



Healthcare Quality Performance

Use of Imaging Studies for Low Back Pain (LBP)

Patterns of Utilization - 2022

**CMS Qualified Entity (QE) Program
Public Report**

October 2025

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, and equity.

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 of* 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 diagnostic practices in 2022 using a standard process measure from the National Committee for Quality Assurance.

What Are We Measuring?

Komodo measures and quantifies the extent to which patients in the United States are receiving appropriate diagnostic services for health conditions. For this report, Komodo used a Healthcare Effectiveness Data and Information Set (HEDIS®) standard measure that was developed by experts and is reporting based on the Measurement Year (MY) 2022 specifications. The HEDIS® standard measure included in this report is:

- Use of Imaging Studies for Low Back Pain (LBP)
CMS Measure Type: QE CBE-Endorsed: NCQA



Why Is This Measure Important?

Low back pain is the fifth most common reason for a patient to visit a physician. To support positive patient outcomes, patients must be appropriately evaluated to determine the right next steps for their care. As explained in the American Board of Internal Medicine Foundation's Choosing Wisely®

campaign and the American College of Radiology's Appropriateness Criteria® evidence-based guidelines, diagnostic imaging is not recommended for identifying the cause of low back pain after the initial onset period of symptoms unless further red flags are present. There are a number of reasons for this recommendation:

- Most patients' low back pain will recover on its own
- Imaging may show anatomic abnormalities that prompt further unnecessary interventions as these abnormalities may be benign and/or also present in patients with no back pain.
 - For example, there is a correlation between an increased rate of imaging with an increased rate of surgery
- Additional diagnostic imaging causes unnecessary exposure to radiation and wastes time and resources
- Patient labeling has been shown to worsen patients' sense of well-being
- Studies have found no significant clinical difference in patient outcomes between those who had imaging completed versus those who received the usual care

These guidelines underscore the need for continuous measurement and analysis in order to understand why the utilization of diagnostic imaging continues in the low back pain patient population on a state-by-state, region-by-region, and insurance-type basis.

What Data Did We Use for Measurement?

Komodo combined its internal data sources with the Centers for Medicare & Medicaid Services (CMS) Medicare 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 imaging rates at the national, regional, and local levels, stratified by health plan enrollment category. The following is a list of U.S. states/district 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

How Is the Measure Calculated?

Komodo applied the standard HEDIS® measure specification to patients enrolled in any of the following types of health insurance categories: Commercial, Medicaid, 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 imaging rates.

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 includes the managed care payment model as well as state-administered fee-for-service programs. 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.

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 index 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 or territory based on their state of residence on the date of the index event.

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Table 1. Summary of inclusion and exclusion criteria.

<p>Measure Description</p>	<p>The percentage of members 18–75 years of age with a principal diagnosis of low back pain who did not have an imaging study (plain X-ray, MRI, CT scan) within 28 days of the diagnosis.</p> <p>The measure is reported as an inverted rate [1 – (numerator/eligible population)]. A higher score indicates appropriate treatment of low back pain (i.e., the proportion for whom imaging studies did not occur).</p>
<p>Denominator (eligible population)</p>	<p>Members 18 years as of January 1 of the measurement year to 75 years as of December 31 of the measurement year who had an outpatient or ED visit with a primary diagnosis of low back pain.</p>
<p>Numerator</p>	<p>An imaging study with a diagnosis of uncomplicated low back pain on the Index Episode Start Date (IESD) or in the 28 days following the IESD.</p>
<p>Exclusions</p>	<ul style="list-style-type: none"> ○ Exclude members who died any time during the measurement year. ○ Exclude from the eligible population members in hospice or using hospice services any time during the measurement year. ○ Exclude members with a diagnosis of low back pain during the 180 days (6 months) prior to the IESD. ○ Exclude any member who meet any of the following criteria: <ul style="list-style-type: none"> ■ Cancer. Cancer any time during the member’s history through 28 days after the IESD. ■ Recent trauma. Trauma any time during the 3 months (90 days) prior to the IESD through 28 days after the IESD. ■ Intravenous drug abuse. IV drug abuse any time during the 12 months (1 year) prior to the IESD through 28 days after the IESD. ■ Neurologic impairment. Neurologic impairment any time during the 12 months (1 year) prior to the IESD through 28 days after the IESD. ■ HIV. HIV any time during the member’s history through 28 days after the IESD. ■ Spinal Infection. Spinal Infection any time during the 12 months (1 year) prior to the IESD through 28 days after the IESD. ■ Major organ transplant. Major organ transplant any time in the member’s history through 28 days after the IESD. ■ Prolonged use of corticosteroids. 90 consecutive days of corticosteroid treatment any time during the 12 months (1 year) prior to and including the IESD. ■ Osteoporosis. Osteoporosis therapy or a dispensed prescription to treat osteoporosis any time during the member’s history through 28 days after the IESD. ■ Fragility fracture. Fragility fracture any time during the 3 months (90 days) prior to the IESD through 28 days after the IESD. ■ Lumbar surgery. Lumbar surgery any time during the member’s history through 28 days after the IESD. ■ Spondylopathy. Spondylopathy any time during the member’s history through 28 days after the IESD. ■ Palliative care. Members receiving palliative care any time during the measurement year. ■ Members 66 years of age and older as of December 31 of the measurement year (all product lines) with frailty and advanced illness.

What Did We Discover?

Population Overview and Demographics

After applying all inclusion and exclusion criteria, Komodo's Healthcare Map yielded 1,595,100 adults between the ages of 18-75 who met the denominator definition and could be evaluated for imaging studies with a diagnosis of uncomplicated lower back pain.

As demonstrated in Table 2, the Commercial members made up the largest proportion of the eligible population by health insurance category, while Medicaid was the smallest proportion.

Table 2: Eligible population who satisfy the denominator definition.

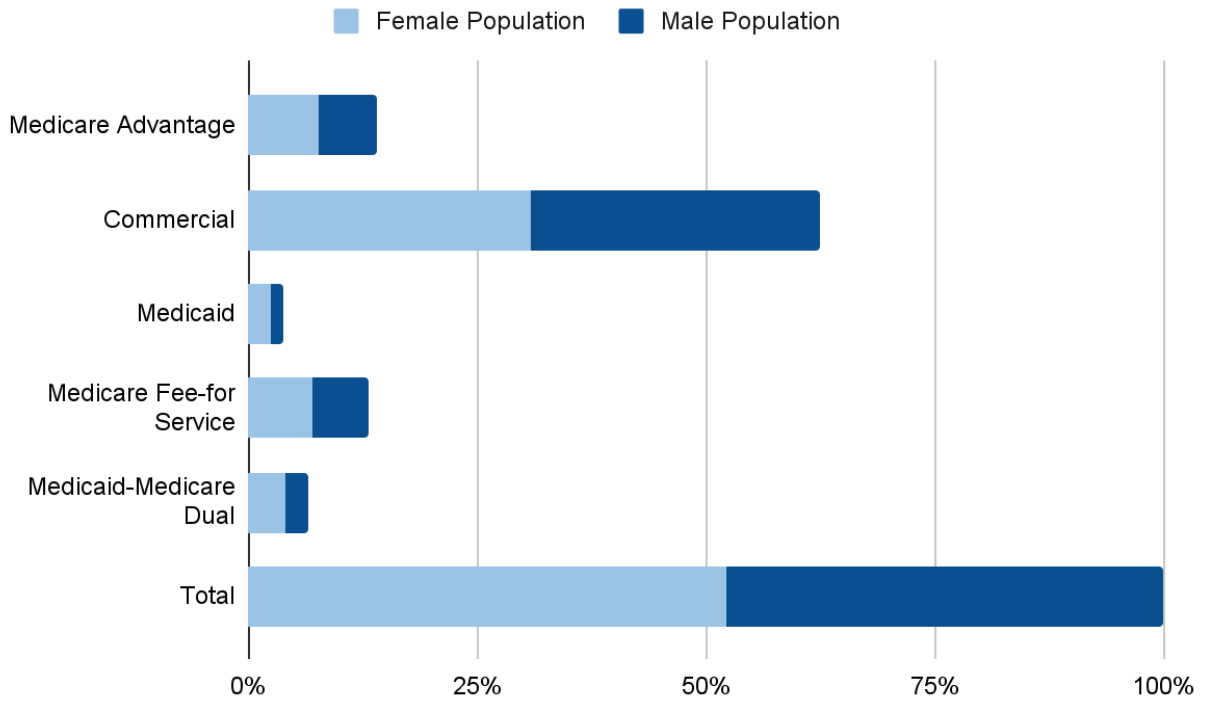
Health Insurance Category	Total
Medicare Advantage	223,547
Commercial	994,945
Medicaid	61,868
Medicare Fee-for-Service	211,349
Medicaid-Medicare Dual	103,391
Total	1,595,100

As shown in Table 3 and Figure 1, the female-to-male sex ratios observed in the measurement population were biased toward females overall and especially so within the Medicaid and Medicaid-Medicare Dual Eligible categories. The mean and median ages of the individuals in the eligible population varied as a function of the health insurance coverage category. Patients in the Commercial and Medicaid categories were younger, with a mean age of 44.6 years and 38.9 years, respectively. Patients in the Medicaid-Medicare Dual category, Medicare Advantage, and Medicare Fee-for-Service categories all had mean ages above 59.

Table 3. Demographics of the eligible population for 2022, segmented by health insurance coverage category.

Health Insurance Category	Total Eligible	Mean Age	Median Age	Percent Female	Percent Male
Medicare Advantage	223,547	67.3	69	55.32%	44.68%
Commercial	994,945	44.6	45	49.51%	50.49%
Medicaid	61,868	38.9	38	64.66%	35.34%
Medicare Fee-for-Service	211,349	69.0	70	53.09%	46.91%
Medicaid-Medicare Dual	103,391	59.7	63	61.90%	38.10%
Aggregated Total	1,595,100	51.8	54	52.19%	47.81%

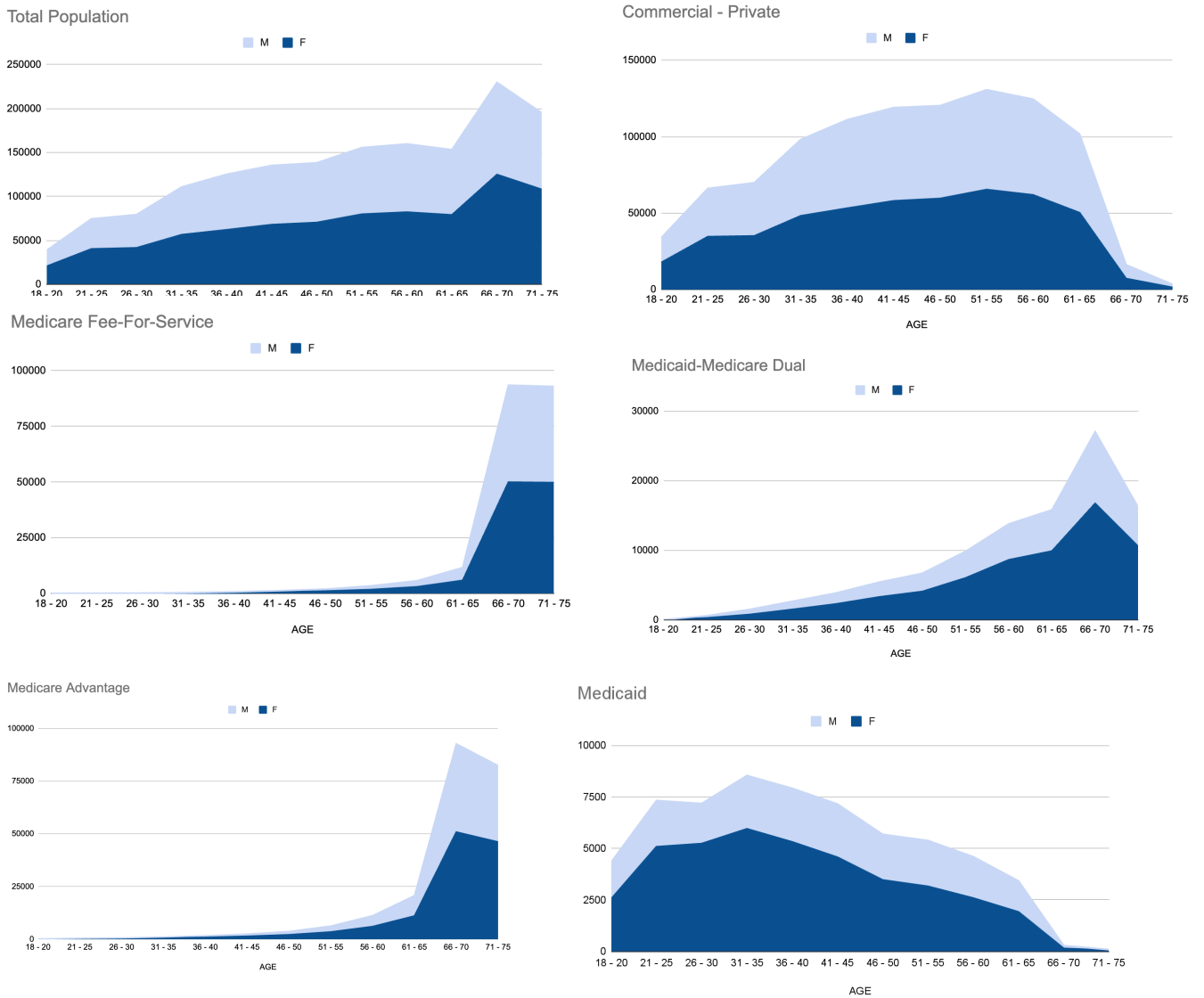
Figure 1. Demographic split of the eligible population by patient sex and health insurance coverage category. 100% represents 1,595,100 beneficiaries.



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Figure 2 shows the age distributions of the different health insurance coverage categories. Age distribution varied as a function of the health insurance coverage category.

Figure 2: Frequency distribution of patient ages in the eligible population, segmented by health insurance coverage category. Age inclusion criteria create an abrupt left-sided cutoff at 18 years and a right-sided cutoff at 75 years.



Variation Based on Health Insurance Category

Table 4 and Figure 3 show the summary results for each health insurance category for the eligible population. The denominator group, as they meet the eligibility criteria, is referred to as the eligible population. The numerator group is a subset of patients from the denominator group who underwent an imaging study with a diagnosis of uncomplicated low back pain on the Index Episode Start Date (IESD) or in the 28 days following the IESD. The numerator group is referred to as the imaged population. The measure of interest is the inverse imaging rate (or "Measure Rate"), i.e. 1 - numerator/denominator.

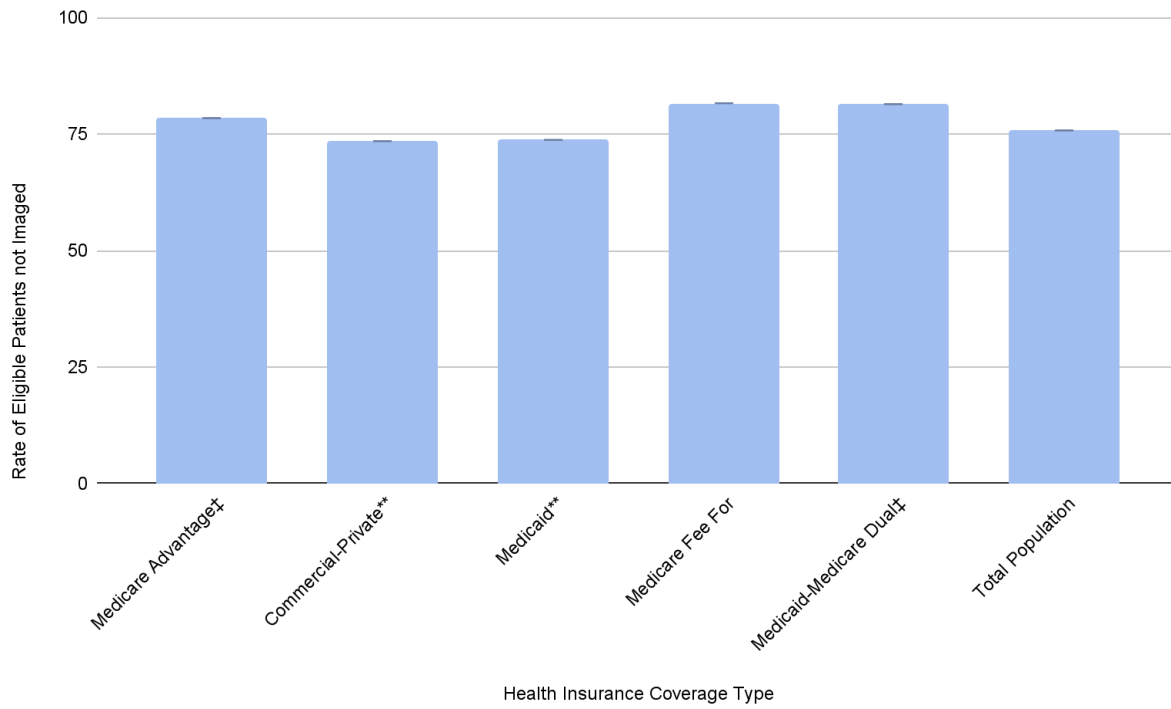
Table 4. Summary results for measure rates among the eligible populations segmented by health insurance category.

Health Insurance Category	Total Eligible	Imaged	Measure Rate	Lower Limit*	Upper Limit*
Medicare Advantage	223,547	48,234	78.42	78.25	78.59
Commercial	994,945	263,884	73.48	73.39	73.56
Medicaid	61,868	16,245	73.74	73.39	74.09
Medicare Fee-for-Service	211,349	38,851	81.62	81.45	81.78
Medicaid-Medicare Dual	103,391	19,207	81.42	81.18	81.66
Aggregated Total	1,595,100	386,421	75.77	75.71	75.84

* Confidence intervals (CIs) = 0.95 for proportions computed using Clopper–Pearson interval method.

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Figure 3. Graphic representation of Table 4 results. Measure rates among the eligible populations segmented by health insurance category. Black bars represent confidence intervals.



** 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).

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To estimate the strength of the association between health insurance category and screening and to determine if the variations that we observed were statistically significant, we performed additional analysis. We treated the Medicaid beneficiaries in the eligible population (those with the lowest measure rate) as our base reference and did a pairwise comparison of the measures. 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 of the eligible population, how much more likely were patients to not receive imaging if they were in each of the following groups:
 - Commercial-Private
 - Medicare Advantage
 - Medicaid-Medicare Dual
 - 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 not receiving an imaging study within 28 days of the index date, which is consistent with current clinical guidelines for this population. As summarized in Table 5, we found that patients enrolled in a Medicaid-Medicare Dual, Medicare Advantage, or Medicare Fee-for-Service plan were 1.07 to 1.11 times more likely to not receive imaging than patients enrolled in the Medicaid insurance plans represented in our Komodo Health all-payer data map; patients enrolled in a Commercial-Private plan seemed about as likely to not receive an imaging study as the Medicaid patients, with no significant difference observed.

Table 5. Risk ratio of not receiving imaging comparing Medicaid vs. each of the other coverage categories. Refer to the text for a detailed explanation and interpretation of risk ratios.

Health Insurance Category	Risk Ratio Estimate	Lower Limit at 95% Confidence level	Upper Limit at 95% Confidence level	p-value
Commercial-Private	1	N/A	N/A	N/A
Medicaid	1.003606546	1.000043088	1.007131947	0.14715
Medicaid-Medicare Dual	1.108133782	1.106196755	1.110044749	<0.001
Medicare Advantage	1.067310401	1.066242056	1.068368145	<0.001
Medicare Fee-For-Service	1.110783573	1.109838701	1.111715852	<0.001

* Test statistic is a two-tailed z-score (z) defined by the following equation: $z = (p_1 - p_2) / SE$ and used to compare two observed proportions, with $SE_{RR} = RR * \sqrt{SE_{p_1}^2/p_1^2 + SE_{p_2}^2/p_2^2}$

For the following analyses on age, sex, race, ethnicity, and geography, patients from all health insurance categories were grouped together¹.

Variation Based on Patient Sex

Following the same risk methodology used for health insurance categories, we performed additional analysis on sex. We treated the male sex in the eligible population as our base reference and did a pairwise comparison of the measures.

As shown in Table 6, we found female patients had a small (Risk Ratio of 1.02) but significant (p<0.001) higher likelihood of not being imaged as compared to male patients.

Table 6. Summary results for measure rates for the eligible population segmented by patient sex. Patients from all health insurance categories and ages 18 to 75 were aggregated.

Patient Sex	Total Eligible	Imaged	Measure Rate	Lower Limit*	Upper Limit*	Risk Ratio Estimate	p-value**
Male	762,666	191,159	74.94	74.84	75.03	1	N/A
Female	832,434	195,262	76.54	76.45	76.63	1.021	<0.001

* Confidence intervals (CIs) = 0.95 for proportions computed using Clopper–Pearson interval method.

** Test statistic is a two-tailed z-score (z) defined by the following equation: $z = (p_1 - p_2) / SE$ and used to compare two observed proportions, with $SE_{RR} = RR * \sqrt{SE_{p_1}^2/p_1^2 + SE_{p_2}^2/p_2^2}$

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¹ A set of patients grouped together from all health insurance categories is referred to as an all payer cohort.

Variations in Screening Rates Based on OMB Race and Ethnicity Category

Following the same risk methodology used for health insurance categories, we performed additional analysis on race. We treated the Black or African American eligible population as our base reference and did a pairwise comparison of the measures.

Komodo examined imaging rates by race and ethnicity categories. Komodo data had a reliable OMB² race assignment on approximately 70% of the total eligible population and also a reliable OMB ethnicity assignment on approximately 71% of the total eligible population.

As shown in Table 7, we found the highest measure rate among the Other population at 76.92 and the lowest among the Black or African American population, at 73.71. We selected the Black or African American population to serve as the baseline for the risk ratio estimates and p-value calculations. The risk ratio of other known OMB race categories ranged from 1.01 to 1.04 and all differences were significant at the $p < 0.001$ level.

Table 7. Summary results for measure rates for the eligible population segmented by OMB Race Category. Patients from all health insurance categories and ages 18 to 75 were aggregated.

OMB Race Category	Total Eligible	Imaged	Measure Rate	Lower Limit*	Upper Limit*	Risk Ratio Estimate	p-value**
Asian or Pacific Islander	46,282	10,713	76.85	76.47	77.24	1.043	<0.001
Black or African American	159,954	42,058	73.71	73.49	73.92	1.000	N/A
White	847,638	198,367	76.60	76.51	76.69	1.039	<0.001
Other	63,173	14,581	76.92	76.59	77.25	1.044	<0.001
Unknown	478,053	120,702	74.75	74.63	74.87	1.014	<0.001

* Confidence intervals (CIs) = 0.95 for proportions computed using Clopper–Pearson interval method.

** Test statistic is a two-tailed z-score (z) defined by the following equation: $z = (p_1 - p_2) / SE$ and used to compare two observed proportions, with $SE_{RR} = RR * \sqrt{(SE_{p_1}^2/p_1^2 + SE_{p_2}^2/p_2^2)}$

² OMB refers to the Office of Management and Budget (OMB) which sets data collection standards used by the US Department of Health and Human Services (HHS). HHS uses the OMB minimum categories for race and ethnicity in many of its surveys and data collection initiatives relating to evaluation and policy development. For more information, see <https://minorityhealth.hhs.gov/data-collection-standards-race-ethnicity-primary-language-sex-and-disability-status>

Following the same risk methodology used for health insurance categories, we performed an additional analysis on ethnicity. We treated the Hispanic or Latino eligible population as our base reference and did a pairwise comparison of the measures.

As shown in Table 8, the difference in the measure for Hispanic or Latino patients (selected as baseline) and those who are not Hispanic or Latino was very small but still significant.

Table 8. Summary results for measure rates for the eligible population segmented by OMB Ethnicity Category. Patients from all health insurance categories and ages 18 to 75 were aggregated.

OMB Ethnicity Category	Total Eligible	Imaged	Measure Rate	Lower Limit*	Upper Limit*	Risk Ratio Estimate	P-value**
Hispanic or Latino	143,456	35,081	75.55	75.32	75.77	1	N/A
Not Hispanic or Latino	986,440	233,758	76.30	76.22	76.39	1.01	<0.001
Unknown	465,204	117,582	74.72	74.60	74.85	N/A	N/A

* Confidence intervals (CIs) = 0.95 for proportions computed using Clopper–Pearson interval method.

** Test statistic is a two-tailed z-score (z) defined by the following equation: $z = (p1 - p2) / SE$ and used to compare two observed proportions, with $SE_{RR} = RR * \sqrt{(SE_{p1}^2/p1^2 + SE_{p2}^2/p2^2)}$

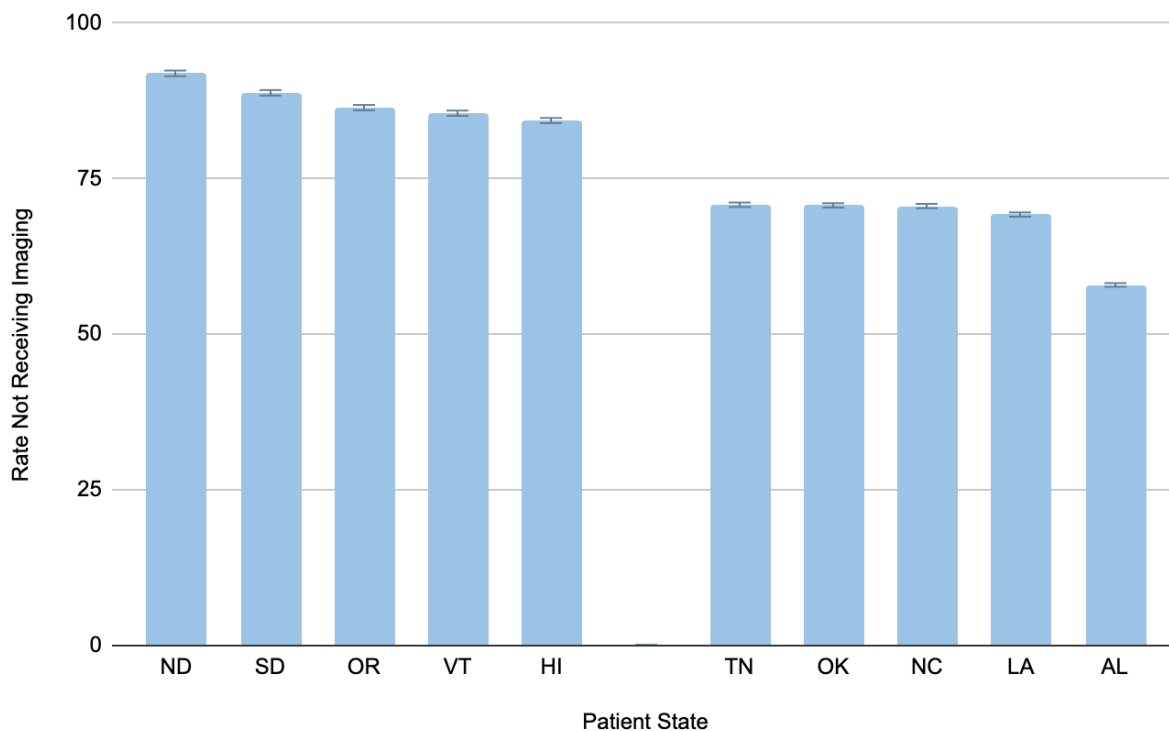
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Variation Based on State or Territory of Residence

Diagnostic imaging rates varied meaningfully depending on a patient's state or district of residence. Komodo Health only included data from the District of Columbia and the 50 states. We determined that the sample size for each state and district was sufficiently large to detect significant differences in proportion using methods of Fleiss, Tytun, and Ury. Cohort size from U.S. territories was not sufficiently powered to support analysis.

As shown in Figure 4, we observed a 34-point difference between the state with the highest rate (North Dakota) and the state with the lowest rate (Alabama).

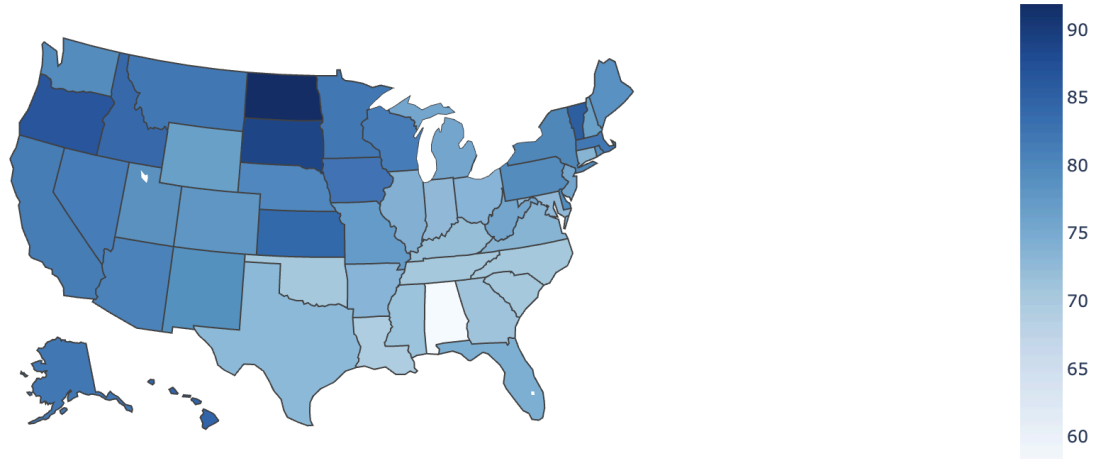
Figure 4. Graphic representation of measure rates for the eligible population by state/district. Patients from all health insurance categories and ages 18 to 75 were aggregated. The five states with the highest measure rates are compared to the five states with the lowest measure rates. Black bars represent 95% confidence intervals.



As shown in Figure 5, measure rates tended to be higher in the west and northeast states and lower in the southeast. Rates for each state and district are summarized in Table 9.

Figure 5. Heatmap representation of measure rate for the eligible population by state/district. Patients from all health insurance categories and ages 18 to 75 were aggregated. Power and sample size for each state were assessed retrospectively and determined to be sufficiently large enough to detect significant differences in proportion.

Inverted Imaging Rate



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Table 9: Complete list of measure rates for the eligible population by State/District. Patients from all health insurance categories and ages 18 to 75 were aggregated.

State or District	Measure Rate	State or District	Measure Rate	State or District	Measure Rate
Alabama	57.89	Louisiana	69.21	Oklahoma	70.68
Alaska	82.30	Maine	78.63	Oregon	86.40
Arizona	80.75	Maryland	72.53	Pennsylvania	79.28
Arkansas	73.43	Massachusetts	81.81	Rhode Island	79.08
California	81.64	Michigan	75.36	South Carolina	70.83
Colorado	77.92	Minnesota	81.95	South Dakota	88.78
Connecticut	73.61	Mississippi	71.52	Tennessee	70.78
Delaware	79.72	Missouri	77.18	Texas	72.99
District of Columbia	74.20	Montana	82.03	Utah	78.80
Florida	74.50	Nebraska	79.73	Vermont	85.51
Georgia	70.90	Nevada	81.11	Virginia	73.62
Hawaii	84.33	New Hampshire	76.60	Washington	79.17
Idaho	83.99	New Jersey	75.72	West Virginia	75.80
Illinois	74.04	New Mexico	79.04	Wisconsin	81.23
Indiana	72.47	New York	80.04	Wyoming	76.50
Iowa	82.40	North Carolina	70.57	United States	75.77
Kansas	84.11	North Dakota	91.90		
Kentucky	71.89	Ohio	73.37		

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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 objective is to provide stakeholders with additional and potentially actionable insights relating to variations in quality or effectiveness of care.

Three factors enabled comparative analysis and detection of variations. First, Komodo Health was able to evaluate a relatively large number of patients for whom a complete longitudinal record of clinical encounters was available. 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 state and the District of Columbia was sufficiently large that the results of the state-segmented analysis were statistically supported.

Meaningful regional variation was noted in the measure rates in this measure population. Further analysis is needed to determine if there are confounding factors that are driving the difference.

The type of health insurance coverage that a beneficiary has also correlates with measure rates. Medicare patients (whether Medicare Advantage, Medicare Fee-For-Service or Medicaid-Medicare Duals) have slightly higher measure rates as compared to Medicaid-alone or Commercial patients.

There are moderate differences associated with OMB Race categories, with a lower measure rate for Black or African American patients as compared to other groups. Given that there are many potential confounding factors, this warrants further study.

There are also differences associated with patient sex, with the measure rate of women slightly higher than that of men.

These findings suggest the need to examine more extensively the relationship between this eligible population's measure rate and the following:

- Potential drivers of geographic and race category variability, such as comorbidities (e.g. obesity) and access to care (e.g., distance to closest CT/MRI facilities, # of imaging centers)
- Potential confounding factors for the variability by sex, such as relative differences in reported pain severity scores
- Provider knowledge of and incentives (e.g., value-based payment) for adherence to guidelines for imaging for low back pain

Compared to last year's findings, the overall measure rate as well as the comparisons within each data category are very similar. In 2021, the overall measure rate for the United States was 75.42. The rate increased slightly by 0.35 to 75.77 in 2022. Within the data categories, the same categories achieved statistical significance over the course of the last two years. This demonstrates no meaningful year-over-year change in imaging rates for low back pain across the United States.

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Appendix 1: Glossary of Terms and Abbreviations

CBE. Consensus-Based Entity (CBEs) that endorses measures for public reporting

CMS. Centers for Medicare & Medicaid Services.

Cohort. A specific sub-group of a larger population defined by a specific characteristic. Characteristics defining group membership may be one or a combination of factors thought to potentially influence the outcome of interest. Examples of characteristics that define a cohort include age, race, health insurance coverage, state of residence, etc..

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-sponsored 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.

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.

EPO. Exclusive Provider Organization

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.

HMO. Health Maintenance Organization.

IESD. Index Episode Start Date

LBP. Lower back pain

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.

MY. Measurement Year. Each metric has a definition that is specific to a given calendar year.

NCQA. National Committee for Quality Assurance, an independent organization that administers evidence-based standards, measures, programs, and accreditation

PPO. Preferred Provider Organization

QE. The Qualified Entity Certification Program, administered by Centers for Medicare & Medicaid Services, allows organizations to access Medicare claims data to evaluate and publicly report on performance

NCQA Measure Adjustment and Certification Notices

Unadjusted Uncertified Measures: *The logic used to produce these HEDIS® measure results has not been certified by NCQA. Such results are not an indication of measure validity. A calculated measure result (a “rate”) from a HEDIS measure that has not been certified via NCQA’s Measure Certification Program, and is based on unadjusted HEDIS specifications, may not be called a Updated August 2024 3 “Health Plan HEDIS rate” until it is audited and designated reportable by an NCQA-Certified HEDIS Compliance Auditor. Until such time, such measure rates shall be designated or referred to as “Uncertified, Unaudited Health Plan HEDIS Rates.”*

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