1301 Fifth Avenue, Suite 3800
Seattle, WA 98101-2605
Tel +1 206 504 5974
Fax +1 206 682 1295
Email: david.lewis@milliman.com

May 21, 2019

Patti Vaughn
Benefits Administration Manager
Idaho Industrial Commission
700 S. Clearwater Lane, PO Box 83720
Boise, Idaho 83720

Re: Idaho Commercial Reimbursement Benchmarking

Dear Patti:

At the request of the Idaho Industrial Commission (IIC), Milliman is pleased to provide this report on commercial reimbursement in Idaho for specific DRGs and HCPCS. This analysis provides average commercial allowed amounts, those amounts as a percentage of Medicare, and percentiles of those allowed amounts. This is an update to the analysis was provided on April 19th 2019 using the 2017 MarketScan commercial data whose volume dropped notable in 2017 for the state of Idaho. This update uses another commercial benchmarking source, Milliman's 2017 Consolidated Health Cost Guidelines Database (CHSD), which is a larger dataset for the state of Idaho. We understand that you will use this information to assess commercial reimbursement levels in the State of Idaho. This analysis may not be appropriate for other purposes.

This analysis is subject to the terms and conditions of the Contract for Actuarial Services between Milliman and the Idaho Industrial Commission dated March 22th, 2019.

Results

All requested tables of information are being provided in the attached exhibits. For your reference, the following table summarizes the average percent of Medicare in the data for each table using the HCPCS/DRG distribution in the data:

Table 1
Summary of 2018 Commercial Average Allowed
As a Percentage of 2018 Medicare

Description	Percent of Medicare
Inpatient DRG	241%
Outpatient Surgery*	163%
Outpatient Non-Surgery*	272%
Physician Surgery	220%
Physician Radiology	280%
Physician Medicine	107%
Physician Evaluation and Management	151%

*Outpatient excludes additional bundled implant dollars

We have attached more detailed exhibits by HCPCS/DRG with average commercial payment amounts, those amounts as a percentage of 2018 Medicare, and the 10th, 25th 50th, 75th, and 90th percentile of the commercial payment amounts. For the Evaluation and Management HCPCS you provided us, we provide results separately by place of service. This is because of notably higher average reimbursement (around 30% higher) when performed at a non-facility location compared to a facility location.

Breaking out dollars for implants was greatly limited by the availability of allowed amounts by implant. Often an implant was performed on a claim but the allowed amount was at the claim level and not available for the implant. For the inpatient exhibit, we have provided the percent of dollars that are listed in claim lines that have implant revenue codes for each DRG. We also included the number of claims that had implant revenue codes and the portion of those where the allowed dollars were greater than $0. For the outpatient exhibit, we determined the additional implant dollars that are bundled to the given HCPCS. The exhibits we have provided are:

- Exhibit 1: Average Inpatient Commercial Charge, Percentage of Medicare and Percentiles by DRG
  - Includes requested Inpatient DRGs
- Exhibit 2: Average Outpatient Commercial Charge, Percentage of Medicare and Percentiles by HCPCS
  - Includes requested Outpatient HCPCS
- Exhibit 3: Average Professional Commercial Charge, Percentage of Medicare and Percentiles by HCPCS
  - Includes requested Physician surgery, radiology, and physical medicine HCPCS
- Exhibit 4: Average Professional Commercial Charge, Percentage of Medicare and Percentiles by HCPCS and Place of Service
  - Includes requested Physician Evaluation and Management HCPCS

Note that, while we did mimic the code groupings from the National Council on Compensation Insurance (NCCI) report, reimbursement levels vary notably within some of those groupings. For example, average surgery allowed amounts differ greatly between hospitals and ambulatory surgical centers (ASCs). Similarly, there is variance in reimbursement levels between the different Idaho markets.

A few observations from the exhibits:

- The results are generally similar to the deliverable provided on 4/19/2019. The DRGs/HCPCS with the largest differences have low procedure counts.
- Additional bundled implant dollars vary significantly by surgery HCPCS. The additional dollars range from 0% to 40% of the commercial allowed dollars with the implants excluded. For non-surgery HCPCS, there are no implant dollars as expected.
- The range of amounts paid by commercial payers for specific DRG/HCPCS is relatively large. The ratio between the 10th percentile and 90th percentile is generally around 200%-400% for inpatient and outpatient services. Physician professional services tend to be lower at around 150%-200%.
- The average allowed is between the 25th percentile and the 75th percentile in most cases. A few HCPCS have an average allowed outside of the range due to a few outlier claims. Also, professional ER visits have an average allowed amount above the 75th percentile due to the largest dollar claims significantly increasing the mean.

Methodology

Commercial reimbursement was calculated using the 2017 Milliman CHSD commercial claim data for Idaho members. This database is similar to MarketScan in its nationwide coverage and having payers and providers blinded, but Milliman builds the database utilizing data from existing clients through data trade agreements. Although MarketScan has been used in prior years when a similar analysis was performed by Milliman for IIC, the large drop in volume drove the decision to update this year with CHSD data. Average allowed and allowed percentiles were calculated for the DRG/HCPCS codes requested by the IIC.

The following adjustments were made to the CHSD repricing:

- The exhibits use fiscal year 2018 Medicare allowed. A single year of trend was applied to put the 2017 CHSD data on a 2018 basis. The 2017 to 2018 commercial allowed trends are listed below:
    - Inpatient: 2.6%
    - Outpatient: 4.5%
    - Professional: 2.0%
- Certain HCPCS have very few claims without a modifier. To increase the credibility of the percentiles, Milliman reviewed all modifiers in the data set and kept claims with high frequency modifiers that do not greatly alter the average paid amount. Claim lines with the following modifiers were kept. All other claim lines with modifiers were excluded:
    - Outpatient: GP, 25, TC, GO, RT, LT, 59, XP
    - Physician: 25, GP, 59, AT, RT, GO, LT, 24, 57, XU
- Services with specialties indicating that they were performed by assistants have been excluded. The specialty codes for these are 32, 43, 97, and Z0.
- For HCPCS that should rarely or never have more than one unit, claim lines with multiple units were excluded. Unit-dependent HCPCS are shown in the exhibit on a ‘per unit’ basis. All HCPCS we identified as unit-dependent had two or more units on at least 24% of claim lines. All other HCPCS had multiple units on less than 2% of claim lines. The following HCPCS are unit-dependent:
    - Outpatient: 97110 and 97140
    - Professional: 97110, 97112, 97140, and 97530
- As requested, ambulatory surgical centers are excluded in the calculations.

Implant carveout logic:

- Claim lines are identified as implants using revenue codes 0274, 0275, 0276, and 0278.
- For inpatient, the implant dollars are already included in the DRG average. For outpatient, we show separate calculations with and without implant dollars.
- To determine the outpatient implant dollars for each claim line, all implant commercial allowed dollars that are bundled by Medicare are assigned to the APC payment on the claim. The APC allowed dollar distribution is used to spread the implant dollars across claims where there are multiple claim lines with Medicare payments.

Medicare Amounts

The CHSD data was repriced to 2018 Medicare allowed levels using the *Milliman Medicare Repricer*. The following considerations apply to the repricing results:

- All repriced amounts reflect prospective amounts and do not reflect any settlements with CMS.
- No adjustments are made for sequestration.
- Repriced amounts are based on information released at the beginning of each year (Federal fiscal year for inpatient and calendar year for other types of services).
- No adjustment is made for providers that participate in Medicare's Bundled Payment for Care Improvement (BPCI) initiative.

Facility Repricing

- Inpatient Medicare payments exclude Indirect Medical Education (IME), Disproportional Share (DSH), Uncompensated Care, and outlier payment components.
- Non-PPS hospitals are priced using PPS. This includes:
  - Critical access hospitals (paid at cost by Medicare)
  - Cancer and children's hospitals (paid at cost by Medicare)
- Inpatient new technology payments are not included. The impact of these payments varies from year to year, but is generally is very small (i.e. less than 1%).
- Inpatient rehabilitation and psychiatric hospital claims are priced using IPPS rather than the Rehab PPS and Psych PPS schedules.

Professional Repricing

- Medicare employs claim edits to deny payment for certain professional services. We assumed all professional services with a positive allowed amount were accepted for payment and included these services in the repricing analysis.
- No physician incentive payment adjustments are included, such as those under the Electronic Prescribing (eRx) Incentive Program, the Physician Quality Reporting System (PQRS), the Maintenance of Certification Program (MOC), or the Primary Care Incentive Payments (PCIP) program.
- Medicare makes additional payments for professionals in Health Professional Shortage Areas. These payments are not incorporated.

Data Reliance and Variability of Results
This report is not intended to benefit third parties. Regarding the contents of this report, Milliman makes no representations or warranties to third parties. Third parties are to place no reliance upon this report that would result in the creation of any duty or liability for Milliman or its employees to third parties, under any theory of law. Third parties receiving this report must rely on their own experts to draw conclusions about the report's contents.

In performing our analysis, we relied on data and other information provided to us by CMS and commercial data contributors. We have not audited or verified this data and other information, but we have reviewed it for reasonableness. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

Our estimates are not predictions of the future; they are estimates based on the assumptions. If the underlying data or other listings are inaccurate or incomplete, this analysis may also be inaccurate or incomplete. Emerging results should be carefully monitored with assumptions adjusted as appropriate.

We performed a limited review of the data used directly in our analysis for reasonableness and consistency and have not found material defects in the data. If there are material defects in the data, it is possible that they would be uncovered by a detailed, systematic review and comparison of the data to search for data values that are questionable or for relationships that are materially inconsistent. Such a review was beyond the scope of our assignment.

Please call us with any questions or concerns. We appreciate the opportunity to work with you on this review.

Sincerely,

David C. Lewis
Principal

Attachments

Exhibit 1
Idaho Industrial Commision
Average Inpatient Commercial Charge, Percentage of Medicare and Percentiles by DRG

Notes on Implant Amounts
Inpatient allowed amounts by implant code were often not populated because the implant payment was bundled with the rest of the claim.
Amounts are shown to the right for claims where implants had separate allowed amounts, and where they did not.

			Average		Percentiles of CHSD Allowed				
DRG	Description	Admits	2018 CHSD Allowed[(1)]	%-age of 2018 Medicare[(2)]	10th	25th	50th	75th	90th
025	Craniotomy & endovascular intracranial procedures w MCC	28	$75,368	288%	$32,122	$51,730	$59,769	$79,226	$126,823
455	Combined anterior/posterior spinal fusion w/o CC/MCC	20	$72,169	235%	$25,997	$57,393	$64,988	$82,540	$111,711
460	Spinal fusion except cervical w/o MCC	170	$51,253	196%	$35,247	$39,609	$46,838	$57,371	$76,496
470	Major joint replacement or reattachment of lower extremity w/o MCC	900	$30,887	253%	$19,884	$24,994	$27,376	$36,203	$46,372
473	Cervical spinal fusion w/o CC/MCC	83	$31,003	232%	$20,989	$26,153	$26,153	$35,352	$47,454
482	Hip & femur procedures except major joint w/o CC/MCC	27	$22,940	223%	$14,076	$18,987	$20,699	$27,256	$34,719
483	Major Joint/Limb Reattachment Procedure Of Upper Extremities	59	$30,027	213%	$22,358	$24,061	$30,846	$33,934	$38,804
494	Lower extrem & humer proc except hip,foot,femur w/o CC/MCC	46	$28,374	273%	$14,867	$17,611	$25,871	$33,094	$45,924
957	Other O.R. procedures for multiple significant trauma w MCC	6	$189,164	516%	$43,099	$48,142	$144,926	$300,662	$453,227
958	Other O.R. procedures for multiple significant trauma w CC	7	$69,989	273%	$25,469	$55,279	$70,067	$73,685	$132,802

(1) Based on 2017 CHSD data trended to 2018.
(2) Medicare amount excludes DSH, IME, UCP, and Outlier add-on payments.

	Implant Information					
	Admits w/ an Implant (Rev Codes 0274-0276, 0278)		Admits with non-Zero Allowed $s by Implant Code		Admits with Zero Allowed $s by Implant Code	
DRG	Number	% of Total	Admits	Implant % of Total Allowed	Admits	Implant % of Total Allowed
025	26	93%	12	15.2%	14	
455	18	90%	6	55.1%	12	
460	163	96%	52	39.3%	111	
470	873	97%	346	38.5%	527	
473	82	99%	19	27.9%	63	
482	26	96%	8	17.6%	18	
483	56	95%	10	43.4%	46	
494	40	87%	18	20.0%	22	Cannot be
957	5	83%	5	9.4%	0	determined.
958	6	86%	5	8.6%	1	

Exhibit 2
Idaho Industrial Commision
Average Outpatient Commercial Charge, Percentage of Medicare and Percentiles by HCPCS
Excludes Modified Codes[(2)]

Notes on Implant Amounts
Implants are coded separate from the HCPCS codes listed below. When implants occurred on a claim, their allowed amounts were spread across claim lines that were paid under APCs.

				Average		Percentiles of CHSD Allowed						Implant	
Source	HCPCS	Description	Units	2018 CHSD Allowed(1)	%-age of 2018 Medicare	10th	25th	50th	75th	90th	APC Code[(3)]	Additional Bundled Implants[(4)]	Combined % of 2018 Medicare[(5)]
Surg	22551	Neck spine fuse&remov bel c2	45	$9,678	102%	$2,899	$7,182	$7,742	$9,444	$17,466	5115	$3,827	142%
Surg	23430	Repair biceps tendon	127	$5,497	120%	$2,673	$4,704	$5,663	$6,765	$7,082	5114	$722	135%
Surg	29807	Shoulder arthroscopy/surgery	76	$4,086	108%	$2,676	$2,768	$3,512	$5,412	$6,904	5114	$855	130%
Surg	29824	Shoulder arthroscopy/surgery	186	$3,355	789%	$1,859	$2,709	$3,190	$3,988	$4,610	5113	$280	855%
Surg	29827	Arthroscop rotator cuff repr	200	$5,224	153%	$2,045	$3,148	$5,412	$6,765	$8,006	5114	$789	176%
Surg	29828	Arthroscopy biceps tenodesis	70	$5,215	585%	$2,511	$3,631	$5,538	$6,765	$7,258	5114	$761	670%
Surg	29881	Knee arthroscopy/surgery	392	$3,842	215%	$2,113	$3,190	$3,826	$4,783	$5,464	5113	$269	231%
Surg	29888	Knee arthroscopy/surgery	195	$7,791	139%	$3,908	$5,663	$7,023	$8,779	$12,075	5114	$2,832	190%
Surg	49650	Lap ing hernia repair init	91	$6,637	156%	$3,465	$5,918	$6,695	$8,030	$8,956	5361	$625	171%
Surg	63030	Low back disk surgery	136	$7,807	149%	$6,040	$6,765	$7,079	$9,162	$10,287	5114	$22	149%
Non-Surg	72148	Mri lumbar spine w/o dye	1,741	$832	390%	$449	$469	$748	$1,018	$1,505	5523	$0	390%
Non-Surg	73221	Mri joint upr extrem w/o dye	923	$829	378%	$428	$469	$748	$1,078	$1,501	5523	$0	378%
Non-Surg	73222	Mri joint upr extrem w/dye	687	$1,118	174%	$669	$779	$825	$1,426	$1,788	5573	$0	174%
Non-Surg	73721	Mri jnt of lwr extre w/o dye	2,408	$799	367%	$449	$469	$748	$996	$1,384	5523	$0	367%
Non-Surg	97110	Therapeutic exercises	41,929	$58	228%	$46	$48	$51	$68	$74		$0	228%
Non-Surg	97140	Manual therapy 1/> regions	19,033	$53	242%	$41	$45	$47	$63	$71		$0	242%
Non-Surg	99213	Office/outpatient visit est	2,142	$104	96%	$46	$95	$95	$112	$148		$0	96%
Non-Surg	99282	Emergency dept visit	8,775	$321	272%	$220	$286	$311	$361	$405	5022	$0	272%
Non-Surg	99283	Emergency dept visit	15,125	$588	273%	$419	$512	$561	$648	$746	5023	$0	273%
Non-Surg	99284	Emergency dept visit	8,737	$985	281%	$651	$855	$927	$1,090	$1,325	5024	$0	281%

(1) Based on 2017 CHSD data trended to 2018. Does not include additional bundled implant dollars.
(2) Only the following modifiers are included: GP, 25, TC, GO, RT, LT, 59, XP
(3) A few HCPCS do not have APC codes because they are either bundled or paid using a different method than APC.
(4) Implants are defined as lines with revenue code 0274, 0275, 0276, or 0278.
(5) (CHSD Allowed + Additional Bundled Implants) / 2018 Medicare

Exhibit 3
Idaho Industrial Commision
Average Professional Commercial Charge, Percentage of Medicare and Percentiles by HCPCS
Excludes Modified Codes(2)

				Average		Percentiles of CHSD Allowed				
Source	HCPCS	Description	Units	2018 CHSD Allowed(1)	%-age of 2018 Medicare	10th	25th	50th	75th	90th
Surgery	22551	Neck spine fuse&remov bel c2	180	$3,585	225%	$3,117	$3,259	$3,335	$4,205	$4,528
Surgery	22633	Lumbar spine fusion combined	125	$3,948	227%	$3,387	$3,542	$3,681	$4,401	$4,862
Surgery	23430	Repair biceps tendon	149	$1,020	187%	$141	$718	$1,374	$1,436	$1,574
Surgery	29823	Shoulder arthroscopy/surgery	89	$850	225%	$119	$597	$761	$1,237	$1,358
Surgery	29824	Shoulder arthroscopy/surgery	198	$957	215%	$129	$644	$1,288	$1,335	$1,484
Surgery	29826	Shoulder arthroscopy/surgery	496	$475	299%	$45	$342	$354	$425	$969
Surgery	29827	Arthroscop rotator cuff repr	299	$1,965	206%	$241	$2,045	$2,119	$2,327	$2,407
Surgery	29828	Arthroscopy biceps tenodesis	34	$1,235	205%	$176	$778	$983	$1,965	$1,977
Surgery	29881	Knee arthroscopy/surgery	333	$1,083	219%	$811	$1,041	$1,079	$1,173	$1,371
Surgery	63030	Low back disk surgery	188	$1,867	207%	$1,544	$1,845	$1,859	$2,074	$2,100
Radiology	70450	Ct head/brain w/o dye	70	$290	287%	$85	$219	$320	$408	$415
Radiology	72141	Mri neck spine w/o dye	368	$732	348%	$421	$421	$872	$947	$947
Radiology	72148	Mri lumbar spine w/o dye	645	$721	338%	$419	$419	$860	$933	$933
Radiology	72158	Mri lumbar spine w/o & w/dye	152	$1,091	309%	$671	$712	$1,262	$1,369	$1,395
Radiology	73030	X-ray exam of shoulder	2,742	$46	199%	$19	$19	$54	$56	$65
Radiology	73221	Mri joint upr extrem w/o dye	503	$428	266%	$136	$136	$443	$636	$922
Radiology	73222	Mri joint upr extrem w/dye	288	$588	259%	$163	$163	$609	$1,006	$1,081
Radiology	73610	X-ray exam of ankle	2,960	$47	197%	$18	$18	$55	$58	$71
Radiology	73721	Mri jnt of lwr extre w/o dye	1,313	$434	278%	$135	$135	$442	$636	$931
Radiology	74177	Ct abd & pelv w/contrast	184	$769	259%	$587	$658	$791	$858	$858
Phys. Med.	97014	Electric stimulation therapy	29,416	$15	102%	$11	$14	$16	$16	$18
Phys. Med.	97110	Therapeutic exercises	193,276	$31	118%	$24	$27	$32	$32	$37
Phys. Med.	97112	Neuromuscular reeducation	26,735	$32	103%	$25	$29	$33	$33	$39
Phys. Med.	97140	Manual therapy 1/> regions	107,794	$28	122%	$22	$23	$30	$30	$34
Phys. Med.	97161	Pt eval low complex 20 min	5,643	$79	96%	$62	$78	$80	$80	$81
Phys. Med.	97162	Pt eval mod complex 30 min	4,818	$81	99%	$73	$79	$80	$80	$92
Phys. Med.	97530	Therapeutic activities	53,172	$33	101%	$27	$31	$35	$35	$39
Phys. Med.	97545	Work hardening	0							
Phys. Med.	98941	Chiropract manj 3-4 regions	90,446	$37	90%	$34	$34	$35	$40	$42
Phys. Med.	99199	Special service/proc/report	0							

(1) Based on 2017 CHSD data trended to 2018.
(2) Only the following modifiers are included: 25, GP, 59, AT, RT, GO, LT, 24, 57, XU

Exhibit 4
Idaho Industrial Commision
Average Professional Commercial Charge, Percentage of Medicare and Percentiles by HCPCS and Place of Service
Excludes Modified Codes[(2)]

Evaluation and Management Codes

		Facility								Non-Facility							
			Average		Percentiles of CHSD Allowed						Average		Percentiles of CHSD Allowed				
HCPCS	Description	Units	2018 CHSD Allowed(1)	%-age of 2018 Medicare	10th	25th	50th	75th	90th	Units	2018 CHSD Allowed(1)	%-age of 2018 Medicare	10th	25th	50th	75th	90th
99202	Office/outpatient visit new	301	$79	161%	$49	$71	$76	$88	$105	31,048	$101	142%	$77	$95	$105	$112	$127
99203	Office/outpatient visit new	705	$119	158%	$96	$108	$116	$130	$153	54,490	$153	148%	$130	$143	$153	$161	$179
99204	Office/outpatient visit new	947	$196	155%	$168	$184	$198	$205	$232	26,625	$239	151%	$205	$231	$243	$247	$280
99212	Office/outpatient visit est	608	$40	160%	$28	$33	$39	$39	$52	41,182	$61	145%	$49	$55	$61	$65	$71
99213	Office/outpatient visit est	6,539	$74	149%	$55	$72	$72	$79	$88	308,215	$104	149%	$87	$94	$103	$109	$125
99214	Office/outpatient visit est	5,122	$116	153%	$92	$112	$120	$123	$137	159,612	$155	151%	$136	$143	$155	$162	$184
99283	Emergency dept visit	7,592	$123	203%	$81	$95	$97	$109	$192	Not Applicable to Non-Facility							
99284	Emergency dept visit	15,572	$205	178%	$162	$180	$184	$200	$256								
99455	Work related disability exam	HCPCS Have No/Very Little Utilization															
99456	Disability examination																

(1) Based on 2017 CHSD data trended to 2018.
(2) Only the following modifiers are included: 25, GP, 59, AT, RT, GO, LT, 24, 57, XU