



COST OF CARE SNAPSHOT: 3-YEAR TRENDS

SITE-OF-SERVICE | EMERGENCY CARE | PRESCRIPTION DRUGS | DIAGNOSTIC & ANCILLARY SERVICES | MAJOR DIAGNOSTIC CATEGORIES

COST OF CARE SNAPSHOT: 3-YEAR TRENDS

The cost of U.S. healthcare continues to grow rapidly. According to the Centers for Medicare and Medicaid Services (CMS), U.S. healthcare spending is expected to rise at an annual rate of 5.5% over the next seven years, reaching nearly \$6 trillion in 2027.¹

2020 will be another year filled with tremendous changes in the healthcare industry. In uncertain times, big data and analytics are essential for driving efficiencies, setting strategies, and empowering healthcare leaders to make fact-based decisions to improve the larger healthcare ecosystem.

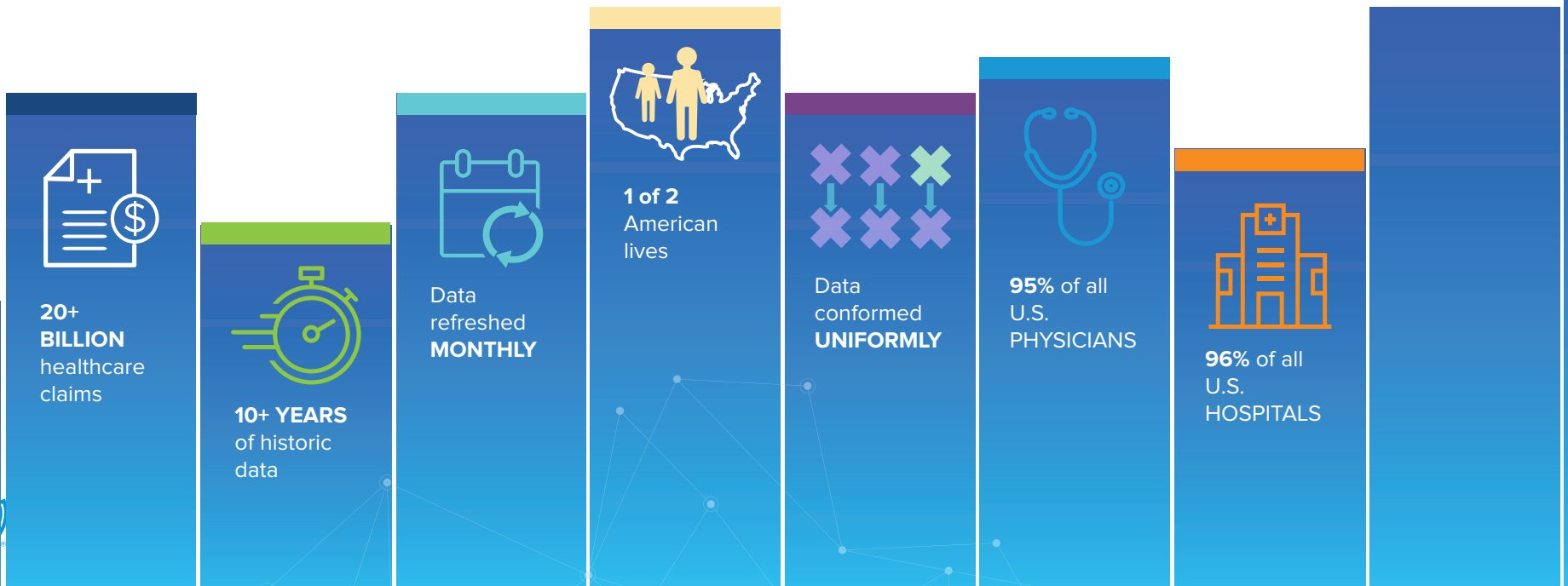
Measuring the cost and utilization rates for various healthcare services – typically shown by broad service categories of claims – can be a critical tool in helping stakeholders determine if quality enhancement and cost-containment strategies are indeed working. Blue Health Intelligence® (BHI®) is privileged to work with the largest and most longitudinally rich national data set in the U.S. to help deliver data and insights that are timely, actionable, and relevant for U.S. healthcare stakeholders.

In this report, BHI presents a snapshot of recent metrics, using claims data from several of the nation's largest commercial health plans, to provide healthcare leaders with additional insight they can share with their customers.

In looking across all this information, three trends continue to rise to the surface:

- Cost increases are outpacing healthcare utilization.
- Care settings continue to have a huge impact on costs.
- The prescription drug cost gap is still widening, as name-brand drug prices continue to rise year-after-year.

THE DEPTH AND BREADTH OF BHI'S DATA



COSTS OUTPACE CHANGES IN UTILIZATION: TRENDS BY MAJOR SERVICE CATEGORIES

In general, BHI's analysis of cost and utilization metrics from 2016 to 2018 found costs increased at a higher rate than utilization. Within the context of major product and service categories, we discovered:

- Costs increased across almost all selected categories over the three years.
- Telemedicine was the only reviewed category with a decrease in the allowed amount per service.
- Though urgent care had the largest year-over-year increase based on the allowed amount per service, the allowed amount per visit decreased slightly.
- Of all service categories, the utilization of telemedicine and urgent care services had the highest percent change from 2017 to 2018.
- The inpatient service category was the only category to see a decline in utilization year-over-year, declining by 2.49% in 2017 and 2.84% in 2018.

COST AND UTILIZATION MEASURES, 2016-2018

	2016	2017	2018	% Change	
				2016- 2017	2017-2018
Outpatient					
Services Per 1,000 Members	5,574.19	5,575.91	5,656.25	0.03%	1.44%
Allowed Amount Per Service	\$258.85	\$273.11	\$280.76	5.51%	2.80%
Inpatient					
Admissions Per 1,000 Members	58.94	57.47	55.84	-2.49%	-2.84%
Days Per 1,000 Members	327	318	308	-2.75%	-3.14%
Allowed Amount Per Admission	\$17,804	\$18,561	\$19,514	4.26%	5.13%
Allowed Amount Per Day	\$3,213	\$3,350	\$3,537	4.26%	5.60%
Average Length of Stay	5.54	5.54	5.52	0.00%	-0.36%
Professional Office Visits					
Professional Office Service Per Member	12.66	12.72	12.88	0.60%	1.20%
Professional Office Allowed Amount Per Service	\$79.73	\$81.95	\$84.47	2.80%	3.10%
Emergency Department (ED)					
ED Visits Per 1,000 Members	195.14	195.64	195.56	0.30%	-0.10%
Allowed Amount Per ED Visit	\$1,561.45	\$1,640.34	\$1,745.74	5.10%	6.40%
Urgent Care					
Services Per 1,000 Members	329.80	360.09	338.91	9.20%	-5.90%
Allowed Amount Per Service	\$77.49	\$78.47	\$86.11	1.30%	9.70%
Visits Per 1,000 Members	163.58	176.66	183.37	8.00%	3.80%
Allowed Amount Per Visit	\$156.22	\$159.94	\$159.15	2.40%	-0.50%
Telemedicine					
Services Per 1,000 Members	5.06	9.63	16.24	90.30%	68.60%
Allowed Amount Per Service	\$63.30	\$54.08	\$52.80	-14.60%	-2.40%

BEHIND THE CURTAIN: EMERGENCY DEPARTMENT TRENDS

BHI used hospital-based ED revenue codes to classify all ED-based utilization and cost information. Our analysis excluded ED visits that led to an inpatient admission.

Overall, we found that ED utilization has remained relatively flat over the past three years, rising only 0.30% from 2016 to 2017, and falling 0.10% over the next year.

Urgent care utilization rates are closing in on ED utilization rates with 183.37 per 1,000 members seeking urgent care services in 2018, compared to only 163.58 per 1,000 in 2016.

Separate BHI analysis revealed that the allowed amount per ED visit increased 5.10% between 2016 and 2017 and another 6.40% the following year.

ED Usage by Age

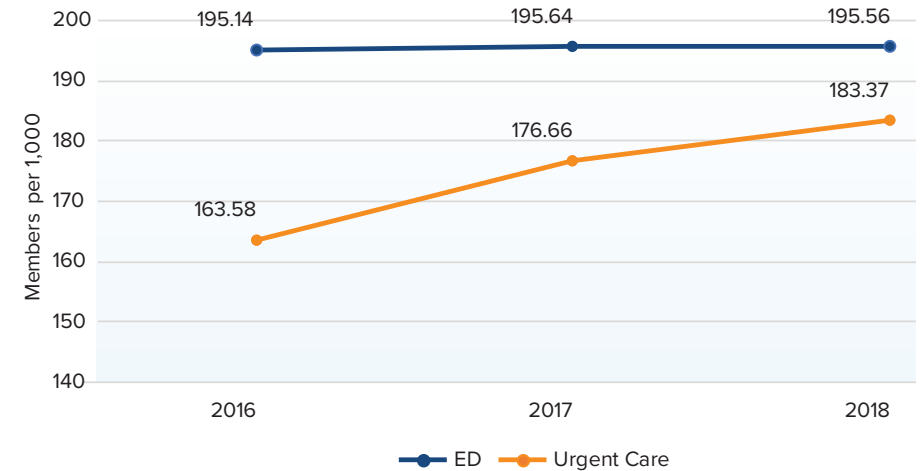
BHI found that ED usage for all age groups in 2018 was 142 visits per 1,000. Looking at specific age groups:

Infants and toddlers under 24 months were the most frequent visitors to the ED, needing emergency services 58% more often than other age groups. More than 55 infants per 1,000 had a primary diagnosis of fever. The second highest primary diagnosis was acute respiratory infection, with 54 visits per 1,000.

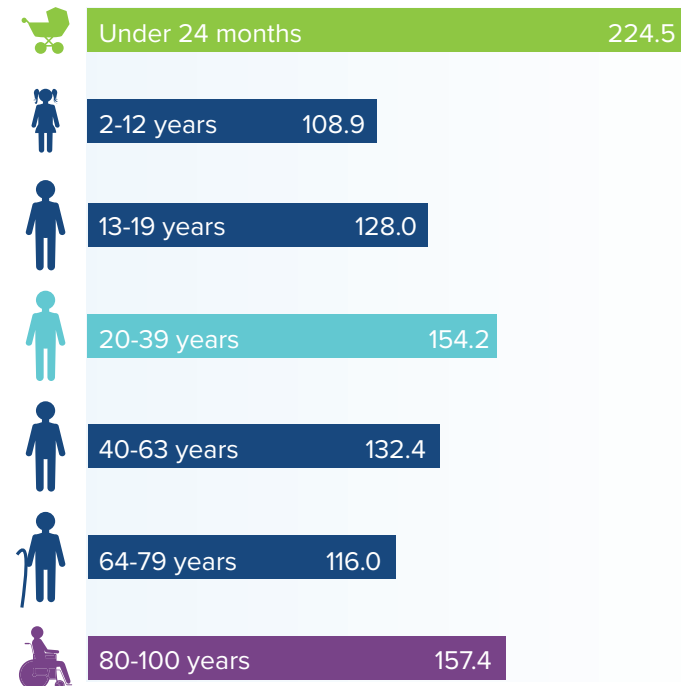
Older adults between 80 to 100 years of age were the next highest group of ED utilizers, with 157 visits per 1,000.

Though roughly half as old, young adults between 20 to 39 years of age had nearly as many visits as members in the 80 to 100 year range, averaging 154.2 visits per 1,000 members.

ED AND URGENT CARE UTILIZATION VISITS PER 1,000



ED USAGE BY AGE, 2016-2018



THE POWER OF PHARMACEUTICALS: PRESCRIPTION DRUG TRENDS

CMS estimated that U.S. prescription drug spending increased by 2.5% to \$355 billion in 2018, accounting for 9% of national health expenditure. This was even faster than the 1.4% growth experienced in 2017 and costs continue to rise.¹

BHI's utilization studies confirm that use of generics rose slightly between 2016 and 2018, with the dispensing rate increasing from 81% to 83%. BHI's analysis based generic utilization on the number of generic prescriptions as a percentage of all prescriptions, not just those where a generic was available.

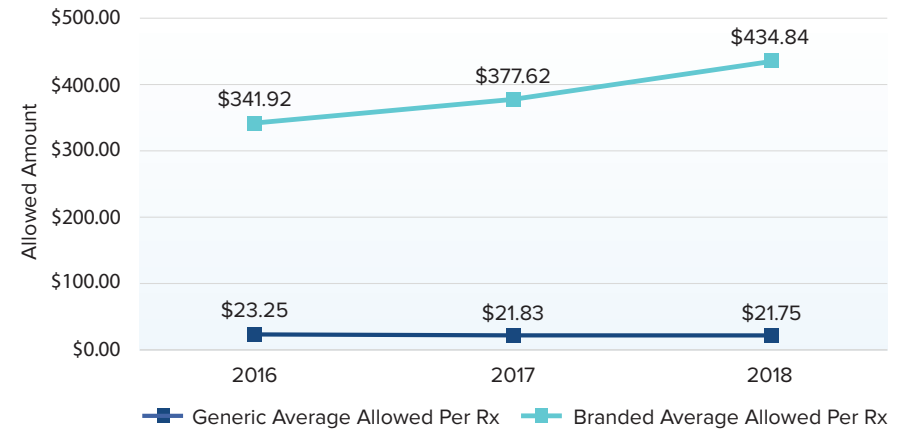
Looking at costs for generic vs. branded drugs, BHI's research shows:

- Generic pharmaceuticals continue to get more affordable. The average generic prescription cost 95% less than the average branded medication in 2018.
- Between 2017 and 2018, generic drug prices dropped 6.45%, while name-brand drugs became more expensive – increasing from 10.4% to 15.2% in that same timeframe.

When assessing costs by prescription drug genetic product identifier (GPI) category, we found:

- The costs of dermatological agents rose the most between 2017 and 2018, jumping nearly 21%.
- Anti-inflammatory analgesics, antidiabetics, antiasthmatic/bronchodilator agents, endocrine/metabolic agents, and anticonvulsants experienced the greatest increase in cost from 2016 to 2018.
- Opioid analgesics, antihyperlipidemics, antihypertensives, and ulcer drugs/antispasmodics/anticholinergics GPI categories had the most dramatic drop in cost from 2016 to 2018.

ALLOWED AMOUNT PER RX, GENERIC VS. BRANDED, 2016-2018



PERCENT CHANGE IN AVERAGE RX PMPM BY GPI O2 CATEGORY, 2016-2018

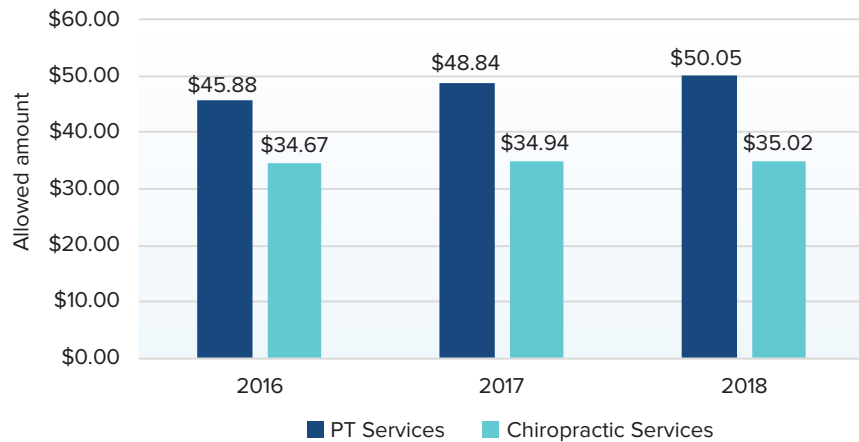
	% Change 2016-2017	% Change 2017-2018
Analgesics: Anti-inflammatory	12.9%	16.2%
Antidiabetics	11.0%	12.1%
Dermatologicals	-1.2%	20.9%
Psychotherapeutic/Neurological Agents (Misc.)	3.7%	2.5%
Antivirals	-3.4%	0.5%
Antiasthmatic/Bronchodilator Agents	5.6%	8.6%
ADHD/Antinarcoplepsy/Antiobesity/Anorexiant	-3.8%	1.9%
Endocrine/Metabolic Agents (Misc.)	6.7%	12.6%
Anticonvulsants	7.4%	9.0%
Antidepressants	-3.3%	0.4%
Contraceptives	-1.1%	3.2%
Analgesics: Opioid	-12.8%	-12.6%
Antihyperlipidemics (High Cholesterol Drugs)	-40.3%	-14.9%
Antihypertensives (High Blood Pressure Drugs)	-25.4%	-20.0%
Ulcer Drugs/Antispasmodics/Anticholinergics	-31.2%	-17.6%

SUPPORTIVE MEASURES: DIAGNOSTIC AND ANCILLARY SERVICE TRENDS

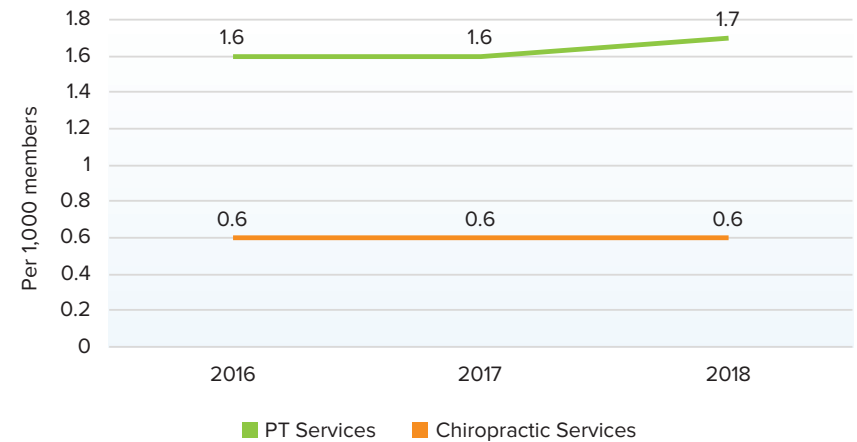
To better understand overall cost and utilization trends in healthcare, BHI also examined ancillary healthcare services: magnetic resonance imaging (MRI), computed tomography (CT) imaging, physical therapy, and chiropractic care. As providers and payers continue the transition to value-based and bundled services reimbursement models, there is an increasing need to understand how various ancillary services impact overall costs, quality, and level-of-care requirements.

BHI observed a slight rise in both cost and utilization of physical therapy (PT) services in recent years, while chiropractic services costs and usage remained relatively flat.

ALLOWED AMOUNT, PT VS. CHIROPRACTIC SERVICES, 2016-2018



PT VS. CHIROPRACTIC SERVICES PER 1,000 MEMBERS, 2016-2018



There were fewer MRIs performed from 2016 to 2018. The percent change for these services during this timeframe was -3.1%. The number of CT scans and the costs for CT scans increased slightly, 1.2% and 0.9% respectively, during that same timeframe.

MRI METRICS, 2016-2018

MRI SERVICES	2016	2017	2018	% Change 2016-2017	% Change 2017-2018
Per 1,000 Members	38.5	37.7	37.3	-2.0%	-1.1%
Allowed \$ Per Service	\$1,554.82	\$1,559.00	\$1,527.13	0.3%	-2.0%

CT SCAN METRICS, 2016-2018

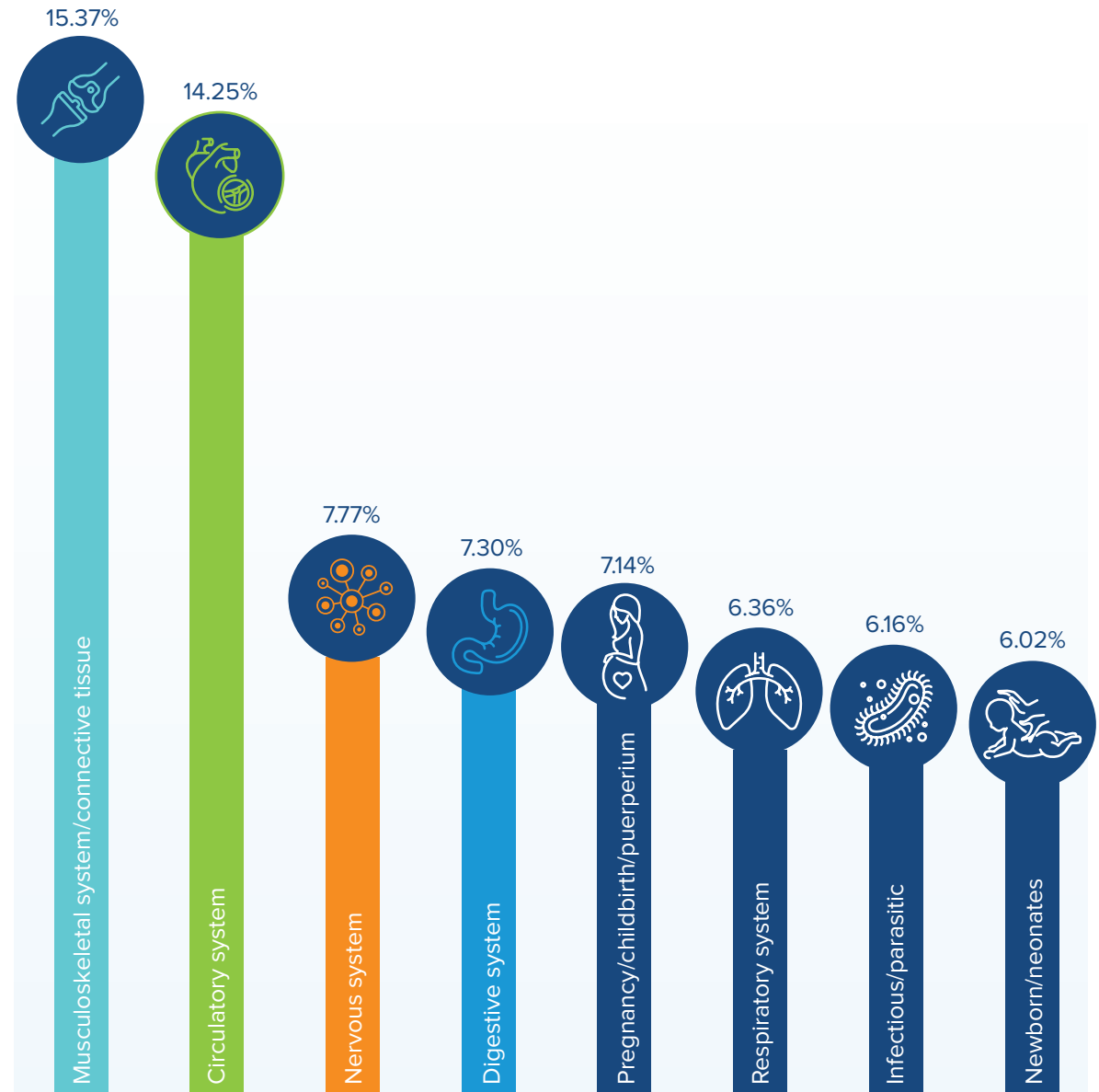
CT SCAN SERVICES	2016	2017	2018	% Change 2016-2017	% Change 2017-2018
Per 1,000 Members	76.6	76.8	77.5	0.3%	0.9%
Allowed \$ Per Service	\$1,268.00	\$1,282.45	\$1,279.71	1.1%	-0.2%

EVERYTHING HURTS: INPATIENT COSTS FOR MAJOR CONDITIONS

DISTRIBUTION OF INPATIENT COSTS BY MDC, 2018

Every disease or healthcare condition carries both human and economic costs. Understanding the cost trends associated with these conditions leads to greater understanding of the overall cost of healthcare.

BHI's review of clinical categories using Major Diagnostic Categories (MDC) showed that the largest percentages of total inpatient costs in 2018 were associated with the musculoskeletal and connective tissue system, circulatory system, nervous system, and digestive system.



ABOUT THIS REPORT

This publication highlights key healthcare cost, quality, utilization, and service location trends produced from paid claims data submitted by BHI's contributing health plans that occurred between January 1, 2016 to December 31, 2018. Unless otherwise specified, the populations covered in this report included members and their beneficiaries who were enrolled in group business Preferred Provider Organization health plan products that had both pharmacy and medical benefits. BHI's commercial claims database undergoes a rigorous annual data validation and certification review by an external third-party actuarial firm.

KEY MEASURES

Allowed Amount	The allowed amount is the paid amount plus any member share, not including member premiums. This amount also excludes any network discounts or non-covered amounts.
Incurred Period	BHI based all analyses for any time series information on incurred dates of service. Incurred dates for hospital claims billed on a UB04 were based on the admissions date. Incurred dates for professional claims billed on an HCFA form were based on the first date of service on the claim.
ED Metrics	BHI used hospital-based ED revenue codes to classify all ED-based utilization and cost information. We excluded ED visits leading to an inpatient admission from the analyses.
Members	Unless otherwise noted, we counted members as full-year equivalents (FYE) based on member years. If two members each had 0.5 member years, the count for members would combine these two distinct members as one-member year and one member for medical calculations. This better matched allowed amounts of medical claims to the time the members were present and incurring those claims.

REFERENCES

¹Centers for Medicare & Medicaid Services National Health Expenditure Fact Sheet. <https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NHE-Fact-Sheet.html>. Accessed August 1, 2019.

At BHI, there are no black boxes: our clients understand exactly how we use data to uncover insights and recommend actions.

Leveraging the power of claims data from more than 200 million Americans, Blue Health Intelligence® (BHI®) delivers insights that empower healthcare organizations to improve patient care, reduce costs, and optimize performance. With the [largest, most up-to-date, and uniform data set](#) in all of healthcare, BHI provides a highly accurate representation of the health profile of commercially insured Americans.

At BHI, our mission is to help stakeholders make the right strategic decisions based on the best data and the most actionable analytics. To fulfill our mission, BHI offers software-as-a-service products, fully transparent methodologies, experienced consultants, and big data.

In 2020, BHI will begin receiving Medicare fee-for-service claims data from all 50 states and the District of Columbia due to our recent certification as a Qualified Entity by CMS. Through this partnership, BHI will be able to combine medical and pharmacy claims information for people over the age of 65 and for those who have a long-term disability with our existing commercial information.

© Blue Health Intelligence® (BHI®) is a trade name of Health Intelligence Company, LLC, an independent licensee of the Blue Cross and Blue Shield Association. All rights reserved.

225 North Michigan Avenue
Chicago, IL 60601-7680
312-540-5151

