

**Evaluation of the impact of
the Minnesota workers' compensation
Ambulatory Surgical Center
Payment System (ASCPS)**

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Minnesota Department of Labor and Industry
Research and Statistics
443 Lafayette Road North
St. Paul, MN 55155
(651) 284-5XXX
XXX.XXX@state.mn.us
www.dli.mn.gov/about-department/news-and-media/ascps

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Executive summary

Background

In compliance with a legislative mandate, this report analyzes the impact of Minnesota's new system for reimbursing Ambulatory Surgical Centers (ASCs) for services to workers' compensation patients. This system, called the ASC Payment System (ASCPS), took effect on Oct. 1, 2018.¹ In addition to broadly calling for the study to analyze the "impact" of the new system, the statute specifically directs DLI to consider payment timeliness and accuracy. Thus, this report (1) analyzes the effect of ASCPS on total payments to ASCs for workers' compensation cases and (2) analyzes payment timelines and accuracy under the new system.

ASCPS was enacted in response to continuing concerns over rapid cost increases in the prior system for reimbursing workers' compensation ASC costs. That system was primarily charge-based,² so payments tended to grow in proportion to ASC charges, which had grown substantially faster than general prices and wages. Minnesota's ASCPS, by contrast, is built on the Medicare ASC Payment System with a few additional provisions.

The central feature of Minnesota's ASCPS is that for procedures covered under Medicare's ASCPS, payment is 320% of the Medicare amount, not to exceed total charges for all services, supplies, and implantable devices provided in the ASC visit. When enacted, the 320% represented an estimated 20% reduction from prior payment levels. The Minnesota ASCPS payment includes payment for all implantable devices, even if the Medicare ASCPS would allow separate payment for any of these devices. The annual increases in the Medicare payment rates, and thus in Minnesota's ASCPS payment rates, are substantially less than the increases that had occurred in Minnesota's prior charge-based system. Minnesota allows for charge-based payment for surgical procedures not in the federal ASCPS and for procedures in the federal ASCPS without scheduled payment rates.

ASCPS effect on payment levels

To analyze the effect of the ASCPS on payment levels, DLI conducted a before-and-after comparison using data from the Minnesota Workers' Compensation Medical Data Call (MDC).³ DLI conducted the comparison by analyzing the trend in the overall payment-to-charge (PTC) ratio for Minnesota workers' compensation cases at ASCs. The PTC trend was essentially level during the eight quarters before ASCPS and during the six quarters after ASCPS took effect (beginning with 2018-Q4), but was on average 25% lower during the latter period. This gives the estimate that ASCPS reduced payments to ASCs by 25% for workers' compensation cases.

¹ Minn. Stat. § 176.1363.

² This means the ASC payments were mostly determined as a percentage of the ASC's usual and customary charge for services provided.

³ The MDC is a nationwide program in which insurers report detailed information on workers' compensation medical services. The MDC excludes self-insurers and smaller insurers. The Minnesota Workers' Compensation Insurers Association performed the calculations for DLI for this report.

Payment timeliness and accuracy: data request and response

To conduct the analysis of payment timeliness and accuracy under ASCPS, DLI collected data from insurers and ASCs because data otherwise available was insufficient. DLI sampled ASCPS-covered ASC visits that occurred from Apr. 1 to Dec. 15, 2019. Identical data elements were requested from insurers and ASCs.⁴ The data request was issued by the DLI commissioner on Feb. 3, 2020 with a deadline of July 31, 2020 to allow six months for reporting entities to compile data. DLI provided training videos and issued monthly reminders, with a final reminder from the commissioner on Aug. 4 to entities that had not yet responded.⁵ Minnesota IT Services @ Labor and Industry created a secure web portal to receive the data. To increase the incentive to report, DLI informed insurers and ASCs that it would publish lists of entities that had and had not provided data. Those lists appear in Appendix C and on the DLI website.⁶

The response rates from insurers and self-insurers were 91% and 73%, respectively, giving an 84% rate for the two groups combined (“insurers” in the remainder of this summary). The responding insurers represented 95% of total indemnity and medical benefits paid for 2016.⁷ Of the 60 ASCs not excluded from the sample because of specialties not relevant to workers’ compensation, 38, or 63%, submitted data. The high response rate from insurers, and to a lesser degree that from the ASCs, bode well for the representativeness of the data. Usable sample sizes for analyzing both payment accuracy and timeliness were 1,234 visits in the insurer data and 654 visits in the ASC data.⁸

Payment timeliness and accuracy: findings

For cases where payment was not adjusted by an arrangement with a preferred-provider organization (PPO), DLI analyzed payment accuracy by computing a correct payment amount from the reported data and comparing the actual payment to the computed correct amount. In the insurer and ASC data, exactly correct payment occurred in 68% and 59% of the cases, respectively. With a 5% margin of under-payment error and allowing for over-payment of any amount (since the latter is presumably acceptable to the ASC), payment of at least 95% of the correct amount occurred 87% of the time as reported by the insurers and 82% as reported by the ASCs. The insurer percentage was statistically different from the 80% standard set in the statutory report mandate, while the ASC percentage was not.⁹ Under a more stringent standard, the percentage of cases with payment at 100% or more of the correct amount was 83% in the insurer data and 79% in the ASC data, with only the insurer percentage statistically different from 80%, at the 99% confidence level.

⁴ The requested data elements are listed in Appendix A.

⁵ The commissioner request and follow-up letters are shown in Appendix B.

⁶ www.dli.mn.gov/about-department/news-and-media/ascps.

⁷ This is based on the semi-annual reports of benefits paid that insurers and self-insurers file with DLI. The percentage refers to 2016 because that was the last year for which these entities reported both indemnity and medical benefits.

⁸ These are the numbers of visits where the reported payment did not reflect an adjustment under a contract with a preferred-provider organization (PPO) (and where other inclusion criteria were met). An additional 1,430 visits in the insurer data and 836 visits in the ASC data had payments that reflected PPO adjustments and therefore could only be used in the payment-timeliness analysis.

⁹ For a discussion of statistical significance, see p. 9.

DLI also analyzed the reasons for payment errors, by looking at random samples of visits where payment was less than 95% or more than 105% of the correct amount. A wide variety of error reasons were found in these samples. In the visits with under-payment, the most prominent payment errors were —

- limiting the 320% payment to the line charge rather than the total charge on the bill;
- incorrectly applying the discount for multiple surgical procedures; and
- paying according to the relative-value fee schedule (which applies to professional services) rather than the ASCPS.

In the visits with over-payment, the most common errors were —

- paying for non-surgical services not in the federal ASCPS;
- paying for services with zero payment rates in the federal ASCPS;
- paying for an implant;
- paying 85% of charge for the whole bill or some procedures; and
- failing to apply the multiple-procedure discount.

Many other types of errors were found, although in many cases the cause of error could not be determined.

DLI analyzed payment timeliness, for visits with and without PPO payment adjustments, by looking at the time from bill to payment. DLI looked at the percentage of cases where the insurer sent payment within 30 days of receiving the bill, the statutory payment standard. With the ASC data, DLI imputed the date the insurer received the bill as the date the bill was sent, where it was sent electronically, and otherwise as three days after the bill was sent. Also with the ASC data, DLI imputed the date the insurer sent payment as three days prior to the date the ASC received it, since most payments are made by check sent via regular mail. If the ASC provided additional bill information in response to an insurer request, the date of insurer receipt of complete bill information (insurer data) or the imputed the date of insurer receipt of complete bill information (ASC data) was used as the bill date.

A stark difference emerged between the timeliness results from the insurer and ASC data. In the insurer data, 88% of cases were reported to meet the 30-day standard, while in the ASC data this was true only 61% of the time. Both of these percentages were statistically different from 80% at the 99% confidence level. The reason for the difference is uncertain.¹⁰ Some of the difference may be attributable to delays as bill clearinghouses relay the bills to payers. As this report was being written, DLI was in the process of matching cases between the insurance and ASC data to determine how much of the difference was attributable to different reporting on the same cases and how much was attributable to different case representation in the two samples.

Finally, using the visits without PPO adjustment to payment, DLI analyzed combined payment accuracy and timeliness — the percentage of visits for which payment was both 100% or more of the DLI-computed correct amount and timely (payment-sent date within 30 days of bill date as described

¹⁰ The reason may be related to the fact that the ASC data show 97% of bills being sent electronically while the insurance data show only 72% (with 14% “unsure”). Perhaps in some of the insurer cases, the bill receipt date is viewed as the date a bill-reviewer or third-party administrator receives the bill after a bill clearinghouse “drops it to paper.” However, this would account for only a few days of difference, not as large a difference as seen in the data.

above). In the insurer data, 71% of the cases met this standard, while in the ASC data this was true for only 45% of the cases. Both percentages were statistically less than the 80% standard at the 99% confidence level.

Summary and conclusion

This study finds the following:

- (1) An analysis of the trend in the overall payment-to-charge ratio for workers' compensation cases at Minnesota ASCs yields the estimate that ASCPS produced a 25% reduction in payments for these cases. This is a larger effect than the 20% projected by DLI before ASCPS took effect.
- (2) In the insurer and ASC data, exactly correct payment occurred in 68% and 59% of the cases, respectively. The percentage of cases with payment at 100% or more of the correct amount was 83% in the insurer data and 79% in the ASC data. The first three of these percentages were statistically different from the 80% statutory standard at the 99% confidence level.
- (3) In an examination of cases paid incorrectly, DLI found an abundance of error reasons.
- (4) The insurer and hospital data yielded starkly different results concerning payment timeliness: payment occurred within 30 days of insurer bill-receipt in 88% of cases in the insurer data but only in 61% in the ASC data.
- (5) With respect to combined accuracy (using the standard of the payment being 100% of the correct amount or higher) and timeliness (payment within 30 days of billing), the insurer and ASC data showed 71% and 45% of cases, respectively, meeting both standards simultaneously, both percentages being less than the statutory 80% standard with 99% statistical confidence.

DLI is considering possible statutory clarifications and enhanced guidance to insurers and ASCs in view of the findings regarding sources of payment errors. DLI is also planning to reach out to particular insurers with revealed payment errors to assist them in their understanding of ASCPS payment provisions.

Contents

Executive summary	i
I. Introduction	1
A. Legislative mandate	1
B. Report scope and outline	1
II. Background	2
A. ASC outpatient facility costs relative to workers' compensation medical and total cost.....	2
B. Charged-based system prior to ASCPS.....	2
C. Concern over costs in the charge-based system.....	2
D. ASCPS — the new payment system	3
III. Effect of ASCPS on payment levels	4
IV. Payment timeliness and accuracy under ASCPS	5
A. Data request.....	5
B. Response to data request	7
C. Findings	8
1. Payment accuracy	9
2. Reasons for payment errors.....	12
3. Payment timeliness	15
4. Payment accuracy and timeliness combined	16
V. Summary and conclusion	20
A. Summary	20
B. Comment.....	22
C. Conclusion.....	23
Appendix A: Data elements requested	24
Appendix B: Request and follow-up letters from DLI commissioner	26
Appendix C: Insurers and ASCs that did and did not supply data	31

I. Introduction

A. Legislative mandate

The Minnesota Legislature has mandated that the Department of Labor and Industry (DLI), by January 15, 2021, submit a report analyzing the impact of Minnesota's new system for reimbursing ambulatory surgical center (ASC) facility service costs in workers' compensation, specifically including timeliness and accuracy of payment under the new system. This system, called the Ambulatory Surgical Center Payment System (ASCPS), took effect for services provided on or after Oct. 1, 2018. The legislative requirement reads as follows:¹¹

“Subd. 4. **Study.** The commissioner shall conduct a study analyzing the impact of the reforms, including timeliness and accuracy of payment under this section, and recommend further changes if needed. The commissioner must report the results of the study to the Workers' Compensation Advisory Council and the chairs and ranking minority members of the legislative committees with jurisdiction over workers' compensation by January 15, 2021.”

This report is prepared and submitted in fulfillment of this requirement.

B. Report scope and outline

Since the legislature did not limit the scope of this report to timeliness and accuracy of payment, and since the enactment of the new system by design involved a reduction in payments to ASCs, this report examines not only payment timeliness and accuracy but also the effect of the new system on the level of payments to ASCs for workers' compensation cases. The report first considers the effect of the new system on payment levels and then analyzes payment timeliness and accuracy.

The following sections of this report provide background to the study, present an analysis of the effect of the new system on payment levels and an analysis of payment timeliness and accuracy under the new system, and provide a summary and conclusion. As will be seen, the analysis of payment accuracy and timeliness necessitated a special data request to insurers and ASCs. Appendix A lists the data elements requested of insurers and ASCs. Appendix B contains the original data requests from the DLI commissioner along with the overdue notices sent after the original data submission deadline. Appendix C lists the insurers, self-insurers and ASCs that provided data in response to the request and those that did not. This is in fulfillment of the DLI indication to insurers and ASCs that it would publicly list those entities that did and did not provide data, both in the report and on the department website.¹²

¹¹ Minn. Stat. § 176.1363.

¹² This information may be found on the DLI website at www.dli.mn.gov/about-department/news-and-media/ascps.

II. Background

A. ASC facility costs relative to workers' compensation medical and total cost

ASC facility services account for a growing portion of workers' compensation medical cost in Minnesota. For payment years 2017 to 2019 combined, these services made up an estimated 8.8% of workers' compensation medical cost, representing a substantial increase from an average of 4.3% for 2012 to 2014.¹³ The 8.8% for 2017 to 2019 represented an estimated 3.1% of total workers' compensation system cost for those years.¹⁴

B. Charged-based system prior to ASCPS

Before ASCPS took effect, Minnesota had a primarily charge-based system for reimbursing ASCs for facility services under workers' compensation. For services not covered by the relative-value fee schedule (the fee schedule used to reimburse professional services such as physician, radiology and laboratory services), ASCs were reimbursed at 85% of "usual and customary" charge — effectively the charge on the bill unless challenged by the insurer. For services covered by the relative-value fee schedule, ASCs were reimbursed at the maximum fee provided by the schedule, not to exceed the amount charged. ASC services covered by the relative-value fee schedule would typically be radiology or diagnostic services. Services not covered by the relative-value fee schedule, and eligible for 85% reimbursement, would consist of the use of the facility for a surgical procedure and would include such items as treatment, operating, and recovery room and nursing services.

C. Concern over costs in the charge-based system

Employers and insurers had expressed concerns over costs in the charge-based system of reimbursing for ASC facility services. With a large portion of payments for ASC services tied to charges, the bulk of these costs rose in direct proportion to charge increases. According to data from the Minnesota Department of Health, average charges per registration at Minnesota ASCs rose at an average annual rate of 8.6% from 2008 to 2018.¹⁵ In a finding by the Workers' Compensation Research Institute (WCRI), average ASC facility payments per claim for Minnesota rose by an annual average of 6.5% from 2012 to 2017.¹⁶ In the Minnesota workers' compensation Medical Data Call, average facility charges and payments per ASC visit rose by annual average rates of 6.5% each between the periods 2011-2013 and

¹³ Computed by DLI from a 20% sample of the Minnesota workers' compensation Medical Data Call, which the Minnesota Workers' Compensation Insurers Association — Minnesota's workers' compensation data service organization and rating bureau — provides to DLI twice a year. The Medical Call data indicate a decreasing share of hospital inpatient service costs from 2012 to 2019, alongside increasing shares for the costs of hospital outpatient and ASC services.

¹⁴ Estimated as 8.8% x 35.3%, where the latter percentage is the estimated medical-cost share of total workers' compensation system cost for 2018, from Figure 2.8 of DLI's *2018 Minnesota Workers' Compensation System Report*.

¹⁵ Calculated by DLI from data from the Health Care Cost Information System of the Minnesota Department of Health, available at www.health.state.mn.us/data/economics/hccis/data/foscddata.html. Because of fluctuations in the trend, the growth rate was taken from the averages for the first and last three years of the period.

¹⁶ WCRI, *CompScope™ Medical Benchmarks for Minnesota, 20th edition*, Oct. 2019, p. 13. The WCRI also found in the same publication that among 18 study states, Minnesota's average payment per claim for ASC facility services was 19% above the median for 2015 (p. 29). These findings were for claims with more than seven days of lost time.

2016-2018.¹⁷ By contrast, from 2008 to 2018, the Consumer Price Index for Minneapolis and St. Paul rose at an average annual rate of 1.6%¹⁸ and the Minnesota statewide average weekly wage used for workers' compensation benefit adjustments¹⁹ rose at an average annual rate of 2.4%.²⁰

D. ASCPS — the new payment system

Because of these concerns, DLI led negotiations among insurer and ASC representatives that eventually produced agreement on a new payment system passed into law in 2018 and effective for services provided on or after Oct. 1, 2018.²¹ The new system, called the Ambulatory Surgical Center Payment System (ASCPS) after Medicare's ASC payment system, is built on the Medicare system with a few additional provisions.

The central feature of Minnesota's ASCPS is that for surgical procedures and ancillary services covered under Medicare's ASCPS, payment is 320% of the Medicare amount, not to exceed total charges for all services, supplies and implantable devices provided in the ASC visit. The 320% was agreed on in the DLI-led negotiations. DLI had estimated that Minnesota workers' compensation was paying 400% of the Medicare amount for ASC facility services, so the 320% represented an estimated 20% payment reduction. Minnesota's 320% amount includes payment for all implantable devices, even if the Medicare ASCPS would allow separate payment for any of these devices.

Medicare updates its payment rates for covered procedures every year by updating the "conversion factor" that is applied to the "payment weight" for each service to convert it to a payment rate in dollars. The annual conversion-factor update is typically an increase; for 2019 and 2020, the increases were 2.1% and 2.6%, respectively.²² Minnesota's ASCPS provides that if the federal conversion factor should decrease by more than 2% in any year, the "320%" will be adjusted upwards to limit the payment rate reduction in Minnesota's ASCPS to just 2%. The increases of 2.1% and 2.6% for 2019 and 2020 are substantially less than the annual growth rates, cited above, of more than 6% in workers' compensation ASC payments and charges prior to 2018.

Most but not all procedures in the Medicare ASCPS are subject to a multiple-procedure discount. Under this provision, if more than one eligible procedure is performed in the same visit, the one with the highest payment rate is paid at 100% of that rate and the other eligible procedures are paid at 50% of their payment rates.

Some surgical procedures not covered in the Medicare ASCPS are compensable in Minnesota workers' compensation if they happen at an ASC. For such procedures, the Minnesota ASCPS payment is 75% of usual and customary charge. If more than one of these procedures is performed in a single visit, the highest-charged of these procedures is paid at 75% of charge and the remainder are paid at 50%.

¹⁷ See note 3. Three-year periods are used here to average out annual fluctuations.

¹⁸ Calculated by DLI from data from the U.S. Bureau of Labor Statistics, available at www.bls.gov/cpi/data.htm.

¹⁹ Minn. Stat. § 176.645.

²⁰ Calculated by DLI from data for non-federal workers from the Minnesota Department of Employment and Economic Development, available at <https://apps.deed.state.mn.us/lmi/qcew/>.

²¹ The provisions of the new system are contained in Minn. Stat. § 176.1363.

²² The conversion factors concerned are contained in federal rule updates for the Medicare Outpatient Prospective Payment System and the Medicare ASCPS, specifically the Federal Register, vol. 83, no. 225, November 21, 2018, p. 59078 (final 2018 conversion factor of \$45.575) and vol. 84, no. 218, November 12, 2019, p. 61408 (final 2019 conversion factor of \$46.532) and p. 61410 (final 2020 conversion factor of \$47.747).

These two provisions for multiple-procedure discounts are separate from each other: if a procedure in the Medicare ASCPS and another procedure outside of the Medicare ASCPS are both performed, neither one causes the other to be eligible for a discount. As the data shows, this point is not always understood and is sometimes a source of payment error.

For a procedure or service listed in the federal ASCPS where (1) payment is at “reasonable cost,” (2) the service is “contractor-priced,”²³ or (3) “a payment rate is not otherwise provided,” the Minnesota ASCPS payment is 75% of usual and customary charge. If the Medicare ASCPS indicates a payment rate of zero for a procedure or service, this constitutes a payment rate being provided. This point is also sometimes misunderstood, leading as well to payment errors.

III. Effect of ASCPS on payment levels

As indicated in the previous section, DLI previously estimated that ASCPS, given its payment provisions, would reduce payments to ASCs by 20% relative to the prior system. DLI performed this estimation before ASCPS took effect, by simulating payments under the new system and comparing these with actual payments under the old system.²⁴ Now that the new system has been in effect for more than two years, it is possible to compare actual payments under the two systems.

Figure 1 shows the quarterly trend in the average payment-to-charge (PTC) ratio for ASC facility services in workers’ compensation cases. This ratio was computed, from the Minnesota Workers’ Compensation Medical Data Call,²⁵ as total payments divided by total charges for these services. As the figure shows, this ratio fell modestly during the eight years before ASCPS took effect, never falling below 63%, but fell markedly when ASCPS took effect (2018-Q4), varying within the narrow range of 48% to 53% during the eight quarters after ASCPS took effect (beginning with 2018-Q4).

To use this trend to estimate the effect of ASCPS on the PTC ratio requires, first, an estimation of what the PTC would have been during the ASCPS period (beginning with 2018-Q4) if ASCPS had not existed. Given the essentially level trend in the PTC ratio for the eight prior quarters, it seems reasonable to use the average for that period as the estimate of what the PTC would have been in the succeeding quarters in the absence of ASCPS. An essentially level trend in the PTC ratio was to be expected under the old system because payments were for the most part computed as a percentage of charges, causing payments to increase roughly in proportion to charges. While it seems reasonable to assume that the level PTC trend would have continued with ASCPS, this is ultimately not verifiable (which is true of any before-and-after comparison). The resulting estimate of what the PTC would have been without ASCPS was 67.0%.

For the first eight quarters of ASCPS (2018-Q4 to 2020-Q3), the PTC was largely level with minor variation. For this period, the average PTC ratio was 50.3%. This represents a 25% drop relative to the 67.0%.²⁶ Given the assumption that the level trend in the two years prior to ASCPS would have continued without the change to that system, these numbers yield the estimate that ASCPS produced a

²³ The federal ASCPS is administered by contractors that for some procedures and services may establish their own pricing.

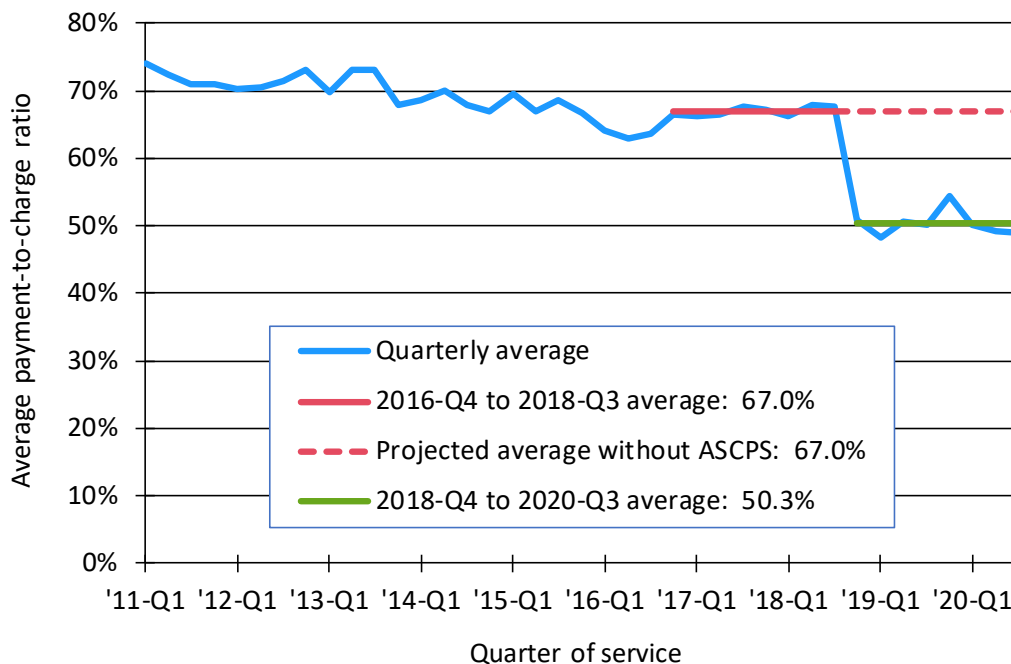
²⁴ DLI performed this simulation using data from the Minnesota Medical Data Call (see note 3).

²⁵ See note 1 in the figure.

²⁶ $(50.3\% / 67.0\%) - 100\% = 75\% - 100\% = -25\%$.

25% drop in payments to ASCs for workers' compensation cases. This is larger than the prior DLI estimate that ASCPS would reduce ASC payments by 20%.

Figure 1
Average payment-to-charge ratio for ASC facility services in workers' compensation cases as reported in the Medical Call data [1]



1. Computed by the Minnesota Workers' Compensation Insurers Association (MWCIA), according to specifications from DLI, from data from the Medical Data Call (MDC). The MDC is a nationwide program in which insurers report detailed information on workers' compensation medical services. The MDC excludes self-insurers and smaller insurers. The ratio was computed as total payments for all ASC facility services divided by total charges for those services.

IV. Payment timeliness and accuracy under ASCPS

A. Data request

The required data for DLI to compute ASCPS payment accuracy and timeliness was not available from established sources.²⁷ Therefore, DLI requested the data from insurers (including self-insurers) and ASCs. The request went to both groups because of the possibility that results might differ between the two.

²⁷ In the MWCIA Medical Data Call, there is no billing date, and the provider ID is left to the discretion of the reporting insurer, so ASC location cannot be determined. Since the Medicare ASCPS payment, and therefore the Minnesota ASCPS payment, depend in part on a local area wage index, the ASC location needs to be known to determine the correct payment amount.

To produce as large and representative data samples as possible, the request went to all Minnesota workers' compensation insurers and those Minnesota ASCs likely to have a significant amount of workers' compensation business. ASCs specializing in endoscopy and eye surgery, for example, were excluded. Insurer contact information was obtained from the reporting system for DLI's semi-annual Report of Benefits Paid; ASC contact information was obtained from the Minnesota Department of Health.

For both insurer and ASC reporters, the request pertained to ASC visits from Apr. 1, 2019 to Dec. 15, 2019. DLI chose this period because it began six months after the inception of ASCPS, it would allow sufficient time for payments to occur before the data was due, and it was estimated to provide a sufficient number of sample visits. DLI estimated that there were about 4,500 ASCPS-covered visits during this period, and that under its sampling procedure (described below), there would be potentially 2,800 reportable visits for insurers and 1,700 such visits for ASC reporters. The actual numbers of sample visits were lower. Only part of this was because of response rates less than 100%; the remainder of the reason is uncertain.

Of particular concern in the data request were arrangements involving preferred-provider organizations (PPO)s. Employers may contract with PPOs to pay the PPO a lower amount than provided under statute, perhaps in exchange for faster payment.²⁸ If a PPO contract is in place, the statutory payment provisions do not necessarily apply.²⁹

DLI divided the data request into sample visits where the payment reflected an adjustment under a PPO arrangement and those where it did not. The data for visits covered by PPOs was used only to gauge payment timelines, while the data for visits not covered by PPOs was used to gauge both payment timeliness and accuracy. Consequently, only a limited set of data items were collected for the visits covered by PPOs. Bill-level data was collected for both groups of visits, while service-level data for gauging payment accuracy — such as procedure codes, charges and payments — was collected only for visits not covered by PPOs. The same data items were collected from insurers and ASCs. Appendix A provides a detailed list of data items collected.

As previously mentioned, DLI sampled ASC visits that occurred from Apr. 1 to Dec. 15, 2019. Reporting entities — insurers and ASCs — were asked to report on all visits that occurred during the sample period, with an option for larger entities to report only on subsamples of approximately 50 visits each within the PPO and non-PPO categories to limit their reporting burden.³⁰ Some entities eligible for subsampling chose this option while others chose to report on all of their cases within the report period.

²⁸ Some PPO arrangements may provide that employers will refer injured workers to a participating PPO provider. However, *requiring* injured workers to use certain providers is prohibited unless the employer is part of a Certified Managed Care Organization under Minn. Rules, 5221.0430, subparts 1 and 2, and Minn. Rules, 5218.

²⁹ DLI takes no position on whether PPO arrangements comply with requirements in workers' compensation or other state law, such as the prohibition of shadow contracting in Minn. Stat. § 62Q.74.

³⁰ To accomplish this while ensuring a random selection of cases, reporting entities were asked to indicate their total numbers of PPO and non-PPO visits during the report period. If either one was more than 50, a subsample period was established within the overall report period, starting with Apr. 1, determined so as to produce a target sample size of 50 cases. For example, if an insurer indicated 100 non-PPO cases during the overall report period, the subsample period was determined to be half the overall period — Apr. 1 to Aug. 8. On average, the number of subsample cases for this "half" period would be 50, although the actual number might be a bit more or less. Doing the subsampling by means of this adjustment of the reporting dates was intended to prevent the reporting entities from choosing the cases to be reported.

For reporting entities that chose the subsampling option, a weighting procedure was used in tabulating results to give full weight to the subsample cases.³¹

The data-reporting vehicle was an Excel spreadsheet created by DLI.³² The spreadsheet was constructed to allow reporting entities to either hand-enter the data or produce a data file electronically and “drop” the results into the data-entry range. DLI produced instructional videos to help reporting entities navigate the inherent complications in the report format. Minnesota IT Services @ Labor and Industry produced an online secure data submission portal for receiving the data. Submitted data files were then transmitted to DLI Research and Statistics for analysis.

The data request was transmitted to insurers and ASCs via an e-mail letter from the DLI commissioner on Feb. 3, 2020.³³ The initial reporting deadline was set at July 31, 2020 to allow six months for entities to complete the request. The request informed insurers and ASCs that DLI would publicly acknowledge those entities that had helped with the project by supplying data. Reminders were sent monthly. The Insurance Federation of Minnesota and the Minnesota Ambulatory Surgical Center Association assisted by promoting the data request to their members. Four days after the original deadline of July 31, 2020, the commissioner sent an e-mail letter to those entities that had not yet responded, urging them to do so and informing them that the department would be publishing lists of those entities that had and had not responded, both in the report and on the DLI website.³⁴ Several additional responses came in after that letter.

B. Response to data request

The response to the data request is summarized in Figure 2. The response rates from insurers and self-insurers were 91% and 73%, respectively. The responding insurers and self-insurers represented 97% and 91%, respectively, of total workers’ compensation benefits paid for 2016, as reported to DLI.³⁵ This indicates that the responding insurers and self-insurers were larger than average. Overall, the response rate from insurers and self-insurers combined — “insurers” in the remainder of this report — was 84%, representing 95% of total benefits paid for 2016. Of the 60 ASCs not excluded from the sample because of specialties not relevant to workers’ compensation, 38, or 63%, submitted data. The high response rate from insurers, and to a lesser degree that from the ASCs, bode well for the representativeness of the data.

As previously indicated, DLI informed insurers and ASCs in the data request that it would publish the names of entities that provided data for this project and those that did not. Appendix C lists the insurers and ASCs in the two groups. DLI heartily thanks the entities that honored its data request for this mandated report; without the data, the report would have been impossible.

Figure 3 shows usable sample sizes. Some reported ASC visits had to be excluded from the analysis because of the factors indicated in note 2 in the figure.

³¹ For example, if an insurer indicated it had 100 non-PPO cases during the overall sample period but only reported on 50 of those cases under the sampling procedure, each of the sample cases would be given a weight of 2.

³² One feature of the spreadsheet was conditional formatting to alert the user to occurrences of invalid or inconsistent data. This certainly played a major role in promoting quality in the reported data.

³³ The initial commissioner request letter is contained in Appendix B.

³⁴ The follow-up commissioner letter is contained in Appendix B.

³⁵ These figures include both indemnity and medical benefits paid. These figures are based on 2016 data because 2016 was the last year for which both indemnity and medical benefits were reported to DLI.

Figure 2**Response rates from insurers and ASCs [1]**

	Insurers [2]		Self-Insurers [2]		Insurers and self-insurers combined [2]		ASCs [3]	
	Number	Pctg.	Number	Pctg.	Number	Pctg.	Number	Pctg.
Submitting data	272	91%	164	73%	436	84%	38	63%
Not submitting data	26	9%	60	27%	86	16%	22	37%
Total	298	100%	224	100%	522	100%	60	100%

1. Data collected by DLI for samples of workers' compensation visits that occurred from Apr. 1 to Dec. 15, 2019.
2. These are insurers and self-insurers that report in the semi-annual DLI Report of Benefits paid.
3. These are ASCs as listed by the Minnesota Department of Health, excluding ones such as endoscopy eye surgery centers that would not be doing significant workers' compensation business.

Figure 3**Usable sample cases [1]**

	Number of usable sample visits [2]		
	Without PPO adjustment to payment	With PPO adjustment to payment	Total
Insurers (including self-insurers)	1,234	1,430	2,664
ASCs	654	836	1,490

1. Data collected by DLI for samples of workers' compensation visits that occurred from Apr. 1 to Dec. 15, 2019.
2. Not all reported sample visits were usable in the analysis. The usable cases, shown here, exclude those that involved hospital outpatient departments (in the insurer data), involved a non-Minnesota workers' compensation claim or a non-Minnesota ASC, or had charges or payments that did not add up from the service-specific amounts to the bill total.

C. Findings

This section presents findings regarding ASCPS payment accuracy and timeliness. It begins with an analysis of payment accuracy, followed by an analysis of reasons for payment errors where these occurred. Then it presents results concerning payment timeliness and, finally, an analysis of the degree to which payments were both accurate and timely. As noted previously, for insurers and ASCs that reported on a subsample of their total cases for the report period, a weighting procedure was used to give full weight to the samples for those entities.³⁶

³⁶ See note 31.

A note on statistical significance: At some points in the presentation, results of statistical significance tests are given. DLI conducted statistical significance tests on some of the results using standard techniques. The reason for a such a test is to estimate how likely it is that a result could have occurred from random variation in the sample data as opposed to an underlying tendency. For example, if a sample percentage is 70%, we may wish to estimate how likely it is to obtain such a result if the actual (population) percentage is, say, 80% — or, in other words, how likely it is that the difference between the 70% and 80% represents an underlying tendency rather than random variation in the sample data. If, for example, we say that the sample result of 70% is different from 80% at a 95% confidence level, this means it is estimated that if the true percentage is 80%, random sample variation 95% of the time would produce a sample percentage less than 10 percentage points different from 80%. In other words, a difference as large as the 10 percentage points would arise from random variation only 5% of the time.

1. Payment accuracy

To gauge payment accuracy, DLI limited the sample to visits whose payments were not adjusted under an arrangement with a preferred-provider organization (PPO) as reported by the insurer or ASC. This is because payments in PPO arrangements are made under contractual agreements rather than the provisions in the workers' compensation statute.

For each ASC visit not covered by a PPO arrangement, DLI first computed a correct payment amount according to the statutory provisions described in section II-D using the reported data. DLI then compared the actual payment to the computed correct payment by taking the ratio of the actual to the computed amount. Thus, a ratio of 100% means that the actual payment was exactly equal to the correct amount, and ratios less than or more than 100% indicate under- and over-payment, respectively.

Figures 4 and 5 present the results of this analysis as performed on the insurer and ASC data, respectively. The size of each section in the pie charts represents the percentage of visits for which the ratio of the actual payment to the correct payment was in the range indicated by the label for that pie section.

In the two data sets, the percentages of visits with an exactly correct payment were higher in the insurer data than in the ASC data — 67.8 vs. 59.1%. With a 5% margin of error, the percentage from 95 to 105% of the correct amount was 74.8% in the insurer data and 67.9% in the ASC data.

Using an exact — 100% — standard for correct payment, the rate of under-payment was 16.9% in the insurer data and 20.7% in the ASC data, while the over-payment rates in the two data sources were 15.3% and 20.2%, respectively. With a 5% margin of error,³⁷ the under-payment rates were 13.1% and 17.7%, while the over-payment rates were 12.1 and 14.4%, respectively. There was not much difference between the under- and over-payment rates in either the insurer or ASC data. However, both the under- and over-payment rates were somewhat higher in the ASC data than in the insurer data.

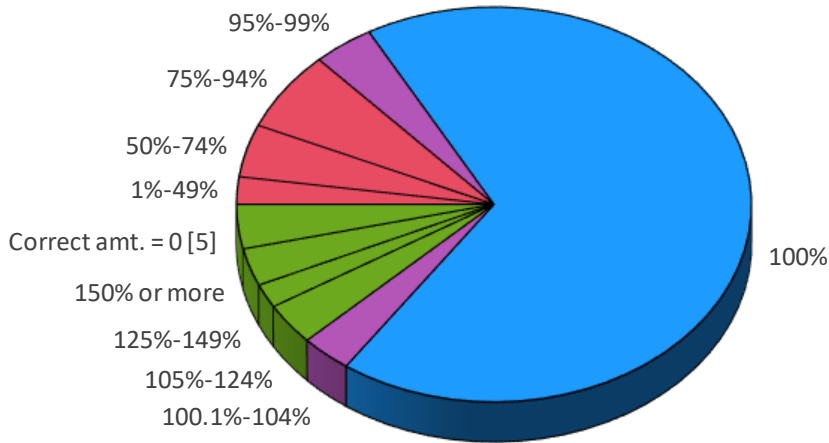
It is also of interest to consider the percentage of visits for which payment was either correct or higher. Under the exact standard for correct payment, the percentage with correct or higher payment was

³⁷ This margin of error acknowledges that in some cases where the reported payment was apparently incorrect, the "correct" amount computed by DLI might have been incorrect, and the reported payment correct, because of information not reported to DLI.

Figure 4

**Actual insurer payment to ASC as percentage of DLI-computed amount:
insurer data [1]**

Note: The size of each pie section represents the percentage of visits with payment — as a percentage of the DLI-computed amount — in the range indicated by the section label.



Sample size: 1,234

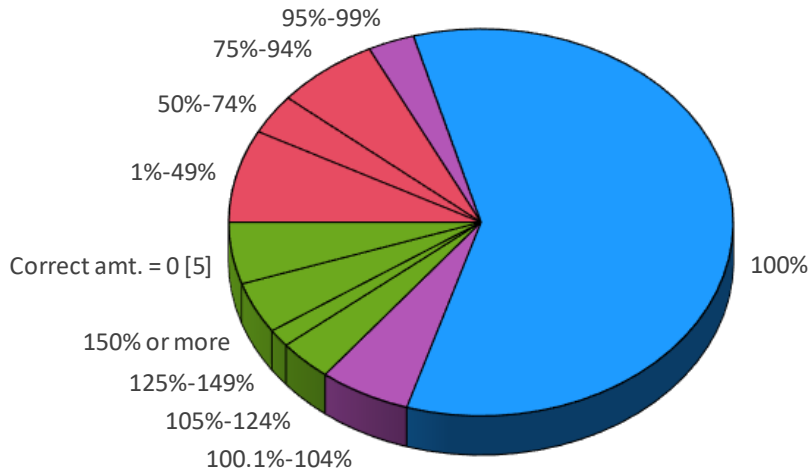
Total actual payments as percentage of total DLI-computed payments: 100.8% [2]

Actual payment as pctg. of DLI-computed payment	Pctg. of visits	Reverse cumulative pctg. [3]	Actual payment as pctg. of DLI-computed payment	Pctg. of visits	Reverse cumulative pctg. [3]
1% to 49%	2.2%	100.0%	100.1% to 104%	3.2%	15.3%
50% to 74%	4.3%	97.8%	105% to 124%	3.4%	12.1%
75% to 94%	6.5%	93.4%	125% to 149%	1.9%	8.7%
95% to 99%	3.8%	86.9% [4]	150% or more	3.1%	6.7%
Exactly 100%	67.8% [4]	83.1% [4]	Correct amt. = 0 [5]	3.6%	3.6%

1. Computed from a sample of Minnesota workers' compensation ASC visits that occurred from Apr. 1 to Dec. 15, 2019. The Minnesota Department of Labor and Industry collected the data from Minnesota workers' compensation insurers. The visits included here are those whose payments were not subject to an arrangement with a preferred-provider organization (PPO).
2. This percentage is not statistically different from 100.0%.
3. This is the percentage of cases that are in the payment category concerned or a higher category. For example, the 86.9% for the 95%-to-99% category means that 86.9% of cases had payment of 95% of the DLI-computed amount or more.
4. This percentage is statistically different from 80.0% at the 99% confidence level.
5. These are cases that had actual payment but a DLI-computed payment of zero.

Figure 5
Actual insurer payment to ASC as percentage of DLI-computed amount:
ASC data [1]

Note: The size of each pie section represents the percentage of visits with payment — as a percentage of the DLI-computed amount — in the range indicated by the section label.



Sample size: 654

Total actual payments as percentage of total DLI-computed payments: 99.4% [2]

Actual payment as pctg. of DLI-computed payment	Pctg. of visits	Reverse cumulative pctg. [3]	Actual payment as pctg. of DLI-computed payment	Pctg. of visits	Reverse cumulative pctg. [3]
1% to 49%	7.8%	100.0%	100.1% to 104%	5.8%	20.2%
50% to 74%	3.4%	92.2%	105% to 124%	3.5%	14.4%
75% to 94%	6.6%	88.9%	125% to 149%	1.5%	11.0%
95% to 99%	3.0%	82.3% [5]	150% or more	4.3%	9.5%
Exactly 100%	59.1% [4]	79.3% [5]	Correct amt. = 0 [6]	5.2%	5.2%

1. Computed from a sample of Minnesota workers' compensation ASC visits that occurred from Apr. 1 to Dec. 15, 2019. The Minnesota Department of Labor and Industry collected the data from Minnesota workers' compensation insurers. The visits included here are those whose payments were not subject to an arrangement with a preferred-provider organization (PPO).
2. This percentage is not statistically different from 100.0%.
3. This is the percentage of cases that are in the payment category concerned or a higher category. For example, the 82.5% for the 95%-to-99% category means that 82.5% of cases had payment of 95% of the DLI-computed amount or more.
4. This percentage is statistically different from 80.0% at the 99% confidence level.
5. This percentage is not statistically different from 80.0%.
6. These are cases that had actual payment but a DLI-computed payment of zero.

83.1% in the insurer data and 79.3% in the ASC data. With a 5% margin of error, the percentages of cases at 95% or more of the correct amount were 86.9% and 82.3% according to the two data sources respectively. The 86.9% from the insurer data was statistically different from 80%, at the 99% confidence level, but the 82.3% from the ASC data was not.

Another measure of overall payment accuracy is the ratio of total actual payments for all visits to total computed correct payments for all visits. This ratio was 100.8% for the insurer data and 99.4% for the ASC data. Neither percentage is statistically different from 100%.

2. Reasons for payment errors

This section presents an analysis of reasons for the under- and over-payment reported in Figures 4 and 5. As with those figures, the present analysis is limited to cases without PPO arrangements.

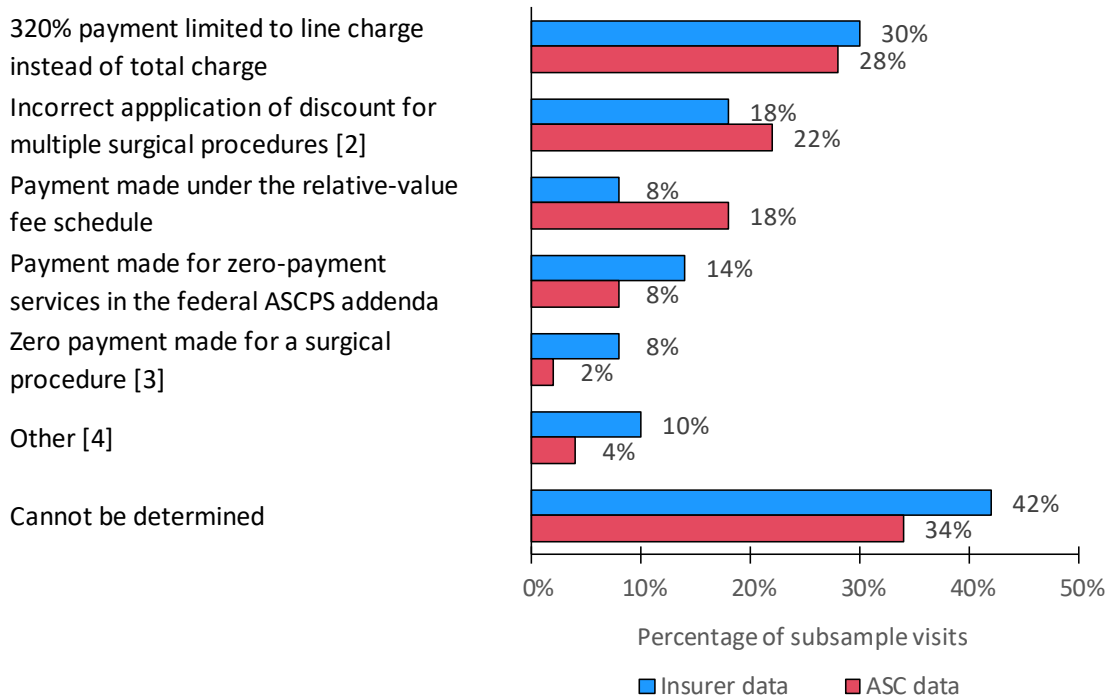
To conduct the analysis, DLI divided the overall samples into cases reported by insurers and ASCs and cases with under- and over-payment — four subgroups in all. The groups with under- and over-payment were limited to cases where the ratio of actual to correct payment was less than 95% and greater than 105%, respectively, to focus on cases with appreciable under- and over-payment. For each of these subgroups, DLI chose a random sample of 50 cases for analysis, or the actual number of cases if less than 50. To conduct the analysis, DLI examined relevant reported data such as service codes, units of service, charges and payments as well as information derived from the reported data such as procedure code status indicators and ASC location. In a majority of cases, it was possible to determine the reasons for the errors the insurers made.

Figure 6 presents findings regarding errors where there was under-payment (actual payment less than 95% of the correct amount). To follow the discussion of these results, the reader should review the discussion of payment provisions in Section II-D. Note that while the cases concerned in Figure 6 have under-payment, some of the types of errors indicated would by themselves tend to cause over-payment; the visits concerned have under-payment because errors causing under-payment counteracted those causing over-payment.

The most common errors in the under-payment cases (Figure 6) were limiting the 320% payment to the line charge rather than the total charge on the bill, incorrectly applying the discount for multiple surgical procedures (see note 2 in the figure), and paying according to the relative-value fee schedule (which applies to professional services) rather than the ASCPS. A variety of other erroneous practices were also discovered. The reason for error could not be determined in 42% of the cases in the insurer data and 34% of the cases in the ASC data.

Figure 7 presents findings regarding error reasons where there was over-payment (actual payment more than 105% of the correct amount). For the over-payment cases, the most common error was paying for non-surgical services not in the federal ASCPS. Although Minnesota's ASCPS pays for services outside of the federal ASCPS, this applies only to *surgical* procedures. Second-most-common was payment for services with zero payment rates in the federal ASCPS. This apparently happens because of the Minnesota ASCPS provision (cited above) that payment is 75% of charge for services in the federal ASCPS for which a payment rate "is not otherwise provided." The presence of a zero payment rate in the ASCPS in these cases is apparently being interpreted as a payment rate not being provided, which is incorrect: a payment rates is provided and it is zero. Other more prominent reasons for over-payment

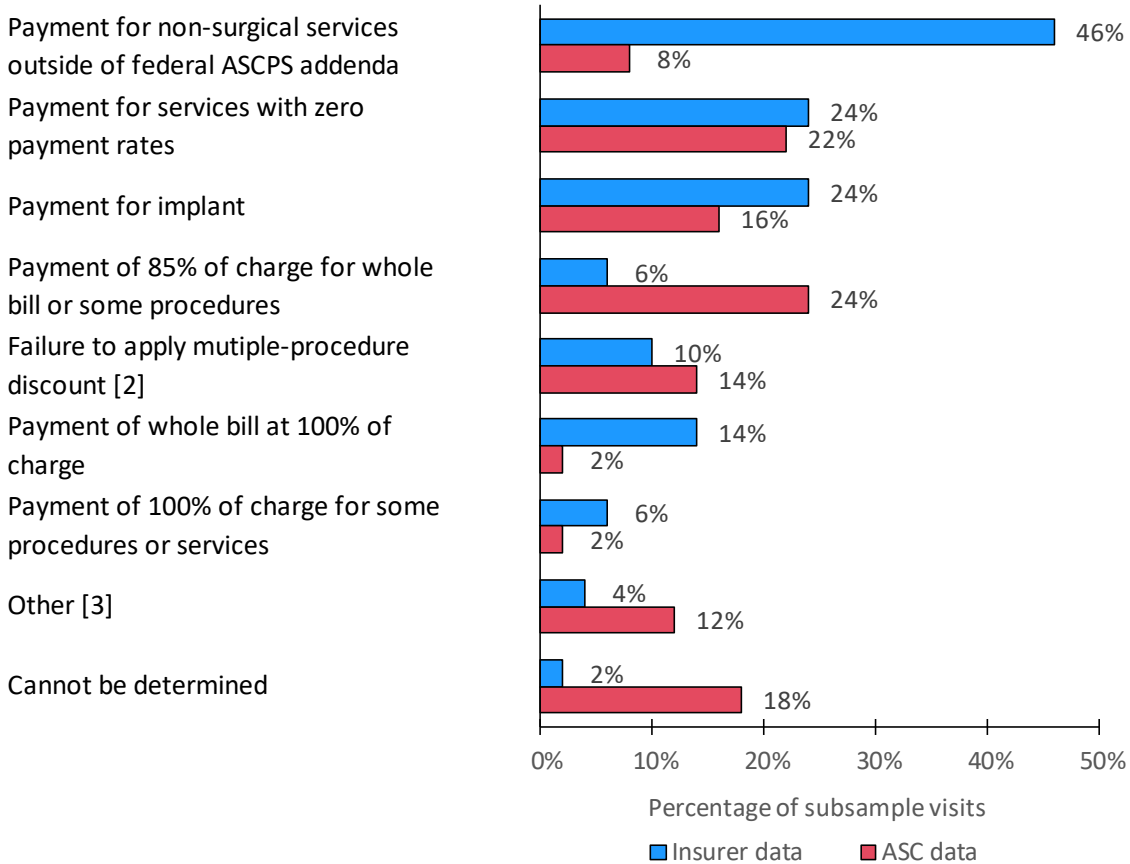
Figure 6
Payment errors where there was underpayment for visits to the ASC:
insurer and ASC data [1]



1. Derived from an analysis of 50 randomly drawn visits from the insurer sample and 50 such visits from the ASC sample where the actual payment was less than 95% of the correct amount (computed by DLI), using only visits not covered by PPO arrangements as reported. Percentages add to more than 100% because visits may have more than one type of payment error. Because of the small numbers of cases in the subsamples, these results are merely suggestive.
2. Payment practices here include applying the discount to ineligible procedures in the federal ASCPS addenda, applying the discount to a procedure in the federal addenda where there was just one such procedure, applying the discount to a procedure outside of the federal addenda when there was just one such procedure although there were procedures in the addenda (paying either 50% of charge or 50% of the amount for the procedure in the addenda), paying for multiple procedures in the federal addenda at 75% and 50% of charge instead of 320% of the federal ASCPS amount and 50% of this amount, applying the discount to a procedure in the federal addenda where there was just one such procedure although there were procedures not in the addenda, paying 50% of charge rather than 50% of the "320%" amount to the second procedure in the federal ASCPS addenda, and paying 37.5% rather than 50% of the "320%" amount to the second procedure in the federal ASCPS addenda.
3. A zero payment for a service is not necessarily an error. However, in the cases concerned, the reporting entity (insurer or ASC) indicated that the service was not denied by reason of primary liability, causation, or reasonableness and necessity, and also indicated a positive number for the units of service for which payment was made. In any event, a zero payment for a service contributes to the actual payment being less than the DLI-computed amount.
4. Payment practices here include paying for a non-surgical (non-implant) service not listed in the federal ASCPS addenda and paying 75% or 85% of charge for a surgical procedure listed in the federal ASCPS addenda.

Figure 7

**Payment errors where there was overpayment for visits to the ASC:
insurer and ASC data [1]**



1. Derived from an analysis of 50 randomly drawn visits from the insurer sample and 50 such visits from the ASC sample where the actual payment was more than 105% of the correct amount (computed by DLI), using only visits not covered by PPO arrangements as reported. Percentages add to more than 100% because visits may have more than one type of payment error. Because of the small numbers of cases in the subsamples, these results are merely suggestive.
2. The discount concerned was sometimes the one that applies to surgical procedures in the federal ASCPS appendices and sometimes the one that applies to procedures not in those appendices.
3. Payment practices here include limiting the "320%" amount to the line charge rather than the total charge, paying 75% of charge for surgical procedures in the federal ASCPS appendices, paying for a service without a procedure ("HCPCS") code, paying for a service according to the relative-value fee schedule, paying for a procedure in the federal appendices at 96% or 80% of charge, and paying 85% of charge for a procedure not in the federal appendices.

included payment for an implant, payment of 85% of charge for the whole bill or some procedures, and failing to apply the multiple-procedure discount. The cases where DLI could not determine the error reason were less common here than with the under-payment cases, although still significant at 18% in the ASC data.

3. Payment timeliness

DLI analyzed payment timeliness for visits covered by PPO arrangements and those not. In view of statutory and rule provisions requiring medical bill payments within 30 days of bill receipt,³⁸ the focus was on the percentage of cases where the time from bill date to payment date was 30 days or less.

The 30-day standard applies to the time from the insurer receipt of the bill to the date the insurer sends payment. Thus, in the insurer data, the amount of time to payment was computed as the time from the bill-receipt date to the payment-sent date, both dates being directly available in the data. In the ASC data, the available dates — the dates the ASC was able to report — were the date the bill was sent and the date payment was received. As shown in Figure 8, both insurers and ASCs report about 64 to 66% of

Figure 8
Percentage of visits without PPO arrangements whose bills were submitted electronically via the 837P, insurer and ASC data [1]

Bill submitted on 837P?	Insurer data [2]	ASC data [3]
Yes	64.1%	66.4%
No	22.9%	33.4%
Unsure	13.0%	0.2%
Total	100.0%	100.0%

1. Computed from a sample of Minnesota workers' compensation ASC visits that occurred from Apr. 1 to Dec. 15, 2019. DLI collected the data from Minnesota workers' compensation insurers and Non-Critical-Access Hospitals. The insurers and ASCs reported the presence or absence of a PPO arrangement for each visit.
2. In the insurer data, the question regarding bill submission on the 837P referred to the receipt of the bill by the insurer.
3. In the ASC data, the question regarding bill submission on the 837P referred to the sending of the bill by the ASC.

bills being sent electronically via the 837P format.³⁹ With the ASC data, DLI assumed that if the bill was sent electronically, the insurer received it two days after the date sent, allowing for possible transit through clearinghouses,⁴⁰ but if it was not sent electronically (that is, for the cases answered “no” or

³⁸ Minn. Stat. § 176.135, subd.6, Minn. Rules, part 5221.0600, subd. 3.

³⁹ ASC X12N Implementation Guide, ASC X12N/005010X222.

⁴⁰ This was based on insights from staff at the Minnesota Department of Health.

“unsure” in Figure 8), it was assumed to be received three days after the date sent, allowing for transit via regular mail.

For both the insurer and ASC data, if the ASC sent additional information in response to a request from the insurer, the date this information was received (insurer data) or estimated to be received (ASC data) was used as the bill date. With the ASC data, whether the original bill was or was not sent electronically, the same was assumed to be true for the additional information, so the receipt date was imputed correspondingly as two or three days after the date sent.

Regarding the date the insurer sent payment, DLI understands that most workers’ compensation medical payments are sent as a check via regular mail. On this basis, in the ASC data, a payment-sent date was imputed as three days prior to the reported date payment was received. So, with the ASC data, the time from billing to payment was computed as the time from the imputed date the insurer received the bill (assumed to be the date sent if sent electronically, otherwise three days thereafter) to the imputed date the insurer sent payment (assumed to be three days before the ASC received it).

Figures 9 and 10 present findings regarding payment timeliness under the above parameters for visits covered and not covered by PPO arrangements for the insurer and ASC data, respectively. In the insurer data (Figure 9), the percentage of visits paid within 30 days is 85.2% and 91.8%, respectively, for visits not covered and those covered by PPO arrangements, and 88.3% for the two groups combined. All of these percentages are statistically different from 80.0% at the 99% confidence level. The median and average days to payment as indicated by the insurer data range from 15.0 to 21.3 days.

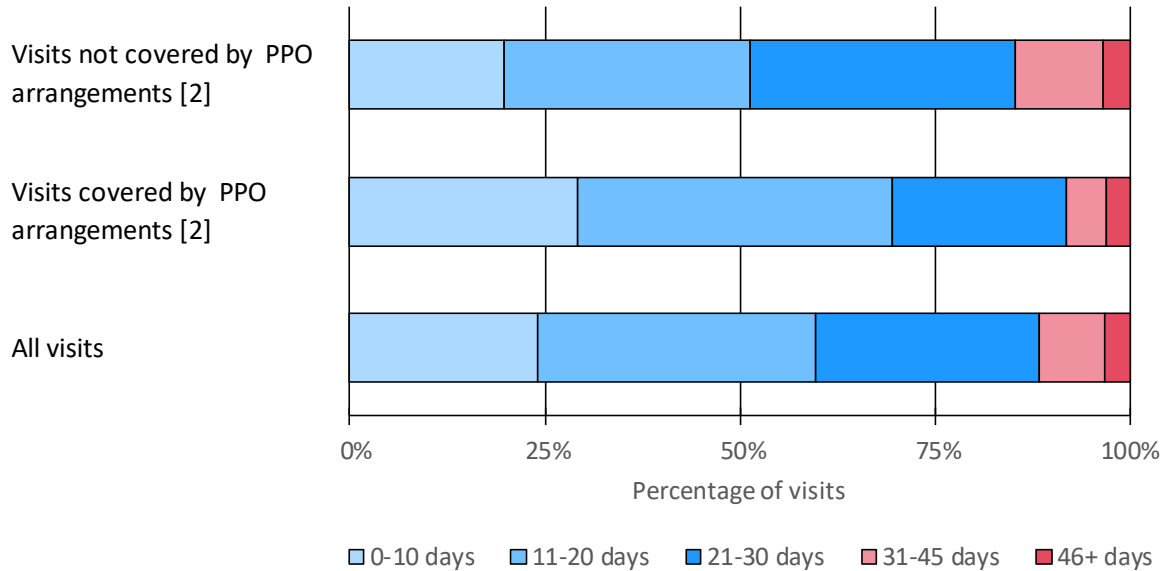
The picture is quite different in the ASC data (Figure 10). As reported by the ASCs, the time from imputed insurer receipt of bill to imputed sending of payment (see above discussion and note 1 in the figure) was within 30 days in 56.9% and 69.3% of the cases not covered and covered by PPO arrangements, respectively, and 66.2% for the two groups combined. All three percentages were statistically less than 80.0% at the 99% confidence level. The median and average times from billing to sending of payment ranged from 23.0 to 41.6 days for the cases with and without PPO arrangements.⁴¹

4. Payment accuracy and timeliness combined

While payment accuracy and timeliness are of interest as separate questions, there is also major interest in the question of to what degree payments are simultaneously accurate and timely. Figure 11 presents findings regarding this question from the insurer and ASC data. For both data sources, the results are presented in a two-by-two grid relating to (1) visits with payment at or above versus below 100% of the correct amount and (2) visits with payment sent-date (or imputed sent-date for the ASC data) within and outside of 30 days from the bill-received date (or imputed receipt date for the ASC data). Since these findings partly involve payment accuracy, they are confined to the visits not covered by PPO arrangements.

⁴¹ The results from the ASC data, and to a small extent those from the insurer data, suggest a shorter time to payment for PPO cases than for non-PPO cases. This accords with theoretical expectations, which suggest that insurers may be able to pay more quickly under PPO arrangements where the payment provisions are made clear through contractual provisions than under cases without PPO arrangements where the payment provisions in statute are perhaps more complex and challenging to navigate.

Figure 9
Number of days from receipt of bill to sending of payment:
insurer data [1]

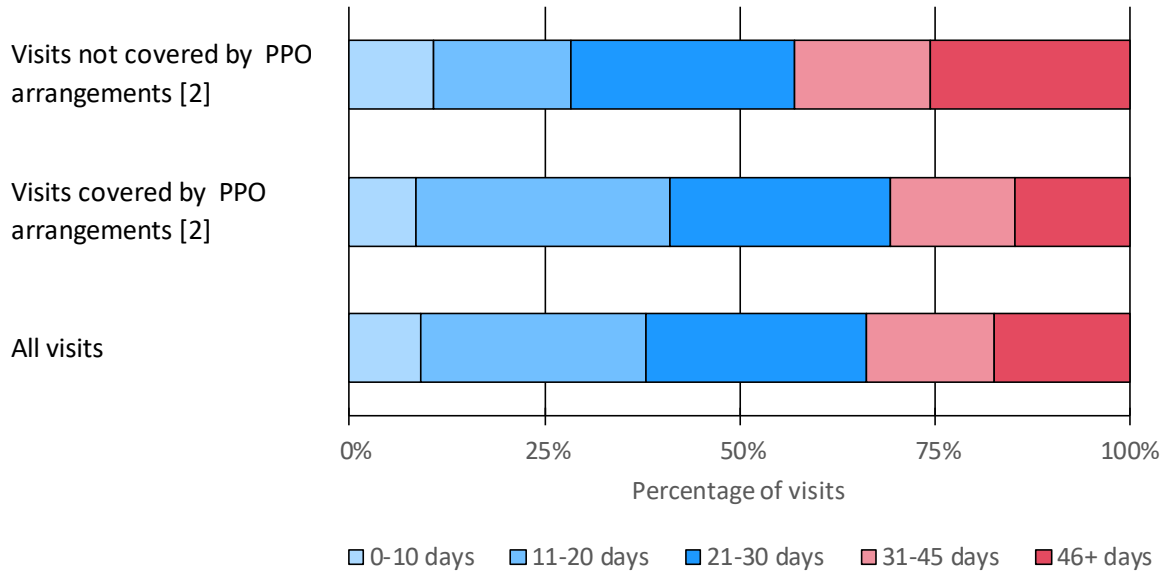


	Visits not covered by PPO arrangements [2]	Visits covered by PPO arrangements [2]	All visits
Median days	20.0	15.0	18.0
Average days	21.3	18.1	19.8
Pctg. of visits with 30 or fewer days	85.2% [3]	91.8% [3]	88.3% [3]
Sample size	1,221	1,430	2,651

1. Computed from a sample of Minnesota workers' compensation ASC visits that occurred from Apr. 1 to Dec. 15, 2019. The Minnesota Department of Labor and Industry collected the data from Minnesota workers' compensation insurers.
2. The insurers reported the presence or absence of a PPO arrangement for each visit.
3. Statistically different from 80.0% at the 99% confidence level.

Figure 10

Number of days from imputed insurer receipt of bill to imputed insurer sending of payment: ASC data [1]



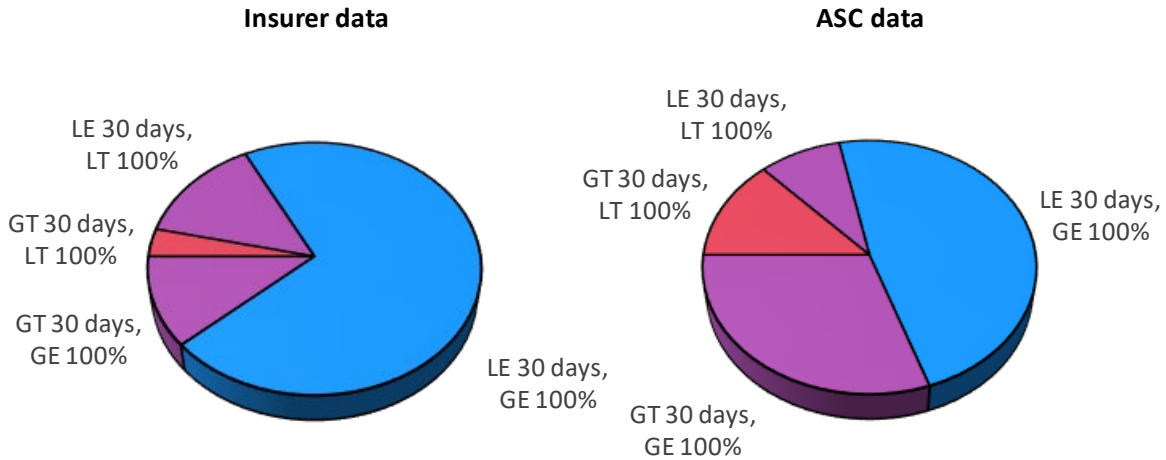
	Visits not covered by PPO arrangements [2]	Visits covered by PPO arrangements [2]	All visits
Median days	28.0	23.0	24.0
Average days	41.6	32.2	34.5
Pctg. of visits with 30 or fewer days	56.9% [3]	69.3% [3]	66.2% [3]
Sample size	652	836	1,488

1. Computed from a sample of Minnesota workers' compensation ASC visits that occurred from Apr. 1 to Dec. 15, 2019. The Minnesota Department of Labor and Industry collected the data from Minnesota ASCs. The date the insurer received the bill was imputed as two days after the ASC sent the bill if the bill was sent electronically (to allow for movement through clearinghouses), otherwise as three days after the date sent. The date the insurer sent payment was imputed as three days prior to the date the ASC received it.
2. The ASCs reported the presence or absence of a PPO arrangement for each visit.
3. Statistically different from 80.0% at the 99% confidence level.

Figure 11

**Payment timing and accuracy for visits not covered by PPO arrangements:
insurer and ASC data [1]**

Note: The size of each pie section represents the percentage of visits with payment timeliness and accuracy in the range indicated by the section label.



Actual payment as percentage of DLI-computed payment	Percentage of visits					
	Insurer data			ASC data		
	Time from receipt of bill to sending of payment			Time from imputed insurer receipt of bill to imputed insurer sending of payment [2]		
	More than 30 days	30 days or less	Total	More than 30 days	30 days or less	Total
Less than 100%	3.6%	13.9%	17.5%	13.0%	8.8%	21.9%
100% or more	11.5%	71.0% [3]	82.5%	30.3%	47.8% [3]	78.1%
Total	15.1%	84.9%	100.0%	43.3%	56.7%	100.0%
Sample size	1,181			629		

1. Computed from a sample of Minnesota workers' compensation ASC visits that occurred from Apr. 1 to Dec. 15, 2019. The Minnesota Department of Labor and Industry collected the data from Minnesota workers' compensation insurers and ASCs. The insurers and ASCs reported the presence or absence of a PPO arrangement for each visit.
2. In the ASC data, the date the insurer received the bill was imputed as two days after the ASC sent the bill if the bill was sent electronically (to allow for transit through clearinghouses), otherwise as three days after the date sent, and the date the insurer sent payment was imputed as three days prior to the date the ASC received it.
3. Statistically different from 80.0% at the 99% confidence level.

In the pie charts, the blue section represents the visits for which payment both met the 100%+ standard (at least 100% of the DLI-computed correct amount) and was timely (sent within 30 days of the bill date⁴²). A markedly different picture emerges from the ASC data than from the insurer data. The insurer data indicates that 71.0% of the visits had payments that both met the 100%+ standard and were timely, while the ASC data indicates less than half — 47.8%. Both of these percentages are statistically less than 80.0% at the 99% confidence level.

Note that these results depend critically on the standard used with regard to payment amount. If the payment amount were instead measured by a different standard — for example, payment within 5% of the correct amount, payment exactly equal to the correct amount or payment equal to 95% of the correct amount or higher — the resulting percentages of visits with payments meeting both the amount and timeliness standards would be different than shown here. It is noteworthy, however, that even under the most lenient payment amount standard — that payments be 95% or more of the correct amount — the percentage of cases meeting both the amount and timeliness standards is 74.2% in the insurer data and 49.1% in the ASC data, both significantly less than 80.0% at the 99% confidence level (not shown in the figure).

The percentages of cases in the other categories also differ between the insurer and ASC data. For example, the percentage of cases with payments meeting neither the amount nor the timeliness standard was 3.6% in the insurer data but 13.0% in the ASC data.

V. Summary and conclusion

A. Summary

In compliance with a legislative mandate, this study assessed (1) the effect of the Minnesota workers' compensation Ambulatory Surgical Center Payment System (ASCPS) on payment levels to ASCs for workers' compensation cases and (2) the degree to which payments for these cases under the new system have been accurate and timely.

An analysis of the trend in the overall payment-to-charge ratio for workers' compensation cases at Minnesota ASCs yielded the estimate that ASCPS produced a 25% reduction in payments for these cases. This is larger than the 20% reduction projected by DLI before ASCPS took effect.

For the analysis of payment timeliness and accuracy, DLI used data gathered in a special request from insurers and ASCs. DLI assessed payment accuracy by comparing the actual payment to the amount it computed from the data following ASCPS provisions. DLI assessed payment timeliness by considering the percentage of payments that were sent within the statutory 30-day limit that applies to workers' compensation medical payments in general.⁴³ A summary of findings appears in Figure 12. The 83% response rate from insurers, and to a lesser degree the 63% response rates from ASCs, bode well for the representativeness of the data.

⁴² The bill date was modified to be the date additional information was received (or estimated to be received) if the insurer requested such information.

⁴³ With the ASC data, DLI imputed the date the insurer received the bill as three days after the bill-sent date if the bill was not sent electronically, and imputed the date the insurer sent payment as three days prior to the date the ASC received it.

Figure 12

Summary of findings regarding payment timeliness and accuracy: insurer and ASC data [1]

	Insurer data [2]	ASC data
Percentage of entities responding [3]	84%	63%
Total usable sample visits [4]	2,664	1,490
Sample visits not covered by a PPO adjustment [5]	1,234	654
Percentage of visits with exactly correct payment [6]	67.8%	59.1%
Percentage of visits with payment at least 95% of the correct amount [7]	86.9%	82.3%
Percentage of visits with payment at least 100% of the correct amount [7]	83.1%	79.3%
Total actual payments as percentage of total correct payments [8]	100.8%	99.4%
Percentage of visits with payment sent within 30 days of bill receipt [9,10]	88.3%	66.2%
Percentage of visits with payment at least 100% of the correct amount, sent within 30 days of bill receipt [11,10]	71.0%	47.8%

1. Computed from a sample of Minnesota workers' compensation ASC visits that occurred from Apr. 1 to Dec. 15, 2019. The Minnesota Department of Labor and Industry collected the data from Minnesota workers' compensation insurers and ASCs.
2. Includes insurer and self-insurer data.
3. From Figure 2.
4. From Figure 3. This larger sample was used for analyzing payment timeliness where accuracy was not being considered.
5. From Figure 3. This smaller sample was used for analyzing payment accuracy, either by itself or along with payment timeliness.
6. From Figures 4 and 5. Both percentages are statistically less than 80.0% at the 99% confidence level.
7. From Figures 4 and 5. The insurer percentage is statistically different from 80.0% at the 99% confidence level; the ASC percentage is not statistically different from 80.0%.
8. From Figures 4 and 5. Not statistically different from 100.0%.
9. From Figures 9 and 10. Both percentages are statistically different from 80.0% at the 99% confidence level.
10. In the ASC data, the date the insurer received the bill was imputed as two days after the ASC sent the bill if the bill was sent electronically, otherwise as three days after the date sent, and the date the insurer sent payment was imputed as three days prior to the date the ASC received it.
11. From Figure 11. Both percentages are statistically less than 80.0% at the 99% confidence level.

Both the insurer and ASC data indicated that exactly correct payment occurred a majority of the time — 67.8% for the insurer data and 59.1% for the ASC data, respectively. With a more lenient standard for the payment amount — that the payment be at least 100% of the correct amount — payments met this standard 83.1% of the time as reported by the insurers and 79.3% as reported by the ASCs (only the insurer percentage being statistically different from 80%). Total actual payments came to 100.8% of total correct payments in the insurer data and 99.4% in the ASC data (neither one statistically different from 100%).

DLI investigated the reasons for payment errors in random samples of cases from the insurer and ASC data that were under- and over-paid. A large variety of payment errors were found. Significant misunderstanding seems to exist on the part of some insurers regarding the correct application of the ASCPS payment provisions.

The insurer and ASC data gave quite different results regarding payment timeliness. The insurer data indicated that 88.3% of payments were sent within the statutorily required 30 days of bill receipt, while the ASC data indicated a much lower 66.2%. As indicated in note 10 in Figure 12, where the ASC data was concerned, DLI used the reported bill-sent and payment-received dates to impute dates the insurer received the bill and sent payment. Therefore, the reason for the difference in results is unclear. At the time of this report, DLI was in the process of matching cases reported by insurers and ASCs to investigate this discrepancy.

Finally, DLI considered payment accuracy and timeliness simultaneously by examining the percentage of visits for which payment was both at least 100% of the DLI-computed correct amount and timely (sent within 30 days of bill submission). The visits that met both criteria amounted to 71.0% of the total in the insurer data and 47.8% in the ASC data.

B. Comment

This analysis found, among other things, differences in results between the insurer and ASC data. In general, the insurer data suggest that payments are more accurate and, especially, more timely than does the ASC data. Which is to be believed? Should we simply split the difference between the two, or give more credence to one or the other?

One line of reasoning suggests that it may make sense to give more credibility to the ASC data. This line of reasoning applies because the response rate for the insurers is less than 100% — 83% in particular. Sampling the ASCs is an indirect way of sampling insurers. Specifically, any insurer (or self-insurer) has a chance of showing up in the ASC data in direct proportion to its number of workers' compensation ASC cases. In other words, sampling the ASCs is a way of drawing a representative sample from insurers (even if not all ASCs are in the sample, which is the case). By contrast, with the insurer sample, there may be differences between the reporting and non-reporting insurers that are unknown but nonetheless there. It could be that insurers that are proactive about learning new payment provisions such as those in ASCPS and setting up systems to implement them also tend to be the ones that have the motivation and data-system capability to comply with major data requests such as the one for this study. But although this conjecture seems plausible, it should be borne in mind that while the overall insurer response rate was 83%, the reporting entities, as indicated earlier, accounted for 97% of total benefits paid by insurers and 91% of benefits paid by self-insurers. So there does not seem to be a great deal of room for improving on the representativeness of the insurer sample by going to the ASC sample.

This leaves us, for the most part, simply in a position of not knowing why the different results arose from the two samples. As previously indicated, DLI, at the time of this report, was in the process of matching cases from the insurer and ASC samples to determine what portion of the difference in findings arose from different reporting on the same cases and what portion arose from different cases in the two samples.

C. Conclusion

Whatever may be the reasons for the different findings from the insurer and ASC data, and whichever one of the two may be closer to correct, it remains that against the statutory 80% standard in the study mandate, this study found that payments were not accurate and timely. In particular, the insurer data indicated that payments met the 100%+ standard (at least 100% of the correct amount) and the timeliness standard (payment sent within 30 days of bill receipt) in 71.0% of cases, while the ASC data indicated 47.8% (both statistically less than 80%).

DLI is considering possible statutory clarifications and enhanced guidance to insurers and ASCs in view of the findings regarding sources of payment errors. DLI is also planning to reach out to particular insurers with revealed payment errors to assist them in understanding ASCPS payment provisions.

Appendix A

Elements in data request

The following is a list of data elements requested of insurers and ASCs. Depending on the preferences of the responsible entities, data might have been reported by the insurers or ASCs themselves or a by second party such as a parent group or bill reviewer.

Data element	Asked of reporters of insurer data	Asked of reporters of ASC data
Summary data (reported separately for each insurer or ASC for which the reporting entity had reporting responsibility)		
1. Name of insurer or ASC for which reporting	X	X
2. Type of insurer (individual, group, or self)	X	
3. ASC city		X
4. Relationship of submitting entity to insurer or ASC	X	X
5. List of insurer group members	X	
6. Reporting for this insurer or ASC via this submission?	X	X
7. Total number of HOFs-covered visits during report period, with PPO adjustment	X	X
8. Total number of HOFs-covered visits during report period, without PPO adjustment	X	X
9. Reporting on all visits or sample for insurer or ASC?	X	X
10. Sample date window for visits with PPO (computed by report spreadsheet)	X	X
11. Sample date window for visits without PPO (computed by report spreadsheet)	X	X
12. Number of sample visits with PPO (during sample date window)	X	X
13. Number of sample visits without PPO (during sample date window)	X	X
14. Number of visits during report period with neither payment nor full denial as of data submission	X	X
Visit-level data (reported for HOFs-covered visits with and without PPO arrangements)		
1. Insurer name		X
2. ASC name	X	
3. ASC city	X	
4. Patient control number (PCN) [1]	X	X
5. Date of service	X	X

(table continued on next page)

	Asked of reporters of insurer data	Asked of reporters of ASC data
6. Was initial bill, as received by insurer or its representative, or sent by ASC or its representative, submitted on the 837 professional standard electronic transaction?	X	X
7. Date insurer/ASC or its representative received/sent initial bill	X	X
8. Date insurer/ASC or its representative received/sent complete bill information (including any received/sent in response to request after initial bill was received/sent)	X	X
9. Total charges for visit	X	X
10. Total payments to date for visit	X	X
11. Date insurer/ASC or its representative issued/received initial payment (full or partial)	X	X
12. Did ASC or its representative submit to insurer or its representative a request for reconsideration under Minn. Stat. § 176.1365, subd. 3?	X	X
13. Was a dispute over any services in the visit filed with DLI or OAH?	X	X
Service-level data (reported for visits without PPO arrangements only)		
1. HCPCS code billed ("HCPCS" = Healthcare Common Procedure Coding System)	X	X
2. HCPCS code paid	X	X
3. Is the service a drug delivered by infusion or injection?	X	X
4. Units of service billed	X	X
5. Units of service paid	X	X
6. Amount charged for service	X	X
7. Amount paid for service	X	X
8. Was service denied on the basis of primary liability, causation, or reasonableness and necessity?	X	X

1. The Patient Control Number identifies the patient visit, not the patient.

Appendix B

Request and follow-up letters from DLI commissioner

The following is the original data request from the DLI commissioner to insurers and their representatives (e.g., third-party administrators). The letter includes a simultaneous request for data for another report — on payment accuracy and timelines under the Minnesota workers' compensation Hospital Outpatient Fee Schedule — due to the legislature on the same date as the ASCPS report: Jan. 15, 2021:



February 3, 2020

I am writing to ask you, as a Minnesota workers' compensation insurer, to participate in two data requests. Our agency needs your help to produce two legislatively mandated reports.

The reports concern the ASC Fee Schedule (ASCPS) and the Ambulatory Surgical Center Payment System (ASCPS), both of which took effect in Minnesota's worker's compensation system on Oct. 1, 2018. The Minnesota Legislature has tasked our agency with producing reports evaluating these new systems, specifically with respect to timeliness and accuracy of payment.

The data requests pertain to individual claims paid under ASCPS and ASCPS. They include those items necessary for assessing payment timeliness and accuracy, such as billing and payment dates, service codes, and payment amounts. Similar data requests will also go to Minnesota non-critical-access ASCs and ambulatory surgical centers.

To help you better report the data to us, we are:

- collecting only the data items necessary for the analysis;
- limiting the sample size;
- providing 837/835/277 references where applicable;
- structuring the Excel report file to allow you to copy in data from a computer-generated file;
- including a feature in the report file to alert you to instances of invalid or inconsistent data;
- providing online training videos; and
- allowing a six-month window for you to compile and submit your data.

Data request

Further details, instructions, reporting templates, instructional videos, and other information to help you get started and complete this data request is at <http://dli.mn.gov/about-department/news-and-media/data-request-insurers-and-self-insurers>.

Please complete the request by July 31, 2020, and transmit your data to DLI via the designated secure website.

All data will be de-identified in the published report.

Questions?

Questions can be directed to David Berry, principal investigator, at david.berry@state.mn.us or 651-284-5208, or Brian Zaidman, co-investigator, at brian.zaidman@state.mn.us or 651-284-5568.

I encourage your full participation in this joint effort to comply with the legislative mandate. I look forward to publicly acknowledging those insurers who have assisted our agency by supplying the requested data.

Thank you.

Sincerely,
Nancy Leppink
Commissioner

The following is the original data request from the commissioner to ASCs:



February 3, 2020

I am writing to ask you, as a Minnesota ambulatory surgical center, to participate in a data request. Our agency needs your help to produce a legislatively mandated report.

As you know, the Ambulatory Surgical Center Payment System (ASCPS) took effect in Minnesota's workers' compensation system on Oct. 1, 2018. The Minnesota Legislature has tasked our agency with producing a report that evaluates this new system, specifically "analyzing ... timeliness and accuracy of payment."

The data request pertains to individual claims paid under the ASCPS. It includes those items necessary for assessing payment timeliness and accuracy, such as billing and payment dates, service codes and payment amounts. A similar data request is also going to Minnesota workers' compensation insurers.

To help you better report the data to us, we are:

- collecting only the data items necessary for the analysis;
- limiting the sample size;
- providing 837/835/277 references where applicable;

- structuring the Excel report file to allow you to copy in data from a computer-generated file;
- including a feature in the report file to alert you to instances of invalid or inconsistent data;
- providing online training videos; and
- allowing a six-month window for you to compile and submit your data.

Data request

Further details, instructions, reporting templates, instructional videos, and other information to help you get started and complete this data request is at <http://dli.mn.gov/about-department/news-and-media/data-request-ascs>

Please complete the request by July 31, 2020, and transmit your data to DLI via the designated secure website. All data will be de-identified in the published report.

Questions?

Questions can be directed to David Berry, principal investigator, at david.berry@state.mn.us or 651-284-5208, or Brian Zaidman, co-investigator, at brian.zaidman@state.mn.us or 651-284-5568.

I encourage your full participation in this joint effort to comply with the legislative mandate. I look forward to publicly acknowledging those ambulatory surgical centers who have assisted our agency by supplying the requested data. Thank you.

Sincerely,

Nancy Leppink
Commissioner

The following overdue notice was sent from the commissioner via GovDelivery on Aug. 4, 2020 to those insurers and representatives (e.g., third-party administrators) that had not yet supplied data for the HOFS and ASCPS reports:



August 4, 2020

Greetings,

I am writing to urge you to complete two data requests from the Minnesota Department of Labor and Industry that are now overdue from your company.

Six months ago I invited your participation in these data requests to enable DLI to comply with a legislative mandate to produce two reports. The reports are to analyze payment accuracy and timeliness under the ASC Fee Schedule and the Ambulatory Surgical Center Payment System in Minnesota workers' compensation. The data requests and report forms are at <http://dli.mn.gov/about-department/news-and-media/data-request-insurers-and-self-insurers>.

In mandating the reports, the Legislature acted on its expectation that the two new payment systems, which took effect Oct. 1, 2018, would operate as specified in statute, and on its knowledge that their successful operation was of concern to the insurance industry. The Legislature expects that information in the reports will inform workers' compensation policy, and therefore regards it as important for DLI to hear from as many entities in your industry as possible in producing the reports.

I urge you to join other members of your industry in supplying data for these reports, to make them – and the policy that flows out of them – reflective of your experience and not just that of others.

The deadline for supplying the data was Jul. 31. However, I understand that work assignments and priorities may have changed because of the pandemic. Therefore, I am allowing some extra time for you to prepare your data. I am establishing a final deadline of Aug. 31 for submitting data to DLI.

We need to hear from your company even if you don't have data that meets the collection criteria. We need the data in a timely manner as we work to prepare the reports. After Aug. 31, we will be indicating on the DLI website those insurers and self-insurers that have provided us with the requested data and those for which data is missing. This information will also be included in the reports to the Legislature as it is important for the Legislature to understand the data upon which the reports are based.

I hope to be able to include your company in the list of those that have supplied data to support the report findings. Thank you in advance for your efforts in providing DLI with this data.

Kind regards,

Nancy Leppink
Commissioner

The following overdue notice was sent from the commissioner via GovDelivery on Aug. 4, 2020 to those ASCs that had not yet supplied data for the ASCPS report:



August 4, 2020

Greetings,

I am writing to urge you to complete a data request from the Minnesota Department of Labor and Industry that is now overdue from your ambulatory surgical center.

Six months ago I invited your participation in this data request to enable DLI to comply with a legislative mandate to produce a report analyzing payment accuracy and timeliness under the Ambulatory Surgical Center Payment System in Minnesota workers' compensation. The data request and report form are at <http://dli.mn.gov/about-department/news-and-media/data-request-asc>.

In mandating the report, the Legislature acted on its expectation that the new payment system, which took effect Oct. 1, 2018, would operate as specified in statute, and on its knowledge that its successful operation was of concern to the ASC industry. The Legislature expects that information in the report will inform workers' compensation policy, and therefore regards it as important for DLI to hear from as many ASCs as possible in producing the report.

I urge you to join other ASCs in supplying data for this report, to make it – and the policy that flows out of it – reflective of your experience and not just that of other ASCs.

The deadline for supplying the data was Jul. 31. However, I understand that work assignments and priorities may have changed because of the pandemic. Therefore, I am allowing some extra time for you to prepare your data. I am establishing a final deadline of Aug. 31 for submitting data to DLI.

We need to hear from your ASC even if you don't have data that meets the collection criteria. We need the data in a timely manner as we work to prepare the report. After Aug. 31, we will be indicating on the DLI website those ASCs that have provided us with the requested data and those for which data is missing. This information will also be included in the report to the Legislature as it is important for the Legislature to understand the data upon which the report is based.

I hope to be able to include your ASC in the list of those that have supplied data to support the report findings. Thank you in advance for your efforts in providing DLI with this data.

Kind regards,

Nancy Leppink
Commissioner

Appendix C

Insurers and ASCs that did and did not supply data for the report

Entities that supplied data for the study

The following Minnesota workers' compensation insurers, self-insurers, and ASCs supplied data for this study. DLI heartily thanks these entities for their demonstrated commitment to data-driven public policy:

Insurers that supplied data

Accident Fund General Insurance Company
Accident Fund Insurance Co Of America
Accident Fund National Insurance Company
Ace American Ins Co
Ace Fire Underwriters Ins
Ace Property & Cas Ins Co
Acig Insurance Company
Acuity A Mutual Insurance Company
Addison Ins Co
Aig Property Casualty Company
AllAmerica Financial Benefit
Allstate Insurance Co
Amco Ins Co
Amer Cas Co
Amer Compensation Ins Co
Amer Fire & Cas Co
Amer Guarantee & Liab Ins
Amer Home Assurance Co
Amer Policyholders Liq Tr
Amer States Ins Co
Amer Zurich Ins Co
American Alternative Ins
American Economy Insurance Co
American Family Mutual Ins Co
American Insurance Company
American Interstate Insurance Company
American Select Insurance Company
Amerisure Insurance Company
Amerisure Mutual Ins Co
Amerisure Partners Insurance Company
Amguard Insurance Company
Arch Insurance Company
Argonaut Ins Co
Arrowood Indemnity Company

Associated Indemnity Co
Assurance Co Of America
Atlantic Specialty Ins Co C/O Onebeacon Ins Group
Auto Owners Ins Co
Bankers Standard Ins Co
Berkley National Insurance Company
Berkley Regional Ins Co
Berkshire Hathaway Homestate Ins Company
Bitco General Insurance Corporation
Bitco National Insurance Company
Bloomington Compensation Insurance Company
Brotherhood Mutual Insurance Company
Carolina Casualty Ins Co
Century Indemnity Co
Charter Oak Fire Ins Co
Cherokee Insurance Company
Chubb Indemnity Ins Co
Church Mutual Ins Co
Citizens Insurance Company Of America
Commerce & Industry Ins Co
Continental Cas Co
Continental Indemnity Company
Continental Ins Co
Crum & Forster Indemnity Company
Dakota Truck Underwriters
Depositors Insurance Company
Diamond Insurance Company
Discover Property & Cas Ins Co
Eastguard Insurance Company
Electric Ins Co
Emcasco Ins Co
Employers Assurance Company
Employers Compensation Insurance Company
Employers Ins Co Wausau
Employers Mutual Cas Co
Employers Preferred Insurance Company
Everest National Ins Co
Farm Bureau Property & Casualty Insurance Co
Farmers Ins Exchange
Farmington Cas Co
Farmland Mutual Insurance Co
Federal Ins Co
Federated Mutual Ins Co
Federated Rural Elec Ins
Federated Service Ins Co
Fidelity & Deposit Of Md
Fidelity & Guaranty Ins
Fidelity & Guaranty Und

Firemans Fund Ins Co
Firemens Insurance Company Of Washington Dc
First Dakota Indemnity Company
First Liberty Ins Corp
First Nonprofit Insurance Co
Firstcomp Insurance Company
Florists Mutual Ins Co
Foremost Insurance Company
Forest Products Ins Exch
General Cas Co Of Wi
General Casualty Insurance Company
General Insurance Company Of America
Granite State Ins Co
Great American Alliance Ins Co
Great American Assurance Co
Great American Ins Co New York
Great American Insurance Company
Great Divide Insurance Company
Great West Cas Co
Greenwich Insurance Company
Grinnell Mutl Reins Co
Guideone Mutual Ins Co
Hanover American Insurance Company (The)
Hanover Ins Group
Harleysville Insurance Co
Harleysville Lake States Ins Co
Harleysville Preferred Insurance Company
Harleysville Worcester Insurance Company
Hartford Accident & Indemnity Co
Hartford Casualty Ins Co
Hartford Fire Ins Co
Hartford Ins Co Of The Midwest
Hartford Underwriters Insurance Co
Hawkeye-Security Ins Co
Hdi Global Insurance Company
Healthcare Ins Reciprocal
Highlands Ins Co
Illinois Casualty Company
Illinois Natl Ins Co
Indemnity Ins Of N Amer
Ins Co Of North Amer
Insurance Co Of Pa
Integrity Mutual Ins Co
Liberty Ins Corp
Liberty Mutual Fire Ins
Liberty Mutual Ins Co
Lm Ins Corp
Lumber Mutual Ins Co

Mada Insurance Exchange
Maryland Cas Co
Massachusetts Bay Ins Co
Memic Indemnity Company
Meridian Security Ins Co
Michigan Millers Mutual Insurance Company
Mid Century Ins Co
Middlesex Insurance Company
Midwest Employers Casualty Company
Midwest Family Mutual Ins
Midwest Insurance Company
Midwestern Indemnity Co
Milbank Ins Co
Milford
Mitsui Sumitomo Insurance Company Of America
Mn Assigned Risk Berkley Risk Admin Co Llc
Mn Assigned Risk Dca
Mn Assigned Risk Ohms
Mn Assigned Risk Rtw
Mn Assigned Risk Sfm Risk Solutions
Mn Assigned Risk St Paul Cos
Mn Assigned Risk Wausau
Motorists Commercial Mutual Ins Company
National American Insurance Co.
National Casualty Company
National Indemnity Company Of Mid America
National Interstate Ins Co
National Liability & Fire Insurance Company
National Surety Corporation
Nationwide Agribusiness Insurance Co.
Nationwide Mutual Fire Insurance Co.
Nationwide Mutual Ins Co
Natl Fire Ins Of Hartford
Natl Union Fire Ins Co
New Hampshire Ins Co
Norguard Insurance Company
North Pointe Insurance Company
North River Ins Co
Northern Ins Co Of Ny
Northwestern Natl Cas Co
Northwestern Natl Ins Co
Nova Casualty Company
Obi National Insurance Co C/O Onebeacon Ins Group
Ohio Cas Ins Co
Ohio Farmers Ins Co
Ohio Security Ins Co
Old Republic General Insurance Corp
Old Republic Ins Co

Owners Ins Co
Pacific Employers Ins Co
Pacific Indemnity Co
Patriot General Insurance Company
Peerless Indemnity Ins Co
Peerless Ins Co
Penn Millers Insurance Company
Pharmacists Mutl Ins Co
Phoenix Ins Co
Pioneer Specialty Insurance Company
Plaza Insurance Company
Praetorian Insurance Company
Preferred Professional Ins Co
Property & Casualty Ins Co Of Hartford
Protective Ins Co
Qbe Insurance Corporation
Ram Mutual Ins Co
Redwood Fire And Casualty Insurance Company
Regent Ins Co
Riverport Insurance Company
Safeco Ins Co Of Amer
Safety Natl Cas Corp
Security National Insurance Company
Selective Ins Co Of Amer
Selective Ins Co Of Sc
Selective Ins Co Of Se
Sentinel Insurance Company
Sentry Casualty Company
Sentry Insurance A Mutual Company
Sentry Select Insurance Company
Sfm Mutual Insurance Company
Sfm Safe Insurance Company
Sfm Select Insurance Company
Sompo America Insurance Company
St Paul Fire & Marine Ins
St Paul Guardian Ins Co
St Paul Mercury Ins Co
St Paul Protective Ins Co
Standard Fire Ins Co
Star Ins Co
Starnet Insurance Company
Starr Indemnity & Liability Company
State Auto Prop & Cas
State Automobile Mutl Ins
State Farm Fire & Cas Co
State Farm General Ins Co
Stonington Insurance Co
Technology Insurance Company

The Netherlands Ins Co
Tig Insurance Co
Tnus Insurance Company
Trans Pacific Ins Co
Transguard Insurance Company Of America Inc
Transport Ins Co
Transportation Ins Co
Travelers Cas & Surety Co
Travelers Casualty Insurance Co Of America
Travelers Indemnity Amer
Travelers Indemnity Co
Travelers Indemnity Of Ct
Travelers Property Casualty Co Of America
Tri State Ins Co Of Mn
Triangle Insurance Company Inc
Triumphe Casualty Company
Truck Ins Exchange
Twin City Fire Ins Co
Union Insurance Company Of Providence
United Fire & Cas Co
United Wisconsin Ins Co
Univ Underwriters Ins Co
Us Fidelity & Guaranty
Us Fire Ins Co
Utica Mutual Ins Co
Valiant Ins Co
Valley Forge Ins Co
Vanliner Ins Co
Vigilant Ins Co
Virginia Surety Company
Wausau Business Ins Co
Wausau Underwriters Ins
Wesco Insurance Company
West Amer Ins Co
West Bend Mutual Insurance Company
Western Agricultural Insurance Company
Western Natl Assur Co
Western Natl Mutl Ins Co
Westfield Ins Co
Westfield National Ins Co
Westport Ins Corp
XI Insurance America, Inc.
XI Specialty Insurance Company
Zenith Insurance Co
Zurich Amer Ins Co Of Il
Zurich American Ins Co

Self-insurers that supplied data

ABF Freight System
Access Insurance Assoc
Adc Telecommunications C/O Commscope Holding Comp
Ag Processing Inc
Ak Steel Corp
Allete Inc
Allina Health System
American Crystal Sugar
Amherst Wilder Foundation
Anoka County
Arcelormittal Minorca Mine Inc
Archer Daniels Midland Co
Arctic Cat Inc
Atek Management Company
Atlas Staffing Inc % Berkley Risk Admin Co Llc
Benedictine Group
Berkley Risk Administrators Co Llc
Bermo Inc
Blandin Paper Co C/O Aon Global Risk
Bloomington City Of
Blue Cross/Blue Shield
Builders & Contractors Workers Comp Fund
Care Providers Workers Compensation Fund
Cargill, Incorporated
Carl Bolander & Sons Co
Carleton College
Centerpoint Energy
Childrens Hospitals And Clinics Of Minnesota
Chs Inc
City Of Duluth
City Of Stillwater % Berkley Risk Admin Co Llc
Coca-Cola Refreshments Usa, Inc
Cold Spring Granite Co
Collectively Bargained Contractors Wc Fund
Conagra Brands Inc
Construction Services Grp
Crystal Cabinet Works
Cummins Inc
Dairy Farmers Of America Inc
Dairy Farmers Of America, Inc (Miga)
Dakota County
Dayco Products, Llc
Diocese Of Winona - Rochester
Doherty Staffing Solutions
Eaton Corp
Ecumen Group Self Insurance Association

Eep Workers Comp Fund
Electric Insurance Co/Ge Wells Food
Elim Care Inc
Essentia Health
Fabcon Inc
Fairmont Foods Of Minn In
Fairview Health Services
Fedex Corp/Federal Express Corporation
Fedex Freight Inc
Ford Motor Company Workers' Compensation Dept.
Forest Products Commercial Self Ins Group
Frandsen Corporation
Gopher Resource, Llc
Grand Itasca Clinic And Hospital
Greater Minnesota Self Insurance Fund
Hancock Concrete Products, Llc
Hanson Pipe & Precast, Inc.
Health Care Select Group Self Insurance Fund
Healtheast
Healthpartners Inc
Hibbing Taconite
Honeywell International
Hormel Foods Corporation
International Paper Co
Isd 0011 Anoka % Sfm Risk Solutions
Isd 535 Rochester
Itasca County
J & R Schugel Holdings Inc % Berkley Risk Admin Co
Kmart Corporation
Knight Transportation Inc
Kolberg Pioneer Inc
Lamb Weston/Rdo Frozen A Mn Genl Partnership
Land O Lakes Inc
League Of Mn Cities Ins
Life-Science Innovations, Llc
Lupient Grp Self Ins Fund
Lutheran Social Services Of Mn
Macys Inc
Marvin Lumber & Cedar Co
Mayo Clinic
Medtronic Inc
Metal Matic
Metro Airports Commission
Metropolitan Council
Midwest Safety Group S I
Miners Incorporated
Minn Assoc Of Townships
Minn Health Care Assoc

Minn Manufacturers Assoc
Minn Soft Drink Assoc
Minneapolis Building Commission
Minneapolis City Of
Minnesota Masonic Charities
Mn Counties Intergovernmental Trust
Mpls. Park & Recreation Board
Nabisco Inc C/O Mondelez Global Llc
Natl Supermarkets Inc
Nonprofit Insurance Trust
Nordstrom Inc
North Central Group S I
North Memorial Hlth Care
Northern Tool & Equipment
Otter Tail Corporation
Plymouth City Of
Polaris Industries Inc.
Potlatch Land & Lumber Llc
Presbyterian Homes Of Mn
Pro Employ Ease, Inc
Quadrangle Grp Self Insur
R.D. Offutt Farms Co
Ramsey County Hr Work Comp Division
Range Regional Health Svc
Rci Minnesota
Red Wing Shoe Company Inc
Richfield City Of
Ridgeview Medical Center
Riverview Healthcare Assc
Roadway Express Inc., C/O Yrc Worldwide Inc.
Rochester City Of
Rosemount Aerospace Inc
Rosemount Inc
Ryder Services Corp C/O Aon Global Risk Consulting
Scherer Brothers Lumber Company
Sears Roebuck & Co
Sfm Risk Solutions - Archdiocese Of St Paul & Mpls
Sfm-Risk Solutions (Farmers Union Industries)
Shafer Contracting Co Inc
Smead Manufacturing Co
Southern Mn Beet Sugar Co
Southern Mn Beet Sugar Co Miga
St Louis County
St Paul City Of
State Of Minn Risk Management Division/Worker Comp
Target Corp Target Direct
Target Corporation Target Stores
Taylor Corporation

The Boldt Company
The Builders Group
The Davey Tree Expert Co
The Dial Corp For Armour
The Sherwin-Williams Company
The Thro Co
The Toro Company
The Work Connection
Trifac Workers Comp Fund
Tyson Foods Inc
Ulland Brothers Inc % Berkley Risk Admin Co Llc
Umi Company Inc
United States Steel Corporation
Univ Of Mn Risk Mgmt Ins
University Of St Thomas
Upper Lakes Foods,Inc.
Virginia Reg Med Ctr
Wayne Transports Inc
Wells Concrete Product Co., C/O Ccmsi
Winona Health
Xcel Energy Inc
Yrc Worldwide Inc

ASCs that supplied data

Avera Medical Group Worthington Surgery Center
Blaine Orthopedic Surgery Center
Burnsville Surgery Center
Carris Health Surgery Center
Centers for Diagnostic Imaging — St. Louis Park
Centers for Diagnostic Imaging — Woodbury Corner Stone
Centracare Surgery Center
Chaska Plaza Surgery Center
Crosstown Surgery Center
Eagan Orthopedic Surgery Center
Eagan Surgery Center (Summit Orthopedics)
Family Surgery Center
Greenway Surgery Center (Hiawatha Surgery Center)
High Pointe Surgery Center
Horseshoe Surgery Center
Lakewalk Surgery Center
Landmark Surgery Center (Summit Orthopedics)
Mankato Surgery Center
Maple Grove Ambulatory Surgical Center
Maple Grove Center For Restorative Surgery
Midsota Surgery Center
Minnesota Valley Surgery Center
Monticello Surgery Center

Nura Surgical Center — Edina
Nura Surgical Center — Maple Grove
Pavilion Surgery Center
Plymouth Asc
Plymouth Surgery Center (Summit Orthopedics)
Sanford Detroit Lakes Ambulatory Surgical Center
Southhealth Surgery Center
Southwest Surgical Center
St. Cloud Surgical Center (only supplied data for analysis of payment timing, not payment accuracy)
Surgicare of Minneapolis (Centennial Lakes Surgery Center)
TRIA Orthopedic Center
TRIA Woodbury Orthopedic Center
Twin Cities Surgery Center
Vadnais Heights Surgery Center (Summit Orthopedics)
Westhealth Surgery Center

Entities that did not supply data for the study

The following Minnesota workers' compensation insurers, self-insurers, and ASCs did supply data for this study:

Insurers that did not supply data

Acceptance Ind Ins Co
American Mining Insurance Company Inc
American National Property And Casualty Company
American Physicians Assurance Corporation
Austin Mutual Insurance Company
Bedivere Insurance Company C/O Onebeacon Ins Group
Cincinnati Casualty Co
Cincinnati Indemnity Co
Cincinnati Ins Co
Continental Western Insurance Company
Employers Fire Ins Co C/O Onebeacon Ins Group
Genesis Ins Co
Insurance Co Of The West
Iowa Mutual Ins Co
Lamorak Insurance Company C/O Onebeacon Ins Group
Mha Insurance Company (did not receive request by DLI error)
Pennsylvania Manufacturers' Association Ins Co
Sea Bright Insurance Company
Secura Ins Co
Secura Supreme Ins Co
Spring Valley Mutual Insurance Company
State National Insurance Company
T H E Insurance Company
Tower Insurance Company Of New York

Union Insurance Company
Work First Casualty Company

Self-insurers that did not supply data

Admiral Merchants Motor Freight C/O Ahamnn Martin
Ae Goetze/Federal-Mogul
Alliant Techsystems Inc
Anderson Trucking Service Inc
Badger Equipment Co
Board Of Water Commission
Browning Ferris Ind Inc - C/O Republic Services
Butler Brothers I/C
Centurylink/Qwest Corporation
Ceridian
Citigroup Inc
Conwed Corp
Covenant Ministries Of Benevolence
Dana Incorporated
Del Monte Foods
E. I. Du Pont De Nemours And Company
Ecowater Systems
Evangelical Lutheran Good Samaritan Society
Exon Mobil Corporation
Fmc Co C/O Aon Global Risk Consulting
Gillette Childrens Hosp
Graco Inc
Grede Llc
Hennepin County
Hpi Ramsey
Hutchinson Technology Inc
Interstate Power & Light Company
Isd 0625 St Paul
J C Penney Corporation Inc
Jennie O Turkey Stores Inc
Knife River Corporation North Central
Kraft Amer Fruit & Prod C/O Mondelez International
Lear Corporation
Louisiana Pacific Corp (did not receive request by DLI error)
Lunda Construction Compan
M A Hanna Company I/C
Minn Rural Elect Wc Trust
Minnesota Energy Resources Corporation
Minnesota Vikings / Mcombs Enterprises
Navistar, Inc.
Nestle Purina Petcare Company
Officemax Incorporated
Olmsted County

Park Nicollet Health Serv
Parker Hannifin Corp
Peopleready, Inc.
Poly America Inc
Post Consumer Brands Company
Rexam Beverage Can Americas
Special School Dist 0001
Stan Koch & Sons Trucking, Inc. (did not receive request by DLI error)
The Gillette Co % Procter & Gamble Company
Three Rivers Park District
Transportation Leasing Co
Vr Us Holdings Inc
West Central Turkey
Westinghouse Elec % Cbs Corporation
Weyerhaeuser Co
Whirlpool Corp
White Castle System Inc

ASCs that did not supply data

ACMC-Marshall Surgery Center
Brainerd Lakes Surgery Center
Center for Pain Management
Chu Surgery Center
Fairview Maple Grove Surgery Center
HealthEast-Maplewood Surgery Center
ILBNC Special Procedures
Midwest Surgery Center
Minneapolis Pain Centers — Edina
Minneapolis Pain Centers — Maple Grove
Minnetonka Ambulatory Surgery
Minnesota Orthopaedic Surgery Center
North Memorial Ambulatory Surgery
North Metro Surgery Center
Pain Centers of Minnesota — Chaska
Pain Centers of Minnesota — Mankato
Ridges Surgery Center
South Central Surgical Center
Southwest Minnesota Surgery Center
University of Minnesota Health Clinics and Surgery Center
Wayzata Surgery Center
Woodbury Surgical Suites