komodo™ HEALTH

Healthcare Quality Performance

Disease Modifying Anti-Rheumatic Drug (DMARD) Therapy for Rheumatoid Arthritis

Patterns of Utilization - 2019 Measurement Year

CMS Qualified Entity (QE) Program
Public Report

November 14, 2022

Who We Are

Komodo Health is a technology company with a mission of reducing the burden of disease. We combine an in-depth view of patient encounters with innovative algorithms and decades of clinical expertise to power our Healthcare Map™, one of the most robust and representative views of the U.S. healthcare system. Using our Healthcare Map, we offer a suite of powerful software applications that enable healthcare industry stakeholders to understand how healthcare is currently delivered and identify high-value interventions that can improve cost-effectiveness, clinical-effectiveness, or equitability.

What Is the Purpose of *This* Report?

Komodo Health uses data to measure and quantify healthcare processes in the United States. Komodo focuses specifically on the ***effectiveness*** and ***equity of access*** to high-quality and evidence-based healthcare and provides stakeholders with additional and potentially actionable insights relating to variations in quality or effectiveness of care. Komodo Health uses a combination of standard process and outcome measures developed and endorsed by experts over the past decade, and novel/alternative methods that we have been developing to measure and quantify variations in healthcare processes that may impact clinical effectiveness, efficiency, or outcomes for patients. This report presents a summary of our findings on access to/use of specific evidence-based practices in 2019 using a standard process measure endorsed by the National Quality Forum.

What Are We Measuring?

Komodo measures and quantifies the extent to which patients in the United States are receiving recommended pharmacological (medication) therapies for chronic and debilitating conditions, and whether they also are being monitored for specific side effects or risks relating to the use of these medication therapies. For this report, Komodo used a Healthcare Effectiveness Data and Information Set (HEDIS®) standard measure that was developed by experts and is endorsed by the National Quality Forum, and is initially reporting on **Measurement Year 2019**. The HEDIS® standard measure included in this report is:

- **NQF ID:** 0054
  Disease Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis (ART)

Why Is This Measure Important?

Rheumatoid arthritis is a chronic condition in which a patient's own immune system attacks the tissues lining their joints and other organs. This immune response produces inflammation, pain, and swelling in the affected joints and organs. Over time, the inflammation can produce deformity and destruction of joints and can significantly limit the ability of the patient to do normal activities with the affected joints. When other organs are affected, patients can experience a broader range of

health effects besides joint destruction. In the United States, this disease affects individuals of all racial and ethnic groups. However, there is some evidence that Blacks and Hispanics may experience more severe symptoms or long-term disabilities compared to individuals in other racial and ethnic groups. At this time, clinicians and scientists do not have a complete understanding of the factors that contribute to these differences in disease activity or long-term outcome.

Today, there are many medications – some new and some that have been available for decades – that have the potential to slow the progression of bone destruction and other active symptoms in patients with rheumatoid arthritis. As a group, these medications are referred to as Disease Modifying Anti-Rheumatic Drugs or DMARDs. Despite evidence showing that DMARDs can control symptoms and slow the progression of joint damage, recent reports suggest that there is unexpected variation in the use of these medications among different groups of patients. There may be different reasons why a patient delays or does not use DMARD therapy. These might include:

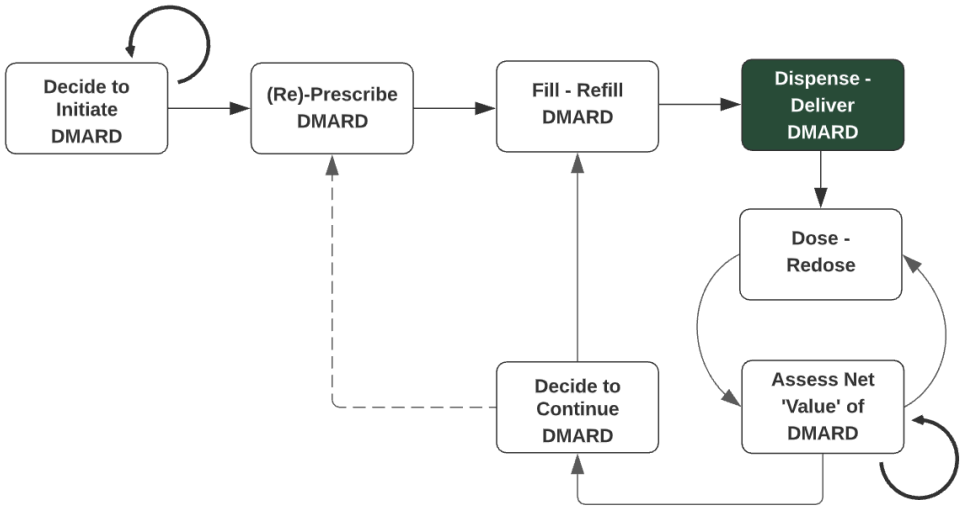
- Medical contraindications such as allergy or uncontrollable side effects
- Patient preferences unrelated to medical contraindication
- Low disease activity or limited symptom severity
- Lack of patient involvement in decision-making around medication therapy
- Differences in prescribing habits and clinical practice styles between practitioners who care for patients with rheumatoid arthritis
- Lack of access to a specialist who can and will evaluate the appropriateness of DMARD therapy, prescribe, and monitor response
- Whether or how much a patient's insurance or health plan covers the therapy
- High out-of-pocket cost of therapy (related to insurance or health plan coverage)

Differences in patient use of DMARD therapy that are related to cost, health insurance coverage, lack of access to specialists, lack of patient involvement in treatment decisions, or differences in clinical practice styles are concerning. Continuous measurement and monitoring can help identify systematic, undesirable, and potentially modifiable variations in access to effective, evidence-based care for patients with rheumatoid arthritis. However, it is important to know what aspect of the medication therapy sequence to measure, and what variability in a given measurement can tell us.

Figure 1, which is a simplified representation of the sequence of key events relating to the use of DMARDs, can be used to illustrate this concept. Ideally, in order to understand DMARD *use* patterns, one would try to measure medication dosing events – i.e., events signaling that the patient consumed the prescribed dose of the DMARD. However, reliably and consistently measuring the rate at which patients who are prescribed a medication actually *receive* a dose poses challenges. As an alternative, we often try to estimate DMARD *use* by measuring DMARD medication dispensing events using either pharmacy data or prescription drug claims. In contrast to medication dosing events, medication dispensing events can be measured reliably and consistently over time in an ambulatory context. It is important to acknowledge that when a patient takes possession of a prescribed medication through a dispensing event, this does not guarantee that a patient receives a

dose of the medication. However, dispense events can be detected reliably and consistently in pharmacy and claims data and can serve as an informative proxy to DMARD use across a population of patients with rheumatoid arthritis.

Figure 1. Continuum of key events relating to DMARD use in patients with rheumatoid arthritis. The decision to initiate, continue or change a DMARD therapeutic agent ideally is made collaboratively by *physician and patient* after consideration of a number of factors including, but not limited to: current functional status, symptom severity, anticipated benefits from DMARD, anticipated side effects and tolerance of these side effects. After a decision to initiate a DMARD, the *physician* prescribes, the *pharmacist* fills and dispenses/delivers the drug to the *patient* (or their agent). The *patient* then must decide to take the medication (dose or self-administer). Initial dosing and/or re-dosing does not always occur even after the patient has taken possession of the DMAR, and initial dosing and redosing as prescribed are neither predictable nor easily measured across a large population. Patients may continually reassess the perceived value of the DMARD in terms of symptom relief vs. tolerability vs. cost vs. other factors. After successive redosing events, the patient may decide to continue on the DMARD and either request a refill or a renewal of the prescription. Ideally, the *patient* shares information with the *prescribing physician* and modifications can be made, as needed, in the DMARD regimen (e.g., continuation, dose change, therapeutic agent change, discontinuation, etc.).



In this report, Komodo is measuring DMARD dispense rates in the US population of patients with rheumatoid arthritis using a specific method referred to as NQF ID 0054 *Disease Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis (ART)*. This is characterized as a process measure – a quantitative measure of the degree to which the process of care meets a defined goal or standard. This measure also has been endorsed by US and European specialty organizations as a reliable way of measuring the proportion of patients with rheumatoid arthritis who are receiving medications that have been demonstrated to control symptoms and possibly slow the progression of disease.

What Data Did We Use for Measurement?

Komodo combined its internal Commercial and Medicaid data sources with the Centers for Medicare & Medicaid Services (CMS) Medicare 100% Fee-for-Service dataset. This enabled us to evaluate and measure processes of care across a diverse group of patients. We also were able to look for differences in how care is delivered to patients depending on where a patient lives and whether they enrolled in a private insurance plan (Commercial), the Medicaid program, or the Medicare program.

Komodo Health's substantial all-payer data assets provided us with a sufficiently large population of eligible patients so that we were able to measure dispense rates at the national, regional and local levels, stratify by health plan enrollment category, and by rural/urban residency using guidelines established by the Federal Office of Rural Health Policy. The following is a list of U.S. states and territories in which Komodo's combined data produced eligible or relevant patient population cohorts of sufficient size to support measure calculation and reporting:

> AK, AL, AR, AZ, CA, CO, CT, DC, DE, FL, GA, HI, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY

Changes to Last Year's Analysis

- Komodo Health previously included U.S. territories in the analysis. This year's report is limited to US states and the District of Columbia.

How Is the Measure Calculated?

Komodo applied the standard metric specification for **NQF ID:** 0054 to patients enrolled in any of the following types of health insurance categories: Commercial, Medicaid Managed Care, Medicaid-Medicare Dual, Medicare Advantage, and Medicare Fee-for-Service. Table 1 briefly summarizes the numerator, the denominator, and the exclusions that were applied prior to calculating DMARD dispense rates. Compared to Measurement Year 2018, there are no significant changes to the numerator or denominator definitions for **Measurement Year 2019**. Komodo used a combination of enrollment and claims data to assign each patient to a health insurance category. For this analysis, the Commercial-Private category represents a mix of traditional indemnity insurance and managed care product types including PPO, HMO, and EPO. It includes employer-sponsored health plans and qualified health plans available through a state or federal health insurance exchange. The Medicaid- Medicare Dual category represents the program for individuals concurrently ("dually') eligible for Medicare and Medicaid. Medicaid Managed Care, Medicaid- Medicare Dual, and Medicare Advantage are programs in which services are provided under a managed care payment model. Finally, the Medicare Fee-for-Service category represents the traditional Medicare in which services are not provided under a managed care payment model. The

Medicare Advantage category excludes Special Needs Plans or SNPs; all patients enrolled in SNPs were assigned to the Medicaid-Medicare category.

Table 1. Summary of inclusion and exclusion criteria for NQF ID 0054.

Measure Description	The percentage of beneficiaries 18 years of age and older who were diagnosed with rheumatoid arthritis and who were dispensed at least one ambulatory prescription for a disease-modifying anti-rheumatic drug (DMARD).
NQF Status	• NQF-Endorsed • Measure ID 0054 • Process Measure Type • **Measurement Year 2019**
Denominator (eligible population)	All patients 18 years or older ***and*** Continuously enrolled in a medical and prescription drug health benefit (private or public insurance plan) ***and*** Diagnosed with rheumatoid arthritis
Numerator	Patients in the eligible population who had at least one prescription dispensed for a DMARD during the measurement year.
Exclusions	Exclude all patients with a diagnosis of HIV any time during the member's history through December 31 of the measurement year. Exclude female patients with a diagnosis of pregnancy any time during the measurement year. Exclude all patients who are in hospice at any time during the measurement period

Komodo used medical claims data to identify provider-administered DMARD injection or infusion events in the ambulatory setting and prescription drug claims data to identify DMARD dispense events. For the prescription drug dispense events, we screened all prescription drug data for that patient and attributed a DMARD dispense event to the patient if a claim was paid for a complete fill, a partial fill, or the completion of a partial fill by either retail, hospital-based or mail order pharmacy after confirming that a patient was concurrently enrolled in a medical *and* a prescription drug health benefit.[1] If a patient changed health insurance categories during the measurement year, Komodo assigned them to the health insurance category that was active on the date of the first prescription fill event for the DMARD agent (i.e., the medication dispense event). If a patient was concurrently enrolled in Medicare and a commercial supplemental benefit, Komodo assigned that patient to their Medicare category (either Medicare Advantage or Medicare Fee-for-Service). If a patient was enrolled in Medicare for medical coverage but concurrently was participating in the Retiree Drug Subsidy (RDS) Program, Komodo assigned that patient to their Medicare category. Komodo assigned each patient in the eligible population exclusively to one state based on their state of residence in January

[1] An adjudicated, paid claim typically signals that the prescription was both filled by the pharmacy and picked up by the patient.

of the measurement year. If the patient's residential state could not be confirmed via an enrollment file, Komodo assigned the patient to the prescriber's state.

What Did We Discover?

Population Overview and Demographics

After applying all inclusion and exclusion criteria, Komodo's Healthcare Map yielded 860,429 adult rheumatoid arthritis patient cases that could be evaluated for DMARD dispensing during **Measurement Year 2019**. This compares to 1,184,020 cases identified in Measurement Year 2018. As was the case for the prior Measurement Year, in this 2019 report, we refer to these 860,429 adult rheumatoid arthritis patient cases meeting the eligibility inclusion criteria as the *eligible* population. Although the eligible population was identified from a large all-payer dataset, when we segmented the eligible population by category of insurance coverage, patients enrolled in Medicare Fee-for-Service (FFS) constituted the largest cohort. Since the majority of Medicare Fee-for-Service and Medicare Advantage beneficiaries enroll at age 65 years, the distribution of ages in the eligible population enrolled in Medicare was significantly different from those of the other healthcare coverage categories, but consistent with values in the underlying populations from which they were selected. The female-to-male sex/gender ratios observed in the measurement population were approximately 3:1 in the Commercial, Medicaid Managed Care, Medicare Advantage, and Medicare Fee-for-Service categories and approximately 4:1 in the Medicaid-Medicare Dual category. These sex/gender ratios are consistent with what is known about the epidemiology of rheumatoid arthritis in the adult U.S. population, and what has been published in contemporary population-based research studies using claims data and by public health agencies such as the CDC using survey data, registries and contemporary population-based studies.

Table 2. Summary demographics of the population meeting all inclusion and exclusion criteria for measure specification NQF ID 0054.

Health Insurance Category	Eligible	Mean Age	Median Age	Percent Female	Percent Male
Commercial-Private	208,788	53.4	55	77.76%	22.24%
Medicaid Managed Care	11,259	55.0	56	81.97%	18.03%
Medicaid-Medicare Dual	77,695	62.2	62	81.26%	18.74%
Medicare Advantage	161,827	70.8	71	77.59%	22.41%
Medicare Fee-for-Service	400,860	71.4	72	76.18%	23.82%

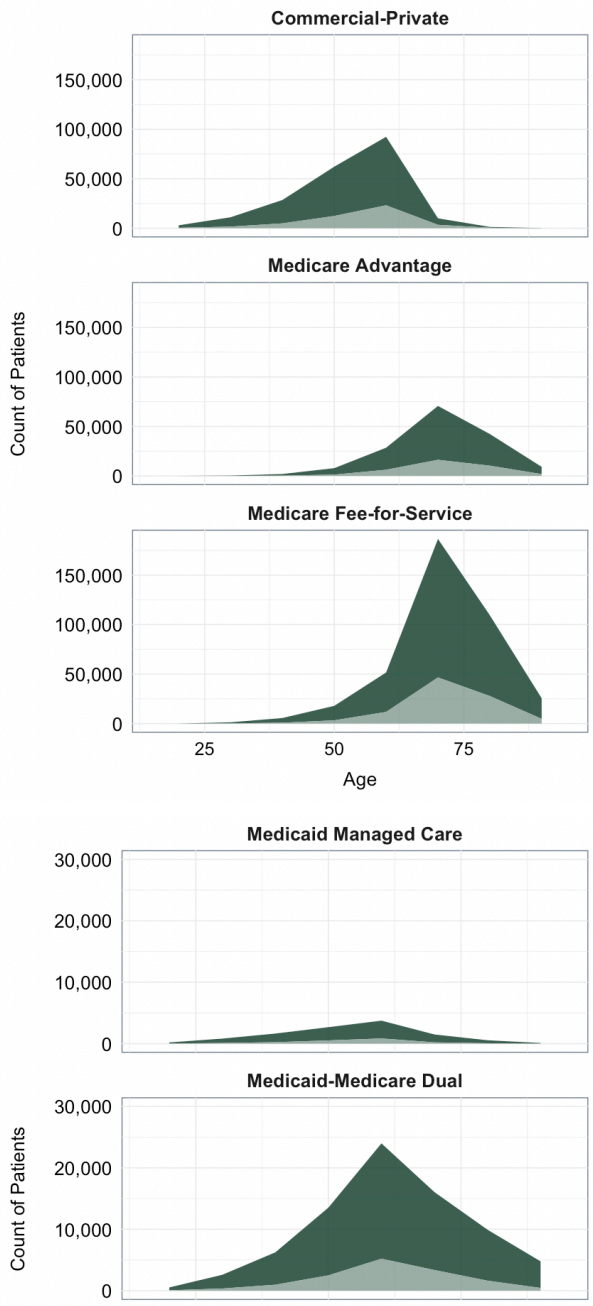


Figure 2. Frequency distribution of patient ages in the eligible population, segmented by health insurance coverage category. Note change in y-axis scale for the Medicaid and Medicaid-Medicare Dual populations to accommodate smaller cohort size.

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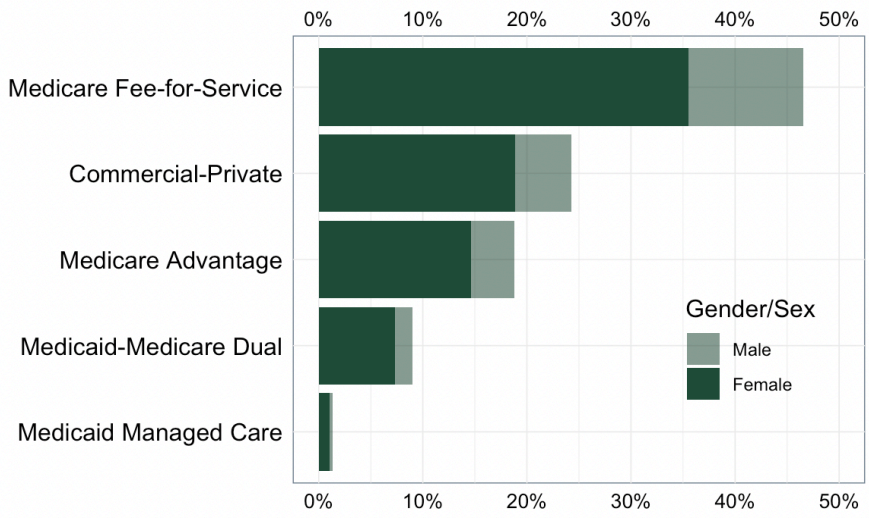
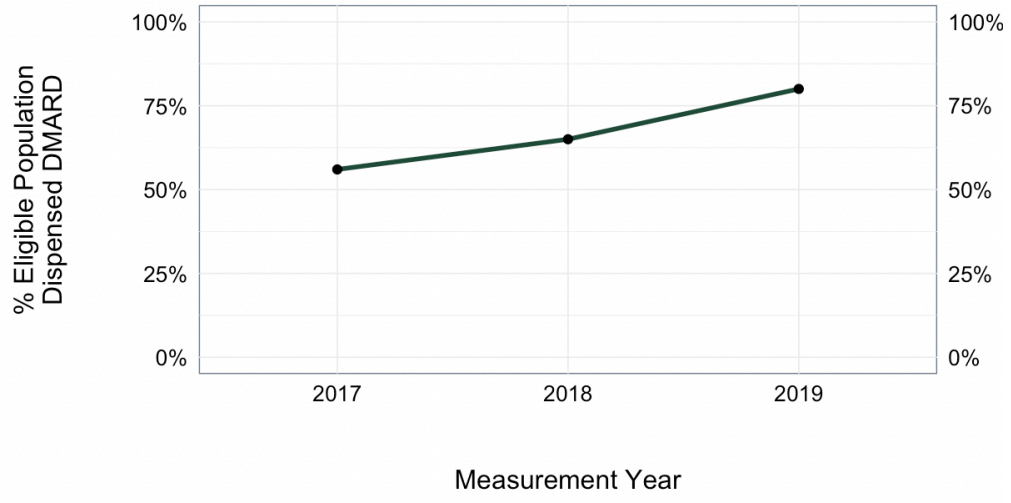
Figure 3. Patients enrolled in Medicare Fee-for-Service (FFS) represented the largest cohort when the measure population was segmented by category of insurance coverage. Across all insurance categories, a significantly larger percentage of patients meeting the inclusion criteria were female.



Overall DMARD Dispense Rates and Variations Based on Health Insurance Category

Komodo found that among the 860,429 rheumatoid arthritis patients in the eligible population, approximately 80% were prescribed and had dispensed at least one disease-modifying anti-rheumatic drug (DMARD) sometime during **Measurement Year 2019**.[2] This reflects a 19% increase in DMARD dispense rates compared to Measurement Year 2018.

Figure 4. Three-year screening trends. Rates of DMARD use in the eligible populations have increased steadily over the past three measurement years.



[2] Per the measure specification, initiation of DMARD therapy and continuation of an existing DMARD regimen during the measurement year both qualified as valid dispense events for patients in the eligible population.

As was observed in 2018, dispense rates varied significantly depending on the type of insurance coverage that a patient had. We summarized the results in Table 3 and Figure 5 below. The highest dispense rate was observed in the group of patients in the Commercial-Private insurance category. The lowest dispense rates were observed in the Medicaid Managed Care and Medicaid-Medicare Dual groups.

Table 3. Summary results of DMARD dispensing rates in patients diagnosed with rheumatoid arthritis. Results are for **Measurement Year 2019**.

Health Insurance Category	Eligible	Dispensed DMARD	Percent (%)	Proportion	Lower Limit	Upper Limit	Change from 2018
Commercial-Private	208,788	182,373	87.3%	0.8735	0.8721	0.8749	↑
Medicaid Managed Care	11,259	5,203	46.2%	0.4621	0.4529	0.4714	↓
Medicaid-Medicare Dual	77,695	31,450	40.5%	0.4048	0.4013	0.4082	↓
Medicare Advantage	161,827	135,572	83.8%	0.8378	0.8360	0.8396	↑
Medicare Fee-for-Service	400,860	337,935	84.3%	0.8430	0.8419	0.8441	↑

Table Notes: * Confidence Intervals (CIs) for proportions computed using Clopper–Pearson interval method. The 95% confidence level threshold was applied.

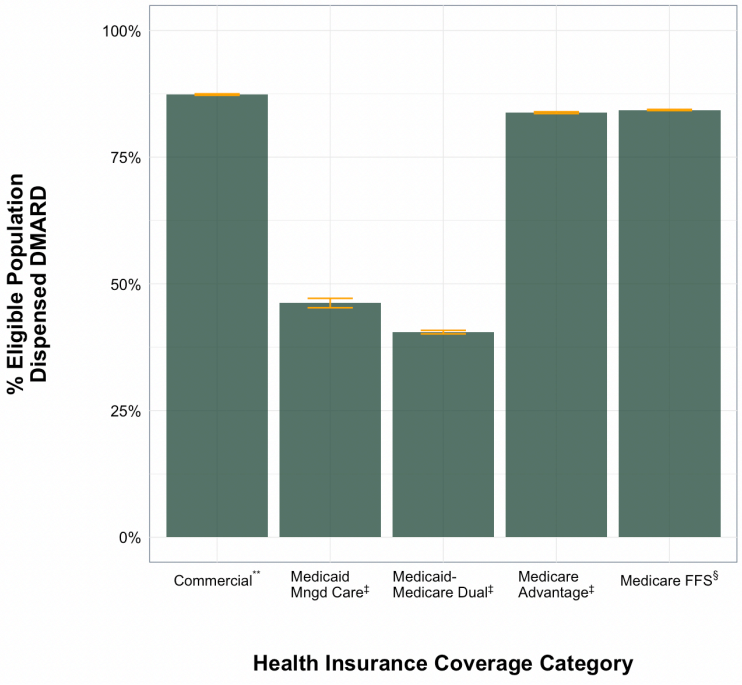


Figure 5. Graphic representation of Table 1 results. DMARD dispense rates for **Measurement Year 2019**, segmented by health insurance coverage category. Orange bars represent confidence intervals.

Notes: See additional notes associated with Table 1
** Signifies a mix of indemnity and managed care product types, including PPO, HMO, and EPO.
‡ Signifies exclusively a managed care product type.
§ Signifies exclusively indemnity product type (not managed care).

Using Pearson's chi-squared test and the Marascuilo procedure, we determined that the differences in the DMARD dispense rates were highly statistically significant. The Marascuilo procedure tests for the statistical significance of differences in DMARD dispense rates between each pair-wise combination of groups.[3] While the overall three-year trend in DMARD dispense rates has been positive, the gains have not been uniform across the entire eligible population. Compared to Measurement Year 2018, rates for the Medicaid Managed Care and the Medicare-Medicaid Dual groups trended downward. In this analysis, because the Commercial and Medicare FFS patients account for the largest segment of the overall eligible population, these groups contribute substantially to the overall upward trend in DMARD dispense rates that have been observed over the last three measurement periods.

In order to estimate the relative strength of the association between Health Insurance Category and DMARD dispense rates and to determine if the variations that we observed were statistically significant, we performed additional analysis. We treated the Medicaid-Medicare Dual category (lowest DMARD dispense rate) as our base reference and did a pairwise comparison of the probability of being prescribed ***and*** dispensed a DMARD for management of rheumatoid arthritis. This pairwise analysis is referred to as the *relative risk* or *risk ratio* and is defined as the ratio of the probability of a specific outcome in one group compared to another group. It attempts to answer the following specific questions:

> *Compared to patients in the Medicaid-Medicare Dual category, how much more likely were patients to be prescribed and dispensed at least one DMARD agent during the measurement period if they were in each of the following coverage categories:*
>
> - *Commercial-Private*
> - *Medicaid Managed Care*
> - *Medicare Advantage*
> - *Medicare Fee-for-Service*

Although the use of the term *risk* might suggest that the event or outcome is harmful or undesirable, in this case, the event of interest is a prescription medication dispense event. As summarized in Table 4, we found that compared to rheumatoid arthritis (RA) patients enrolled in a Medicaid-Medicare Dual eligibility plan, Commercial-Private insurance patients, Medicare Fee-for-Service and Medicare Advantage patients were more than twice as likely to be dispensed a DMARD. Medicaid Managed Care patients were slightly more likely dispensed a DMARD.

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[3] E.g., Medicaid Managed Care vs. Commercial; Medicaid Managed Care vs. Medicare Advantage; Medicaid vs. Dual; Commercial vs. Medicare Advantage, etc.

Table 4. Risk ratio of DMARD dispensing comparing Medicaid-Medicare Dual to other coverage categories. Refer to text for a detailed explanation and interpretation of risk ratios. Using Medicaid Managed Care as the exemplar, all differences were statistically highly significant with $p < 0.001$.

Health Insurance Category	Risk Ratio Estimate	Lower Limit	Upper Limit	Confidence Level *
Medicaid-Medicare Dual	1	*NA*	*NA*	0.95
Medicaid Managed Care	1.14 ‡	1.12	1.67	0.95
Medicare Advantage	2.06 ‡	2.05	2.09	0.95
Medicare Fee-for-Service	2.08 ‡	2.06	2.10	0.95
Commercial-Private	2.16 ‡	2.14	2.17	0.95

‡ Difference is statistically significant with p-value < 0.001. Test statistic is a z-score (z) defined by the following equation: *z = (p1 - p2) / SE* and used to compare two observed proportions.

Variations in DMARD Dispense Rates Based on State of Residence

Komodo observed variations in DMARD dispense rates as a function of a patient's state of residence. After uniquely assigning each patient to one and only one state of residence, Komodo then grouped patients from all health insurance categories together and recalculated DMARD dispense rates for each state. In **Measurement Year 2019**, we observed a 16 - 19% difference between the five states with the highest DMARD dispense rates (Minnesota, South Dakota, Nebraska, North Dakota, and Vermont) and the state with the lowest DMARD dispense rate (California). We confirmed that the sample size for each state was sufficiently large to detect significant differences in proportion using the methods of Fleiss, Tytun, and Ury. Results are summarized in Figures 6 and 7 below. Rates for each state are summarized in Table 5.

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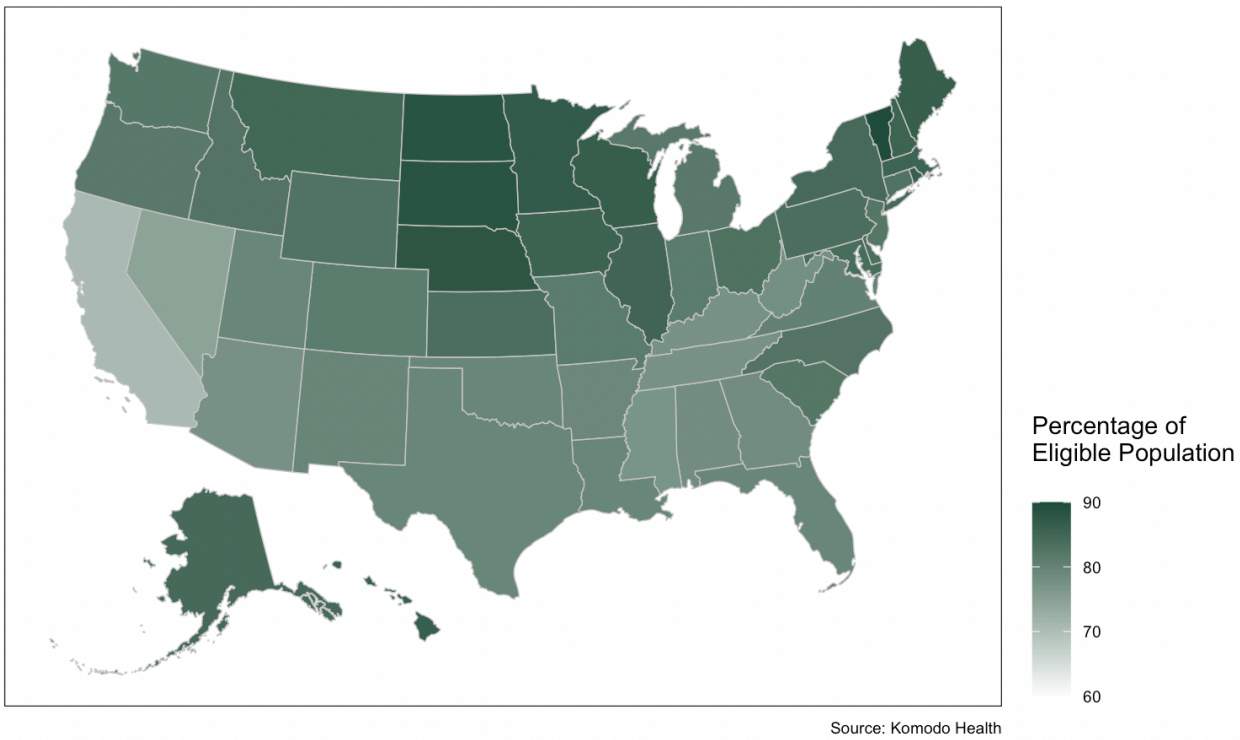
Figure 6. Heatmap representation of DMARD dispense rates by state. Patients from all health insurance categories were aggregated. Power and sample size for each state were assessed retrospectively and determined to be sufficiently large to detect significant differences in proportion.



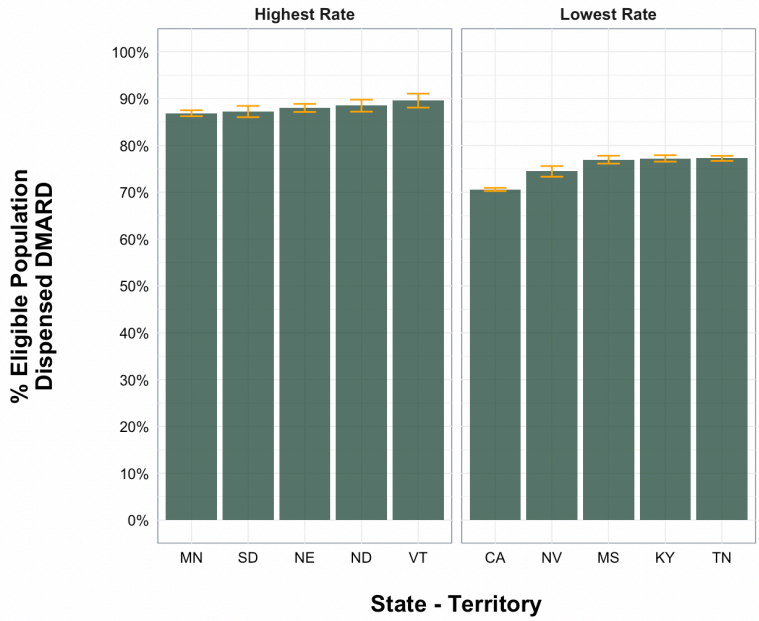


Figure 7. Graphic representation of DMARD dispense rates by state. Patients from all health insurance categories were aggregated. The five states with the highest dispense rates are compared to the five states with lowest dispense rates. Orange bars represent confidence intervals.

Table 5: Complete list of DMARD dispense rates by state for Measurement Year 2019. Patients from all health insurance categories were aggregated.

State - Territory	Dispense Rate *	State - Territory	Dispense Rate	State - Territory	Dispense Rate
Alaska	84.49%	Louisiana	79.19%	Oklahoma	79.03%
Alabama	78.10%	Massachusetts	85.40%	Oregon	81.46%
Arkansas	78.89%	Maryland	83.88%	Pennsylvania	83.28%
Arizona	77.36%	Maine	86.61%	Rhode Island	86.24%
California	70.60%	Michigan	81.43%	South Carolina	82.26%
Colorado	81.22%	Minnesota	86.87%	South Dakota	87.27%
Connecticut	82.94%	Missouri	81.28%	Tennessee	77.24%
District of Columbia	85.13%	Mississippi	76.96%	Texas	79.40%
Delaware	83.56%	Montana	84.96%	Utah	79.16%
Florida	79.14%	North Carolina	82.32%	Virginia	80.37%
Georgia	78.20%	North Dakota	88.53%	Vermont	89.63%
Hawaii	86.08%	Nebraska	88.03%	Washington	82.01%
Iowa	85.79%	New Hampshire	85.48%	Wisconsin	86.63%
Idaho	82.46%	New Jersey	82.16%	West Virginia	77.87%
Illinois	84.98%	New Mexico	79.66%	Wyoming	82.53%
Indiana	81.30%	Nevada	74.47%		
Kansas	83.43%	New York	84.27%		
Kentucky	77.23%	Ohio	83.09%		

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Discussion of Findings

Komodo Health uses its comprehensive all-payer data assets to measure important indicators of clinical effectiveness, cost-effectiveness and equity of access to high-quality and evidence-based healthcare across a diverse set of patients, providers and healthcare systems. Our objectives are to provide stakeholders with additional and potentially actionable insights relating to variations in quality or effectiveness of care. In the analysis reported here, we evaluated dispense rates of DMARD among patients in the United States diagnosed with rheumatoid arthritis as an important indicator of quality and the use of evidence-based healthcare processes for patients with serious and chronic health conditions. Three factors enabled us to conduct a unique comparative analysis and detect important variations across regions and payer types. First, Komodo was able to evaluate a relatively large number of patients on whom we had a complete longitudinal record of clinical encounters and prescription drug use. Second, the number of evaluable patients in each of the Commercial, Medicaid and Medicare health insurance coverage categories was sufficiently large that the results of the payer-segmented analysis were statistically supported. Finally, the national coverage was complete and the number of evaluable patients in each of the individual states and the District of Columbia was sufficiently large that the results of the state-segmented analysis were statistically supported.

With respect to the demographics of the eligible population, the observations in Measurement Year 2019 are consistent with our understanding of the condition in the United States. The sex/gender and age distributions that we observed in this rheumatoid arthritis measurement population are consistent with distributions reported in the peer-reviewed literature and public health registries and in a prior public report released by Komodo Health. Population-based research studies using claims data, disease registries and public health surveys consistently report female-to-male sex/gender ratios ranging from approximately 2:1 to 3:1, and this is consistent with our observations in this measurement population.

Overall, DMARD dispensing rates for rheumatoid arthritis patients continued to rise over the past several years. This is due, in part, to a broader set of highly effective, biologically based agents that generally are available to patients. FDA approval and introduction into the market of two additional oral Janus kinase (JAK) inhibitors for rheumatoid arthritis just prior to and during the 2019 measurement period, further expanded treatment options. Baricitinib (approved mid-2018), upadacitinib (approved mid-2019), and the existing tofacitinib represent the three oral Janus kinase (JAK) inhibitors or biological DMARDs that were available to patients during the 2019 Measurement Year. The oral route of administration of these JAK inhibitors potentially simplifies therapy for patients who otherwise would have been prescribed an injection- or infusion-based biological DMARD, and have the potential to lead to higher persistence (i.e., patients remaining on a therapeutic agent for prolonged durations) compared to injection or infusion-based DMARDs.

While we have seen a consistent upward trend in the overall use and dispense rates for DMARDs in the rheumatoid arthritis population, our analysis demonstrates persistent and statistically significant

variations in DMARD dispense rates in association with specific health insurance categories. In particular, patients in the Medicaid group cohorts (Medicaid Managed Care and Medicaid-Medicare Dual) continue to demonstrate relatively low DMARD dispense rates compared to patients in the Commercial, Medicare Advantage, and Medicare FFS groups. Komodo Health is in the process of conducting a detailed multi-year analysis of formulary coverage, dispensing activity, and persistence of therapy between csDMARDs, tsDMARDs, and bsDMARDs in order to further understand variations in DMARD use within subsets of the eligible population.

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Medication Adherence and Persistence Concepts

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Appendix 1: Glossary of Terms and Abbreviations

CDC. Centers for Disease Control and Prevention.

CMS. Centers for Medicare & Medicaid Services.

Coverage. A term used by healthcare insurers and health plan sponsors to refer to enrollment and continued eligibility for a specific, defined set of healthcare benefits. Coverage can be segmented into *medical benefit coverage*, *prescription drug benefit coverage*, and possible other subsets of healthcare benefits. In the case of employer-sponsored health insurance benefits, eligibility and enrollment is based on employment status with an employer-sponsor and election into a specific benefit. In the case of Medicaid, eligibility and enrollment is based on residency in the state that is sponsoring the health benefit, combined with other criteria such as income, gender, disability status, possibly work status, and other state-specific criteria. In the case of Medicare, eligibility and enrollment is based on age and disability status or end-stage renal disease status; for some benefits, eligibility and enrollment also requires election into and purchase of a specific benefit.

HEDIS.® Healthcare Effectiveness Data and Information Set. A set of standard metrics quantified using data and designed to measure quality across 6 domains of care: Effectiveness of Care, Access/Availability of Care, Experience of Care, Utilization and Risk-Adjusted Utilization, Health Plan Descriptive Information, Measures Collected Using Electronic Clinical Data Systems.

National Quality Forum. A non-profit membership organization that reviews, validates, and provides expert consensus endorsement of specific healthcare quality metrics. See http://www.qualityforum.org/Home.aspx.

Prevalence. A measure of how common a disease or condition is in the population at a given time.

Medicaid. A joint federal- and state-sponsored health insurance program that provides healthcare coverage to eligible low-income adults, children, pregnant women, elderly adults, and people with disabilities. Medicaid is often used to refer to a collection of distinct programs that includes Medicaid fee-for-service, Medicaid Managed Care, Medical Assistance, and Children's Health Insurance Plan (CHIP). It also includes patients, referred to as “dual eligibles,” who concurrently qualify for benefits covered under both the Medicare and Medicaid plans.

Employer-Sponsored Coverage. Health insurance or a healthcare benefit offered to a person as a benefit relating to their employment status or the employment status of a spouse, parent, or civil partner.

Note: HEDIS®Measure Specification details were removed from this report due to a request from NCQA on January 31, 2025