

2017 Cost & Utilization Report

Average Cost per Procedure
Total Cost of Care
Relative Resource Use
Utilization



To download the report and find more information visit: MNCM.org
Searchable results are available at our consumer-friendly website: MNHealthScores.org

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President's Introduction

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In late September, I had the chance to attend the National Affordability Summit in Washington DC, hosted by the Network for Regional Healthcare Improvement. This event highlighted the growing problem of health care affordability – the continued

growth of health care spending at a rate that is faster than growth in wages and incomes – and the resulting cost pressures on businesses, government and families. More than just “admiring the problem,” the event highlighted efforts to bring the power of data and measurement to make progress toward more affordable health care.

The *2017 Cost & Utilization Report* is one way that MN Community Measurement (MNCM) is bringing the power of data, measurement and transparency to the health care affordability problem here in Minnesota. As an independent nonprofit that brings together stakeholders from many different perspectives to collaborate on improving health care in Minnesota, MNCM's goal is to be a resource for health care data and measurement that are timely, credible and actionable.

Building on our series of cost reports that began in 2014, this year's report presents analysis of the total cost of care for 122 medical groups; includes insights on the drivers of total cost – relative prices and resource use; and provides comparative information on prices for 118 common medical services like office visits and diagnostic testing. The statewide average total cost of care per person per month grew by a relatively modest 3.4 percent in 2016. However, there continues to be substantial variation across provider groups in total cost, resource use and average prices.

In addition to the results presented in this report, MNCM makes this information available through an interactive website, MNHealthscores.org, which makes it easy for anyone to find and compare health care cost and quality in Minnesota. MNCM also provides detailed benchmarking reports to providers to help them better understand the details of the data and identify opportunities for improvement.

None of this work would be possible without the collaboration for which MN Community Measurement is widely known. We bring together physicians, hospitals, health plans, employers, consumers and state government to agree on a collective approach to measurement and reporting that helps to focus attention on priority issues for Minnesota and to catalyze change.

Rising health care cost is a problem that affects just about everyone – and one that we must work together to solve. MN Community Measurement looks forward to continued collaboration with others as we seek to drive change through measurement and reporting.

Sincerely,

Julie J. Sonier
President, MN Community Measurement



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Executive Summary

Rising health care cost is a problem that affects just about everyone – and one that we must work together to solve. The *2017 Cost & Utilization Report* is one way that MN Community Measurement (MNCM) is bringing the power of data, measurement and transparency to the health care affordability problem here in Minnesota.

This report provides the most current comparable and validated cost of health care information. This report is broken out into four sections which present and analyze components that individually and collectively provide a truly unique view of the cost and the drivers of cost in the Minnesota health care marketplace. Highlights from the MN Community Measurement *2017 Cost & Utilization Report* are noted below.

Section I: Average Cost Per Procedure

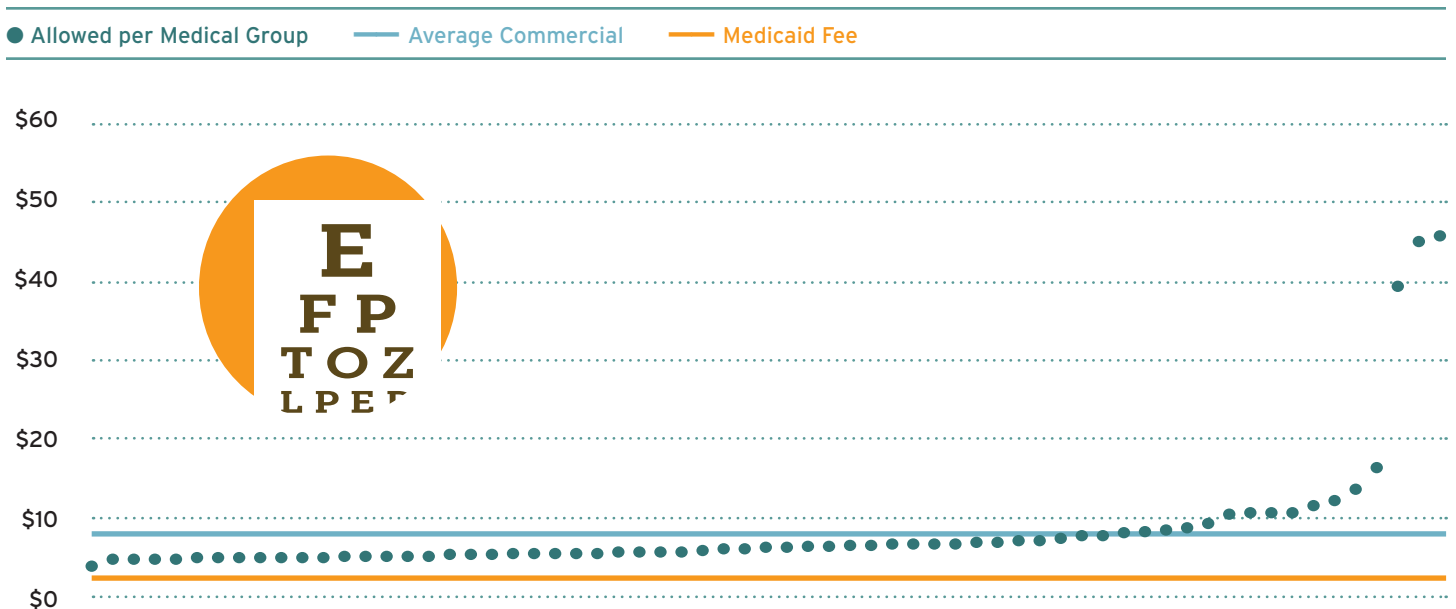
Where one seeks or receives care is important in understanding cost of health care because the same procedure can cost different amounts depending on where that service is received.

This report uses Average Cost per Procedure (ACP) – which is a measure of the average amount paid to each medical group by commercial health plans for specific procedures – to examine these differences. ACP is meaningful and important to both patients and purchasers of health care because it can lead to more informed purchasing of health care and wiser use of health care dollars.

MNCM reports on 118 common medical procedures. The ranges for each procedure can be viewed in this report. Examples of the ACP information included in this report include:

- An ankle X-ray can cost from \$26 to \$201.
- A 15-minute office visit can cost from \$84 to \$193.
- Reading an eye chart (Visual Acuity Screen) can cost from \$4 to \$46.

Figure 1: Cost Variation in Reading an Eye Chart (Visual Acuity Screen)



Costs also differ between private health insurance and government programs (Medicare and Medicaid). For example, a simple chest X-ray averages \$56 for commercial patients in Minnesota but the standard payment for Medicare patients in Minnesota is \$28 and the standard payment for Medicaid patients is \$20.

Section II: Total Cost of Care

The total cost of health care in Minnesota continues to increase.

Total Cost of Care (TCOC) measures all medical and pharmacy costs for a patient during 2016. This information is important for all purchasers of health care, including employers and health plans, because all Minnesotans benefit from reliable health care cost information delivered in a comparable, consistent manner. The TCOC results are based on 1.5 million patients at more than 200 medical groups across the state and region. Key findings in this section include:

- TCOC in Minnesota increased 3.4 percent from 2015 to 2016 for commercially-insured patients, from \$474 to \$490 per patient per month.
- TCOC is lower for men than for women. In 2016, the costs per month for men and women were \$451 and \$522, respectively.

The increase from 2015 to 2016 (3.4 percent) is lower than the increase of 5.6 percent from 2014 to 2015. Between 2013 and 2014, the increase was 3.1 percent. In reviewing changes across all years reported, total cost of care increased by \$54 per patient per month from \$436 in 2013 to \$490 in 2016.

Section III: Resource Use and Price Index

There is significant variation in price and resource use – both key factors in total cost of care.

Total cost of care is driven by both the amount of resources used and the price of each resource or service. The report separates prices and resources used to help determine the reasons for cost variation. This information is valuable to medical groups and to health purchasers in determining the drivers of health care costs. Medical groups also can see this information to understand how they compare to others in terms of resource use and price. Key findings in the 2017 report include:

- The lowest resource use is from Mayo Clinic Health System New Prague at 14 percent fewer resources than average used, after adjusting for patient risk.
- The lowest price index is Comprehensive Health Care for Women in Woodbury at 17 percent less than the statewide average.
- Cost, resource use and price index are also examined by region. The Northeast region of Minnesota has the highest overall resource use and the Minneapolis/St. Paul metro area has lowest prices.

Section IV: Utilization

There is significant variation in the quantity of services provided to patients.

Utilization is the number of services provided, such as the number of X-rays or lab tests. MNMCM tracks the utilization of 24 separate services. These include, for example, lab tests, emergency room visits, radiology and pharmacy use.

The report compares the medical group's expected utilization of a service, such as lab tests, to the actual or observed number of occurrences to answer the question, "does Clinic XYZ generate use of services that one would expect given the characteristics of patients that go there?"

Results in this section of the report allow comparison of utilization patterns across medical groups, and can be used by medical groups to understand how they compare to others. The report is also helpful in identifying bright spots in the community in terms of effectively managing utilization.

Of the 24 measures in this section of the report, emergency room utilization – compared to what would be expected given the patient's risk, age and gender – is the most predictive of total health care costs. Understanding this allows practices that find their utilization rates to be high in this area to work on developing focused efforts to reduce emergency room utilization and manage the total cost of care. A key finding of the report is that medical groups outside of the Twin Cities metro area tend to have higher emergency room use rates, but there are exceptions.

A Starting Point for Change

Reviewed and considered as a whole or individually the data in the report provides unique insight that is useful for tracking, comparing and taking actions to manage and reduce health care costs.

When possible, this report displays information on measures statewide, regionally and by medical group. Examples, definitions and methodology for each of the measures and ratings in this report can be found in the corresponding section and also in the Appendix.

Each section of this report is a starting point, and each section raises new questions for the greater community to consider as we work together to address rising health care costs. Only through engagement of all community members – including consumers and patients, employers, health care providers, quality improvement leaders, hospital and clinic management and policymakers – can we effectively advance affordability.

Section I: Average Cost per Procedure

MNCM tracks the cost of 118 common medical procedures. Each of these individual procedures can be searched by, and compared across, medical groups at MNHealthScores.org for 220 unique medical groups.

Average Cost per Procedure (ACP) is a measure of the average amount paid to each medical group by commercial health plans for specific common ambulatory care procedures for calendar year 2016. ACP is based on actual costs, and includes only professional (physician) claims billed directly from the medical group to participating health plans. Patients are directly attributed to medical groups based the tax identification number on claims.

In the figure and tables that follow, for common procedures, commercial cost ranges are displayed. For example, reading an eye chart (Visual Acuity Screening) can cost from \$4 to \$46, an ankle x-ray can cost from \$26 to \$201, and a 15-minute office visit can cost from \$84 to \$193 for

commercially-insured patients, depending on where one seeks medical care. Each of the 118 medical procedures measured can be viewed, and sorted by medical group, at MNHealthScores.org.

These rates are not adjusted for patient risk or provider efficiency because there is no need to do so. Each procedure is from a single specific procedure code, or line items that appear on a CMS1500 medical claim form (the standard method for providers to bill health plans).

Statewide averages, defined as the median value, are for commercial patients in 2016. As a comparison, this report lists the Medicare and Medicaid standard fees as of October 1, 2016.

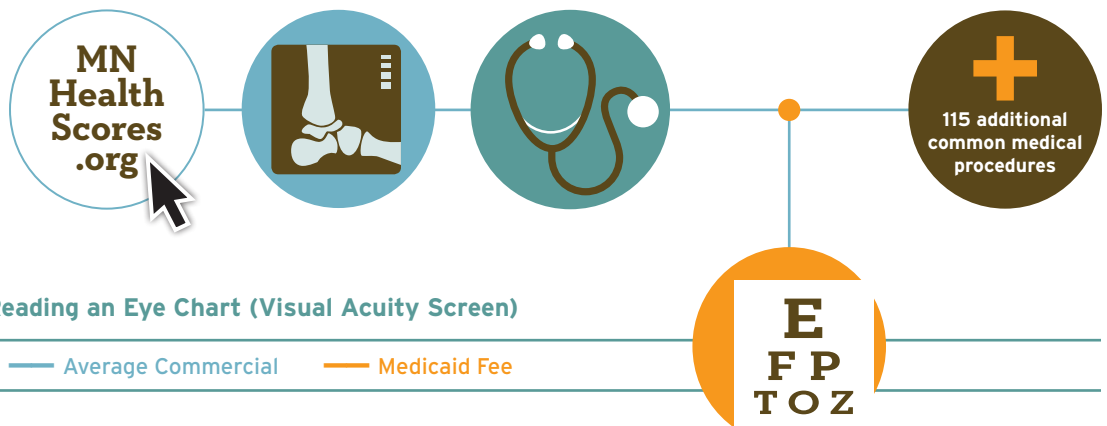
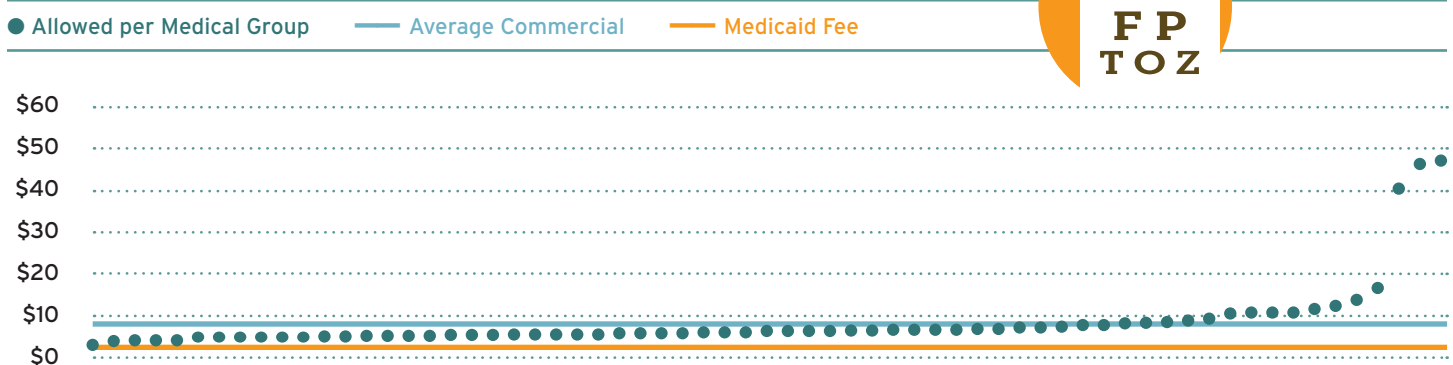


Figure 2: Cost Variation in Reading an Eye Chart (Visual Acuity Screen)



Statewide Results

Table 1: Average Cost per Procedure for 118 Common Procedures

Category	Procedure	Commercial Patients			2016 Government Fee Schedule (when comparable)	
		Minimum	Average	Maximum	Medicare	Medicaid
Eye Care	Determination of Refractive State	\$5	\$33	\$54		\$14
	Eye Exam and Treatment established patient	\$117	\$166	\$293	\$125	\$89
	Eye Exam established patient	\$76	\$125	\$205	\$86	\$61
	Eye Exam new patient	\$110	\$198	\$335	\$150	\$107
	Visual Acuity Screen	\$4	\$6	\$46		\$2
Gastrointestinal Procedures	Colonoscopy ¹	\$354	\$591	\$1,852	\$315	\$224
	Endoscopy with a biopsy ¹	\$233	\$377	\$1,285	\$346	\$246
Imaging	Chest X-ray (2 views)	\$24	\$56	\$232	\$28	\$20
	Knee X-ray (1 or 2 views)	\$24	\$64	\$191	\$31	\$22
	Lower Extremity CT without Contrast	\$385	\$433	\$671	\$183	\$117
	Lower Extremity MRI without Contrast	\$253	\$664	\$3,510	\$241	\$171
	Lumbar Spine MRI without and with Contrast	\$668	\$884	\$3,526	\$385	\$274
	Lumbar Spine MRI without Contrast	\$216	\$863	\$3,569	\$227	\$161
	Screening Mammography digital	\$127	\$249	\$479		\$99
	Spine X-ray (2 views)	\$35	\$80	\$219	\$35	\$25
	Ultrasound of Obstetrical Uterus	\$129	\$277	\$711	\$146	\$113
	Ultrasound Exam Pelvic complete	\$107	\$219	\$651	\$113	\$80
	X-Ray Exam of Ankle	\$26	\$72	\$201	\$32	\$22
	X-Ray Exam of Foot	\$23	\$67	\$197	\$29	\$21
	X-Ray Exam of Shoulder	\$24	\$66	\$252	\$29	\$21
	X-Ray Exam of Wrist	\$28	\$81	\$205	\$36	\$25

Continued

¹ Physician costs only, not including facility fees.

Table 1: Average Cost per Procedure for 118 Common Procedures (Continued)

Category	Procedure	Commercial Patients			2016 Government Fee Schedule (when comparable)	
		Minimum	Average	Maximum	Medicare	Medicaid
Laboratory	Alanine Aminotransferase (ALT) test	\$8	\$11	\$67	\$7	\$7
	Assay of Free Thyroxine	\$14	\$17	\$131	\$12	\$12
	Aspartate Aminotransferase (AST) test	\$8	\$10	\$60	\$7	\$7
	Bacterial culture screening only	\$9	\$11	\$103	\$8	\$8
	Basic metabolic panel	\$12	\$17	\$199	\$12	\$12
	Blood hemoglobin (screening for iron deficiency anemia)	\$3	\$4	\$67	\$3	\$3
	Blood, occult, by peroxidase activity	\$5	\$6	\$13	\$4	\$4
	Chlamydia, amplified probe technique	\$39	\$76	\$188	\$48	\$48
	Complete Blood Count (CBC)	\$10	\$13	\$127	\$9	\$9
	Complete Blood Count (CBC) with differential White Blood Cell (WBC) count	\$2	\$16	\$183	\$11	\$11
	Comprehensive metabolic panel	\$13	\$20	\$139	\$14	\$14
	Creatinine test	\$7	\$10	\$75	\$7	\$7
	General health panel	\$46	\$59	\$383	\$50	\$50
	Glucose (blood sugar) test	\$2	\$8	\$64	\$5	\$5
	Glycated hemoglobin test	\$7	\$20	\$107	\$13	\$13
	Gonorrhea test	\$39	\$65	\$188	\$48	\$48
	Human Chorionic Gonadotropin (HCG) test, quantitative	\$17	\$21	\$152	\$15	\$15
	Human Papilloma Virus (HPV), three doses	\$150	\$174	\$269	\$160	\$160
	Lipid panel	\$15	\$27	\$174	\$18	\$18
	Microalbumin quantitative	\$8	\$11	\$171	\$8	\$8
	Pap smear	\$18	\$22	\$98	\$14	\$14
	Potassium test	\$7	\$10	\$50	\$6	\$6
	Pregnancy test, urine	\$9	\$11	\$83	\$9	\$9
	Prostate Specific Antigen (PSA) total	\$28	\$32	\$190	\$25	\$25
	Prothrombin time	\$6	\$7	\$80	\$5	\$5
	Strep test, rapid	\$8	\$22	\$104	\$16	\$16
	Thyroid (TSH) test	\$25	\$34	\$194	\$23	\$23
	Urinalysis with microscopy	\$4	\$6	\$98	\$4	\$4
	Urinalysis without microscopy	\$3	\$4	\$44	\$3	\$3
	Urinalysis nonauto without scope	\$4	\$4	\$30	\$4	\$4
	Urine culture/colony count	\$2	\$15	\$118	\$11	\$11
	Vitamin B-12	\$22	\$30	\$153	\$21	\$21
Vitamin D 25 Hydroxy	\$33	\$55	\$253	\$41	\$41	

Continued

Table 1: Average Cost per Procedure for 118 Common Procedures (Continued)

Category	Procedure	Commercial Patients			2016 Government Fee Schedule (when comparable)	
		Minimum	Average	Maximum	Medicare	Medicaid
Medical Services	Acupuncture without stimuli 15 Min	\$30	\$88	\$99		\$26
	Cardiac Stress test	\$145	\$201	\$534	\$77	\$55
	Developmental Screening tests	\$15	\$15	\$90		\$7
	Diphtheria, Tetanus and Pertussis (DTaP) vaccine for a child younger than 7	\$17	\$22	\$53		
	Echocardiogram, routine ECG with interpretation and report	\$25	\$41	\$218	\$17	\$12
	Hemophilus Influenza B	\$17	\$28	\$72		\$23
	Hepatitis A vaccine for a child or adolescent	\$21	\$33	\$99		
	Hepatitis B vaccine for a child or adolescent	\$23	\$26	\$87		
	Hepatitis B vaccine for an adult	\$48	\$63	\$157		\$60
	Meningitis (meningococcal) vaccine	\$104	\$131	\$284		\$125
	Measles, Mumps and Rubella (MMR) vaccine	\$58	\$69	\$105		\$47
	Measles, Mumps, Rubella and Varicella (MMRV) chickenpox vaccine	\$77	\$187	\$300		
	Pneumococcal conjugate vaccine, 13 valent	\$95	\$174	\$369		\$181
	Pure Tone hearing test air	\$8	\$26	\$57		\$8
	Spirometry test	\$32	\$80	\$144	\$36	\$26
	Tetanus and Diphtheria (Td) vaccine	\$31	\$42	\$105		\$30
	Tetanus and Diphtheria (Td) vaccine without preservatives	\$21	\$26	\$78		\$22
	Varicella Zoster Virus (chickenpox) vaccine	\$97	\$118	\$166		\$82
Mental Health Services	Group Psychotherapy	\$26	\$38	\$265	\$25	\$23
	Psychiatric diagnostic evaluation	\$128	\$209	\$463	\$130	\$117
	Psychiatric diagnostic evaluation with medical services	\$179	\$307	\$626	\$145	\$131
	Psychotherapy, 30 minutes with patient and/or family member	\$61	\$88	\$244	\$63	\$57
	Psychotherapy, 45 minutes with patient and/or family member	\$74	\$134	\$332	\$84	\$76
	Psychotherapy, 60 minutes with patient and/or family member	\$98	\$136	\$397	\$126	\$114
Obstetrical Services	Biopsy of the Uterus	\$177	\$244	\$483	\$108	\$76
	Colposcopy	\$244	\$353	\$760	\$150	\$107
	C-section delivery with routine care ¹	\$2,627	\$4,604	\$5,602	\$2,200	\$1,388
	Fetal non-stress test	\$53	\$97	\$252	\$47	\$36
	Vaginal delivery with routine care ¹	\$2,503	\$3,948	\$5,934	\$1,993	\$1,388

Continued

¹ Physician costs only, not including facility fees.

Table 1: Average Cost per Procedure for 118 Common Procedures (Continued)

Category	Procedure	Commercial Patients			2016 Government Fee Schedule (when comparable)	
		Minimum	Average	Maximum	Medicare	Medicaid
Office Visits	Office visit, established patient, 5 minutes	\$28	\$45	\$89	\$20	\$16
	Office visit, established patient, 10 minutes	\$42	\$87	\$117	\$44	\$34
	Office visit, established patient, 15 minutes	\$84	\$146	\$193	\$73	\$57
	Office visit, established patient, 25 minutes	\$114	\$232	\$345	\$107	\$83
	Office visit, established patient, 40 minutes	\$174	\$313	\$459	\$144	\$112
	Office visit, new patient, 10 minutes	\$51	\$92	\$140	\$44	\$34
	Office visit, new patient, 20 minutes	\$86	\$161	\$200	\$74	\$58
	Office visit, new patient, 30 minutes	\$128	\$240	\$303	\$107	\$83
	Office visit, new patient, 45 minutes	\$219	\$365	\$529	\$162	\$126
	Office visit, new patient, 60 minutes	\$268	\$457	\$669	\$204	\$158
	Preventive care visit for an infant under age 1	\$90	\$190	\$234		\$77
	Preventive care visit for a child between the ages of 1 to 4	\$91	\$200	\$252		\$82
	Preventive care visit for a child between the ages of 5 to 11	\$120	\$194	\$251		\$82
	Preventive care visit for an adolescent between the ages of 12 to 17	\$98	\$214	\$278		\$90
	Preventive care visit for an adult between the ages of 18 to 39	\$143	\$246	\$319		\$92
	Preventive care visit for an adult between the ages of 40 to 64	\$153	\$270	\$527		\$98
Preventive care visit for an adult 65 years and over	\$202	\$302	\$608		\$105	
Physical Therapy	Electric stimulation therapy	\$17	\$17	\$48		\$11
	Manual therapy, multiple regions	\$28	\$48	\$112	\$31	\$21
	Neuromuscular reeducation	\$37	\$55	\$142	\$34	\$24
	Physical therapy evaluation	\$72	\$129	\$273		
	Therapeutic exercises	\$33	\$54	\$135	\$33	\$23
	Ultrasound therapy	\$13	\$20	\$79	\$13	\$9
Surgical Procedures	Abscess treatment	\$165	\$247	\$343	\$118	\$84
	Aspiration and/or injection of a large joint	\$88	\$149	\$424	\$59	\$42
	Aspiration and/or injection of a small joint	\$82	\$130	\$190	\$50	\$35
	Circumcision	\$153	\$214	\$594	\$155	\$110
	Earwax removal	\$73	\$108	\$154	\$49	\$34
	Skin biopsy	\$113	\$228	\$272	\$104	\$74
	Skin lesion, destruction	\$59	\$131	\$273	\$67	\$47
	Skin lesion (0.5cm or smaller) removal or excision	\$172	\$248	\$321	\$125	\$89
	Skin lesion (0.6cm or larger) removal or excision	\$214	\$291	\$403	\$149	\$106
	Skin tag removal	\$124	\$180	\$228	\$88	\$63
	Stitches for a wound	\$118	\$188	\$333	\$89	\$64
	Vasectomy	\$627	\$880	\$1,384	\$390	\$278

Regional Results

Table 2: Average Commercial Cost per Procedure by Region (MN Only)





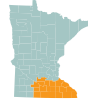
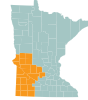
Procedure	Commercial Patients, 2016 Dates of service						2016 Government Fee Schedule (when comparable)	
							Medicare	Medicaid
	Central	Metro	Northeast	Northwest	Southeast	Southwest		
Chest X-ray (2 views)	\$52	\$57	\$41	\$25	\$117	\$100	\$28	\$20
Complete Blood Count (CBC)	\$13	\$13	\$38	\$20	\$40	\$26	\$9	\$9
Eye Exam new patient	\$191	\$203	\$280	\$205	\$225	\$169	\$150	\$107
Glycated hemoglobin test	\$18	\$20	\$40	\$26	\$60	\$29	\$13	\$13
Office visit, established patient, 15 minutes	\$136	\$146	\$142	\$130	\$136	\$121	\$73	\$57
Office visit, new patient, 20 minutes	\$140	\$157	\$133	\$129	\$160	\$134	\$74	\$58
Pregnancy test, urine	\$10	\$11	\$10	\$15	\$38	\$20	\$9	\$9
Pure Tone hearing test air	\$24	\$25	\$31	\$23	\$30	\$31		\$8
Urinalysis with microscopy	\$6	\$6	\$16	\$9	\$33	\$13	\$4	\$4
Visual Acuity Screen	\$6	\$6	\$10	\$6	\$16	\$10		\$2

Table 2 shows that the price for the same procedure can vary depending on where in the state you receive services.

Medical Group Results

Results for all 118 procedures measured in the Average Cost per Procedure section are published on MNHealthscores.org. To keep the size of this report manageable, the following pages list and focus on three procedures, provided as examples of the analysis and detail available by medical group for each of the 118 individual procedures.

The three procedures listed in their entirety in this section, each noted below in a separate table, are Cardiac Stress Test, Ultrasound Therapy and Eye Exam for New Patient.

Table 3:
Average Cost per Procedure for Cardiac Stress Test

Medical Group	Average Commercial Cost	2016 Government Fee Schedule (when comparable)	
		Medicare	Medicaid
Essentia Health West	\$145		
Lakeview Clinic, Ltd.	\$164		
Mankato Clinic	\$168		
State Average	\$201	\$77	\$55
Allina Health Clinics	\$201		
Affiliated Community Medical Centers	\$368		
Mayo Clinic - Rochester	\$534		

Table 4:
Average Cost per Procedure for Ultrasound Therapy

Medical Group	Average Commercial Cost	2016 Government Fee Schedule (when comparable)	
		Medicare	Medicaid
Essentia Health West	\$13		
Community University Health Care Center	\$13		
Physicians Diagnostics & Rehabilitation	\$15		
Orthopaedic Associates of Duluth, P.A.	\$15		
Southwest Minnesota Orthopedics and Sports Medicine	\$15		
MN Head & Neck Pain Clinic	\$17		
Williams Integracare Clinic	\$17		
St. Croix Regional Medical Center	\$17		
CentraCare Health	\$18		
St. Luke's Clinics	\$19		
Park Nicollet Clinic	\$20		
State Average	\$20	\$13	\$9
Sanford Bagley	\$20		
HealthPartners Clinics	\$20		
Minneapolis Clinic of Neurology	\$22		
Allina Health Clinics	\$22		
Sanford Health - Sioux Falls Region	\$24		
Essentia Health East	\$28		
Fairview Mesaba Clinics	\$29		
The Orthopaedic & Fracture Clinic	\$29		
Gundersen Health System	\$33		
Affiliated Community Medical Centers	\$33		
Mayo Clinic - Rochester	\$36		
Fairview Health Services	\$38		
Avera Medical Group	\$44		
Mayo Clinic Health System - Eau Claire Clinic	\$79		

Table 5: Average Cost per Procedure for Eye Exam New Patient

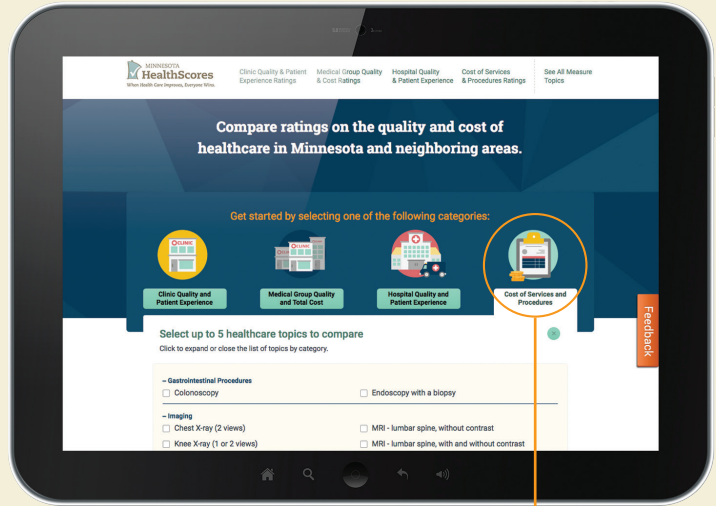
Medical Group	Average Commercial Cost	2016 Government Fee Schedule (when comparable)	
		Medicare	Medicaid
Glenwood Medical Center	\$110		
Stevens Community Medical Center	\$134		
North Suburban Eye Specialists	\$138		
Northern Eye Center, P.A.	\$143		
Affiliated Community Medical Centers	\$148		
St. Cloud Eye Clinic	\$158		
Gundersen Health System	\$163		
Mayo Clinic Health System - Fairmont	\$165		
FirstLight Health System	\$172		
Sanford Bagley	\$174		
Avera Medical Group - Marshall	\$180		
West Metro Ophthalmology, PA	\$182		
Open Cities Health Center	\$182		
Minnesota Eye Consultants	\$183		
Lexington Eye Associates	\$185		
Allina Health Clinics	\$190		
HealthPartners Clinics	\$191		
Eye Care Associates, PA	\$195		
Crosby Eye Clinic	\$196		
Associated Eye Care	\$197		
Regional Eye Specialists	\$198		
Retina Center of Minnesota	\$198		
State Average	\$198	\$150	\$107
Bonner Eye Clinic	\$198		
Claris Eye Care & Surgery	\$199		
Edina Retina Consultants	\$201		

Table 5: Average Cost per Procedure for Eye Exam New Patient (Continued)

Medical Group	Average Commercial Cost	2016 Government Fee Schedule (when comparable)	
		Medicare	Medicaid
Park Nicollet Clinic	\$202		
Mayo Clinic Health System - Franciscan Medical Center	\$204		
Mayo Clinic Health System - Eau Claire Clinic	\$206		
VitreoRetinal Surgery, PA	\$209		
Winona Health	\$209		
Mayo Clinic Health System - Albert Lea & Austin	\$210		
Northwest Eye Clinic	\$211		
Community University Health Care Center	\$211		
Edina Eye Physicians & Surgeons PA	\$213		
St. Paul Eye Clinic	\$221		
Mayo Clinic Health System - Owatonna	\$224		
Lake Region Medical Group PA	\$225		
Lakeview Clinic, Ltd.	\$225		
Weis Eye Center, PA	\$226		
Olmsted Medical Center	\$233		
Mayo Clinic Health System - Red Wing	\$236		
Essentia Health West	\$239		
St. Luke's Clinics	\$250		
Mayo Clinic - Rochester	\$257		
Relf EyeCare Specialists	\$259		
Fairview Health Services	\$281		
University of Minnesota Physicians	\$302		
Mankato Clinic	\$316		
Essentia Health East	\$335		

Access average cost for 118 medical procedures at MNHealthScores.org

MNHealthScores.org features consumer friendly data displays that represent best practices gleaned from more than a decade of academic research on consumer interpretation of health care cost and quality data displays. This provides consumers with important context to understand the rates.



Costs for a particular group

Cost of Services and Procedures

Select up to 5 healthcare topics to compare
Click to expand or close the list of topics by category.

- Eye Care (1)**
 - Eye Exam and Treatment Established Patient
 - Eye Exam New Patient
 - Determine Refractive State
 - Visual Acuity Screen
 - Eye Exam Established Patient
- Gastrointestinal Procedures**
 - Colonoscopy
 - Endoscopy with a biopsy
- Imaging**
- Laboratory**
- Medical Services**
- Mental Health Services**
- Obstetrical Services**
- Office Visits**
- Physical Therapy**
- Surgical Procedures**
- Total Cost of Care**
 - Total Cost: Adults
 - Total Cost: Pediatrics
 - Total Cost: Overall

Optional Filters:
Find by name: Type Medical Group Name

Or find by location: Within 5 miles of

SHOW RATINGS

Clinic Quality and Patient Experience
Use our clinic quality and patient

Medical Group Quality and Total Cost

Hospital Quality and Patient Experience

Cost of Services and Procedures

SELECT A HEALTH TOPIC FOR DETAILED RATINGS

QUALITY MEASURES | **PROCEDURE COST** | STANDARD VIEW | DETAILS VIEW | LEGEND

PROCEDURE COST | AVERAGE

Office Visits	PROCEDURE COST	AVERAGE
OFFICE VISIT, NEW PATIENT, 30 MINUTES	\$161	\$227
OFFICE VISIT, NEW PATIENT, 20 MINUTES	\$107	\$151
OFFICE VISIT, ESTABLISHED PATIENT, 15 MINUTES	\$106	\$140
OFFICE VISIT, ESTABLISHED PATIENT, 10 MINUTES	\$62	\$83
OFFICE VISIT, ESTABLISHED PATIENT, 25 MINUTES	\$165	\$225
OFFICE VISIT, ESTABLISHED PATIENT, 40 MINUTES	\$228	\$322

Compare ratings
Select & compare up to 3 medical groups

Refine results by name or location:

ADD OR CHANGE COLUMN TOPICS

- CT - lower extremity, without contrast
- Knee X-ray (1 or 2 views)

Medical Group	PROCEDURE COST	AVERAGE
Park Nicollet Health Services ST. LOUIS PARK, MN	\$385	\$60
University of Minnesota Physicians MINNEAPOLIS, MN	\$403	\$64

Section II: Total Cost of Care

The 2017 Cost & Utilization Report provides detailed analysis of the Total Cost of Care (TCOC) in Minnesota and neighboring states. It features data from community-wide reporting of total cost of care by medical group.

The methodology used for measuring total cost, resource use and price in this report is the Total Cost Index (TCI), which was developed by HealthPartners and is endorsed by the National Quality Forum (NQF).

Overview

TCOC is a measure of a medical group's risk adjusted cost effectiveness at managing the patients that it cares for. The results in this report are based on 2016 dates of service claims data from the four Minnesota-based health plans with the largest commercially-insured patient populations: Blue Cross and Blue Shield of Minnesota, HealthPartners, Medica and PreferredOne. The information is based on the actual costs of 1.5 million patients with total costs of more than \$8 billion in 2016.

Patients were attributed (assigned) to medical groups based on the number of office-based primary care visits during the year. The medical group that the patient visited most frequently for Family Practice, Pediatric, Obstetrics and Gynecology or Internal Medicine services was considered the patient's primary care medical group. All patient costs throughout the year were assigned to that primary care group. The methodology includes risk adjustment and outlier truncation to ensure that results are not skewed for medical groups with the sickest, most complex patients. Full details on the methodology are available in Appendix 1.

Once the TCOC calculations were completed and validated, medical groups were given the opportunity to review their

own results. As is the standard process, MNCM allows a review period and appeal process for any groups with concerns about the validity of their results.

Statewide Results

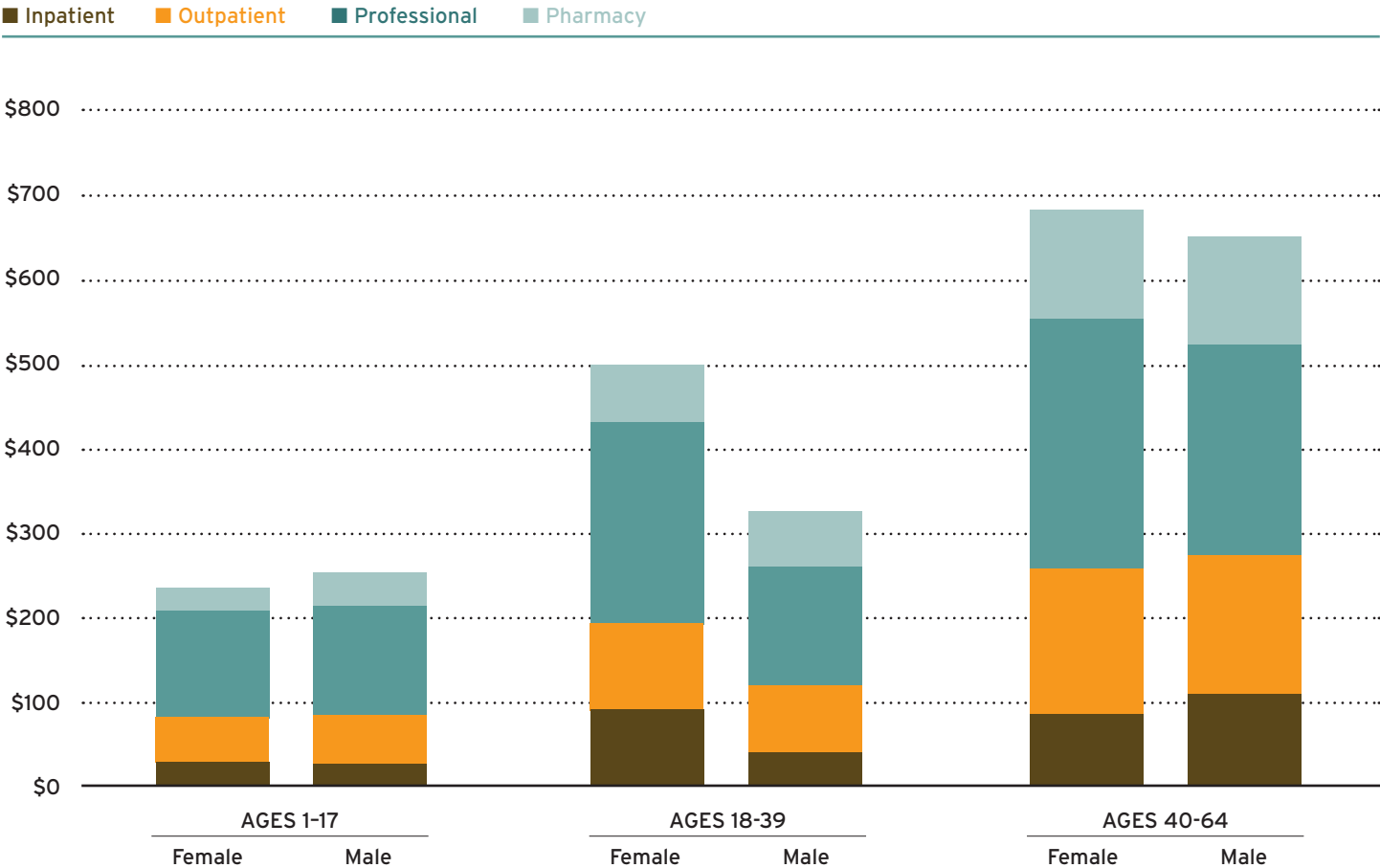
The total cost of medical care per person increased 3.4 percent from 2015 to 2016 for commercially-insured patients, \$474 to \$490. The increase was 5.6 percent between 2014 and 2015.

With 1.5 million patients that accrued more than \$8 billion in health care costs during 2016, 236 medical groups had at least one patient attributed to them. However, groups with at least 600 attributed patients are included in public reporting. As a result, 122 medical groups are publicly reported this year.

The goal of the TCOC measure is to provide directional guidance to help medical groups better identify potential challenges and then take action to reduce their costs and provide more efficient care. One way to do that is to evaluate the categories of care that are driving the majority of providers' costs.

Statewide Averages by Age and Gender

Figure 3: Total Cost of Care 2016, Statewide per Patient per Month by Type of Care, Age and Gender



Above rates are not risk adjusted.

Table 6: Total Cost of Care 2016: Statewide per Patient per Month, by Type of Care, Age and Gender

		Inpatient	Outpatient	Professional	Pharmacy	Total
Ages 1-17	Female	\$28	\$54	\$127	\$27	\$236
	Male	\$26	\$58	\$131	\$39	\$254
Ages 18-39	Female	\$90	\$103	\$239	\$67	\$499
	Male	\$39	\$82	\$140	\$66	\$327
Ages 40-64	Female	\$85	\$174	\$294	\$129	\$682
	Male	\$108	\$167	\$248	\$128	\$651
Ages 1-64	Female	\$73	\$124	\$238	\$87	\$522
	Male	\$66	\$113	\$186	\$86	\$451
All Patients		\$70	\$119	\$215	\$87	\$490

Table 7: Total Cost of Care: Dollars Removed Due to Outlier Limit

Dollars removed from analysis due to \$100,000 per patient limit. To create a fair comparison, patient costs above \$100,000 per patient per year are excluded from the analysis, as a result, 9.9 percent of the total dollars were removed.

		Dollars per Month	Percent of Dollars
Ages 1-17	Female	\$24	9.1%
	Male	\$29	10.2%
Ages 18-39	Female	\$24	4.5%
	Male	\$42	11.3%
Ages 40-64	Female	\$70	9.3%
	Male	\$103	13.7%
Ages 1-64	Female	\$45	7.9%
	Male	\$66	12.7%
All Patients		\$54	9.9%

As seen in **Table 6** (above), males may have a lower overall cost of care (\$451 for males compared to \$522 for females). However, as seen in **Table 7**, males are more likely to have more expensive catastrophic medical events, with 12.7 percent of total spending for males and only 7.9 percent for females removed due to outlier limit.

DEFINITIONS

Inpatient: payment for facility during an inpatient stay; UB04 claims with a room and board fee.

Outpatient: payment for a facility that does not result in an inpatient stay, includes Emergency Room fees; UB04 claims without a room and board fee.

Professional: All payments for physicians, other health care professionals and ancillary services; All CMS1500 claims regardless of site of service.

Pharmacy: all payments to pharmacy benefit, majority of payments are for take home pharmacy costs.

Trend over Time

MNCM has produced the Total Cost of Care measure for four years. The overall increase was 3.1 percent from 2013 to 2014, 5.6 percent from 2014 to 2015, and 3.4 percent from 2015 to 2016.

Table 8: Total Cost of Care per Patient per Month 2013 to 2016

	Inpatient	Outpatient	Professional	Pharmacy	Total
2013	\$71	\$102	\$193	\$70	\$436
2014	\$70	\$106	\$196	\$77	\$449
2015	\$70	\$112	\$208	\$85	\$474
2016	\$70	\$119	\$215	\$87	\$490
2013-2014	-1.4%	4.6%	1.4%	10.3%	3.1%
2014-2015	-0.1%	5.8%	6.0%	9.3%	5.6%
2015-2016	0.7%	5.9%	3.3%	2.3%	3.4%

Figure 4: Total Cost of Care, Commercial Patients 2013 to 2016, per Patient per Month

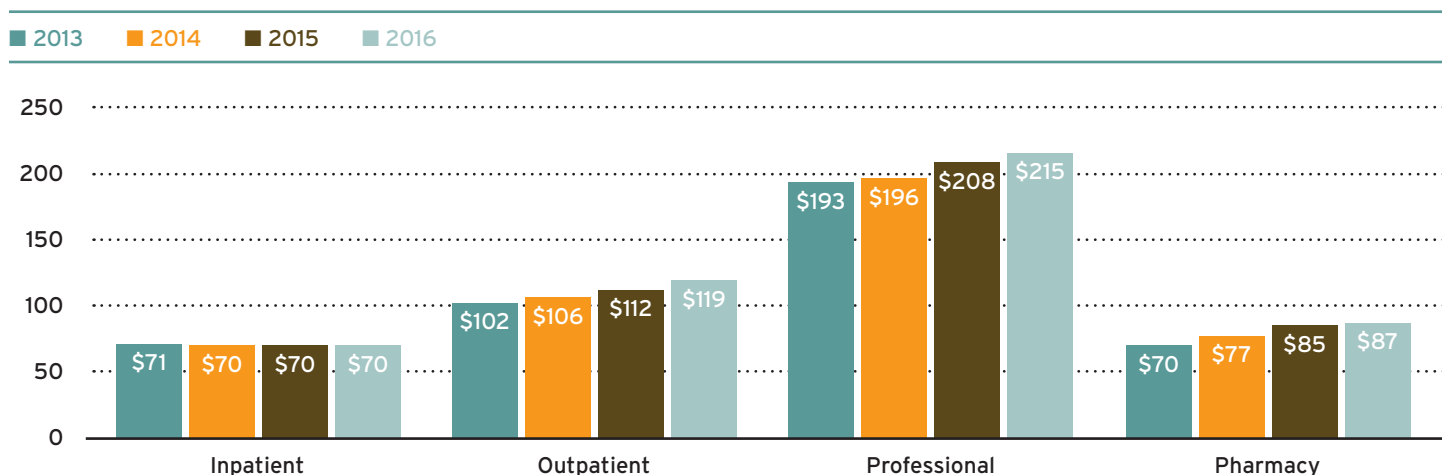


Table 8 and Figure 4 show that the largest component of health care costs for commercial patients is professional fees, mainly physician fees. The fastest rate of growth between 2015 and 2016 is for hospital outpatient costs (5.9 percent), whereas the hospital inpatient costs have remained flat over the past four years.

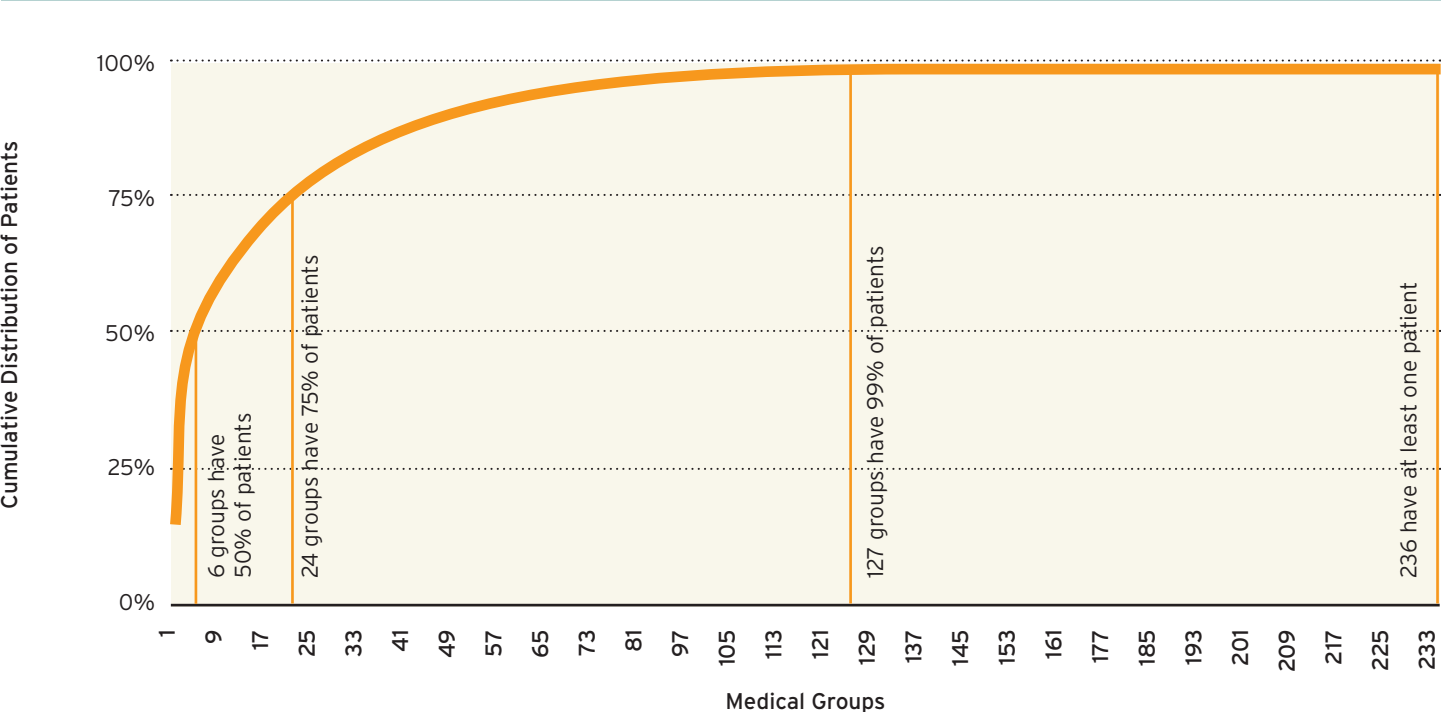
Table 9: Total Cost of Care Measure, Patient and Dollar Totals

	Adult	Children	All
Patients Attributed	1,104,402	389,172	1,493,574
Attributed and Reportable	1,088,959	385,555	1,474,514
Total Paid	\$7,238,614,898	\$1,092,619,765	\$8,331,234,662
Risk Adjusted Cost of Care per Month	\$576	\$245	\$490

Size of Medical Group

Figure 5 shows that six medical groups care for 50 percent of all the patients accounted for in this measure. The additional 230 medical groups care for the other half of the patients. In fact, 24 groups provide care for 75 percent of patients in this market out of 236 total medical groups.

Figure 5: Distribution of Attributed Patients by Medical Group



The six largest medical groups are:

- Allina Health System
- Fairview Medical Group
- HealthPartners Clinics
- CentraCare
- HealthEast
- Park Nicollet Health Services

Regional Results

Just as variation between medical groups can be seen in the TCOC measure, variation between regions of Minnesota and neighboring states is also evident.

The regional analysis is calculated by using the proportion of clinic addresses per region per medical group. The regions are assigned by clinic location, not by patients' residences.

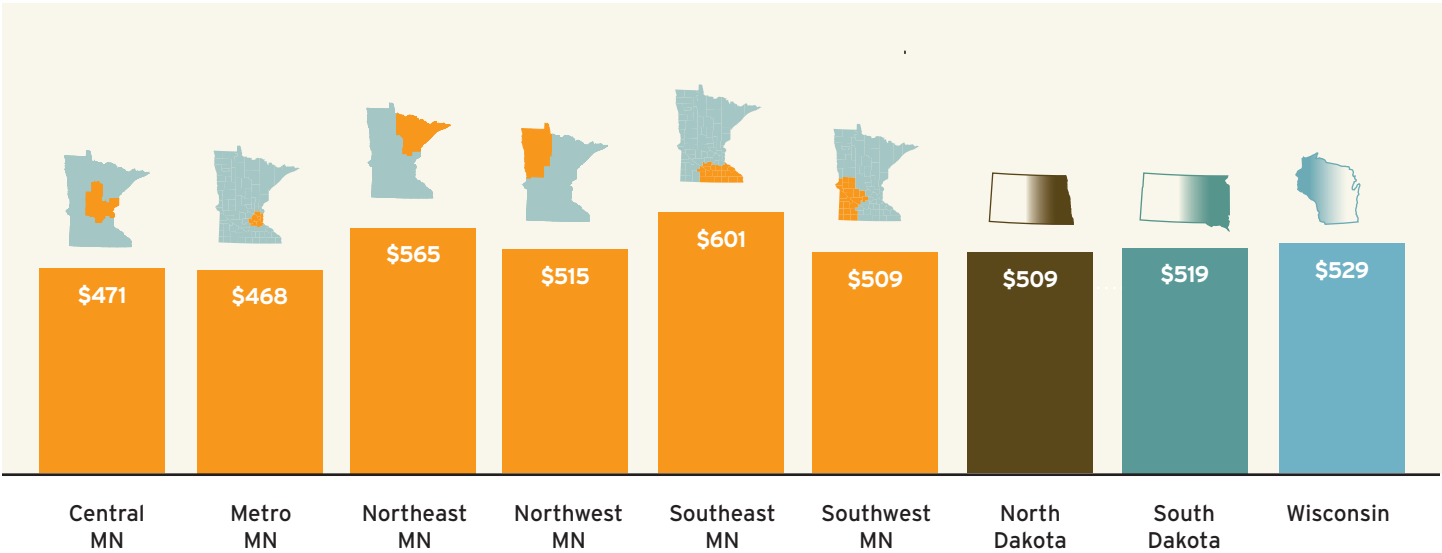
The results are broken into nine regions: six areas within Minnesota (Central, Metro, Northeast, Northwest, Southeast and Southwest), North Dakota, South Dakota and Wisconsin. The regions assigned to each medical group are noted in Appendix 2.

All 1.5 million patients and all 236 medical groups that had at least one patient attributed to them are included in this regional analysis.

The Metro region includes 55 percent of all available primary care clinic locations and 64 percent of all patients in this measure. This size difference between the Metro region and the other eight regions means the Metro region, by default, has a larger impact on the overall average. Certainly, some regions are dominated by a small number of medical groups (e.g., Sanford Health in Eastern South Dakota). However, there is still significant variation between the regions and the analysis is valuable as travel is not always an option for patients.

As indicated in **Figure 6**, the Minneapolis/St. Paul Metro region has the lowest cost at \$468 per patient per month (pppm), on a risk adjusted basis; the Southeast region of Minnesota has the highest cost at \$601 ppm.

Figure 6: Total Cost of Care by Region, Risk Adjusted per Patient per Month



Adult Patients

The Minneapolis/St. Paul Metro region has the lowest cost per adult patient at \$544, followed by the Central Minnesota region at \$552 ppm on a risk adjusted basis. The Southeast region has the highest cost at \$714 ppm. This is illustrated in **Figure 7**.

Pediatric Patients

The South Dakota region has the lowest cost per pediatric patient at \$222 ppm, followed by the Northwest Region at \$223 ppm on a risk adjusted basis. The Northeast and Southeast Minnesota regions have the highest, both at \$276 ppm. This is illustrated in **Figure 8**.

Figure 7: Total Cost of Care: Adult Patients by Region, Risk Adjusted per Patient per Month

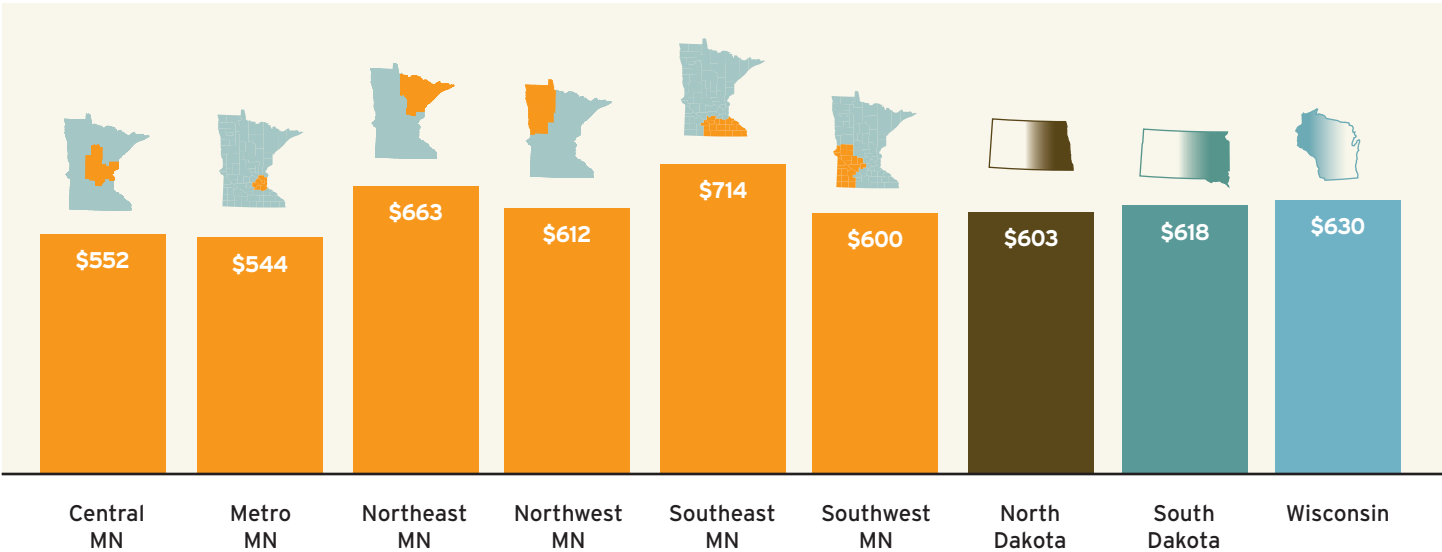
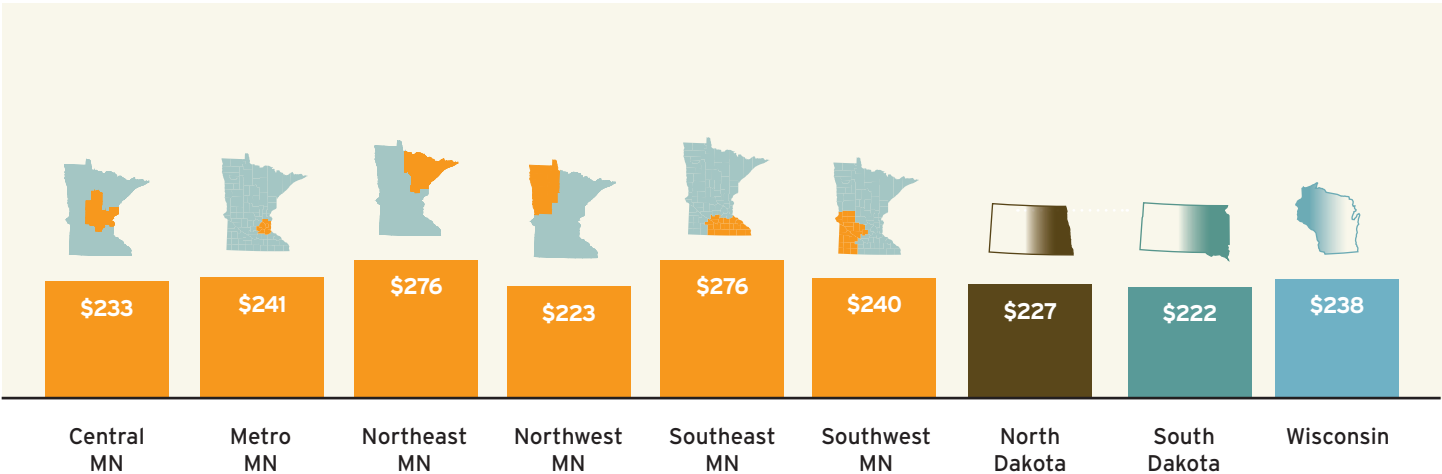


Figure 8: Total Cost of Care: Pediatric Patients by Region, Risk Adjusted per Patient per Month



Medical Group Results

Table 10: Total Cost of Care - Medical Group Results (2016 dates of service)

Medical Group	Risk Adjusted Cost of Care per Patient per Month			Total Cost Index Compared to State Average			HealthScore		
	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children
AALFA Family Clinic	\$432	\$487	\$260	-12%	-15%	6%	Lower	Lower	Average
Adefris & Toppin Women's Specialists	\$514	\$602		5%	5%		Average	Average	
Affiliated Community Medical Centers	\$509	\$599	\$244	4%	4%	0%	Average	Average	Average
Alexandria Clinic	\$464	\$538	\$248	-6%	-7%	1%	Average	Average	Average
All About Children Pediatrics	\$569		\$280	16%		14%	Average		Average
Allina Health Clinics	\$485	\$567	\$239	-1%	-1%	-2%	Average	Average	Average
Altru Health System	\$595	\$711	\$249	21%	23%	2%	Average	Average	Average
Amery Hospital and Clinic	\$491	\$593	\$190	0%	3%	-22%	Average	Average	Lower
Apple Valley Medical Clinic	\$466	\$544	\$239	-5%	-5%	-2%	Average	Average	Average
Avera Medical Group	\$590	\$711	\$226	20%	23%	-8%	Average	Average	Average
Avera Medical Group - Marshall	\$521	\$635		6%	10%		Average	Average	
Baldwin Area Medical Center	\$533	\$632		8%	10%		Average	Average	
Burnsville Family Physicians	\$429	\$503		-13%	-13%		Lower	Lower	
Catalyst Medical Clinic	\$435	\$514		-11%	-11%		Average	Average	
CentraCare Health	\$471	\$551	\$237	-4%	-4%	-3%	Average	Average	Average
Central Pediatrics	\$500	\$666	\$247	2%	16%	1%	Average	Average	Average
CHI St. Gabriel's Health: Family Medical Center	\$462	\$544	\$219	-6%	-6%	-11%	Average	Average	Average
Children's Clinic Network	\$481	\$596	\$239	-2%	4%	-3%	Average	Average	Average
Children's Minnesota	\$741		\$364	51%		49%	Higher		Higher
Clinic Sofia Ob/Gyn	\$483	\$565		-2%	-2%		Average	Average	
Community University Health Care Center	\$386	\$452		-21%	-21%		Lower	Lower	
Comprehensive Healthcare For Women	\$440	\$513		-10%	-11%		Average	Average	
Cuyuna Regional Medical Center	\$507	\$595	\$247	3%	3%	1%	Average	Average	Average
Dakota Pediatrics, P.A.	\$422			-14%			Lower		
Dulcimer Medical Center	\$501	\$584		2%	1%		Average	Average	
Eagan Valley Pediatrics	\$607		\$312	23%		27%	Average		Higher
Edina Sports + Family Medicine	\$447	\$524		-9%	-9%		Average	Average	
Entira Family Clinics	\$447	\$523	\$220	-9%	-9%	-10%	Average	Average	Average
Essentia Health Central	\$443	\$518	\$226	-10%	-10%	-8%	Average	Average	Average
Essentia Health East	\$595	\$697	\$294	21%	21%	20%	Average	Average	Average
Essentia Health West	\$486	\$577	\$217	-1%	0%	-11%	Average	Average	Average
Fairview Health Services	\$460	\$538	\$232	-6%	-7%	-5%	Average	Average	Average
Fairview Mesaba Clinics	\$561	\$652	\$295	14%	13%	21%	Average	Average	Higher
Family Practice Medical Center of Willmar	\$487	\$569	\$250	-1%	-1%	2%	Average	Average	Average
FamilyHealth Medical Clinics	\$516	\$615	\$230	5%	7%	-6%	Average	Average	Average
FirstLight Health System	\$564	\$673	\$226	15%	17%	-8%	Average	Average	Average

Continued

Table 10: Total Cost of Care - Medical Group Results (2016 dates of service) (Continued)

Medical Group	Risk Adjusted Cost of Care per Patient per Month			Total Cost Index Compared to State Average			HealthScore		
	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children
Foley Medical Center	\$449	\$522		-9%	-9%		Average	Average	
France Avenue Family Physicians	\$405	\$475		-18%	-18%		Lower	Lower	
Fridley Children's & Teenagers' Medical Center	\$510		\$260	4%		6%	Average		Average
Gateway Family Health Clinic	\$567	\$660	\$295	15%	15%	21%	Average	Average	Higher
Glencoe Regional Health Services	\$515	\$606	\$244	5%	5%	0%	Average	Average	Average
Glenwood Medical Center	\$504	\$595		3%	3%		Average	Average	
Grand Itasca Clinic	\$475	\$556	\$236	-3%	-3%	-4%	Average	Average	Average
Gundersen Health System	\$673	\$810	\$260	37%	41%	6%	Higher	Higher	Average
HealthEast	\$470	\$545	\$250	-4%	-5%	2%	Average	Average	Average
HealthPartners Clinics	\$450	\$523	\$234	-9%	-9%	-4%	Average	Average	Average
Hennepin Healthcare System	\$443	\$518	\$219	-10%	-10%	-10%	Average	Average	Average
Hudson Physicians	\$453	\$528	\$233	-8%	-8%	-5%	Average	Average	Average
Hutchinson Health	\$502	\$592	\$234	2%	3%	-4%	Average	Average	Average
John A. Haugen Associates, PA	\$460	\$538		-6%	-7%		Average	Average	
Lake Region Medical Group PA	\$492	\$590	\$198	0%	2%	-19%	Average	Average	Lower
Lake View Clinic - Two Harbors	\$539	\$637		10%	11%		Average	Average	
Lakeview Clinic, Ltd.	\$467	\$546	\$234	-5%	-5%	-4%	Average	Average	Average
Lakewood Health System	\$548	\$649	\$255	12%	13%	4%	Average	Average	Average
Mankato Clinic	\$516	\$597	\$276	5%	4%	13%	Average	Average	Average
Mayo Clinic - Rochester	\$977	\$1,145	\$476	99%	99%	94%	Higher	Higher	Higher
Mayo Clinic Health System - Chippewa Valley	\$698	\$844		42%	47%		Higher	Higher	
Mayo Clinic Health System - Eau Claire Clinic	\$755	\$906	\$307	54%	57%	25%	Higher	Higher	Higher
Mayo Clinic Health System - Fairmont	\$587	\$697		19%	21%		Average	Average	
Mayo Clinic Health System - Franciscan Medical Center	\$731	\$871		49%	51%		Higher	Higher	
Mayo Clinic Health System - Mankato	\$563	\$667	\$249	14%	16%	2%	Average	Average	Average
Mayo Clinic Health System - New Prague	\$491	\$580	\$227	0%	1%	-7%	Average	Average	Average
Mayo Clinic Health System - Northland	\$716	\$859		46%	49%		Higher	Higher	
Mayo Clinic Health System - Red Wing	\$621	\$736	\$269	26%	28%	10%	Higher	Average	Average
Mayo Clinic Health System - St. James	\$590	\$696		20%	21%		Average	Average	
Mayo Clinic Health System - Waseca	\$590	\$708		20%	23%		Average	Average	
Mayo Clinic Health System - Albert Lea and Austin	\$624	\$729	\$308	27%	27%	26%	Higher	Average	Higher
Mayo Clinic Health System - Cannon Falls	\$765	\$896		56%	56%		Higher	Higher	
Mayo Clinic Health System - Lake City	\$674	\$796		37%	38%		Higher	Higher	
Mayo Clinic Health System - Owatonna	\$595	\$713	\$250	21%	24%	2%	Average	Average	Average
Mayo Clinic Health System - Red Cedar	\$706	\$845	\$301	44%	47%	23%	Higher	Higher	Higher
Mendakota Pediatrics	\$456		\$225	-7%		-8%	Average		Average

Continued

Table 10: Total Cost of Care - Medical Group Results (2016 dates of service) (Continued)

Medical Group	Risk Adjusted Cost of Care per Patient per Month			Total Cost Index Compared to State Average			HealthScore		
	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children
Mille Lacs Clinics	\$494	\$574		0%	0%		Average	Average	
Montevideo Medical Clinic	\$530	\$627		8%	9%		Average	Average	
Multicare Associates of the Twin Cities	\$440	\$513	\$228	-11%	-11%	-7%	Average	Average	Average
North Clinic	\$430	\$501	\$224	-13%	-13%	-8%	Lower	Lower	Average
North Memorial Clinic	\$462	\$542	\$215	-6%	-6%	-12%	Average	Average	Average
Northern Lights Pediatric and Adolescent Medicine	\$532		\$268	8%		9%	Average		Average
NorthPoint Health and Wellness Center	\$653	\$788		33%	37%		Higher	Higher	
Northwest Family Physicians	\$447	\$520	\$240	-9%	-10%	-2%	Average	Average	Average
Oakdale Ob/Gyn	\$472	\$552		-4%	-4%		Average	Average	
Obstetrics & Gynecology Associates	\$483	\$565		-2%	-2%		Average	Average	
Olmsted Medical Center	\$660	\$782	\$297	34%	36%	21%	Higher	Higher	Higher
Ortonville Area Health Services	\$545	\$656		11%	14%		Average	Average	
Osceola Medical Center	\$514	\$616		4%	7%		Average	Average	
Park Nicollet Clinic	\$460	\$533	\$251	-6%	-7%	2%	Average	Average	Average
Parkview Medical Clinic	\$439	\$506		-11%	-12%		Average	Lower	
Parkway Family Physicians	\$517	\$604		5%	5%		Average	Average	
Pediatric and Young Adult Medicine	\$445		\$224	-10%		-9%	Average		Average
Pediatric Services - Children's Physician Network	\$502		\$245	2%		0%	Average		Average
Pipestone Family Clinic, Avera	\$618	\$739		26%	28%		Average	Higher	
Planned Parenthood MN, ND, SD	\$441	\$505		-10%	-12%		Average	Lower	
Prairie Ridge Hospital & Health Services	\$631	\$741		28%	29%		Higher	Higher	
Raiter Clinic	\$582	\$686		18%	19%		Average	Average	
Renville County Hospital & Clinics	\$586	\$702		19%	22%		Average	Average	
Richfield Medical Group	\$475	\$553		-3%	-4%		Average	Average	
Ridgeview Clinics	\$472	\$553	\$225	-4%	-4%	-8%	Average	Average	Average
Ridgeview Sibley Medical Center	\$456	\$541		-7%	-6%		Average	Average	
Riverview Clinics	\$572	\$696	\$211	16%	21%	-14%	Average	Average	Average
Riverwood Aitkin Clinic	\$625	\$744		27%	29%		Higher	Higher	
Sanford Bagley	\$496	\$586	\$227	1%	2%	-7%	Average	Average	Average
Sanford Health - Sioux Falls Region	\$514	\$612	\$222	4%	6%	-9%	Average	Average	Average
Sartell Pediatrics	\$467		\$228	-5%		-7%	Average		Average
Sawtooth Mountain Clinic	\$607	\$709		23%	23%		Average	Average	
Scenic Rivers Health Services	\$671	\$785		36%	36%		Higher	Higher	
Sleepy Eye Medical Center	\$624	\$733		27%	27%		Higher	Average	
South Lake Pediatrics	\$444	\$594	\$217	-10%	3%	-11%	Average	Average	Average
Southdale Pediatric Associates	\$470	\$601	\$232	-4%	4%	-5%	Average	Average	Average

Continued

Table 10: Total Cost of Care - Medical Group Results (2016 dates of service) (Continued)

Medical Group	Risk Adjusted Cost of Care per Patient per Month			Total Cost Index Compared to State Average			HealthScore		
	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children
St. Croix Regional Medical Center	\$489	\$574	\$243	0%	0%	-1%	Average	Average	Average
St. Luke's Clinics	\$527	\$621	\$244	7%	8%	0%	Average	Average	Average
Stellis Health, PA	\$423	\$496	\$208	-14%	-14%	-15%	Lower	Lower	Average
Stevens Community Medical Center	\$601	\$719	\$258	22%	25%	5%	Average	Average	Average
Synergy Family Physicians, PA	\$466			-5%			Average		
United Family Medicine	\$467	\$534		-5%	-7%		Average	Average	
United Hospital District Clinics	\$569	\$673		16%	17%		Average	Average	
University of Minnesota Physicians	\$587	\$667	\$408	19%	16%	67%	Average	Average	Higher
Vibrant Health Family Clinics	\$461	\$543	\$225	-6%	-6%	-8%	Average	Average	Average
Wadena Medical Center	\$597	\$708	\$263	21%	23%	7%	Average	Average	Average
Wayzata Children's Clinic	\$478	\$542	\$241	-3%	-6%	-2%	Average	Average	Average
West Side Community Health Services	\$488	\$584		-1%	1%		Average	Average	
Westfields Hospital and Clinic	\$503	\$599	\$217	2%	4%	-11%	Average	Average	Average
Winona Health	\$604	\$713	\$280	23%	24%	14%	Average	Average	Average

HealthScore is a rating found on MN Community Measurement's consumer-oriented website, MNHealthScores.org. The Total Cost of Care (TCOC) measure results are noted with the following four rating options; higher than average, average, lower than average and not reportable.

Standard methodology for TCOC results on MNHealthScores:

- Higher than Average = Any medical group whose result for that measure is above one standard deviation of the mean cost for all medical groups in the measure.
- Average = Any medical group whose result for that measure is within one standard deviation of the mean cost for all medical groups in the measure.
- Lower than Average = Any medical group whose result for that measure is below one standard deviation of the mean cost for all medical groups in the measure.
- Not Reportable = Any medical group that does not have a publicly-reported result for that measure.

In reading the HealthScore, lower than average is considered better as it indicates lower cost compared to the statewide average.

Section III: Resource Use and Price Index

Total Cost is driven by both the amount of resources consumed and the price of each resource. To determine the reasons for cost variation, the analysis separates prices and resources used.

MNCM began publishing the Total Cost of Care (TCOC) measure for commercial patients in 2014. The measure demonstrates the variation in total cost across medical groups on a risk adjusted per patient basis.

$$\text{Total Cost} = \text{Price} \times \text{Utilization}$$

While the TCOC measure is useful in showing variation, it does not necessarily answer the question of “why?” Is the variation because of price or utilization? If we neutralize the price, then:

$$\text{Relative Resource Use (RRU)} = \frac{\text{Common Neutral Price}}{\text{Price}} \times \text{Utilization}$$

RRU is listed as a ratio. If the medical group has an RRU greater than 1.0, its patients are receiving more units of service than average, after accounting for the difference in patients.

Example Results:

Figure 9: Total Cost of Care Example with Resource Use and Price Index

	Medical Group A		Medical Group B	
	Total		Total	Market Average
Total Cost Index	0.999		0.999	1.00
Resource Use - TCRRV	1.139		0.937	1.00
Price Index	0.877		1.066	1.00

The above is a real example of two medical groups. Both groups, as seen by the **0.999 Total Cost Index** results, have the same total cost of care but the reasons for the results are different. Group A has a higher rate of services or resources used for their patients (**1.139** resource used index vs. **0.937** for Group B) but at a lower price point (**0.877** from Group A and **1.066** for Group B).

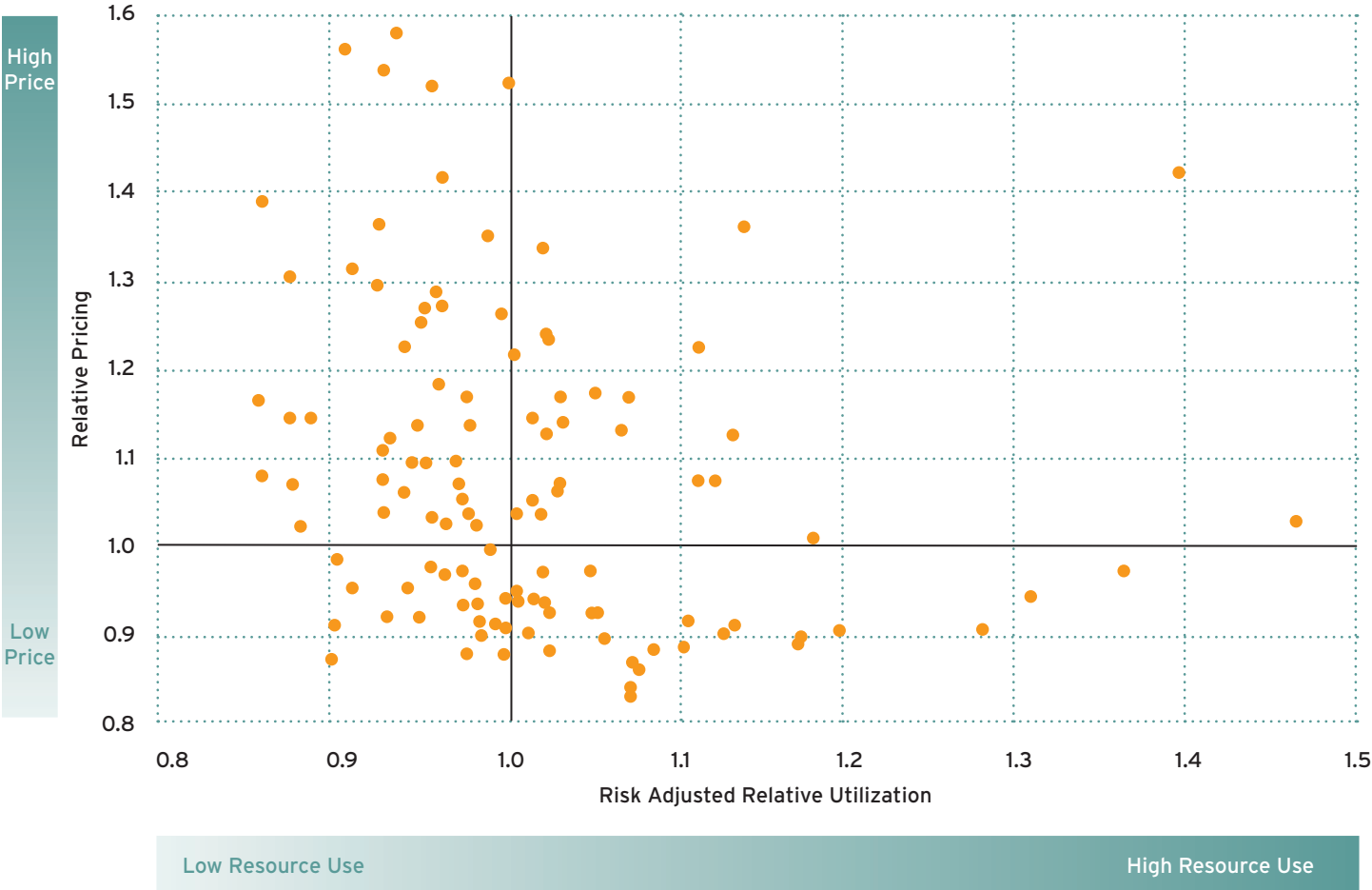
The MNCM Cost Technical Advisory Group recommended that the RRU be calculated using the HealthPartners TCRRV™ methodology. This method uses the same input data as TCOC, same claims, patients, time period and risk adjustment.

Since the input data is the same for TCOC and RRU, the only difference between the two ratios is the price, therefore:

$$\text{Price Index} = \text{TCOC} / \text{RRU}$$

If the Price Index is greater than 1.0, patients being seen at that medical group, on average, are paying a higher than average price per unit. Please note: This is a directional number and cannot be used to determine specific fee schedule prices.

Figure 10: Relative Resource Use Vs. Relative Price Per Unit by Medical Group 2016



Regional Results

Table 11 isolates cost and its components, Relative Resource Use and Price Index, by region. This table shows at the regional level a small variation of resource use. There is however, substantial variation in price.

Table 11: Cost, Resource and Price Index by Region

	Central MN	Metro MN	Northeast MN	Northwest MN	Southeast MN	Southwest MN	North Dakota	South Dakota	Wisconsin
Cost Ratio by Region - Compared to State Average									
Cost Index	0.96	0.96	1.15	1.05	1.23	1.04	1.04	1.06	1.08
Relative Resource	0.98	1.01	1.02	1.00	1.00	0.98	1.00	0.99	0.98
Price Index	0.98	0.95	1.13	1.05	1.23	1.06	1.03	1.07	1.10

Tables 12 breaks out the cost by major categories of inpatient facility, outpatient facility, physician and other professional and pharmacy costs. The Metro area has lower outpatient facility cost compared to other regions.

Table 12: Cost Ratio by Region and Type of Service (1.0 = Market Average)

	Central MN	Metro MN	Northeast MN	Northwest MN	Southeast MN	Southwest MN	North Dakota	South Dakota	Wisconsin
Inpatient Facility	0.99	0.94	1.15	1.12	1.21	1.16	1.08	1.19	1.03
Outpatient Facility	1.11	0.82	1.43	1.52	1.32	1.31	1.40	1.60	1.40
Physician and other professionals	0.87	0.99	1.10	0.78	1.34	0.91	0.82	0.75	0.97
Pharmacy	0.95	1.04	0.90	0.97	0.95	0.90	1.00	0.95	0.94
Total	0.96	0.96	1.15	1.05	1.23	1.04	1.04	1.06	1.08

Table 13 shows that providers in the Metro region use hospital outpatient services less than the rest of the region and more professional services.

Table 13: Relative Resource Use by Region and Type of Service (1.0 = Market Average)

	Central MN	Metro MN	Northeast MN	Northwest MN	Southeast MN	Southwest MN	North Dakota	South Dakota	Wisconsin
Inpatient Facility	0.99	0.99	1.07	1.15	1.07	1.09	1.15	1.10	1.01
Outpatient Facility	1.07	0.93	1.16	1.19	1.06	1.09	1.16	1.32	1.19
Physician and other professionals	0.94	1.03	0.97	0.87	0.98	0.92	0.89	0.82	0.90
Pharmacy	0.96	1.02	0.94	0.99	0.97	0.95	1.01	0.96	0.95
Total	0.98	1.01	1.02	1.00	1.00	0.98	1.00	0.99	0.98

Table 14 shows that the Northwest region has the lowest physician and other professional prices compared to other regions.

Table 14: Price Ratio by Region and Type of Service (1.0 = Market Average)

	Central MN	Metro MN	Northeast MN	Northwest MN	Southeast MN	Southwest MN	North Dakota	South Dakota	Wisconsin
Inpatient Facility	1.00	0.95	1.08	0.98	1.13	1.06	0.93	1.08	1.02
Outpatient Facility	1.03	0.88	1.24	1.27	1.25	1.20	1.21	1.22	1.17
Physician and other professionals	0.92	0.96	1.13	0.90	1.38	0.99	0.93	0.91	1.07
Pharmacy	0.99	1.01	0.96	0.97	0.98	0.95	0.99	0.99	0.99
Total	0.98	0.95	1.13	1.05	1.23	1.06	1.03	1.07	1.10

Medical Group Results

Table 15: Cost Index, Resource Use and Price Index (2016 Dates of Service)

The lowest resource use is from Mayo Clinic Health System New Prague at 14 percent fewer resources used, after adjusting for patient risk. The highest resource use is Children's Minnesota at 47 percent more resources used, after adjusting for patient risk.

The lowest price index is Comprehensive Health Care for Women in Woodbury at 17 percent less than average, the highest price index is Mayo Clinic Health System - Franciscan Medical Center at 58 percent higher price index than average. Results are rounded to the nearest whole number.

	Total Cost Index	Relative Resource Use	Price Index		Total Cost Index	Relative Resource Use	Price Index
Compared to state average				Compared to state average			
AALFA Family Clinic	-12%	0%	-12%	Mayo Clinic Health System - New Prague	0%	-14%	16%
Adefris & Toppin Women's Specialists	5%	18%	-11%	Mayo Clinic Health System - Northland	46%	-4%	52%
Affiliated Community Medical Centers	4%	-5%	9%	Mayo Clinic Health System - Red Wing	26%	0%	26%
Alexandria Clinic	-6%	-1%	-4%	Mayo Clinic Health System - St. James	20%	-7%	29%
All About Children Pediatrics	16%	28%	-10%	Mayo Clinic Health System - Waseca	20%	-9%	31%
Allina Health Clinics	-1%	-1%	-1%	Mayo Clinic Health System - Albert Lea and Austin	27%	-7%	36%
Altru Health System	21%	13%	7%	Mayo Clinic Health System - Cannon Falls	56%	14%	36%
Amery Hospital and Clinic	0%	-6%	6%	Mayo Clinic Health System - Lake City	37%	-3%	42%
Apple Valley Medical Clinic	-5%	1%	-6%	Mayo Clinic Health System - Owatonna	21%	-4%	26%
Avera Medical Group	20%	12%	7%	Mayo Clinic Health System - Red Cedar	44%	-7%	54%
Avera Medical Group - Marshall	6%	2%	3%	Mendakota Pediatrics	-7%	8%	-14%
Baldwin Area Medical Center	8%	-5%	14%	Mille Lacs Clinics	0%	-12%	14%
Burnsville Family Physicians	-13%	-9%	-5%	Montevideo Medical Clinic	8%	-2%	11%
Catalyst Medical Clinic	-1%	-1%	-11%	Multicare Associates of the Twin Cities	-1%	-1%	-10%
CentraCare Health	-4%	1%	-5%	North Clinic	-13%	-5%	-8%
Central Pediatrics	2%	11%	-9%	North Memorial Clinic	-6%	-1%	-5%
CHI St. Gabriel's Health: Family Medical Center	-6%	0%	-6%	Northern Lights Pediatric And Adolescent Medicine	8%	20%	-10%
Children's Clinic Network	-2%	6%	-8%	NorthPoint Health And Wellness Center	33%	37%	-3%
Children's Minnesota	51%	47%	3%	Northwest Family Physicians	-9%	0%	-10%
Clinic Sofia Ob/Gyn	-2%	11%	-11%	Oakdale Ob/Gyn	-4%	9%	-12%
Community University Health Care Center	-21%	-10%	-13%	Obstetrics & Gynecology Associates	-2%	11%	-12%
Comprehensive Healthcare For Women	-10%	8%	-17%	Olmsted Medical Center	34%	-1%	35%
Cuyuna Regional Medical Center	3%	-7%	10%	Ortonville Area Health Services	11%	4%	7%
Dakota Pediatrics, P.A.	-14%	-2%	-12%	Osceola Medical Center	4%	-4%	9%
Dulcimer Medical Center	2%	-11%	15%	Park Nicollet Clinic	-6%	-3%	-3%
Eagan Valley Pediatrics	23%	31%	-6%	Parkview Medical Clinic	-11%	-9%	-2%
Edina Sports + Family Medicine	-9%	3%	-12%	Parkway Family Physicians	5%	18%	-11%
Entira Family Clinics	-9%	0%	-9%	Pediatric And Young Adult Medicine	-10%	-1%	-9%
Essentia Health Central	-10%	-12%	2%	Pediatric Services - Children's Physician Network	2%	13%	-10%
Essentia Health East	21%	4%	17%	Pipestone Family Clinic, Avera	26%	8%	17%
Essentia Health West	-1%	-3%	2%	Planned Parenthood MN, ND, SD	-10%	8%	-17%
Fairview Health Services	-6%	-4%	-3%	Prairie Ridge Hospital & Health Services	28%	14%	13%
Fairview Mesaba Clinics	14%	-3%	18%	Raiter Clinic	18%	4%	14%
Family Practice Medical Center Of Willmar	-1%	-4%	3%	Renville County Hospital & Clinics	19%	-5%	25%
FamilyHealth Medical Clinics	5%	-4%	9%	Richfield Medical Group	-3%	3%	-6%
FirstLight Health System	15%	-2%	17%	Ridgeview Clinics	-4%	3%	-7%
Foley Medical Center	-9%	-2%	-7%	Ridgeview Sibley Medical Center	-7%	-14%	8%
France Avenue Family Physicians	-18%	-10%	-9%	Riverview Clinics	16%	2%	14%
Fridley Children's & Teenagers' Medical Center	4%	14%	-9%	Riverwood Aitkin Clinic	27%	3%	24%
Gateway Family Health Clinic	15%	3%	12%	Sanford Bagley	1%	-1%	2%
Glencoe Regional Health Services	5%	1%	3%	Sanford Health - Sioux Falls Region	4%	-2%	7%
Glenwood Medical Center	3%	-2%	5%	Sartell Pediatrics	-5%	6%	-11%
Grand Itasca Clinic	-3%	-7%	4%	Sawtooth Mountain Clinic	23%	6%	17%
Gundersen Health System	37%	3%	33%	Scenic Rivers Health Services	36%	12%	22%
HealthEast	-4%	2%	-6%	Sleepy Eye Medical Center	27%	3%	23%
HealthPartners Clinics	-9%	2%	-10%	South Lake Pediatrics	-10%	-1%	-9%
Hennepin Healthcare System	-10%	-5%	-5%	Southdale Pediatric Associates	-4%	1%	-6%
Hudson Physicians	-8%	-1%	-7%	St. Croix Regional Medical Center	0%	-3%	3%
Hutchinson Health	2%	-2%	4%	St. Luke's Clinics	7%	2%	5%
John A. Haugen Associates, PA	-6%	8%	-13%	Stellis Health, PA	-14%	-7%	-8%
Lake Region Medical Group PA	0%	-7%	7%	Stevens Community Medical Center	22%	1%	21%
Lake View Clinic - Two Harbors	10%	3%	6%	Synergy Family Physicians, PA	-5%	1%	-6%
Lakeview Clinic, Ltd.	-5%	3%	-8%	United Family Medicine	-5%	-2%	-3%
Lakewood Health System	12%	-2%	13%	United Hospital District Clinics	16%	-6%	22%
Mankato Clinic	5%	-6%	12%	University of Minnesota Physicians	19%	18%	1%
Mayo Clinic - Rochester	99%	40%	42%	Vibrant Health Family Clinics	-6%	-12%	7%
Mayo Clinic Health System - Chippewa Valley	42%	-9%	56%	Wadena Medical Center	21%	7%	13%
Mayo Clinic Health System - Eau Claire Clinic	54%	1%	53%	Wayzata Children's Clinic	-3%	5%	-8%
Mayo Clinic Health System - Fairmont	19%	-14%	39%	West Side Community Health Services	-1%	3%	-3%
Mayo Clinic Health System - Franciscan Medical Center	49%	-6%	58%	Westfields Hospital and Clinic	2%	6%	-3%
Mayo Clinic Health System - Mankato	14%	-12%	31%	Winona Health	23%	-3%	27%

Section IV: Utilization

To further study resource use, MNCM tracks the utilization of 24 common services or metrics of utilization. This allows comparison of utilization patterns across medical groups.

Utilization can be measured as the number of services provided to a patient, such as the number of X-rays or lab tests.

As noted in the Resource Use and Price Index section, the total cost of care is a function of both price and the amount of resources used:

$$\text{Total Cost} = \text{Price} \times \text{Resource Use (Utilization)}$$

Resource use is a function of both **number (n)** of events and the **intensity (i)** of the events. For example, a single lower extremity MRI often has the same resource units as seven knee X-rays.

$$\text{Total Cost} = \text{Price} \times f(n,i)$$

It is often difficult to determine which has a greater impact, the number of services or the intensity of the services. Thus, MNCM's reports include a measure of common utilization metrics for attributed TCOC patients. The common utilization metrics are compared to the medical group's expected number based on a mix of patient risk, age and gender.

The utilization metrics include:

- Inpatient Admissions
- Surgery Admissions
- Maternity Admissions
- Medical Admissions
- Emergency Room Visits
- Primary Care Office Visits
- Lab Tests
- High Tech Radiology
- Generic Pharmacy Use Ratio
- Inpatient Days
- Surgery Days
- Maternity Days
- Medical Days
- Outpatient Surgery
- Specialty Office Visits
- Radiology
- Pharmacy Use

Notes:

- Emergency Room Visits exclude ER visits that result in the patient being admitted directly into the hospital.
- Outpatient Surgery includes both hospital based and stand-alone surgery centers.
- Lab and radiology services in the inpatient setting are excluded.
- Pharmacy Use is the count of "30 day" prescriptions that were filled at a pharmacy. It does not count prescriptions for less than 30 days (7 day antibiotic for example) nor does it count medications administered at a hospital or a clinic.

Per 1,000 rates:

In order to compare medical groups of various sizes, all utilization figures are listed in a "Per 1,000 Per Year" format. In other words, "what is the average number of events for 1,000 patients over a 12 month period?"

Statewide Results

Table 16: Statewide Utilization per 1,000 Patients per Year, by Age Group

	All Patients	Ages 1-17		Ages 18-39		Ages 40-64	
		Female	Male	Female	Male	Female	Male
Inpatient Admissions	55	20	17	115	29	55	65
Hospital Days	207	99	93	337	128	216	269
Average Length of Stay	3.8	5.1	5.4	2.9	4.4	3.9	4.1
Surgical Inpatient Admissions	16	4	4	6	7	27	31
Surgical Hospital Days	60	17	20	20	33	94	122
Average Length of Stay	3.8	4.6	4.9	3.2	4.5	3.5	4.0
Maternity Inpatient Admissions	17	0.2		95		3	
Maternity Hospital Days	47	0.7		254		9	
Maternity Length of Stay	2.7	3.8		2.7		3.2	
Medical Inpatient Admissions	22	16	13	14	22	26	35
Medical Hospital Days	100	81	73	62	95	114	147
Average Length of Stay	4.5	5.2	5.5	4.5	4.4	4.4	4.2
Emergency Room Visits	164	149	167	199	167	154	152
High Tech Imaging in ER	39	11	13	41	40	53	54
Outpatient Surgery	130	37	44	82	67	224	206
Office Visits	4,159	3,885	3,843	4,238	3,081	4,874	4,186
Primary Care Office Visits	2,183	2,306	2,278	2,330	1,573	2,373	2,020
Specialty Care Office Visits	1,975	1,579	1,564	1,909	1,508	2,501	2,167
Lab Tests	6,377	3,003	2,420	8,797	4,000	8,734	7,423
Imaging	949	422	423	1,217	437	1,757	674
High Tech Imaging	232	59	55	176	181	369	366
Standard Imaging	717	362	368	1,040	256	1,388	308
Pharmacy - <i>Count of 30 day prescriptions</i>	14,197	3,853	3,886	12,719	7,122	22,808	21,423
Generic Pharmacy Use Rate	87%	84%	79%	89%	84%	88%	87%

How to read and interpret the "Per 1,000" table: A surgical inpatient admission rate of 4 for children (both female and male children) means that for every 1,000 pediatric patients in the course of a year, there are 4 admissions for surgery. A pharmacy prescription rate for women between 40 and 64 of 22,808 means for every 1,000 patients there were 22,808 prescriptions ordered and filled in a year, and can also be read as an average 1.90 prescriptions per patient per month (22,808/1,000/12).

Medical Group Results

Observed Compared to Expected – Indirect Standardization Risk Adjustment

Types of patients vary at each medical group, in terms of level of clinical severity, patient age and patient gender. The Expected rate is calculated for each medical group based on the patient mix for risk (based on the Johns Hopkins Adjusted Clinical Group or ACG cell), patient gender and patient age range (1-17, 18-39, 40-64). Medical groups are compared using the ratio of Observed events to Expected events.

The Expected value is a market average for the medical group’s mix of patients. It is not a statement of the ideal amount of utilization, it is instead meant to be a high level view of the variation in utilization.

Seven utilization measures were selected for the 2017 report due to these measures having a high impact on either the overall cost of care or on the variation between medical groups:

- Emergency Room Use
- Inpatient Admissions
- Outpatient Surgery Center
- Office Visits
- Radiology (Imaging);
 - Standard X-Rays
 - High Tech Radiology (MRI, CT)
- Pharmacy Use; defined as the number of 30 day prescriptions ordered and filled.

The medical groups are sorted by the ratio of Observed per 1,000 rate and Expected per 1,000 rate for the patient’s risk, gender and age.

2016 Utilization Measures



EMERGENCY ROOM USE



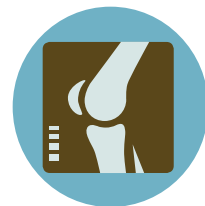
INPATIENT ADMISSIONS



OUTPATIENT SURGERY CENTER



OFFICE VISITS



RADIOLOGY



PHARMACY USE

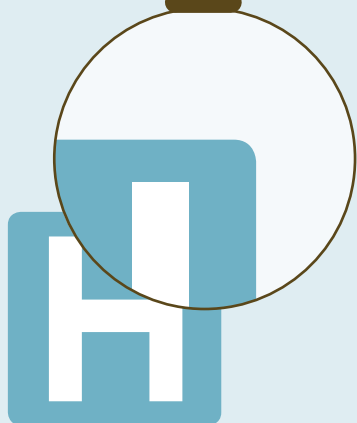
Emergency Room Utilization

Table 17: Emergency Room Utilization, Sorted by Observed to Expected Difference

Example: Clinic Sofia OB/GYN patients average 102 ER visits per 1,000 patients, while the state average for this patient mix is 159 ER visits per 1,000 patients.

Medical Group	Per 1,000 patients per year		
	Observed	Expected	Difference
Clinic Sofia Ob/Gyn	102	159	-56 -36%
John A. Haugen Associates, PA	91	141	-50 -35%
Wayzata Children's Clinic	116	176	-60 -34%
South Lake Pediatrics	124	186	-61 -33%
AALFA Family Clinic	123	181	-58 -32%
Parkway Family Physicians	98	143	-45 -32%
All About Children Pediatrics	101	147	-45 -31%
Obstetrics & Gynecology Associates	111	160	-50 -31%
Multicare Associates of the Twin Cities	115	166	-51 -31%
Northern Lights Pediatric And Adolescent Medicine	106	150	-45 -30%
Edina Sports + Family Medicine	115	159	-45 -28%
Sartell Pediatrics	115	160	-45 -28%
Ortonville Area Health Services	108	149	-41 -27%
Synergy Family Physicians, PA	106	146	-40 -27%
Entira Family Clinics	117	160	-43 -27%
Central Pediatrics	128	170	-43 -25%
Family Practice Medical Center Of Willmar	116	149	-33 -22%
France Avenue Family Physicians	122	157	-34 -22%
Burnsville Family Physicians	126	161	-35 -21%
Oakdale Ob/Gyn	119	150	-31 -21%
Affiliated Community Medical Centers	126	158	-31 -20%
Eagan Valley Pediatrics	135	168	-33 -20%
Pediatric And Young Adult Medicine	144	177	-32 -18%
Pipestone Family Clinic, Avera	131	158	-27 -17%
Children's Clinic Network	135	163	-28 -17%
Park Nicollet Clinic	137	165	-28 -17%
Apple Valley Medical Clinic	122	145	-23 -16%
Mankato Clinic	136	163	-26 -16%
Mendakota Pediatrics	139	164	-25 -15%
Comprehensive Healthcare For Women	128	150	-22 -15%
CentraCare Health	133	156	-23 -15%
Richfield Medical Group	139	162	-23 -14%
Dulcimer Medical Center	139	162	-23 -14%
Adefris & Toppin Women's Specialists	138	159	-21 -13%
Southdale Pediatric Associates	152	172	-21 -12%
Foley Medical Center	117	132	-15 -11%
Pediatric Services - Children's Physician Network	127	142	-15 -10%
North Clinic	146	161	-15 -10%
Fridley Children's & Teenagers' Medical Center	133	146	-13 -9%
Community University Health Care Center	112	123	-11 -9%
Avera Medical Group	153	167	-14 -8%
Northwest Family Physicians	125	136	-11 -8%
HealthEast	154	166	-13 -8%
HealthPartners Clinics	149	161	-12 -8%
Stevens Community Medical Center	134	145	-11 -8%
Allina Health Clinics	161	174	-13 -7%
Montevideo Medical Clinic	147	156	-10 -6%
Alexandria Clinic	140	147	-7 -5%
Parkview Medical Clinic	157	163	-6 -4%
Catalyst Medical Clinic	176	182	-6 -3%
Avera Medical Group- Marshall	199	202	-4 -2%
North Memorial Clinic	161	162	-1 -1%
Stellis Health, PA	146	147	0 0%
Lake Region Medical Group PA	161	161	0 0%
University of Minnesota Physicians	218	218	0 0%
Vibrant Health Family Clinics	148	145	3 2%
Gundersen Health System	157	154	4 2%
Lakeview Clinic, Ltd.	150	146	4 3%
Hutchinson Health	155	149	6 4%
Sanford Bagley	183	170	13 8%
Sanford Health - Sioux Falls Region	174	161	13 8%

Medical Group	Per 1,000 patients per year		
	Observed	Expected	Difference
Fairview Health Services	186	170	17 10%
Prairie Ridge Hospital & Health Services	164	149	15 10%
Ridgeview Clinics	169	150	19 13%
Mayo Clinic Health System - Mankato	214	190	24 13%
United Family Medicine	188	166	23 14%
Hennepin Healthcare System	269	234	35 15%
Essentia Health West	193	168	25 15%
Sleepy Eye Medical Center	157	135	21 16%
Fairview Mesaba Clinics	209	179	31 17%
Hudson Physicians	176	149	27 18%
Dakota Pediatrics, P.A.	178	150	28 19%
St. Luke's Clinics	195	163	32 20%
Familyhealth Medical Clinics	187	156	31 20%
Mayo Clinic - Rochester	234	195	39 20%
St. Croix Regional Medical Center	187	155	31 20%
Grand Itasca Clinic	209	173	37 21%
Essentia Health Central	208	171	37 22%
Riverview Clinics	200	160	40 25%
Mayo Clinic Health System - Chippewa Valley	165	132	33 25%
Glencoe Regional Health Services	208	163	45 27%
Westfields Hospital and Clinic	188	145	44 30%
Mayo Clinic Health System - New Prague	218	166	52 31%
Mayo Clinic Health System - Franciscan Medical Center	180	137	43 31%
Mayo Clinic Health System - Owatonna	217	165	52 32%
CHI St. Gabriel's Health: Family Medical Center	202	153	48 32%
Renville County Hospital & Clinics	207	156	51 32%
Osceola Medical Center	187	140	47 34%
Mayo Clinic Health System - Waseca	187	139	48 34%
Wadena Medical Center	193	143	49 34%
Essentia Health East	221	158	63 40%
Gateway Family Health Clinic	220	157	63 40%
Glenwood Medical Center	231	161	69 43%
Mayo Clinic Health System - Eau Claire Clinic	232	157	74 47%
United Hospital District Clinics	227	154	73 47%
Planned Parenthood MN, ND, SD	129	87	42 49%
Lakewood Health System	252	169	83 49%
Children's Minnesota	334	224	110 49%
Mayo Clinic Health System - Red Wing	207	138	70 50%
Amery Hospital and Clinic	236	157	79 51%
Lake View Clinic - Two Harbors	219	145	75 52%
NorthPoint Health And Wellness Center	226	147	78 53%
Olmsted Medical Center	215	137	78 57%
Winona Health	231	147	84 57%
Altru Health System	242	154	88 57%
Baldwin Area Medical Center	244	153	90 59%
Mayo Clinic Health System - Red Cedar	214	132	82 62%
Mayo Clinic Health System - Lake City	227	139	88 63%
Sawtooth Mountain Clinic	209	128	81 64%
Cuyuna Regional Medical Center	291	177	114 65%
Mayo Clinic Health System - Albert Lea and Austin	271	159	112 70%
Mille Lacs Clinics	297	174	123 71%
FirstLight Health System	292	169	123 73%
Scenic Rivers Health Services	254	145	109 75%
West Side Community Health Services	235	134	101 75%
Mayo Clinic Health System - Fairmont	338	189	149 78%
Ridgeview Sibley Medical Center	303	166	136 82%
Mayo Clinic Health System - Cannon Falls	286	156	130 83%
Mayo Clinic Health System - Northland	254	136	117 86%
Raiter Clinic	288	151	137 90%
Riverwood Aitkin Clinic	294	152	142 94%
Mayo Clinic Health System - St. James	312	159	153 96%



Emergency Room Focus

Of all the utilization measures, Emergency Room (ER) Utilization has the highest correlation to Total Cost of Care (TCOC).

As **Table 18** shows, the lowest ER utilization tends to be in the metro (Minneapolis and St. Paul) area.

There are exceptions; for example, for patients at Ortonville Area Health Services (OAHS), located in Ortonville, MN there were fewer ER visits than expected, given their mix of age, gender and health risk in both 2015 and 2016 measurement years.

OAHS is a 20 bed critical access hospital. Northside Medical Clinic is attached to the hospital. The clinic has six physicians and four mid-level providers. OAHS believes there is a benefit to having an attached facility as they work in conjunction with one another.

“We have actively worked on ER utilization throughout our organization. In the clinic, we have intermittently provided fliers for patients about what types of problems are appropriate for the ER and which should be seen in the clinic. There are two doors to enter into the ER and posted on those doors are large print posters again relaying what type of problems are appropriate for the ER and clinic, along with the clinic hours. Having 10 providers allow for more openings for same day appointments. We have an on-call physician who sees patients in the clinic and ER. That provider starts the day with no one scheduled to allow for same day appointments and walk-ins.

This scheduling pattern tends to be consistent with other medical groups that deflect high usage in their ERs. Often times schedules are intentionally left open and then promptly filled with same day appointments.

We have a Saturday 8:30-12:00 clinic with one provider for urgent care. There is one telephone number for the organization, so if someone calls during business hours it is routed to the clinic scheduler. If it is after hours the call goes to the nurses’ station. We share one Electronic Medical Record (EMR) for the clinic and hospital and this allows a nurse to look up patient information to help answer after hour questions. We have remote access to the EMR which most providers utilize. This allows the provider to have a clear picture of the patient’s health to help answer those call-in questions.

Extended weekend hours is another attribute of clinics who mitigate ER utilization. Saturday morning hours, while not necessarily ideal, are also in tandem with other successful groups relating to this area of interest.”

–Allan Ross, MD

Table 18: Emergency Room Use, Metro vs Non Metro Medical Groups

	Per 1,000 patients per year			
	Observed	Expected	Difference	
Metro	153	167	-13	-9%
Non Metro	181	161	21	11%

Overall, the risk of patients is similar for metro versus non metro medical groups, however, the metro groups have fewer emergency room visits compared to non metro groups. Results are rounded to the nearest whole number.

Inpatient Admissions

Table 19: Inpatient Admission, Sorted by Observed to Expected Difference

Example: Mendakota Pediatrics patients average 10 admissions per 1,000 patients in a year, while the state average for this patient mix is 19 per 1,000 patients.

Medical Group	Per 1,000 patients per year			Difference
	Observed	Expected	Difference	
Mendakota Pediatrics	10	19	-9	-48%
Pediatric And Young Adult Medicine	13	22	-9	-40%
Burnsville Family Physicians	31	46	-15	-33%
France Avenue Family Physicians	30	42	-13	-30%
South Lake Pediatrics	16	22	-6	-28%
Dakota Pediatrics, P.A.	13	18	-5	-27%
Community University Health Care Center	15	20	-5	-24%
Edina Sports + Family Medicine	32	42	-10	-23%
Southdale Pediatric Associates	17	21	-4	-20%
Synergy Family Physicians, PA	37	44	-8	-18%
Dulcimer Medical Center	42	50	-8	-17%
Fridley Children's & Teenagers' Medical Center	14	17	-3	-16%
Mayo Clinic Health System - Eau Claire Clinic	51	61	-10	-16%
Mayo Clinic Health System - Northland	38	45	-7	-16%
Children's Clinic Network	16	19	-3	-15%
Essentia Health Central	47	55	-8	-15%
Planned Parenthood MN, ND, SD	9	10	-1	-14%
Clinic Sofia Ob/Gyn	139	161	-22	-14%
Mayo Clinic Health System - Chippewa Valley	28	32	-4	-13%
Hennepin Healthcare System	74	84	-10	-12%
Entira Family Clinics	45	51	-6	-11%
Park Nicollet Clinic	52	58	-6	-10%
Grand Itasca Clinic	52	57	-5	-9%
Obstetrics & Gynecology Associates	157	173	-15	-9%
Multicare Associates of the Twin Cities	49	54	-5	-9%
AALFA Family Clinic	82	90	-8	-8%
Comprehensive Healthcare For Women	198	216	-18	-8%
Apple Valley Medical Clinic	37	40	-3	-8%
Mankato Clinic	49	53	-4	-8%
John A. Haugen Associates, PA	157	169	-12	-7%
Hudson Physicians	47	51	-3	-7%
Mayo Clinic Health System - Franciscan Medical Center	32	34	-2	-7%
Pediatric Services - Children's Physician Network	14	15	-1	-7%
Fairview Health Services	53	57	-4	-6%
Oakdale Ob/Gyn	171	182	-10	-6%
Wayzata Children's Clinic	20	21	-1	-6%
Central Pediatrics	19	20	-1	-6%
Northern Lights Pediatric And Adolescent Medicine	15	16	-1	-6%
West Side Community Health Services	49	51	-3	-5%
Stellis Health, PA	39	41	-2	-5%
North Clinic	58	60	-3	-5%
Eagan Valley Pediatrics	23	25	-1	-5%
Vibrant Health Family Clinics	39	40	-1	-4%
North Memorial Clinic	47	49	-2	-3%
Baldwin Area Medical Center	52	53	-2	-3%
HealthPartners Clinics	50	51	-1	-2%
NorthPoint Health And Wellness Center	40	41	-1	-1%
Alexandria Clinic	51	51	-1	-1%
Catalyst Medical Clinic	43	44	-1	-1%
Richfield Medical Group	56	56	0	-1%
Parkway Family Physicians	43	43	0	-1%
Adefris & Toppin Women's Specialists	194	195	-1	-1%
HealthEast	57	57	0	0%
Fairview Mesaba Clinics	60	60	0	0%
Gundersen Health System	52	52	0	0%
Allina Health Clinics	60	60	0	1%
CHI St. Gabriel's Health: Family Medical Center	52	52	1	1%
Northwest Family Physicians	41	41	1	1%
Familyhealth Medical Clinics	55	53	1	2%
Mayo Clinic Health System - St. James	55	54	1	2%
Mayo Clinic Health System - Fairmont	71	69	2	3%

Medical Group	Per 1,000 patients per year			Difference
	Observed	Expected	Difference	
Mayo Clinic Health System - Mankato	70	68	2	3%
CentraCare Health	56	53	2	4%
Mayo Clinic Health System - New Prague	58	55	3	5%
Mayo Clinic Health System - Red Cedar	44	42	2	5%
Parkview Medical Clinic	52	50	3	5%
Essentia Health East	57	54	3	5%
Ridgeview Sibley Medical Center	47	44	3	6%
Sanford Bagley	62	58	3	6%
Family Practice Medical Center of Willmar	50	47	3	6%
Ridgeview Clinics	68	64	4	6%
Cuyuna Regional Medical Center	72	68	4	6%
United Hospital District Clinics	56	52	4	7%
Essentia Health West	65	61	4	7%
St. Luke's Clinics	59	55	4	8%
St. Croix Regional Medical Center	59	54	4	8%
Affiliated Community Medical Centers	52	48	4	8%
Lakewood Health System	74	69	6	8%
Sanford Health - Sioux Falls Region	60	54	5	10%
Mayo Clinic Health System - Owatonna	61	55	6	10%
Pipestone Family Clinic, Avera	52	47	5	11%
United Family Medicine	59	53	6	11%
Amery Hospital and Clinic	50	45	5	11%
Westfields Hospital and Clinic	48	43	5	12%
Lake Region Medical Group PA	55	49	6	13%
Glencoe Regional Health Services	61	54	7	13%
Gateway Family Health Clinic	57	50	7	14%
Riverview Clinics	56	49	7	14%
Olmsted Medical Center	54	47	6	14%
Lakeview Clinic, Ltd.	48	42	6	14%
FirstLight Health System	65	56	9	15%
University of Minnesota Physicians	124	107	17	16%
Avera Medical Group - Marshall	136	117	20	17%
Glenwood Medical Center	67	57	10	18%
Stevens Community Medical Center	57	48	9	18%
Winona Health	55	46	9	19%
Altru Health System	64	54	10	19%
All About Children Pediatrics	21	18	4	20%
Osceola Medical Center	49	40	8	21%
Hutchinson Health	60	50	11	21%
Renville County Hospital & Clinics	65	53	12	23%
Mayo Clinic Health System - Albert Lea and Austin	64	52	12	23%
Sawtooth Mountain Clinic	51	42	10	23%
Mayo Clinic Health System - Cannon Falls	66	53	13	23%
Mayo Clinic Health System - Red Wing	50	40	10	24%
Prairie Ridge Hospital & Health Services	44	35	9	24%
Montevideo Medical Clinic	63	51	13	25%
Riverwood Aitkin Clinic	66	53	13	25%
Avera Medical Group	76	59	18	30%
Mayo Clinic Health System- Lake City	55	42	13	32%
Foley Medical Center	41	31	10	33%
Mayo Clinic Health System - Waseca	56	42	14	34%
Wadena Medical Center	66	48	18	38%
Mille Lacs Clinics	69	50	19	39%
Sleepy Eye Medical Center	65	47	18	39%
Scenic Rivers Health Services	55	39	16	41%
Ortonville Area Health Services	62	43	20	46%
Raiter Clinic	66	45	21	46%
Sartell Pediatrics	28	18	9	51%
Lake View Clinic - Two Harbors	68	43	25	58%
Mayo Clinic - Rochester	136	84	51	61%
Children's Minnesota	95	55	40	74%

Outpatient Surgery

Table 20: Outpatient Surgery, Sorted by Observed to Expected Difference

Example: Planned Parenthood patients average 13 outpatient surgeries per 1,000 patients in a year, while the state average for this patient mix is 36 per 1,000 patients.

Medical Group	Per 1,000 patients per year					Medical Group	Per 1,000 patients per year				
	Observed	Expected	Difference				Observed	Expected	Difference		
Planned Parenthood MN, ND, SD	13	36	-23	-63%		Sanford Bagley	154	140	14	10%	
Synergy Family Physicians, PA	55	109	-54	-50%		FirstLight Health System	164	148	16	11%	
Mankato Clinic	63	121	-58	-48%		Mayo Clinic Health System - Red Cedar	120	106	14	14%	
NorthPoint Health And Wellness Center	58	94	-35	-38%		Ridgeview Clinics	159	140	19	14%	
South Lake Pediatrics	35	50	-15	-29%		Mayo Clinic Health System - Lake City	142	125	17	14%	
Dulcimer Medical Center	94	132	-38	-29%		Olmsted Medical Center	128	112	16	14%	
West Side Community Health Services	77	105	-28	-27%		Osceola Medical Center	140	121	18	15%	
Pediatric Services - Children's Physician Network	28	37	-10	-26%		Grand Itasca Clinic	160	139	21	15%	
Community University Health Care Center	54	71	-18	-25%		Amery Hospital and Clinic	154	133	21	16%	
Parkview Medical Clinic	98	129	-31	-24%		Adefris & Toppin Women's Specialists	114	99	15	16%	
Northwest Family Physicians	101	132	-31	-24%		Mayo Clinic Health System - Northland	144	124	21	17%	
United Family Medicine	119	153	-34	-22%		Ridgeview Sibley Medical Center	176	150	26	17%	
Multicare Associates of the Twin Cities	118	150	-32	-21%		Sanford Health - Sioux Falls Region	153	130	23	18%	
Northern Lights Pediatric And Adolescent Medicine	31	39	-8	-20%		Essentia Health West	159	134	26	19%	
Affiliated Community Medical Centers	105	130	-25	-19%		Sleepy Eye Medical Center	131	109	22	20%	
Parkway Family Physicians	111	137	-26	-19%		St. Luke's Clinics	175	146	29	20%	
Mayo Clinic Health System - New Prague	114	134	-20	-15%		St. Croix Regional Medical Center	156	128	27	21%	
Allina Health Clinics	128	150	-22	-15%		Lake Region Medical Group PA	172	141	31	22%	
Wayzata Children's Clinic	41	48	-7	-14%		Fairview Mesaba Clinics	178	145	33	23%	
Entira Family Clinics	135	156	-21	-14%		Hutchinson Health	150	122	28	23%	
Southdale Pediatric Associates	42	48	-6	-13%		Lakeview Clinic, Ltd.	141	114	27	23%	
North Memorial Clinic	136	156	-20	-13%		Sartell Pediatrics	54	43	10	24%	
Richfield Medical Group	160	181	-22	-12%		University of Minnesota Physicians	222	179	43	24%	
Mayo Clinic Health System - St. James	133	150	-17	-12%		Lake View Clinic - Two Harbors	174	141	34	24%	
Children's Clinic Network	39	44	-5	-11%		Renville County Hospital & Clinics	185	148	37	25%	
France Avenue Family Physicians	144	160	-16	-10%		Hudson Physicians	133	106	26	25%	
Edina Sports + Family Medicine	159	176	-18	-10%		Winona Health	152	121	31	26%	
Fridley Children's & Teenagers' Medical Center	35	39	-4	-9%		Familyhealth Medical Clinics	143	113	31	27%	
Catalyst Medical Clinic	145	159	-14	-9%		Gundersen Health System	170	133	37	27%	
Hennepin Healthcare System	164	179	-15	-9%		Oakdale Ob/Gyn	125	98	28	28%	
North Clinic	143	155	-12	-8%		Clinic Sofia Ob/Gyn	138	108	30	28%	
HealthEast	123	133	-10	-7%		Lakewood Health System	163	127	36	29%	
Comprehensive Healthcare For Women	83	90	-7	-7%		Avera Medical Group - Marshall	167	130	38	29%	
Sawtooth Mountain Clinic	112	119	-8	-6%		Mayo Clinic Health System - Eau Claire Clinic	145	112	33	29%	
Foley Medical Center	115	123	-8	-6%		Eagan Valley Pediatrics	62	48	14	30%	
Apple Valley Medical Clinic	137	146	-9	-6%		Obstetrics & Gynecology Associates	143	110	33	30%	
Mille Lacs Clinics	140	148	-8	-5%		Essentia Health East	172	132	39	30%	
Mayo Clinic Health System - Waseca	133	141	-7	-5%		Mayo Clinic Health System - Franciscan Medical Center	159	121	38	31%	
Park Nicollet Clinic	129	136	-7	-5%		Baldwin Area Medical Center	173	132	41	31%	
Fairview Health Services	133	139	-6	-4%		Scenic Rivers Health Services	189	143	46	32%	
Family Practice Medical Center Of Willmar	126	132	-5	-4%		Altru Health System	166	124	41	33%	
Mayo Clinic Health System - Mankato	159	166	-6	-4%		Glenwood Medical Center	174	131	43	33%	
Stellis Health, PA	107	110	-3	-3%		Alexandria Clinic	155	116	39	33%	
Mayo Clinic Health System - Fairmont	157	161	-5	-3%		Mayo Clinic Health System - Red Wing	163	121	41	34%	
HealthPartners Clinics	130	133	-3	-3%		CHI St. Gabriel's Health: Family Medical Center	166	123	43	35%	
All About Children Pediatrics	41	42	-1	-3%		Riverview Clinics	166	123	43	35%	
Mayo Clinic Health System - Albert Lea and Austin	128	130	-2	-2%		Avera Medical Group	180	132	48	36%	
John A. Haugen Associates, PA	96	96	0	0%		Cuyuna Regional Medical Center	205	149	56	37%	
Children's Minnesota	74	74	0	0%		Mayo Clinic Health System - Cannon Falls	214	155	59	38%	
Central Pediatrics	47	46	1	3%		Mayo Clinic Health System - Chippewa Valley	151	109	42	39%	
Burnsville Family Physicians	175	170	5	3%		Ortonville Area Health Services	181	126	55	44%	
AALFA Family Clinic	123	118	4	4%		Raiter Clinic	194	135	59	44%	
United Hospital District Clinics	134	129	5	4%		Gateway Family Health Clinic	196	135	60	45%	
Dakota Pediatrics, P.A.	42	40	2	4%		Pipestone Family Clinic, Avera	201	139	62	45%	
Pediatric And Young Adult Medicine	51	49	2	4%		Stevens Community Medical Center	170	116	54	47%	
Essentia Health Central	152	146	6	4%		Westfield Hospital and Clinic	173	117	56	47%	
Glencoe Regional Health Services	137	130	7	5%		Mendakota Pediatrics	68	45	23	52%	
Vibrant Health Family Clinics	121	114	7	6%		Riverwood Aitkin Clinic	225	144	81	56%	
Mayo Clinic Health System - Owatonna	140	130	10	8%		Wadena Medical Center	198	126	72	57%	
CentraCare Health	132	123	10	8%		Prairie Ridge Hospital & Health Services	255	151	104	69%	
Montevideo Medical Clinic	146	134	12	9%		Mayo Clinic - Rochester	338	192	146	76%	

Office Visits

Table 21: Office Visits, Sorted by Observed to Expected Difference

Example: Amery Hospital and Clinic patients average 3,515 office visits per 1,000 patients in a year, while the state average for this patient mix is 4,034 per 1,000 patients.

Medical Group	Per 1,000 patients per year					Medical Group	Per 1,000 patients per year				
	Observed	Expected	Difference				Observed	Expected	Difference		
Amery Hospital and Clinic	3,515	4,034	-519	-13%		Familyhealth Medical Clinics	3,934	3,966	-32	-1%	
Lake Region Medical Group PA	3,646	4,151	-505	-12%		Raiter Clinic	3,929	3,951	-22	-1%	
Ridgeview Sibley Medical Center	3,776	4,235	-460	-11%		Fairview Mesaba Clinics	4,399	4,421	-22	-1%	
Dulcimer Medical Center	3,737	4,175	-438	-11%		Renville County Hospital & Clinics	4,095	4,113	-18	0%	
Mayo Clinic Health System - New Prague	3,739	4,171	-432	-10%		Mankato Clinic	4,121	4,131	-10	0%	
Mayo Clinic Health System - Waseca	3,476	3,858	-383	-10%		Lakeview Clinic, Ltd.	3,853	3,857	-4	0%	
Mayo Clinic Health System - Northland	3,345	3,704	-359	-10%		Wadena Medical Center	3,837	3,835	3	0%	
Montevideo Medical Clinic	3,675	4,057	-382	-9%		Southdale Pediatric Associates	4,057	4,048	9	0%	
Avera Medical Group- Marshall	4,251	4,671	-420	-9%		HealthEast	4,240	4,221	19	0%	
Mayo Clinic Health System - Chippewa Valley	3,227	3,534	-308	-9%		Stevens Community Medical Center	3,809	3,781	28	1%	
AALFA Family Clinic	3,906	4,274	-368	-9%		Essentia Health West	4,244	4,211	33	1%	
Affiliated Community Medical Centers	3,739	4,049	-311	-8%		United Hospital District Clinics	4,062	4,022	40	1%	
Cuyuna Regional Medical Center	4,042	4,376	-333	-8%		Ridgeview Clinics	4,008	3,968	40	1%	
Mayo Clinic Health System - St. James	3,888	4,203	-315	-7%		Park Nicollet Clinic	4,225	4,183	42	1%	
Mayo Clinic Health System - Red Cedar	3,284	3,548	-264	-7%		Sartell Pediatrics	3,990	3,943	47	1%	
Pipestone Family Clinic, Avera	3,748	4,049	-301	-7%		Clinic Sofia Ob/Gyn	4,001	3,945	56	1%	
Gateway Family Health Clinic	3,834	4,113	-280	-7%		Altru Health System	3,994	3,936	58	1%	
Grand Itasca Clinic	4,014	4,300	-286	-7%		Gundersen Health System	4,074	4,014	60	2%	
Hutchinson Health	3,619	3,869	-250	-6%		Allina Health Clinics	4,458	4,391	67	2%	
Glencoe Regional Health Services	3,860	4,127	-266	-6%		Winona Health	3,956	3,896	60	2%	
Family Practice Medical Center Of Willmar	3,683	3,933	-250	-6%		Lakewood Health System	4,256	4,191	65	2%	
Glenwood Medical Center	3,833	4,093	-259	-6%		Mayo Clinic Health System - Albert Lea and Austin	4,157	4,088	69	2%	
Osceola Medical Center	3,499	3,735	-236	-6%		Northwest Family Physicians	3,796	3,733	64	2%	
Prairie Ridge Hospital & Health Services	3,795	4,032	-237	-6%		Mayo Clinic Health System- Cannon Falls	4,265	4,187	78	2%	
CHI St. Gabriel's Health: Family Medical Center	3,713	3,935	-222	-6%		Lake View Clinic - Two Harbors	4,030	3,943	86	2%	
Mille Lacs Clinics	4,103	4,347	-244	-6%		John A. Haugen Associates, PA	3,700	3,619	81	2%	
Catalyst Medical Clinic	4,210	4,442	-232	-5%		Obstetrics & Gynecology Associates	4,040	3,949	90	2%	
FirstLight Health System	4,120	4,333	-213	-5%		Olmsted Medical Center	3,809	3,688	121	3%	
Planned Parenthood MN, ND, SD	2,389	2,496	-107	-4%		Richfield Medical Group	4,436	4,293	143	3%	
North Clinic	4,075	4,251	-176	-4%		France Avenue Family Physicians	4,264	4,120	144	3%	
Mayo Clinic Health System - Owatonna	4,018	4,190	-172	-4%		Burnsville Family Physicians	4,465	4,307	159	4%	
CentraCare Health	3,841	4,001	-160	-4%		Entira Family Clinics	4,390	4,230	160	4%	
Parkview Medical Clinic	3,926	4,087	-161	-4%		Pediatric And Young Adult Medicine	4,324	4,156	168	4%	
Riverwood Aitkin Clinic	3,920	4,072	-152	-4%		South Lake Pediatrics	4,481	4,292	189	4%	
Fairview Health Services	4,132	4,287	-155	-4%		United Family Medicine	4,458	4,260	198	5%	
Mayo Clinic Health System - Mankato	4,521	4,689	-168	-4%		Edina Sports + Family Medicine	4,630	4,407	223	5%	
Westfields Hospital and Clinic	3,604	3,736	-132	-4%		Mayo Clinic Health System - Franciscan Medical Center	3,866	3,671	195	5%	
Essentia Health Central	4,184	4,335	-151	-3%		Synergy Family Physicians, PA	4,149	3,930	218	6%	
St. Croix Regional Medical Center	3,875	4,012	-137	-3%		Oakdale Ob/Gyn	3,930	3,708	221	6%	
Alexandria Clinic	3,687	3,812	-124	-3%		Sawtooth Mountain Clinic	3,809	3,594	215	6%	
Foley Medical Center	3,563	3,683	-119	-3%		Multicare Associates of the Twin Cities	4,524	4,265	260	6%	
Hudson Physicians	3,681	3,798	-116	-3%		Community University Health Care Center	3,249	3,034	214	7%	
Mayo Clinic Health System - Fairmont	4,471	4,610	-139	-3%		Eagan Valley Pediatrics	4,256	3,970	286	7%	
Hennepin Healthcare System	5,106	5,264	-158	-3%		Adefris & Toppin Women's Specialists	4,110	3,822	288	8%	
Riverview Clinics	3,917	4,037	-120	-3%		West Side Community Health Services	3,856	3,543	313	9%	
Mayo Clinic Health System - Eau Claire Clinic	3,771	3,886	-115	-3%		Children's Clinic Network	4,304	3,928	376	10%	
Vibrant Health Family Clinics	3,692	3,799	-107	-3%		Pediatric Services - Children's Physician Network	3,979	3,629	350	10%	
Mayo Clinic Health System - Red Wing	3,635	3,739	-105	-3%		Central Pediatrics	4,457	4,063	394	10%	
Mayo Clinic Health System - Lake City	3,683	3,778	-96	-3%		Scenic Rivers Health Services	4,368	3,957	411	10%	
Sleepy Eye Medical Center	3,508	3,595	-88	-2%		Dakota Pediatrics, P.A.	4,263	3,849	414	11%	
Sanford Bagley	4,148	4,249	-101	-2%		Northern Lights Pediatric And Adolescent Medicine	4,096	3,697	399	11%	
Stellis Health, PA	3,732	3,819	-87	-2%		Children's Minnesota	5,494	4,954	540	11%	
St. Luke's Clinics	4,142	4,235	-92	-2%		All About Children Pediatrics	4,080	3,655	425	12%	
Avera Medical Group	4,082	4,171	-89	-2%		Wayzata Children's Clinic	4,651	4,143	508	12%	
Comprehensive Healthcare For Women	3,595	3,663	-68	-2%		University of Minnesota Physicians	5,719	5,072	647	13%	
North Memorial Clinic	4,118	4,195	-77	-2%		Apple Valley Medical Clinic	4,422	3,913	510	13%	
Sanford Health - Sioux Falls Region	4,007	4,081	-74	-2%		Mayo Clinic - Rochester	5,529	4,889	640	13%	
Ortonville Area Health Services	3,818	3,878	-60	-2%		Parkway Family Physicians	4,338	3,802	536	14%	
Baldwin Area Medical Center	3,944	4,000	-55	-1%		Fridley Children's & Teenagers' Medical Center	4,221	3,690	531	14%	
Essentia Health East	4,037	4,081	-44	-1%		Mendakota Pediatrics	4,885	4,042	843	21%	
HealthPartners Clinics	4,073	4,110	-37	-1%		NorthPoint Health And Wellness Center	4,055	3,340	715	21%	

Radiology, Standard

Table 22: Radiology - Standard, Sorted by Observed to Expected Difference

Example: Planned Parenthood patients average 203 standard radiology images (X-rays) per 1,000 patients in a year, while the state average for this patient mix is 462 per 1,000 patients.

Medical Group	Per 1,000 patients per year		
	Observed	Expected	Difference
Planned Parenthood MN, ND, SD	203	462	-259 -56%
Renville County Hospital & Clinics	369	716	-347 -48%
Catalyst Medical Clinic	408	644	-236 -37%
Northwest Family Physicians	457	644	-186 -29%
NorthPoint Health And Wellness Center	329	456	-127 -28%
Fridley Children's & Teenagers' Medical Center	236	323	-87 -27%
Mendakota Pediatrics	252	345	-92 -27%
West Side Community Health Services	460	625	-166 -26%
Family Practice Medical Center Of Willmar	518	703	-185 -26%
Synergy Family Physicians, PA	580	772	-191 -25%
Ridgeview Sibley Medical Center	496	655	-159 -24%
Montevideo Medical Clinic	553	718	-166 -23%
Entira Family Clinics	538	698	-160 -23%
Foley Medical Center	432	560	-128 -23%
South Lake Pediatrics	309	397	-87 -22%
Amery Hospital and Clinic	526	668	-141 -21%
Mayo Clinic Health System - New Prague	530	672	-142 -21%
Glencoe Regional Health Services	546	684	-138 -20%
Mille Lacs Clinics	562	696	-134 -19%
North Memorial Clinic	549	679	-130 -19%
Multicare Associates of the Twin Cities	579	710	-131 -18%
Lakeview Clinic, Ltd.	529	643	-114 -18%
Community University Health Care Center	330	401	-71 -18%
North Clinic	675	817	-143 -17%
Northern Lights Pediatric And Adolescent Medicine	289	350	-61 -17%
Affiliated Community Medical Centers	592	717	-125 -17%
Vibrant Health Family Clinics	490	593	-102 -17%
HealthEast	593	707	-115 -16%
Ridgeview Clinics	688	821	-133 -16%
Parkview Medical Clinic	508	605	-97 -16%
Baldwin Area Medical Center	615	730	-115 -16%
United Family Medicine	635	752	-117 -16%
Gateway Family Health Clinic	575	679	-103 -15%
France Avenue Family Physicians	544	640	-96 -15%
Richfield Medical Group	539	632	-93 -15%
Mayo Clinic Health System - Mankato	652	764	-112 -15%
Burnsville Family Physicians	631	739	-108 -15%
Dakota Pediatrics, P.A.	284	332	-48 -14%
Children's Clinic Network	319	366	-47 -13%
CHI St. Gabriel's Health: Family Medical Center	567	648	-81 -12%
All About Children Pediatrics	318	359	-41 -11%
Stellis Health, PA	559	629	-70 -11%
Hudson Physicians	591	663	-72 -11%
Parkway Family Physicians	497	552	-55 -10%
Hennepin Healthcare System	794	878	-84 -10%
St. Croix Regional Medical Center	626	691	-66 -9%
Fairview Health Services	644	711	-67 -9%
Mayo Clinic Health System - Fairmont	711	784	-73 -9%
Dulcimer Medical Center	719	781	-62 -8%
Mayo Clinic Health System - Owatonna	691	750	-59 -8%
Pediatric and Young Adult Medicine	366	395	-29 -7%
FirstLight Health System	704	758	-55 -7%
Gundersen Health System	670	715	-45 -6%
Sartell Pediatrics	334	355	-21 -6%
Lake View Clinic - Two Harbors	626	664	-38 -6%
Allina Health Clinics	735	771	-36 -5%
Mayo Clinic Health System - Albert Lea and Austin	689	719	-30 -4%
Children's Minnesota	440	453	-13 -3%
Lake Region Medical Group PA	720	738	-18 -2%
St. Luke's Clinics	720	738	-18 -2%
Hutchinson Health	652	658	-6 -1%

Medical Group	Per 1,000 patients per year		
	Observed	Expected	Difference
Avera Medical Group	765	769	-5 -1%
Osceola Medical Center	629	630	-1 0%
Wayzata Children's Clinic	391	391	0 0%
Mayo Clinic Health System - Waseca	638	638	0 0%
John A. Haugen Associates, PA	1,645	1,642	3 0%
Scenic Rivers Health Services	708	704	4 1%
Familyhealth Medical Clinics	718	712	6 1%
Mankato Clinic	686	679	7 1%
Riverview Clinics	672	664	8 1%
Sawtooth Mountain Clinic	665	655	10 2%
Apple Valley Medical Clinic	651	634	17 3%
Raiter Clinic	699	679	19 3%
Eagan Valley Pediatrics	391	374	17 5%
HealthPartners Clinics	744	710	33 5%
University of Minnesota Physicians	986	938	48 5%
Pediatric Services - Children's Physician Network	345	327	17 5%
Park Nicollet Clinic	791	747	44 6%
Glenwood Medical Center	779	725	54 7%
Essentia Health East	772	717	55 8%
United Hospital District Clinics	767	712	55 8%
AALFA Family Clinic	1,015	941	75 8%
Southdale Pediatric Associates	413	381	32 8%
Olmsted Medical Center	732	675	57 8%
Winona Health	764	705	59 8%
Riverwood Aitkin Clinic	780	717	63 9%
Central Pediatrics	410	375	34 9%
CentraCare Health	762	698	64 9%
Pipestone Family Clinic, Avera	759	694	65 9%
Sleepy Eye Medical Center	706	643	63 10%
Mayo Clinic Health System - St. James	733	667	66 10%
Cuyuna Regional Medical Center	875	796	79 10%
Grand Itasca Clinic	843	765	78 10%
Edina Sports + Family Medicine	950	861	88 10%
Stevens Community Medical Center	739	668	71 11%
Comprehensive Healthcare For Women	2,034	1,838	195 11%
Sanford Bagley	821	739	83 11%
Mayo Clinic Health System - Cannon Falls	762	684	77 11%
Sanford Health - Sioux Falls Region	756	678	79 12%
Westfields Hospital and Clinic	707	632	75 12%
Altru Health System	762	680	81 12%
Mayo Clinic Health System - Eau Claire Clinic	780	684	96 14%
Essentia Health West	851	742	109 15%
Mayo Clinic Health System - Red Wing	757	651	106 16%
Fairview Mesaba Clinics	919	789	130 16%
Mayo Clinic Health System - Chippewa Valley	662	568	94 17%
Mayo Clinic Health System - Northland	769	652	117 18%
Essentia Health Central	848	715	133 19%
Oakdale Ob/Gyn	2,045	1,725	320 19%
Prairie Ridge Hospital & Health Services	782	649	133 21%
Lakewood Health System	948	782	166 21%
Mayo Clinic Health System - Red Cedar	764	617	147 24%
Mayo Clinic Health System - Lake City	831	667	164 25%
Wadena Medical Center	893	692	201 29%
Alexandria Clinic	956	716	240 33%
Avera Medical Group - Marshall	1,461	1,067	393 37%
Ortonville Area Health Services	987	709	279 39%
Clinic Sofia Ob/Gyn	2,472	1,687	784 46%
Mayo Clinic - Rochester	1,127	753	374 50%
Obstetrics & Gynecology Associates	2,708	1,732	976 56%
Mayo Clinic Health System - Franciscan Medical Center	980	615	365 59%
Adefris & Toppin Women's Specialists	3,458	1,800	1,657 92%

Radiology, High Tech

Table 23: Radiology - High Tech, Sorted by Observed to Expected Difference

Example: Dakota Pediatric patients average 22 high tech radiology images per 1,000 patients in a year, while the state average for this patient mix is 48 per 1,000 patients.

Medical Group	Per 1,000 patients per year					Medical Group	Per 1,000 patients per year				
	Observed	Expected	Difference				Observed	Expected	Difference		
Dakota Pediatrics, P.A.	22	48	-26	-54%		Wayzata Children's Clinic	73	73	0	-1%	
West Side Community Health Services	120	194	-74	-38%		Hudson Physicians	186	186	0	0%	
NorthPoint Health And Wellness Center	125	190	-65	-34%		Amery Hospital and Clinic	238	238	1	0%	
Community University Health Care Center	102	150	-48	-32%		Apple Valley Medical Clinic	260	259	1	0%	
Hennepin Healthcare System	243	346	-102	-30%		Mayo Clinic Health System - Red Wing	214	211	3	2%	
South Lake Pediatrics	54	74	-20	-27%		Sanford Bagley	256	252	4	2%	
Mendakota Pediatrics	46	61	-15	-25%		Montevideo Medical Clinic	237	232	4	2%	
United Family Medicine	209	275	-66	-24%		Eagan Valley Pediatrics	82	80	2	3%	
Planned Parenthood MN, ND, SD	58	75	-17	-23%		Sanford Health - Sioux Falls Region	241	233	8	4%	
Comprehensive Healthcare For Women	109	138	-28	-21%		Raiter Clinic	252	242	10	4%	
Mayo Clinic Health System - Waseca	196	246	-50	-20%		Cuyuna Regional Medical Center	281	269	12	4%	
Sawtooth Mountain Clinic	163	204	-41	-20%		Grand Itasca Clinic	260	249	11	4%	
Pediatric And Young Adult Medicine	62	77	-15	-20%		St. Croix Regional Medical Center	239	229	10	4%	
Sartell Pediatrics	47	58	-10	-18%		Mayo Clinic Health System - New Prague	250	239	11	5%	
Obstetrics & Gynecology Associates	140	171	-31	-18%		Multicare Associates of the Twin Cities	284	271	13	5%	
Mayo Clinic Health System - Chippewa Valley	160	193	-33	-17%		Mille Lacs Clinics	279	266	13	5%	
Clinic Sofia Ob/Gyn	141	166	-26	-15%		Gateway Family Health Clinic	255	243	12	5%	
Children's Clinic Network	58	67	-10	-15%		HealthEast	251	239	13	5%	
Southdale Pediatric Associates	62	72	-10	-14%		Ridgeview Clinics	259	245	15	6%	
Essentia Health Central	229	266	-37	-14%		CentraCare Health	233	218	14	7%	
AALFA Family Clinic	180	206	-26	-13%		Baldwin Area Medical Center	251	234	17	7%	
Gundersen Health System	206	235	-29	-12%		Affiliated Community Medical Centers	242	226	17	7%	
John A. Haugen Associates, PA	130	148	-18	-12%		Mayo Clinic Health System - Franciscan Medical Center	227	210	16	8%	
Oakdale Ob/Gyn	132	151	-18	-12%		Essentia Health West	261	240	20	9%	
All About Children Pediatrics	60	69	-8	-12%		Mayo Clinic Health System- Cannon Falls	311	284	27	10%	
Vibrant Health Family Clinics	177	201	-24	-12%		Familyhealth Medical Clinics	214	195	19	10%	
Northern Lights Pediatric And Adolescent Medicine	55	62	-7	-11%		Ortonville Area Health Services	243	217	26	12%	
Central Pediatrics	58	66	-7	-11%		FirstLight Health System	299	266	33	12%	
Fridley Children's & Teenagers' Medical Center	50	56	-6	-11%		Children's Minnesota	148	131	16	12%	
HealthPartners Clinics	213	239	-26	-11%		Riverwood Aitkin Clinic	287	255	33	13%	
Mankato Clinic	196	218	-22	-10%		Family Practice Medical Center Of Willmar	259	228	31	14%	
Mayo Clinic Health System - Albert Lea and Austin	207	230	-23	-10%		Westfields Hospital and Clinic	237	207	30	15%	
Stellis Health, PA	175	194	-20	-10%		Mayo Clinic Health System - St. James	312	272	40	15%	
Parkview Medical Clinic	213	236	-23	-10%		Parkway Family Physicians	282	245	37	15%	
Essentia Health East	219	238	-19	-8%		Ridgeview Sibley Medical Center	306	266	40	15%	
Winona Health	190	206	-16	-8%		St. Luke's Clinics	300	259	40	16%	
Osceola Medical Center	196	213	-16	-8%		Synergy Family Physicians, PA	213	184	29	16%	
Burnsville Family Physicians	281	302	-21	-7%		Mayo Clinic Health System - Lake City	253	214	39	18%	
Lake Region Medical Group PA	227	244	-17	-7%		Glencoe Regional Health Services	277	235	43	18%	
Mayo Clinic Health System - Mankato	284	305	-21	-7%		Avera Medical Group	279	235	43	18%	
Mayo Clinic Health System - Owatonna	212	228	-15	-7%		Sleepy Eye Medical Center	218	183	35	19%	
North Clinic	255	273	-18	-7%		Lakeview Clinic, Ltd.	236	195	42	21%	
Park Nicollet Clinic	230	244	-15	-6%		Lake View Clinic - Two Harbors	309	251	58	23%	
Northwest Family Physicians	216	229	-13	-6%		CHI St. Gabriel's Health: Family Medical Center	275	223	52	23%	
France Avenue Family Physicians	269	285	-17	-6%		Catalyst Medical Clinic	348	282	66	24%	
Lakewood Health System	216	229	-13	-6%		Riverview Clinics	276	220	55	25%	
Mayo Clinic Health System - Eau Claire Clinic	194	206	-11	-6%		University of Minnesota Physicians	436	348	88	25%	
Mayo Clinic Health System - Fairmont	280	296	-16	-5%		Avera Medical Group - Marshall	287	227	60	26%	
Pediatric Services - Children's Physician Network	53	56	-3	-5%		Altru Health System	282	223	59	26%	
North Memorial Clinic	271	283	-12	-4%		United Hospital District Clinics	282	223	59	27%	
Entira Family Clinics	268	279	-11	-4%		Alexandria Clinic	261	201	60	30%	
Foley Medical Center	210	215	-5	-2%		Hutchinson Health	282	216	66	31%	
Fairview Health Services	248	253	-5	-2%		Renville County Hospital & Clinics	344	260	84	32%	
Adefris & Toppin Women's Specialists	149	152	-3	-2%		Fairview Mesaba Clinics	356	261	95	37%	
Mayo Clinic Health System - Red Cedar	180	183	-4	-2%		Greenwood Medical Center	316	229	87	38%	
Dulcimer Medical Center	223	227	-4	-2%		Prairie Ridge Hospital & Health Services	370	262	108	41%	
Mayo Clinic Health System - Northland	208	212	-4	-2%		Wadena Medical Center	314	220	93	42%	
Richfield Medical Group	324	329	-5	-2%		Stevens Community Medical Center	311	203	108	53%	
Olmsted Medical Center	191	193	-2	-1%		Scenic Rivers Health Services	383	246	138	56%	
Edina Sports + Family Medicine	303	306	-2	-1%		Pipestone Family Clinic, Avera	389	244	145	60%	
Allina Health Clinics	269	270	-1	-1%		Mayo Clinic - Rochester	758	365	393	108%	

Pharmacy

Table 24: Pharmacy - Count of 30 day Prescriptions Ordered and Filled, Sorted by Observed to Expected Difference

Example: Planned Parenthood patients average 6,282 thirty day prescriptions per 1,000 patients in a year, while the state average for this patient mix is 8,464 per 1,000 patients.

Medical Group	Per 1,000 patients per year			Medical Group	Per 1,000 patients per year		
	Observed	Expected	Difference		Observed	Expected	Difference
Planned Parenthood MN, ND, SD	6,282	8,464	-2,183 -26%	Pediatric Services - Children's Physician Network	4,117	4,083	34 1%
Synergy Family Physicians, PA	9,431	12,201	-2,771 -23%	Central Pediatrics	4,510	4,467	43 1%
Sleepy Eye Medical Center	9,998	12,874	-2,876 -22%	North Memorial Clinic	17,361	17,195	167 1%
Avera Medical Group - Marshall	11,009	13,138	-2,129 -16%	Fairview Health Services	15,163	14,968	195 1%
Adefris & Toppin Women's Specialists	10,909	13,016	-2,107 -16%	Parkway Family Physicians	15,297	15,036	262 2%
Clinic Sofia Ob/Gyn	11,417	13,432	-2,015 -15%	Sawtooth Mountain Clinic	14,485	14,231	254 2%
Oakdale Ob/Gyn	10,638	12,505	-1,867 -15%	Olmsted Medical Center	13,315	13,078	237 2%
John A. Haugen Associates, PA	11,069	12,992	-1,923 -15%	St. Croix Regional Medical Center	14,218	13,935	284 2%
AALFA Family Clinic	11,156	12,939	-1,782 -14%	United Hospital District Clinics	14,492	14,195	297 2%
Community University Health Care Center	9,464	10,894	-1,430 -13%	Essentia Health East	15,196	14,854	342 2%
Mayo Clinic Health System - New Prague	12,605	14,497	-1,892 -13%	Ortonville Area Health Services	14,407	14,076	331 2%
Mayo Clinic Health System - Owatonna	12,488	14,311	-1,823 -13%	HealthPartners Clinics	14,828	14,487	341 2%
Mayo Clinic - Rochester	16,448	18,741	-2,294 -12%	Affiliated Community Medical Centers	14,294	13,965	329 2%
Dakota Pediatrics, P.A.	3,531	4,001	-470 -12%	Essentia Health Central	15,395	15,035	360 2%
Obstetrics & Gynecology Associates	12,143	13,761	-1,618 -12%	Family Practice Medical Center of Willmar	14,630	14,279	351 2%
Dulcimer Medical Center	12,482	13,961	-1,478 -11%	United Family Medicine	17,329	16,838	491 3%
Mankato Clinic	11,733	13,010	-1,276 -10%	Pediatric and Young Adult Medicine	4,965	4,790	174 4%
Familyhealth Medical Clinics	11,375	12,594	-1,219 -10%	Glencoe Regional Health Services	14,790	14,261	529 4%
Grand Itasca Clinic	13,346	14,754	-1,408 -10%	Edina Sports + Family Medicine	19,878	19,161	717 4%
Glenwood Medical Center	12,720	14,030	-1,310 -9%	Entira Family Clinics	17,536	16,822	714 4%
Hennepin Healthcare System	15,737	17,341	-1,604 -9%	Montevideo Medical Clinic	15,191	14,537	654 4%
Lakeview Clinic, Ltd.	11,680	12,844	-1,164 -9%	Scenic Rivers Health Services	16,941	16,152	789 5%
Mayo Clinic Health System - Waseca	14,984	16,470	-1,487 -9%	Mayo Clinic Health System - Red Cedar	13,475	12,819	656 5%
St. Luke's Clinics	14,338	15,736	-1,397 -9%	Sartell Pediatrics	4,232	4,020	213 5%
Burnsville Family Physicians	17,060	18,710	-1,650 -9%	Amery Hospital and Clinic	15,050	14,282	767 5%
West Side Community Health Services	11,724	12,776	-1,052 -8%	Northern Lights Pediatric and Adolescent Medicine	4,585	4,341	243 6%
NorthPoint Health and Wellness Center	9,904	10,647	-743 -7%	Sanford Health - Sioux Falls Region	14,807	14,015	792 6%
South Lake Pediatrics	4,646	4,971	-326 -7%	Baldwin Area Medical Center	14,487	13,696	791 6%
Parkview Medical Clinic	12,771	13,656	-885 -6%	Westfields Hospital and Clinic	13,651	12,875	775 6%
Comprehensive Healthcare for Women	11,300	12,058	-758 -6%	Apple Valley Medical Clinic	17,377	16,370	1,007 6%
Fairview Mesaba Clinics	14,244	15,199	-955 -6%	Riverwood Aitkin Clinic	16,598	15,612	986 6%
Stellis Health, PA	11,818	12,573	-755 -6%	Stevens Community Medical Center	13,707	12,868	839 7%
Ridgeview Clinics	14,716	15,525	-809 -5%	Riverview Clinics	14,435	13,513	922 7%
Mayo Clinic Health System - Mankato	16,099	16,946	-848 -5%	CHI St. Gabriel's Health: Family Medical Center	14,193	13,236	957 7%
Osceola Medical Center	13,070	13,758	-688 -5%	Ridgeview Sibley Medical Center	16,954	15,760	1,193 8%
Lake View Clinic - Two Harbors	14,817	15,591	-774 -5%	Mayo Clinic Health System - Eau Claire Clinic	13,546	12,587	959 8%
Sanford Bagley	14,259	14,962	-703 -5%	Mayo Clinic Health System - Red Wing	15,199	14,115	1,084 8%
Foley Medical Center	13,200	13,813	-614 -4%	Northwest Family Physicians	16,442	15,262	1,180 8%
Mayo Clinic Health System - Albert Lea and Austin	14,732	15,366	-634 -4%	Mille Lacs Clinics	17,104	15,817	1,287 8%
Vibrant Health Family Clinics	12,460	12,955	-496 -4%	Mayo Clinic Health System - Chippewa Valley	14,639	13,524	1,116 8%
Hudson Physicians	11,248	11,653	-405 -3%	University of Minnesota Physicians	19,444	17,910	1,534 9%
Lake Region Medical Group PA	14,581	15,067	-486 -3%	Lakewood Health System	14,267	13,140	1,127 9%
Park Nicollet Clinic	14,755	15,053	-298 -2%	Gundersen Health System	16,043	14,693	1,350 9%
Mayo Clinic Health System - Fairmont	16,941	17,274	-333 -2%	Renville County Hospital & Clinics	17,165	15,629	1,536 10%
Alexandria Clinic	12,674	12,910	-236 -2%	Mayo Clinic Health System - Lake City	15,948	14,471	1,478 10%
Cuyuna Regional Medical Center	15,003	15,222	-218 -1%	Avera Medical Group	15,691	14,218	1,473 10%
Raiter Clinic	15,246	15,462	-216 -1%	Essentia Health West	15,768	14,275	1,493 10%
Mayo Clinic Health System - Northland	14,096	14,233	-137 -1%	Gateway Family Health Clinic	16,315	14,635	1,681 11%
Fridley Children's & Teenagers' Medical Center	3,863	3,898	-35 -1%	Mendakota Pediatrics	4,799	4,292	507 12%
Multicare Associates of the Twin Cities	16,073	16,114	-41 0%	Wadena Medical Center	15,492	13,853	1,638 12%
North Clinic	17,203	17,235	-32 0%	Winona Health	16,057	14,263	1,793 13%
Southdale Pediatric Associates	4,846	4,855	-8 0%	Mayo Clinic Health System - Franciscan Medical Center	16,234	14,251	1,982 14%
CentraCare Health	13,303	13,321	-19 0%	Richfield Medical Group	22,336	19,503	2,833 15%
HealthEast	14,203	14,213	-10 0%	Mayo Clinic Health System - Cannon Falls	18,402	15,893	2,509 16%
Mayo Clinic Health System - St. James	16,749	16,738	11 0%	FirstLight Health System	18,523	15,936	2,587 16%
Hutchinson Health	13,627	13,612	15 0%	All About Children Pediatrics	5,995	5,067	928 18%
France Avenue Family Physicians	18,006	17,958	48 0%	Prairie Ridge Hospital & Health Services	19,846	16,686	3,160 19%
Wayzata Children's Clinic	4,654	4,635	19 0%	Altru Health System	16,709	13,764	2,944 21%
Allina Health Clinics	16,399	16,293	106 1%	Pipestone Family Clinic, Avera	17,449	14,319	3,130 22%
Catalyst Medical Clinic	15,805	15,684	121 1%	Children's Minnesota	8,895	6,601	2,294 35%
Children's Clinic Network	4,665	4,628	37 1%	Eagan Valley Pediatrics	6,648	4,933	1,715 35%

Appendix 1: Methodology

A single, consistent methodology – along with a process to validate the data – provides a neutral trusted barometer of cost.

The methodology used for measuring total cost, resource use, and price in this report is the Total Cost Index (TCI), which was developed by HealthPartners and is endorsed by the National Quality Forum (NQF).

Population

The population is commercially insured patients only, including all fully-insured and self-insured commercial plan patients where the payer has access to final adjudicated claims, and group and individual plan patients (where available), excluding rental PPO network population where adjudication is completed by a different payer. There are no geographic requirements.

Inclusion Requirements

Patients must be enrolled in the health plan for at least nine consecutive months within the measurement period. Patients must be at least one year and no more than 64 years old at the end of the measurement period. Additionally, patients must have adjudicated administrative claims with dates of service within the measurement period.

Calculation of Cost

The metric measured is allowed payment available in administrative claims and includes all allowed payments associated with attributed patients including professional, facility inpatient and outpatient, pharmacy, lab, radiology, ancillary and behavioral health services.

The measurement period is 12 consecutive months and includes all claims where dates of service occurred within the measurement period. If a portion of the attributed population does not include pharmacy costs due to self-insured employers carving out the pharmacy benefit to a separate vendor, the pharmacy per member per month

(pmpm) costs is based on the total pharmacy costs divided by the number of member months for those attributed patients with pharmacy claims adjudicated by the submitted payer. That pharmacy pmpm value is added to the overall medical pmpm value to calculate the total pmpm costs. The administrative claims used for measurement must have at least a three month run out period between the end of the measurement period and the first day the data are made available for study.

Patient attribution to providers is at the medical group level. The medical group is defined as a grouping of tax identification number (TIN). The association follows the TIN that is present on the administrative claim and not the individual provider indicator. The TIN is then associated with a single medical group. The mapping of provider TINs to medical groups is based on the MNCM Medical Group definition supplied by the medical groups during their registration in the MNCM Data Portal for quality measure data submission.

Patient Attribution

Patients are attributed to primary care providers only. Primary care specialties are defined as Family Medicine, Internal Medicine, Pediatrics, Geriatrics and OB/GYN. Provider types included are doctor (MD, DO), nurse practitioner and physician assistant. Specialty definition is based on practicing specialty and board certification. If specialty is undefined, a provider will not have any patients attributed to her/him. Patients are attributed to the medical group with the majority (>50 percent) of the patient's primary care provider office events during the measurement period. Patients can be attributed to only one medical group. An office event is defined as a unique date of service on a claim with a place of service code of 11 (office) or 22 (hospital outpatient). There is not a requirement of evaluation and management CPT code. Denied claims and claims where the payer is not primary payer are excluded from the attribution process.

Appendix 1: Methodology (Continued)

Attribution is a two-step process. First, attribution is calculated using all claims within the measurement period. Second, if the patient remains unattributed, then attribution is calculated using all claims in the 12 month period immediately prior to the measurement period. This secondary attribution process is only used if there is at least one office visit claim to the attributed medical group in the final three months of the secondary period. Attribution is retrospective, meaning that it is calculated after the measurement period based on what actually happened.

If a patient has more than \$100,000 in total allowed payments in the measurement period, the patient is included, but the metric calculation truncates (caps) the expense at \$100,000 per measurement period.

Data Sources and Collection

The data source for the TCOC measure is administrative claims from local health plans. All data elements and processing rules were specified by MN Community Measurement (MNCM) in the TCOC Data Guide and Specifications. This guide provided detailed steps and instructions to ensure health plans processed and submitted data in a standard and consistent format.

The definition of a medical group is defined by the medical groups themselves as they register in the MNCM Data Portal each year. It is based on group TINs (Tax Identification Numbers) which are used by health plans to process health care claims.

The data specifications were developed and tested by MNCM's Cost Technical Advisory Group, with assistance from HealthPartners, which developed the NQF endorsed TCOC measure. Participating health plans submitted administrative data clustered by medical group and patient risk level to MNCM. MNCM aggregated the data and facilitated a review by the medical groups being publicly reported.

All data providers agreed to a singular set of data specifications. The specifications use the HealthPartners developed Distributed Comprehensive Analytic Package. [https://www.healthpartners.com/ucm/groups/public/@hp/@public/documents/documents/cntrb_042116.pdf]

Risk Adjustment

Patient cost is adjusted for known risk factors that are reported in administrative claims. Version 11.0 of the Johns Hopkins Adjusted Clinical Groupings (ACG) grouper (www.hopkinsacg.org) is the agreed on risk grouper and is also part of the NQF endorsed methodology. Lab and radiology claims are excluded from risk adjustment via the specific grouper software standard rules.

Risk score calculations use the same truncation methodology noted above. It is strongly preferred that the risk score be based on the Minnesota weight file using actual current data from participating providers and payers. If, however, the administration of such a file proves unwieldy and too costly, the standard national file is acceptable. The time period for the data included in the risk score calculation is the same as the measurement period. The number of diagnosis codes available per claim must be the same for all payers that input data to the process. Therefore, in order to have a level impact of risk score, the number of codes must be equal to the minimum available from all participating payers. As of May 2017, the requirement is four diagnosis codes per claim. This is re-addressed before each measurement period.

Six hundred (600) unique attributed patients are required within a medical group for the medical group to be included in public reporting. All attributed patients are included in the risk score and population-wide outputs (e.g. statewide Total Cost of Care average). A minimum of one provider is required within each medical group.

Appendix 1: Methodology (Continued)

Utilization Risk Adjustment

The Utilization measures use the same patients, attribution and administrative claims that are used for the Total Cost of Care, Relative Resource Use and Price Index.

The observed values were calculated using the same HealthPartners developed Distributed Comprehensive Analytic Package as noted above.

The Utilization observed versus expected methodology uses an indirect standardization risk adjustment. Expected rate is calculated for each medical group based on the patient distribution of medical risk, age and gender.

The patient risk is defined using the Johns Hopkins Adjusted Clinical Grouping categories. The ACG System measures the morbidity burden of patient populations based on disease patterns. It relies on the diagnostic information found in insurance claims. Patient age is grouped into three categories: 1-17, 18-39, and 40-64.

The commonly accepted way to compare medical groups is using the ratio of observed events to expected events.

Average Cost per Procedure

The Average Cost per Procedure (ACP) is the mean allowable amount (paid by plan + all patient responsibility) from CMS1500 claims on 118 high volume CPT and HCPCS codes for in-network benefits in commercial products. ACP excludes Medicare and Medicaid. Administrative data collected from the four largest commercial health plans in Minnesota, submitted to MNMCM for dates of service January 1, 2016 to December 31, 2016 and processed as of May 1, 2017.

ACP Attribution: the costs are attributed to a medical group through direct attribution based on the TIN on the claim.

No risk adjustment is applied, since the purpose of this measure is the average amount paid. ACP is not a reflection of utilization or appropriateness.

ACP Population: all commercial patients in the health plan during 2016 are eligible to be included. There is no age or length of enrollment requirement.

ACP CPT Modifiers: include all global (non-modified) and all modifiers that do not directly impact the allowed amount. The data excludes secondary COB claims and all claim lines with less than \$1.00 allowed.

An ACP will not be produced if any of the following exclusions occur:

- If the data, at the code and medical group level, are only available from two or fewer health plans
- If the sum of all units for a code, at the medical group level, is less than 50
- If there are fewer than five medical groups with eligible results.

Validation for all Cost and Utilization Measures

Measure calculations were confirmed by an outside statistician. The firm independently tested the input files for compliance to data specifications and built the model using the raw input files and methodology specifications. Their results matched those produced by MNMCM's original calculations.

Prior to public reporting, medical groups that met the threshold to be included in public reporting were given a preliminary version of the report. Medical groups had the option to request a list of all patients whose costs were assigned (attributed) to their medical group.

Appendix 1: Methodology (Continued)

The MNCM Cost Technical Advisory Group

The MNCM Cost Technical Advisory Group (Cost TAG) is mentioned throughout this report. For example, the Cost TAG recommended adding utilization measures such as admissions, emergency room visits, office visits and pharmacy use using the same patients and time period as TCOC.

The Cost TAG was formed to develop a next generation cost/efficiency/value measure for public reporting. This MNCM workgroup is accountable to the entire Minnesota community, including patients, providers and purchasers. With the public reporting of the TCOC measure, the primary impact is aimed at the recognition of variation in cost and utilization in the community and the opportunity to improve and strategically align with local and national initiatives. The Cost TAG provides immense value to this report because it instills community input into the process. The output of this workgroup includes development and implementation guidance from consumers, medical groups, employers, State of Minnesota, health plans, Institute for Clinical Systems Improvement, Minnesota Medical Association, Minnesota Hospital Association and MNCM staff. The output of this workgroup also benefits from technical assistance from local experts, NQF, independent statisticians, Network for Regional Healthcare Improvement (NRHI), DST Health Solutions and medical groups via their input and public comments.

Appendix 2: Medical Group Region Designation

Medical Group	Regions
AALFA Family Clinic	Metro
Adefris & Toppin Women's Specialists	Metro
Affiliated Community Medical Centers	Southwest
Alexandria Clinic	Southwest
All About Children Pediatrics	Metro
Allina Health Clinics	Central, Metro, Southeast
Altru Health System	Northwest, Southeast, North Dakota, Wisconsin
Amery Hospital and Clinic	Wisconsin
Apple Valley Medical Clinic	Metro
Avera Medical Group	Southwest, South Dakota
Avera Medical Group - Marshall	Southwest
Baldwin Area Medical Center	Wisconsin
Burnsville Family Physicians	Metro
Catalyst Medical Clinic	Metro
CentraCare Health	Central, Southwest
Central Pediatrics	Metro
CHI St. Gabriel's Health: Family Medical Center	Central
Children's Clinic Network	Metro
Children's Minnesota	Metro
Clinic Sofia Ob/Gyn	Metro
Community University Health Care Center	Metro
Comprehensive Healthcare For Women	Metro
Cuyuna Regional Medical Center	Central
Dakota Pediatrics, P.A.	Metro
Dulcimer Medical Center	Southeast
Eagan Valley Pediatrics	Metro
Edina Sports + Family Medicine	Metro
Entira Family Clinics	Metro
Essentia Health Central	Central
Essentia Health East	Northeast
Essentia Health West	Central, Northwest, North Dakota
Fairview Health Services	Central, Metro
Fairview Mesaba Clinics	Northeast
Family Practice Medical Center Of Willmar	Southwest
FamilyHealth Medical Clinics	Metro, Southeast
FirstLight Health System	Central
Foley Medical Center	Central
France Avenue Family Physicians	Metro
Fridley Children's & Teenagers' Medical Center	Metro
Gateway Family Health Clinic	Central, Northeast
Glencoe Regional Health Services	Central
Glenwood Medical Center	Southwest
Grand Itasca Clinic	Northeast
Gundersen Health System	Southeast
HealthEast	Metro, Wisconsin
HealthPartners Clinics	Central, Metro
Hennepin Healthcare System	Metro
Hudson Physicians	Wisconsin
Hutchinson Health	Central
John A. Haugen Associates, PA	Metro
Lake Region Medical Group PA	Northwest
Lake View Clinic - Two Harbors	Northeast
Lakeview Clinic, Ltd.	Metro
Lakewood Health System	Central
Mankato Clinic	Southeast
Mayo Clinic - Rochester	Southeast
Mayo Clinic Health System - Chippewa Valley	Wisconsin
Mayo Clinic Health System - Eau Claire Clinic	Wisconsin
Mayo Clinic Health System - Fairmont	Southeast
Mayo Clinic Health System - Franciscan Medical Center	Wisconsin
Mayo Clinic Health System - Mankato	Southeast

Medical Group	Regions
Mayo Clinic Health System - New Prague	Metro, Southeast
Mayo Clinic Health System - Northland	Wisconsin
Mayo Clinic Health System - Red Wing	Southeast
Mayo Clinic Health System - St. James	Southeast
Mayo Clinic Health System - Waseca	Southeast
Mayo Clinic Health System - Albert Lea and Austin	Southeast
Mayo Clinic Health System - Cannon Falls	Southeast
Mayo Clinic Health System - Lake City	Southeast
Mayo Clinic Health System - Owatonna	Southeast
Mayo Clinic Health System - Red Cedar	Wisconsin
Mendakota Pediatrics	Metro
Mille Lacs Clinics	Central
Montevideo Medical Clinic	Southwest
Multicare Associates of the Twin Cities	Metro
North Clinic	Metro
North Memorial Clinic	Central, Metro
Northern Lights Pediatric and Adolescent Medicine	Metro
NorthPoint Health and Wellness Center	Metro
Northwest Family Physicians	Metro
Oakdale Ob/Gyn	Metro
Obstetrics & Gynecology Associates	Metro
Olmsted Medical Center	Southeast
Ortonville Area Health Services	Southwest
Osceola Medical Center	Wisconsin
Park Nicollet Clinic	Metro
Parkview Medical Clinic	Metro
Parkway Family Physicians	Metro
Pediatric and Young Adult Medicine	Metro, Wisconsin
Pediatric Services - Children's Physician Network	Metro
Pipestone Family Clinic, Avera	Southwest
Planned Parenthood MN, ND, SD	Central, Metro, Northeast, Southeast
Prairie Ridge Hospital & Health Services	Northwest, Southwest
Raiter Clinic	Northeast
Renville County Hospital & Clinics	Southwest
Richfield Medical Group	Metro
Ridgeview Clinics	Central, Metro, Southwest
Ridgeview Sibley Medical Center	Southeast
Riverview Clinics	Northwest
Riverwood Aitkin Clinic	Central, Northeast
Sanford Bagley	Northwest
Sanford Health - Sioux Falls Region	Southwest, South Dakota
Sartell Pediatrics	Central
Sawtooth Mountain Clinic	Northeast
Scenic Rivers Health Services	Northeast
Sleepy Eye Medical Center	Southeast
South Lake Pediatrics	Metro, Southeast
Southdale Pediatric Associates	Metro
St. Croix Regional Medical Center	Northeast, Wisconsin
St. Luke's Clinics	Northeast, Wisconsin
Stellis Health, PA	Central
Stevens Community Medical Center	Central
Synergy Family Physicians, PA	Metro
United Family Medicine	Metro
United Hospital District Clinics	Southeast
University of Minnesota Physicians	Metro
Vibrant Health Family Clinics	Wisconsin
Wadena Medical Center	Central, Northwest
Wayzata Children's Clinic	Central, Metro
West Side Community Health Services	Metro
Westfields Hospital and Clinic	Wisconsin
Winona Health	Southeast

Appendix 3: Previous Year Medical Group Results

Total Cost of Care - Medical Group Results (2015 dates of service)

Medical Group	Risk Adjusted Cost of Care per Patient per Month			Total Cost Index Compared to State Average			HealthScore		
	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children
AALFA Family Clinic	\$400	\$465	\$211	-16%	-17%	-11%	Lower	Lower	Average
Adefris & Toppin Women's Specialists	\$482	\$565		1%	1%		Average	Average	
Affiliated Community Medical Centers	\$486	\$578	\$222	2%	4%	-7%	Average	Average	Average
Alexandria Clinic	\$434	\$502	\$239	-9%	-10%	0%	Average	Average	Average
All About Children Pediatrics	\$511	\$631	\$255	7%	13%	7%	Average	Average	Average
Allina Health Clinics	\$471	\$551	\$235	-1%	-1%	-1%	Average	Average	Average
Altru Health System	\$548	\$655	\$235	15%	17%	-1%	Average	Average	Average
Amery Hospital and Clinic	\$429	\$516	\$169	-10%	-8%	-29%	Average	Average	Lower
Apple Valley Medical Clinic	\$449	\$528	\$204	-6%	-5%	-14%	Average	Average	Average
Avera Medical Group	\$487	\$581	\$215	2%	4%	-10%	Average	Average	Average
Avera Medical Group - Pipestone	\$524	\$634		10%	14%		Average	Average	
Avera Medical Group- Marshall	\$511	\$609		7%	9%		Average	Average	
Baldwin Area Medical Center	\$566	\$661		19%	18%		Average	Average	
Buffalo Clinic, PA	\$394	\$458	\$207	-17%	-18%	-13%	Lower	Lower	Average
Burnsville Family Physicians	\$389	\$452		-18%	-19%		Lower	Lower	
Catalyst Medical Clinic	\$387	\$449		-19%	-20%		Lower	Lower	
CentraCare Health	\$481	\$568	\$231	1%	2%	-3%	Average	Average	Average
Central Pediatrics	\$447	\$597	\$222	-6%	7%	-6%	Average	Average	Average
Chippewa County Montevideo Hospital & Medical Clinic	\$526	\$634		11%	14%		Average	Average	
Clinic Sofia Ob/Gyn	\$488	\$571		3%	2%		Average	Average	
Community University Health Care Center	\$386	\$452		-19%	-19%		Lower	Lower	
Comprehensive Healthcare for Women	\$409	\$478		-14%	-14%		Lower	Lower	
Cuyuna Regional Medical Center	\$476	\$565	\$210	0%	1%	-11%	Average	Average	Average
Dawson Clinic	\$521			10%			Average		
Deer River Healthcare Center	\$532	\$628		12%	12%		Average	Average	
Diamond Women's Center	\$471	\$552		-1%	-1%		Average	Average	
Dulcimer Medical Center	\$434	\$516		-9%	-8%		Average	Average	
Eagan Valley Pediatrics	\$512		\$262	8%		10%	Average		Average
Edina Sports Health & Wellness	\$451	\$528		-5%	-5%		Average	Average	
Entira Family Clinics	\$437	\$514	\$211	-8%	-8%	-11%	Average	Average	Average
Essentia Health	\$523	\$617	\$250	10%	11%	5%	Average	Average	Average
Fairview Health Services	\$457	\$534	\$234	-4%	-4%	-2%	Average	Average	Average
Fairview Mesaba Clinics	\$549	\$646	\$264	15%	16%	11%	Average	Average	Average
Family Practice Medical Center of Willmar	\$453	\$534	\$218	-5%	-4%	-8%	Average	Average	Average
FamilyHealth Medical Clinics	\$510	\$612	\$226	7%	10%	-5%	Average	Average	Average
FirstLight Health System	\$528	\$642	\$185	11%	15%	-22%	Average	Average	Lower
Foley Medical Center	\$420	\$497		-12%	-11%		Average	Average	

Appendix 3: Previous Year Medical Group Results (Continued)

Total Cost of Care - Medical Group Results (2015 dates of service)

Medical Group	Risk Adjusted Cost of Care per Patient per Month			Total Cost Index Compared to State Average			HealthScore		
	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children
France Avenue Family Physicians - Minnesota Healthcare Network	\$437	\$512		-8%	-8%		Average	Average	
Fridley Children's & Teenagers' Medical Center	\$480		\$250	1%		5%	Average		Average
Gateway Family Health Clinic	\$515	\$602	\$264	8%	8%	11%	Average	Average	Average
Glencoe Regional Health Services	\$492	\$585	\$219	3%	5%	-8%	Average	Average	Average
Glenwood Medical Center	\$469	\$555		-1%	-1%		Average	Average	
Grand Itasca Clinic	\$461	\$538	\$241	-3%	-4%	2%	Average	Average	Average
Gundersen Health System	\$701	\$841	\$281	47%	51%	18%	Higher	Higher	Average
HealthEast Clinics	\$451	\$523	\$243	-5%	-6%	2%	Average	Average	Average
HealthPartners Clinics	\$427	\$498	\$225	-10%	-11%	-5%	Average	Average	Average
Hennepin County Medical Center (HCMC) Clinics	\$447	\$529	\$194	-6%	-5%	-18%	Average	Average	Lower
Hudson Physicians	\$426	\$498	\$218	-10%	-11%	-8%	Average	Average	Average
Hutchinson Health	\$497	\$583	\$249	5%	4%	5%	Average	Average	Average
John A. Haugen Associates, PA	\$454	\$530		-4%	-5%		Average	Average	
Lake Region Healthcare	\$472	\$561	\$209	-1%	1%	-12%	Average	Average	Average
Lake View Clinic - Two Harbors	\$503	\$589		6%	6%		Average	Average	
Lakeview Clinic	\$441	\$522	\$210	-7%	-6%	-12%	Average	Average	Average
Lakewood Health Center Clinic	\$512			8%			Average		
Lakewood Health System	\$537	\$643	\$236	13%	15%	-1%	Average	Average	Average
Mankato Clinic	\$490	\$565	\$272	3%	1%	14%	Average	Average	Average
Mayo Clinic	\$914	\$1,070	\$467	92%	92%	96%	Higher	Higher	Higher
Mayo Clinic Health System - Albert Lea and Austin	\$610	\$713	\$305	28%	28%	28%	Higher	Higher	Higher
Mayo Clinic Health System - Fairmont	\$531	\$623		12%	12%		Average	Average	
Mayo Clinic Health System - Lake City	\$661	\$795		39%	43%		Higher	Higher	
Mayo Clinic Health System - Mankato	\$539	\$634	\$262	13%	14%	10%	Average	Average	Average
Mayo Clinic Health System - New Prague	\$461	\$547	\$208	-3%	-2%	-13%	Average	Average	Average
Mayo Clinic Health System - Springfield	\$560			18%			Average		
Mayo Clinic Health System - St. James	\$538	\$638		13%	14%		Average	Average	
Mayo Clinic Health System - Waseca	\$486	\$579		2%	4%		Average	Average	
Mayo Clinic Health System- Cannon Falls	\$681	\$792		43%	42%		Higher	Higher	
Mayo Clinic Health System- Eau Claire	\$726	\$864	\$321	53%	55%	35%	Higher	Higher	Higher
Mayo Clinic Health System- Franciscan Medical Center, Inc	\$720	\$850		51%	52%		Higher	Higher	
Mayo Clinic Health System in Red Wing	\$585	\$691	\$271	23%	24%	14%	Higher	Average	Average
Mayo Clinic Health System-Owatonna	\$583	\$694	\$258	23%	24%	9%	Higher	Higher	Average
Mayo Clinic Health System-Red Cedar, Inc.	\$699	\$831	\$317	47%	49%	33%	Higher	Higher	Higher
Mendakota Pediatrics Ltd	\$509		\$244	7%		3%	Average		Average

Appendix 3: Previous Year Medical Group Results (Continued)

Total Cost of Care - Medical Group Results (2015 dates of service)

Medical Group	Risk Adjusted Cost of Care per Patient per Month			Total Cost Index Compared to State Average			HealthScore		
	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children
Mille Lacs Health System	\$506	\$603		6%	8%		Average	Average	
Multicare Associates	\$419	\$490	\$214	-12%	-12%	-10%	Average	Lower	Average
North Clinic	\$431	\$504	\$224	-9%	-10%	-6%	Average	Average	Average
North Memorial	\$438	\$515	\$198	-8%	-8%	-17%	Average	Average	Average
Northern Lights Pediatric and Adolescent Medicine	\$473		\$237	-1%		0%	Average		Average
NorthPoint Health & Wellness Center	\$567	\$669		19%	20%		Average	Average	
Northwest Family Physicians	\$415	\$481	\$236	-13%	-14%	-1%	Lower	Lower	Average
Olmsted Medical Center	\$624	\$743	\$272	31%	33%	14%	Higher	Higher	Average
Ortonville Area Health Services-Northside Medical Clinic	\$461	\$543		-3%	-3%		Average	Average	
Park Nicollet Health Services	\$451	\$522	\$249	-5%	-6%	5%	Average	Average	Average
Parkview Medical Clinic	\$394	\$466	\$185	-17%	-17%	-22%	Lower	Lower	Lower
Parkway Family Physicians-Minnesota Healthcare Network	\$438	\$507		-8%	-9%		Average	Average	
Pediatric & Young Adult Medicine	\$421		\$211	-12%		-11%	Average		Average
Pediatric Services - Children's Physician Network	\$460		\$230	-3%		-3%	Average		Average
Planned Parenthood Minnesota, North Dakota, South Dakota	\$469	\$536		-1%	-4%		Average	Average	
Prairie Ridge Hospital & Health Services	\$567	\$678		19%	21%		Average	Average	
Raiter Clinic, LTD - IHN	\$554	\$658		16%	18%		Average	Average	
Renville County Hospital and Clinics	\$540	\$642		13%	15%		Average	Average	
Richfield Medical Group	\$501	\$585		5%	5%		Average	Average	
Ridgeview Clinics	\$455	\$532	\$234	-4%	-5%	-1%	Average	Average	Average
RiverView Health	\$562	\$665	\$266	18%	19%	12%	Average	Average	Average
Riverwood Healthcare Center	\$571	\$680		20%	22%		Average	Average	
Sanford Health - Fargo Region	\$482	\$571	\$218	2%	2%	-8%	Average	Average	Average
Sanford Health - Sioux Falls Region	\$485	\$577	\$215	2%	3%	-9%	Average	Average	Average
Sartell Pediatrics	\$393		\$195	-17%		-18%	Lower		Average
Sawtooth Mountain Clinic	\$598	\$697		26%	25%		Higher	Higher	
Scandia Clinic	\$471	\$571		-1%	2%		Average	Average	
Scenic Rivers Health Services	\$580	\$687		22%	23%		Higher	Average	
Sibley Medical Center	\$498	\$582		5%	4%		Average	Average	
Smart Clinic-Custom Clinic	\$432			-9%			Average		
South Lake Pediatrics	\$426	\$556	\$210	-10%	0%	-11%	Average	Average	Average
Southdale Pediatric Associates, Ltd	\$460	\$588	\$228	-3%	5%	-4%	Average	Average	Average
St. Cloud Hospital Clinics	\$540	\$640		14%	15%		Average	Average	
St. Cloud Medical Group NW, So., Cold Spring, Clear Water - IHN	\$394	\$462	\$196	-17%	-17%	-18%	Lower	Lower	Average

Appendix 3: Previous Year Medical Group Results (Continued)

Total Cost of Care - Medical Group Results (2015 dates of service)

Medical Group	Risk Adjusted Cost of Care per Patient per Month			Total Cost Index Compared to State Average			HealthScore		
	Total	Adults	Children	Total	Adults	Children	Total	Adults	Children
St. Croix Regional Medical Center	\$465	\$542	\$241	-2%	-3%	1%	Average	Average	Average
St. Luke's Clinics	\$504	\$595	\$231	6%	7%	-3%	Average	Average	Average
Stevens Community Medical Center	\$568	\$681	\$238	20%	22%	0%	Average	Average	Average
Stillwater Medical Group	\$419	\$487	\$225	-12%	-13%	-6%	Average	Lower	Average
Synergy Family Physicians, P.A	\$365			-23%			Lower		
Tri-County Health Care	\$550	\$653	\$244	16%	17%	3%	Average	Average	Average
United Family Medicine	\$464	\$543		-2%	-3%		Average	Average	
United Hospital District Clinic	\$540	\$630		14%	13%		Average	Average	
Unity Family Healthcare, Family Medical Center	\$433	\$512	\$202	-9%	-8%	-15%	Average	Average	Average
University of Minnesota Physicians	\$575	\$650	\$412	21%	16%	73%	Average	Average	Higher
Vibrant Health Family Clinics	\$510	\$601	\$248	8%	8%	5%	Average	Average	Average
Wayzata Children's Clinic	\$440	\$553	\$220	-7%	-1%	-7%	Average	Average	Average
West Side Community Health Services	\$466	\$561		-2%	1%		Average	Average	
Westfields Hospital and Clinic	\$485	\$576	\$223	2%	3%	-6%	Average	Average	Average
Winona Health Services	\$554	\$651	\$270	17%	17%	14%	Average	Average	Average

Appendix 4: Measure Overview

Cost and Utilization Measures over the Years

The measures in this 2017 Cost & Utilization Report were recommended by MNMCM's Cost Technical Advisory Committee (Cost TAG) and approved by the MNMCM Board of Directors. MNMCM has expanded, revised and retired measures to align with both national standards and our own MNMCM quality measures. Measurement changes across years are reflected in the table below.

Procedure or Treatment	2009	2013	2014	2015	2016	2017
Average Cost Per Procedure						
Abscess treatment	●	●		●	●	●
Acupuncture without stimuli 15 Min						●
Alanine Aminotransferase (ALT) test	●	●		●	●	●
Aspartate Aminotransferase (AST) test	●	●		●	●	●
Aspiration and/or injection of a large joint	●	●		●	●	●
Aspiration and/or injection of a small joint	●	●		●	●	●
Assay of Free Thyroxine						●
Bacterial culture screening only	●	●		●	●	●
Basic metabolic panel	●	●		●	●	●
Biopsy of the Uterus	●	●		●	●	●
Blood hemoglobin (screening for iron deficiency anemia)	●	●		●	●	●
Blood, occult, by peroxidase activity	●	●		●	●	●
Cardiac Stress test					●	●
Chest X-ray (2 views)		●		●	●	●
Chlamydia, amplified probe technique				●	●	●
Circumcision	●	●		●	●	●
Colonoscopy ¹	●	●		●	●	●
Colposcopy				●	●	●
Complete Blood Count (CBC)	●	●		●	●	●
Complete Blood Count (CBC) with differential White Blood Cell (WBC) count	●	●		●	●	●
Comprehensive metabolic panel	●	●		●	●	●
Creatinine test	●	●		●	●	●
C-section delivery with routine care ¹	●	●		●	●	●
Determination of Refractive State						●
Developmental Screening tests	●	●		●	●	●
Diphtheria, Tetanus and Pertussis (DTaP) vaccine for a child younger than 7	●	●		●	●	●
Earwax removal	●	●		●	●	●
Echocardiogram, routine ECG with interpretation and report				●	●	●
Electric stimulation therapy						●
Endoscopy with a biopsy ¹	●	●		●	●	●
Eye Exam and Treatment established patient						●
Eye Exam established patient						●
Eye Exam new patient						●
Fetal non-stress test		●		●	●	●
General health panel						●
Glucose (blood sugar) test	●	●		●	●	●
Glycated hemoglobin test	●	●		●	●	●
Gonorrhea test						●
Group Psychotherapy						●
Human Chorionic Gonadotropin (HCG) test, quantitative	●	●		●	●	●
Hemophilus Influenza B				●	●	●
Hepatitis A vaccine for a child or adolescent	●	●		●	●	●
Hepatitis B vaccine for a child or adolescent	●	●		●	●	●
Hepatitis B vaccine for an adult	●	●		●	●	●
Human Papillomavirus (HPV), three doses				●	●	●
Knee X-ray (1 or 2 views)		●		●	●	●
Lipid panel	●	●		●	●	●
Lower Extremity CT without Contrast					●	●
Lower Extremity MRI without Contrast				●	●	●
Lumbar Spine MRI without and with Contrast				●	●	●
Lumbar Spine MRI without Contrast				●	●	●
Manual therapy, multiple regions						●
Measles, Mumps and Rubella (MMR) vaccine	●	●		●	●	●
Measles, Mumps, Rubella and Varicella (MMRV) chickenpox vaccine	●	●		●	●	●
Meningitis (meningococcal) vaccine	●	●		●	●	●
Microalbumin quantitative						●
Neuromuscular reeducation						●
Office visit, established patient, 5 minutes	●	●		●	●	●
Office visit, established patient, 10 minutes	●	●		●	●	●

Procedure or Treatment	2009	2013	2014	2015	2016	2017
Average Cost Per Procedure (Continued)						
Office visit, established patient, 15 minutes	●	●		●	●	●
Office visit, established patient, 25 minutes	●	●		●	●	●
Office visit, established patient, 40 minutes	●	●		●	●	●
Office visit, new patient, 10 minutes	●	●		●	●	●
Office visit, new patient, 20 minutes	●	●		●	●	●
Office visit, new patient, 30 minutes	●	●		●	●	●
Office visit, new patient, 45 minutes	●	●		●	●	●
Office visit, new patient, 60 minutes	●	●		●	●	●
Pap smear	●	●		●	●	●
Physical therapy evaluation						●
Pneumococcal conjugate vaccine, 13 valent				●	●	●
Potassium test	●	●		●	●	●
Pregnancy test, urine				●	●	●
Preventive care visit for an infant under age 1	●	●		●	●	●
Preventive care visit for a child between the ages of 1 to 4	●	●		●	●	●
Preventive care visit for a child between the ages of 5 to 11	●	●		●	●	●
Preventive care visit for an adolescent between the ages of 12 to 17	●	●		●	●	●
Preventive care visit for an adult between the ages of 18 to 39	●	●		●	●	●
Preventive care visit for an adult between the ages of 40 to 64	●	●		●	●	●
Preventive care visit for an adult 65 years and over	●	●		●	●	●
Prostate Specific Antigen (PSA) total				●	●	●
Prothrombin time	●	●		●	●	●
Psychiatric diagnostic evaluation				●	●	●
Psychiatric diagnostic evaluation with medical services				●	●	●
Psychotherapy, 30 minutes with patient and/or family member				●	●	●
Psychotherapy, 45 minutes with patient and/or family member				●	●	●
Psychotherapy, 60 minutes with patient and/or family member				●	●	●
Pure Tone hearing test air						●
Screening Mammography digital						●
Skin biopsy	●	●		●	●	●
Skin lesion, destruction	●	●		●	●	●
Skin lesion (0.5cm or smaller) removal or excision	●	●		●	●	●
Skin lesion (0.6cm or larger) removal or excision	●	●		●	●	●
Skin tag removal	●	●		●	●	●
Spine X-ray (2 views)		●		●	●	●
Spirometry test				●	●	●
Stitches for a wound	●	●		●	●	●
Strep test, rapid	●	●		●	●	●
Tetanus and Diphtheria (Td) vaccine	●	●		●	●	●
Tetanus and Diphtheria (Td) vaccine without preservatives	●	●		●	●	●
Therapeutic exercises						●
Thyroid (TSH) test	●	●		●	●	●
Ultrasound Exam Pelvic complete						●
Ultrasound of Obstetrical Uterus					●	●
Ultrasound therapy						●
Urinalysis nonauto without scope						●
Urinalysis with microscopy	●	●		●	●	●
Urinalysis without microscopy	●	●		●	●	●
Urine culture/colony count						●
Vaginal delivery with routine care ¹	●	●		●	●	●
Varicella Zoster Virus (chickenpox) vaccine		●		●	●	●
Vasectomy						●
Visual Acuity Screen						●
Vitamin B-12						●
Vitamin D 25 Hydroxy						●
X-Ray Exam of Ankle						●
X-Ray Exam of Foot						●
X-Ray Exam of Shoulder						●
X-Ray Exam of Wrist						●

¹ Physician costs only, not including facility fees.

Appendix 4: Measure Overview (Continued)

Cost and Utilization Measures over the Years

The measures in this 2017 Cost & Utilization Report were recommended by MNMCM's Cost Technical Advisory Committee (Cost TAG) and approved by the MNMCM Board of Directors. MNMCM has expanded, revised and retired measures to align with both national standards and our own MNMCM quality measures. Measurement changes across years are reflected in the table below.

Procedure or Treatment	2009	2013	2014	2015	2016	2017
Total Cost of Care						
Total Cost of Care			●	●	●	●
Total Cost of Care, Adult Patients			●	●	●	●
Total Cost of Care, Pediatric Patients			●	●	●	●
Relative Resource Use						
Relative Resource Use					●	●
Relative Resource Use, Adult Patients					●	●
Relative Resource Use, Pediatric Patients					●	●
Price Index						
Price Index					●	●
Price Index, Adult Patients					●	●
Price Index, Pediatric Patients					●	●
Utilization Ratios						
Inpatient Admissions					●	●
Hospital Days					●	●
Average Length of Stay, all admits					●	●
Surgical Admits					●	●
Surgical Hospital Days					●	●
Average Length of Stay, Surgical					●	●
Maternity Admissions						●
Maternity Hospital Days						●
Average Length of Stay, Maternity						●
Medical Admissions					●	●
Medical Hospital Days					●	●
Average Length of Stay, Medical					●	●
Emergency Room Visits					●	●
High Tech Imaging in ER					●	●
Outpatient Surgery					●	●
Office Visits					●	●
Primary Care Office Visits					●	●
Specialty Care Office Visits					●	●
Lab Tests					●	●
Imaging					●	●
High Tech Imaging					●	●
Standard Imaging					●	●
Pharmacy - Count of 30 day prescriptions					●	●
Pharmacy - Use of Generic Equivalents						●

Appendix 5: Cost Information on MNHealthScores.org

A critical component of MN Community Measurement's (MNCM) mission is to publicly report health care information with the goal of driving improvement. Our public reporting website, **MNHealthScores.org**, is designed for patients, their families and the public to help them make educated choices about where to obtain care and what care they should expect.

MNCM is an independent non-profit organization. Since 2005, we have collected, analyzed and evaluated health care quality information from across the state and region. MNCM work has been recognized locally, regionally, and by federal programs and national organizations, including the National Quality Forum, the Robert Wood Johnson Foundation and the Centers for Medicare and Medicaid Services.

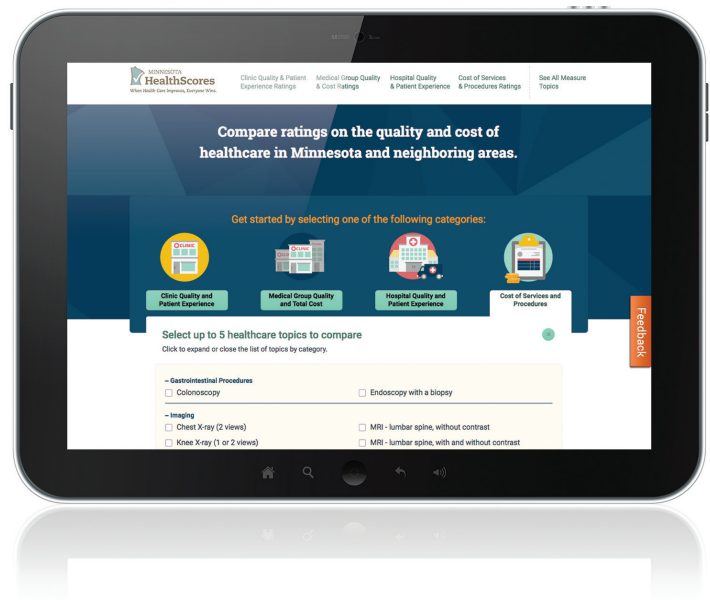
In recent years, MNCM updated **MNHealthScores.org** to make it easier to find, compare and share ratings on the quality of medical clinics and hospitals, health care costs and patient experience ratings.

The new **MNHealthScores.org** website features dynamic, customizable ratings that are easier to understand and combine best practices from academic research and real world testing. And most importantly, everyone can use the information to make smarter decisions about health care in Minnesota.

MNHealthScores.org displays ratings on the overall costs of health care in Minnesota, in addition to the average costs of numerous services and procedures. Now, visitors looking for information on health care cost and quality can easily:

- See all available ratings at a glance
- Create side-by-side rating comparisons with the medical group quality and cost of care topics
- Use health topic sub-categories to find specific ratings faster
- Hide entities with no available ratings. Unhide them with one click
- Select up to three profiles of medical groups to compare, including all of their available cost and quality ratings
- Add optional filters and control how search results are sorted

We hope you'll visit **MNHealthScores.org** and recommend it as a resource to your friends, colleagues, patients and other community members.





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