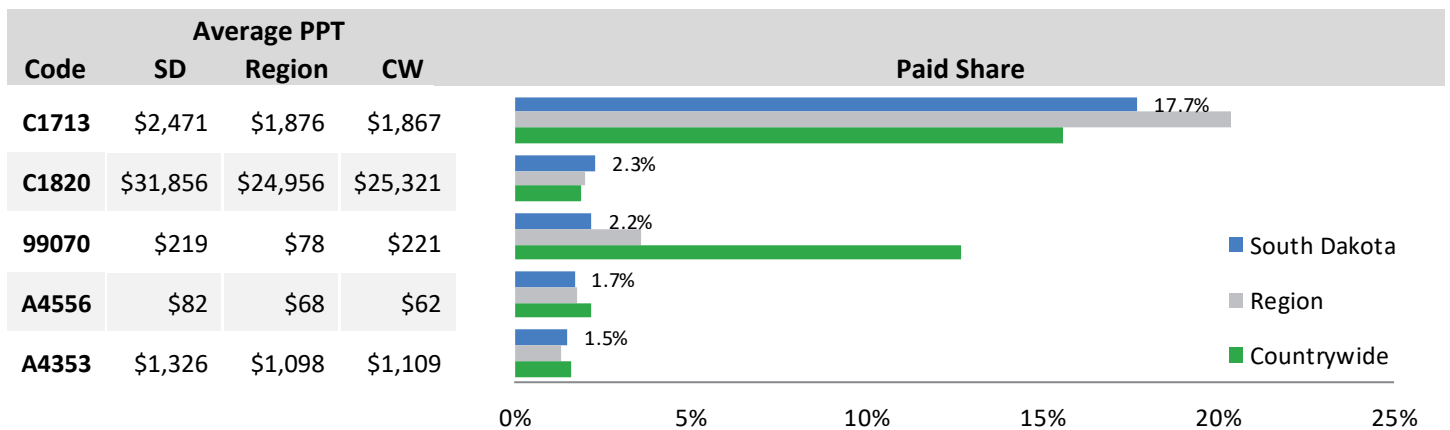


The most prevalent procedure code types reported for Supplies Other than DME are HCPCS codes and revenue codes. HCPCS codes represent 40% of Supplies other than DME payments, while revenue and other codes represent the other 60%.

Chart 62 displays the top five HCPCS codes for Supplies other than DME. The codes are ranked based on total payments in South Dakota. A brief description of each procedure code is displayed in the table below.

Chart 62

Top Five Supplies Other Than DME HCPCS Codes by Amount Paid



| Code  | Description  |
|-------|--|
| C1713 | Anchor/screw for opposing bone-to-bone or soft tissue-to-bone (implantable)  |
| C1820 | Generator, neurostimulator (implantable), with rechargeable battery and charging system  |
| 99070 | Supplies and materials (except spectacles), provided by the physician or other qualified health care professional over and above those usually included with the office visit or other services rendered |
| A4556 | Electrodes (e.g., apnea monitor), per pair   |
| A4353 | Intermittent urinary catheter, with insertion supplies   |



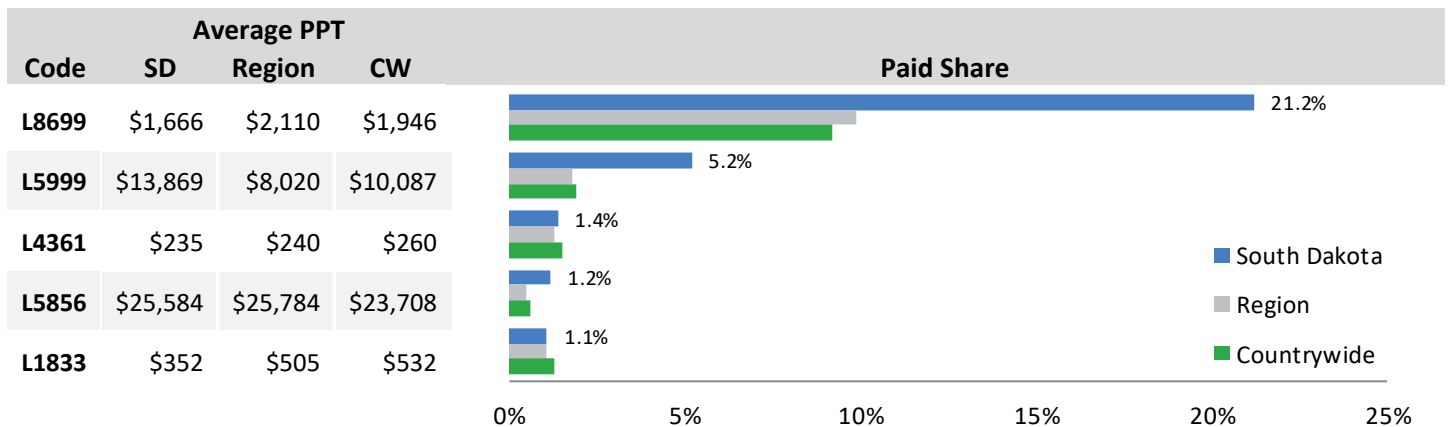
The most prevalent procedure code types reported for Implants/Orthotics and Prosthetics are HCPCS codes and revenue codes. Revenue codes represent 48% of Implants/Orthotics and Prosthetics payments, while HCPCS codes represent 52%.

The predominant revenue code reported for Implants/Orthotics and Prosthetics is code 0278—medical/surgical supplies: other implants. In South Dakota, payments for code 0278 represent 47% of Implants/Orthotics and Prosthetics payments.

Chart 63 displays the top five HCPCS codes for Implants/Orthotics and Prosthetics. The codes are ranked based on total payments in South Dakota. A brief description of each HCPCS code is displayed in the table below.

### Chart 63

#### Top Five Implants/Orthotics and Prosthetics HCPCS Codes by Amount Paid



| Code  | Description  |
|-------|--|
| L8699 | Prosthetic implant, not otherwise specified  |
| L5999 | Lower extremity prosthesis, not otherwise specified  |
| L4361 | Walking boot, pneumatic and/or vacuum, with or without joints, with or without interface material, prefabricated, off-the-shelf  |
| L5856 | Addition to lower extremity prosthesis, endoskeletal knee-shin system, microprocessor control feature, swing and stance phase, includes electronic sensor(s), any type |
| L1833 | Knee orthosis, adjustable knee joints (unicentric or polycentric), positional orthosis, rigid support, prefabricated, off-the shelf                                    |



### Diagnosis Group and Body System

Charts 64 and 65 display the top 10 body systems and diagnosis groups, respectively. Body system and diagnosis group are identified for each claim based on ICD-10 (International Classification of Diseases) 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, 2016, and December 31, 2016, and they include all reported services provided for those claims through December 31, 2017. 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 systems and diagnosis groups.

Chart 64

Top Body Systems by Amount Paid for Dates of Injury in 2016

| Body System                                  | Paid Share | Average Amount Paid Per Claim |          |             |
|--|------------|-------------------------------|----------|-------------|
|  |            | South Dakota                  | Region   | Countrywide |
| Injury or Poisoning Not Otherwise Classified | 29.6%      | \$2,205                       | \$2,822  | \$2,759     |
| Shoulder                                     | 14.3%      | \$11,509                      | \$11,107 | \$8,746     |
| Muscles                                      | 13.6%      | \$3,040                       | \$5,830  | \$5,108     |
| Knee   | 8.3%       | \$3,756                       | \$5,652  | \$4,660     |
| Lumbar Spine                                 | 6.6%       | \$2,951                       | \$4,299  | \$3,699     |
| Hand/Wrist                                   | 6.6%       | \$1,926                       | \$3,058  | \$2,531     |
| Neck   | 2.9%       | \$2,600                       | \$4,883  | \$4,195     |
| Digestion                                    | 2.9%       | \$9,931                       | \$10,220 | \$9,203     |
| Ankle/Foot                                   | 2.2%       | \$1,028                       | \$1,927  | \$1,677     |
| Respiration                                  | 2.1%       | \$21,916                      | \$8,944  | \$7,668     |

Chart 65

Top Diagnosis Groups by Amount Paid for Dates of Injury in 2016

| Diagnosis Group                                | Paid Share | Average Amount Paid Per Claim |          |             |
|--|------------|-------------------------------|----------|-------------|
|  |            | South Dakota                  | Region   | Countrywide |
| Rotator cuff tear                              | 7.9%       | \$21,021                      | \$23,201 | \$19,053    |
| Other joint disorder, not elsewhere classified | 4.6%       | \$3,388                       | \$6,406  | \$5,028     |
| Knee internal derangement - meniscus injury    | 3.7%       | \$11,773                      | \$14,891 | \$13,042    |
| Open wound of wrist, hand and fingers          | 3.0%       | \$749                         | \$1,096  | \$1,051     |
| Low back pain                                  | 2.8%       | \$1,583                       | \$2,673  | \$2,414     |
| Fracture of lower leg, including ankle         | 2.8%       | \$10,598                      | \$17,833 | \$17,920    |
| Lumbosacral intervertebral disc disorders      | 2.8%       | \$13,972                      | \$14,928 | \$13,571    |
| Minor shoulder injury                          | 2.7%       | \$4,541                       | \$3,711  | \$3,055     |
| Fracture at wrist and hand level               | 2.6%       | \$4,483                       | \$5,673  | \$5,254     |
| Fracture of forearm                            | 2.5%       | \$9,540                       | \$14,351 | \$13,472    |



## 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 for South Dakota (Chart 4)**

| Medical Category            | 2013 | 2014 | 2015 | 2016 | 2017 |
|-----------------------------|------|------|------|------|------|
| Physician                   | 27%  | 26%  | 26%  | 26%  | 25%  |
| Hospital Outpatient         | 31%  | 31%  | 30%  | 31%  | 32%  |
| Hospital Inpatient          | 13%  | 14%  | 17%  | 14%  | 13%  |
| ASC                         | 4%   | 4%   | 3%   | 4%   | 3%   |
| Drugs                       | 13%  | 12%  | 12%  | 12%  | 13%  |
| DME, Supplies, and Implants | 10%  | 10%  | 9%   | 10%  | 11%  |
| Other                       | 2%   | 3%   | 3%   | 3%   | 3%   |

**Distribution of Physician Payments by AMA Service Category for South Dakota (Chart 7)**

| AMA Service Category      | 2013 | 2014 | 2015 | 2016 | 2017 |
|---------------------------|------|------|------|------|------|
| Anesthesia                | 4%   | 5%   | 5%   | 5%   | 5%   |
| Surgery                   | 27%  | 26%  | 26%  | 27%  | 28%  |
| Radiology                 | 11%  | 12%  | 10%  | 11%  | 10%  |
| Pathology                 | 1%   | 1%   | 1%   | 1%   | 1%   |
| Physical Medicine         | 29%  | 27%  | 27%  | 27%  | 30%  |
| General Medicine          | 4%   | 4%   | 6%   | 4%   | 4%   |
| Evaluation and Management | 21%  | 23%  | 23%  | 23%  | 21%  |
| Other                     | 3%   | 2%   | 2%   | 2%   | 1%   |



**Median Time Until First Treatment (in Days) (Charts 19–22, 29, 38, and 50)<sup>6</sup>**

| Medical Category                           | AY 2012 | AY 2013 | AY 2014 | AY 2015 | AY 2016 |
|--|---------|---------|---------|---------|---------|
| Physicians - Major Surgery                 | 30      | 25      | 32      | 29      | 28      |
| Physicians - Radiology                     | 1       | 1       | 1       | 1       | 1       |
| Physicians - Physical and General Medicine | 8       | 7       | 8       | 9       | 12      |
| Physicians - Evaluation and Management     | 2       | 2       | 2       | 2       | 1       |
| Hospital Inpatient                         | 1       | 0       | 0       | 0       | 0       |
| Hospital Outpatient                        | 2       | 3       | 3       | 3       | 4       |
| ASC  | 52      | 48      | 28      | 44      | 38      |

**75th Percentile of Time Until First Treatment (in Days) (Charts 19–22, 29, 38, and 50)**

| Medical Category                           | AY 2012 | AY 2013 | AY 2014 | AY 2015 | AY 2016 |
|--|---------|---------|---------|---------|---------|
| Physicians - Major Surgery                 | 97      | 97      | 102     | 98      | 99      |
| Physicians - Radiology                     | 8       | 7       | 7       | 6       | 6       |
| Physicians - Physical and General Medicine | 31      | 29      | 31      | 31      | 37      |
| Physicians - Evaluation and Management     | 14      | 12      | 9       | 9       | 8       |
| Hospital Inpatient                         | 14      | 9       | 6       | 4       | 7       |
| Hospital Outpatient                        | 26      | 26      | 28      | 28      | 28      |
| ASC  | 133     | 127     | 89      | 112     | 103     |

**Hospital Inpatient Statistics (Charts 25 and 27)**

| Hospital Inpatient Statistics           | 2013     | 2014     | 2015     | 2016     | 2017     |
|---|----------|----------|----------|----------|----------|
| Average Amount Paid Per Stay            | \$24,475 | \$25,947 | \$32,600 | \$29,616 | \$29,237 |
| Number of Stays per 1,000 Active Claims | 16       | 18       | 18       | 16       | 16       |

**Distribution of Hospital Outpatient Payments by Surgery and Nonsurgery (Paragraphs preceding Charts 34 and 36)**

| Visit Type | 2013 | 2014 | 2015 | 2016 | 2017 |
|------------|------|------|------|------|------|
| Surgery    | 56%  | 55%  | 57%  | 60%  | 63%  |
| Nonsurgery | 44%  | 45%  | 43%  | 40%  | 37%  |

<sup>6</sup> 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.



**Hospital Outpatient Surgery Statistics (Charts 34 and 35)**

| <b>Hospital Outpatient Surgery Statistics</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> |
|---|-------------|-------------|-------------|-------------|-------------|
| Average Amount Paid Per Visit                 | \$4,213     | \$4,156     | \$4,321     | \$4,620     | \$5,265     |
| Number of Visits per 1,000 Active Claims      | 136         | 136         | 142         | 141         | 141         |

**Hospital Outpatient Nonsurgery Statistics (Charts 36 and 37)**

| <b>Hospital Outpatient Nonsurgery Statistics</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> |
|--|-------------|-------------|-------------|-------------|-------------|
| Average Amount Paid Per Visit                    | \$299       | \$324       | \$330       | \$374       | \$331       |
| Number of Visits per 1,000 Active Claims         | 1,485       | 1,405       | 1,395       | 1,187       | 1,349       |

**Emergency Room Statistics (Charts 42 and 43)**

| <b>Emergency Room Statistics</b>         | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> |
|--|-------------|-------------|-------------|-------------|-------------|
| Average Amount Paid Per Visit            | \$1,424     | \$1,663     | \$1,463     | \$1,667     | \$1,646     |
| Number of Visits per 1,000 Active Claims | 214         | 218         | 218         | 217         | 222         |

**ASC Statistics (Charts 48 and 49)**

| <b>ASC Statistics</b>                    | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> |
|--|-------------|-------------|-------------|-------------|-------------|
| Average Amount Paid Per Visit            | \$2,244     | \$2,400     | \$2,716     | \$3,614     | \$3,729     |
| Number of Visits per 1,000 Active Claims | 52          | 52          | 40          | 36          | 34          |

**Distribution of Prescription Drug Payments by CSA Schedule (Chart 54)**

| <b>CSA Schedule</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> |
|---------------------|-------------|-------------|-------------|-------------|-------------|
| Schedule II         | 28%         | 29%         | 31%         | 30%         | 29%         |
| Schedule III        | 2%          | 2%          | 1%          | 1%          | 1%          |
| Schedule IV         | 8%          | 8%          | 7%          | 6%          | 4%          |
| Schedule V          | 9%          | 10%         | 11%         | 14%         | 17%         |
| Non-Controlled      | 53%         | 51%         | 50%         | 49%         | 49%         |

**Distribution of Drug Payments by Brand Name and Generic (Chart 57)**

| <b>Type of Drug</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> |
|---------------------|-------------|-------------|-------------|-------------|-------------|
| Brand Name          | 58%         | 49%         | 44%         | 47%         | 48%         |
| Generic             | 42%         | 51%         | 56%         | 53%         | 52%         |

**Distribution of Drug Payments by Pharmacy and Nonpharmacy (Chart 58)**

| <b>Type of Provider</b> | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> |
|-------------------------|-------------|-------------|-------------|-------------|-------------|
| Pharmacy                | 93%         | 92%         | 96%         | 97%         | 94%         |
| Nonpharmacy             | 7%          | 8%          | 4%          | 3%          | 6%          |

**Distribution of Payments by DME, Supplies, and Implants (Chart 60)**

| <b>Category</b>                             | <b>2013</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> |
|---|-------------|-------------|-------------|-------------|-------------|
| DME   | 5%          | 6%          | 8%          | 6%          | 9%          |
| Supplies Other Than DME                     | 47%         | 52%         | 48%         | 50%         | 51%         |
| Implants/Orthotic and Prosthetic Procedures | 48%         | 42%         | 44%         | 44%         | 40%         |



## Glossary

**75th Percentile:** The point on a distribution which 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 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 classification 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 Room Services:** Services performed in a hospital 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

**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 represents medical transactions for Service Year 2017 (medical services delivered from January 1, 2017, to December 31, 2017), 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 for which NCCI is the 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.

The data 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.

For the state of South Dakota in Service Year 2017, the reported number of transactions was over 259,200, with more than \$49,768,300 paid, for more than 13,300 claims. This represents data from 89% of the workers compensation premium written, which includes experience for large-deductible policies. Lump-sum settlements are not required to be reported. Also, self-insured data is not included.

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](http://ncci.com)**.