

Chronic Conditions Experienced by Californians with Original Medicare in 2021

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California Department of Health Care Services
Office of Medicare Innovation and Integration
Prepared by ATI Advisory

Executive Summary

This chartbook examines the chronic conditions most commonly experienced by Californians with Original Medicare in 2021.* These data highlight populations who might benefit from policies, programs, and services that target particular chronic conditions.

The 10 most common conditions affect between 18% and 63% of Californians with Original Medicare, and prevalence varies by sex, geography, age, race and ethnicity, and dual Medicare/Medi-Cal enrollment. Full data are available on the CalHHS Open Data Portal.**

Medicare offers health care coverage for older adults and certain younger individuals with disabilities. Medicare spending shown in this chartbook serves as an indicator of how Californians living with each condition likely experience a higher level of medical need and may be exposed to related out-of-pocket costs.



Californians with Original Medicare were less likely than the national Original Medicare population to have eight of the top 10 most prevalent conditions.

Among Californians with Original Medicare:

- **High blood pressure and high cholesterol were the most prevalent chronic conditions**, affecting two thirds of Californians with Original Medicare. Eight other conditions affected more than one fifth of Californians with Original Medicare.
- Beneficiaries typically had **four co-occurring conditions**, and the number of conditions increased with age. Among the top 10 most prevalent conditions, the number was highest among those with anemia, coronary heart disease, and chronic kidney disease.
- The top 10 most prevalent conditions were generally **more common among beneficiaries in urban areas** and among **beneficiaries ages 85 or older**. Condition prevalence also varied by sex and by race and ethnicity.
 - Four conditions, including drug use disorder and Alzheimer's Disease and related dementias, were more than **twice as common among full dual beneficiaries** than among Medicare-only beneficiaries.
 - The same conditions were more than **twice as common among those who became new full dual beneficiaries** in 2021 compared to the overall Original Medicare population.
- **Total Medicare spending** for beneficiaries with the top 10 most prevalent conditions was generally highest among:
 - Men (for nine of 10 conditions)
 - Beneficiaries living in an urban setting (for 10 of 10 conditions)
 - Beneficiaries younger than 65 (for nine of 10 conditions)
 - Black beneficiaries (for 10 of 10 conditions)
 - Beneficiaries who were fully dual eligible (for eight of 10 conditions)

* The data exclude Californians in Medicare Advantage (MA) because MA diagnosis data are incomplete.

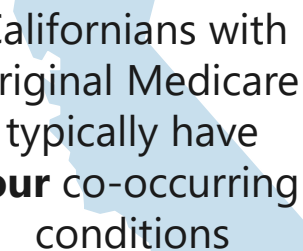
** The California Department of Health & Human Services Open Data Portal is at <https://data.chhs.ca.gov/>.

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Why We Care

Chronic conditions can affect many aspects of daily life for individuals, such as limiting mobility or causing chronic pain. Managing chronic conditions can be expensive for individuals, their families, and the broader health care system. At the same time, many chronic conditions can be prevented, detected early, or successfully treated.



Californians with Original Medicare typically have **four** co-occurring conditions

This chartbook examines chronic conditions among the California Original Medicare population to enable data-informed policy and program planning. Conditions include both physical and behavioral health conditions, such as depression or drug use disorder. Charts show prevalence alongside Medicare spending and a view of co-occurring conditions for the top 10 most common chronic conditions among Californians with Original Medicare. Data on prevalence and spending is portrayed for each demographic group and by dual eligibility to highlight populations who might benefit from policies, programs, and services that target particular chronic conditions. Similar analyses cannot be conducted with existing data for the Medicare Advantage population because Medicare Advantage diagnosis data are incomplete.

Chronic conditions affecting the Medicare population in California are different compared to the state's population overall, because eligibility for Medicare depends on age, disability, and having specific chronic conditions.¹ Consequently, most chronic conditions are more common in the Medicare population than in the population overall. The prevalence of chronic conditions is highest among beneficiaries with dual eligibility for Medicare and Medi-Cal. This is especially true for behavioral conditions and conditions associated with medical complexity. Given the steadily growing and increasingly [culturally and linguistically diverse](#) older adult population in the state, California can benefit from forward-looking policies that are person-centered and advance equity.

Programs and services to manage the effects of chronic conditions are currently being promoted in California through new clinical models in Original Medicare and Medicare Advantage, as well as through California's Medi-Cal program. Preventive activities could also improve Californians' quality of life and life expectancy. The data in this chartbook are meant to provide a better understanding of the experiences of Californians with chronic conditions and inform exploration of targeted solutions.

1. ATI Advisory calculations using data from "[Prevalence of Multiple Chronic Conditions Among US Adults, 2018](#)." CDC, 2020.

Key Definitions

- **Medicare** – Federal health insurance program for most individuals who are 65 or older, certain individuals with disabilities, and those with end-stage renal disease.
- **Original Medicare** – The original Medicare system, where Medicare pays providers for each service rendered. Also known as Fee for Service (FFS) Medicare.
- **Full Dual Beneficiary (“Full Dual”)** – A Medicare beneficiary who is enrolled in Medi-Cal and has full Medi-Cal benefits.
- **Medicare-Only Beneficiary** – A Medicare beneficiary without Medi-Cal benefits and not enrolled in the state Medicare Savings Program, which helps pay for Medicare premiums.
- **New Full Dual Beneficiary** – A Medicare beneficiary without Medi-Cal in January 2021, but who gained and maintained Medi-Cal benefits before December 2021.
- **Geography** – Geographic areas are defined by Rural Urban Commuting Area codes based on ZIP code. “Urban” is defined as a metropolitan area or any area where at least 30% of commuting flows to large urban areas. “Semi-rural” is defined as all remaining micropolitan areas. “Rural” is defined as all remaining small town or rural areas.
- **Conditions and Measures Analyzed in this Chartbook** – This chartbook analyzes 38 conditions available in the Chronic Conditions Warehouse (CCW).
 - **Twenty-Nine Chronic Conditions** are analyzed using the CCW’s [30 Chronic Conditions](#) definitions. The conditions included in this chartbook are below, with their abbreviations in parentheses, where relevant:
 - Acute Myocardial Infarction (Heart Attack)
 - Alzheimer’s Disease or Non-Alzheimer’s Dementia (ADRD)*
 - Anemia
 - Asthma
 - Atrial Fibrillation and Flutter (AFib)
 - Benign Prostatic Hyperplasia (BPH)
 - Breast Cancer
 - Colorectal Cancer
 - Endometrial Cancer (Endo. Cancer)
 - Lung Cancer
 - Prostate Cancer
 - Urologic (Kidney, Renal Pelvis, and Ureter) Cancer
 - Cataracts
 - Chronic Kidney Disease (CKD)

*This chartbook combines Alzheimer’s Disease and Non-Alzheimer’s Dementia into one category.

Key Definitions

• Conditions and Measures Analyzed in this Chartbook (Continued)

• Chronic Conditions (Continued)

- Chronic Obstructive Pulmonary Disease (COPD)
- Depressive Disorders
- Diabetes
- Glaucoma
- Heart Failure and Non-Ischemic Heart Disease
- Hip/Pelvic Fracture
- Hyperlipidemia (High Cholesterol)
- Hypertension (High Blood Pressure)
- Hypothyroidism
- Ischemic Heart Disease (Coronary Heart Disease [CHD])
- Osteoporosis With or Without Pathological Fracture (Osteoporosis)
- Parkinson's Disease and Secondary Parkinsonism (Parkinson's)
- Pneumonia, All-cause (Pneumonia)
- Rheumatoid Arthritis/Osteoarthritis (Arthritis)
- Stroke/Transient Ischemic Attack (Stroke/TIA)

• **Nine Potentially Disabling Conditions** are analyzed using the CCW's [Other Chronic and Potentially Disabling Conditions](#) definitions:

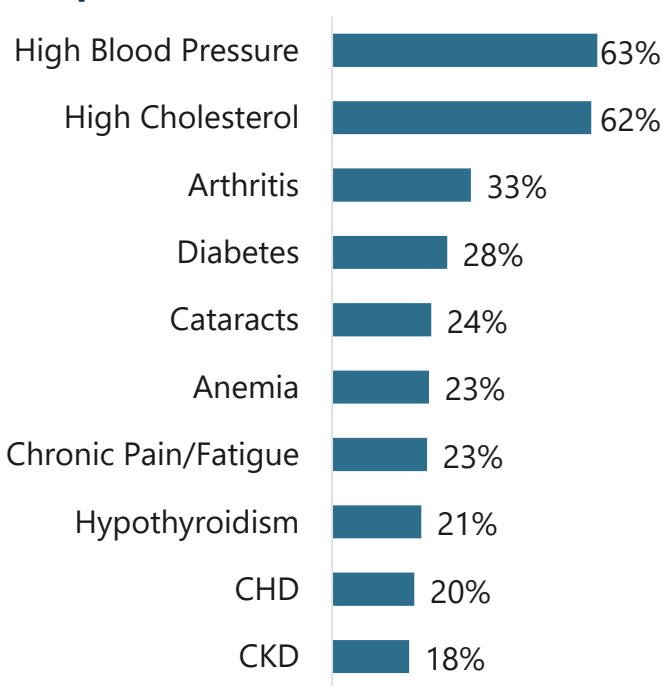
- Blindness and vision impairment
 - Deafness and hearing impairment
 - Drug use disorders (DUD)*
 - Fibromyalgia, chronic pain, and fatigue (Chronic Pain or Chronic Fatigue)
 - Liver disease, cirrhosis, and other liver conditions (Liver Disease)
 - Obesity
 - Pressure and chronic ulcers
 - Sickle cell disease
 - Viral hepatitis
- **Per-Person-Year (PPY) Medicare Spending** – Average Medicare spending for Part A and B services a beneficiary experienced during the year 2021. Note that PPY Medicare spending is not restricted to spending for one chronic condition and instead represents the total spending for individuals with that chronic condition.
 - **Co-Occurring Conditions** – Conditions in the list above, counted for each person as of the end of 2021. Typical co-occurring conditions for a population means the median.

*DUD includes all substance use disorders except alcohol use disorder.

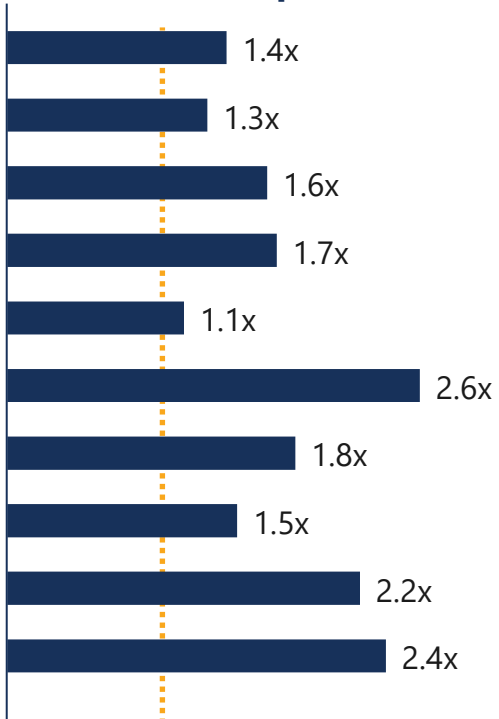
Most Prevalent Chronic Conditions

More than half of Californians with Original Medicare had four or more chronic conditions in 2021, with the most prevalent conditions being high blood pressure (63%), high cholesterol (62%), arthritis (33%), diabetes (28%), and cataracts (24%). Medicare spending for Californians living with the top 10 most common conditions was higher than the statewide average Medicare spending.

Prevalence of Conditions among Californians with Original Medicare (Top 10)



Medicare Spending for Californians with Original Medicare Who Had Condition Compared to Overall



The 2.6 million* individuals in this analysis typically had **four or more** co-occurring chronic conditions

Statewide Medicare Spending PPY: \$14,525



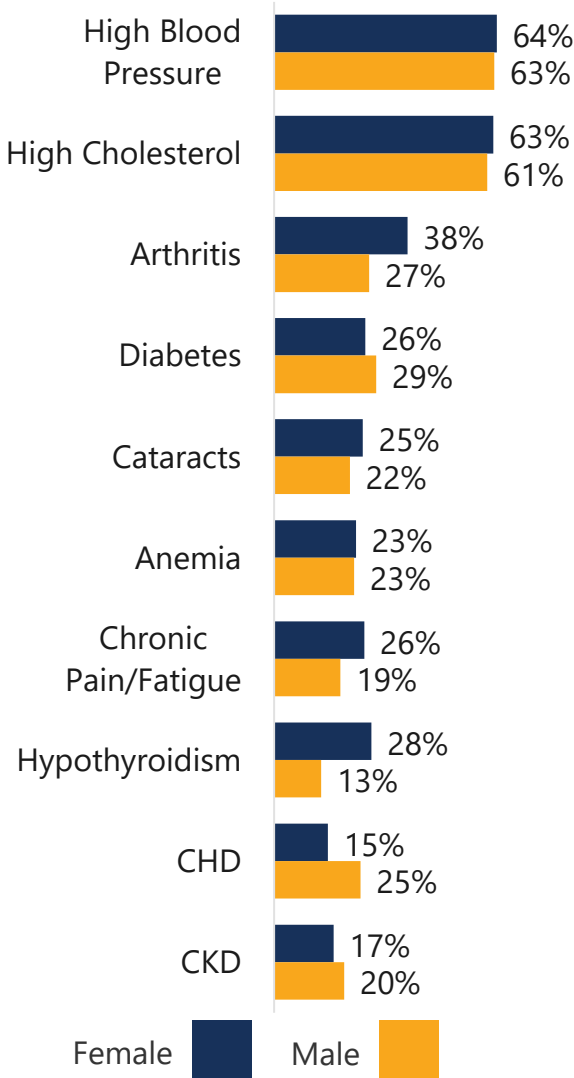
Medicare spending PPY represents the total spending for individuals with that chronic condition, and is not restricted to spending for one condition

*The number of Californians included differs from condition to condition, ranging from 1.8 million to 2.6 million, depending on the length of the reference period used for identifying the condition in Medicare FFS claims. For more, see the [Data Sources](#) page.

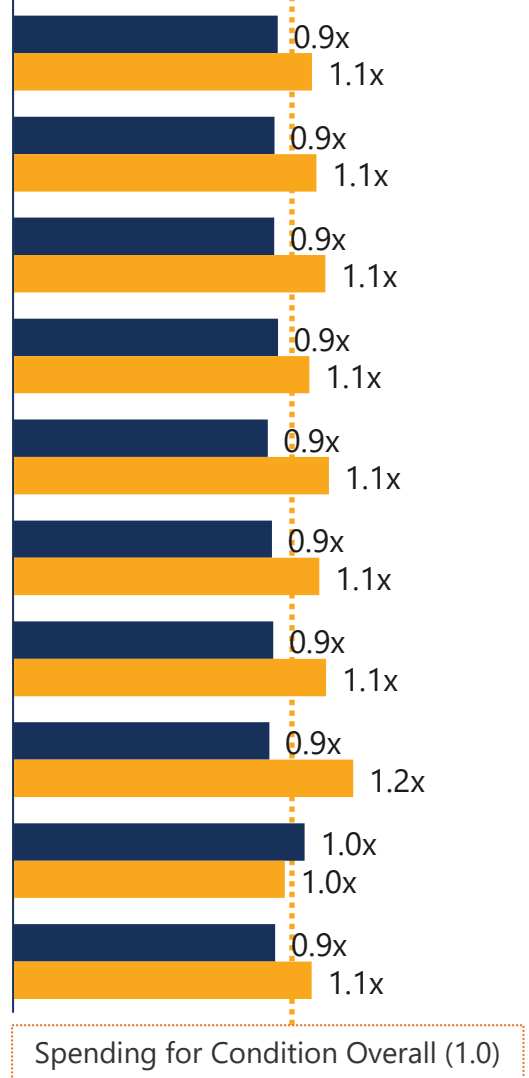
Chronic Conditions by Sex

Among the 10 most prevalent conditions, prevalence varied by sex in 2021. Men experienced higher spending than women for nine of the 10 conditions.

Prevalence by Sex



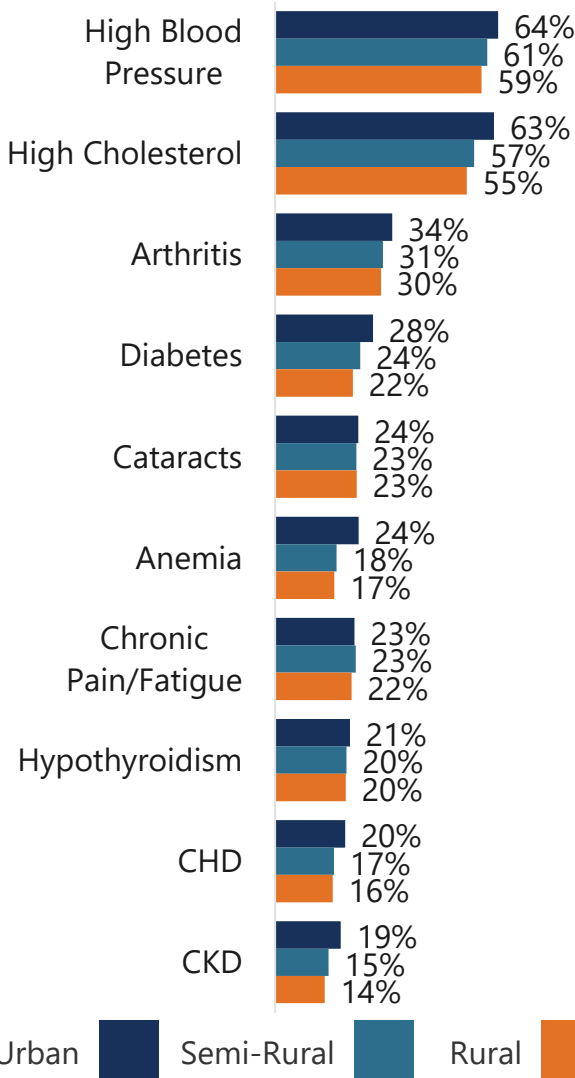
Total Medicare Spending



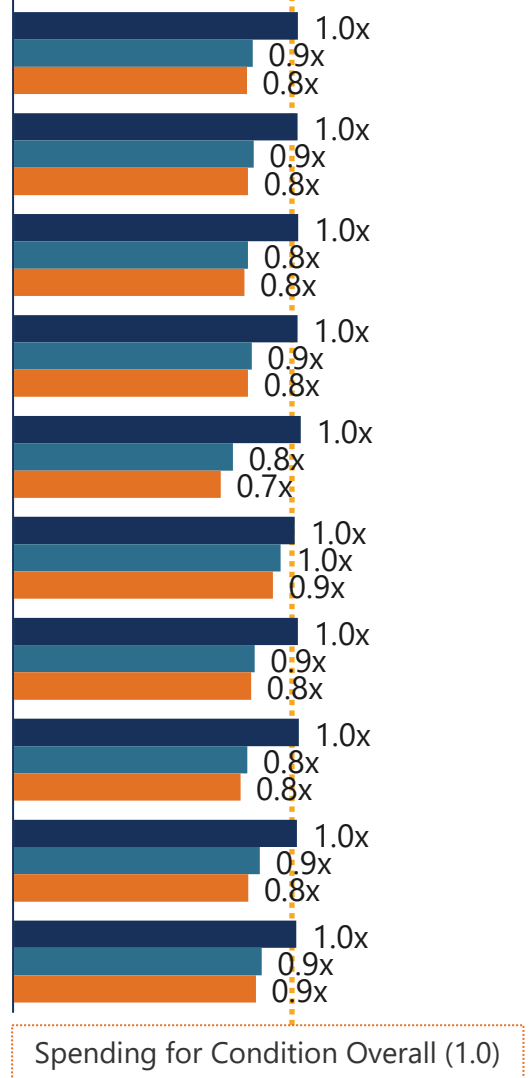
Chronic Conditions by Geography

Among the 10 most prevalent conditions, nine were more common among residents of urban areas than among residents of rural and semi-rural areas. Residents of urban areas experienced the highest Medicare spending across all 10 conditions.

Prevalence by Geography



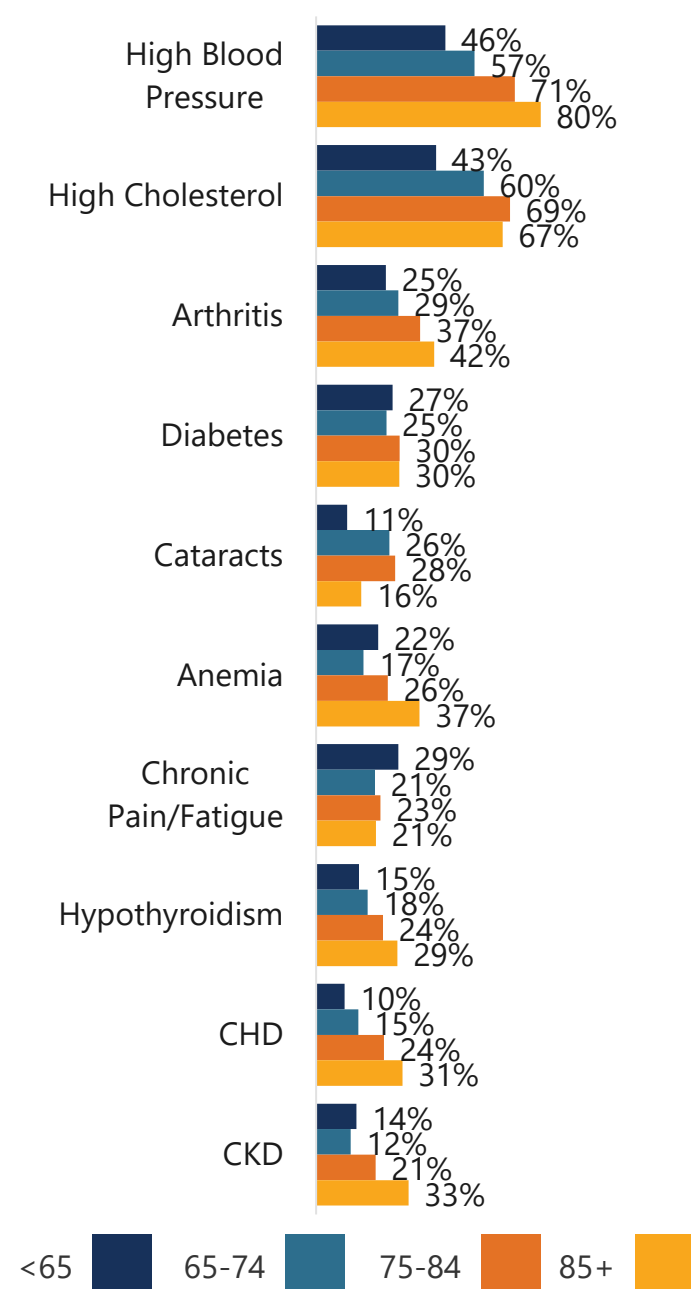
Total Medicare Spending



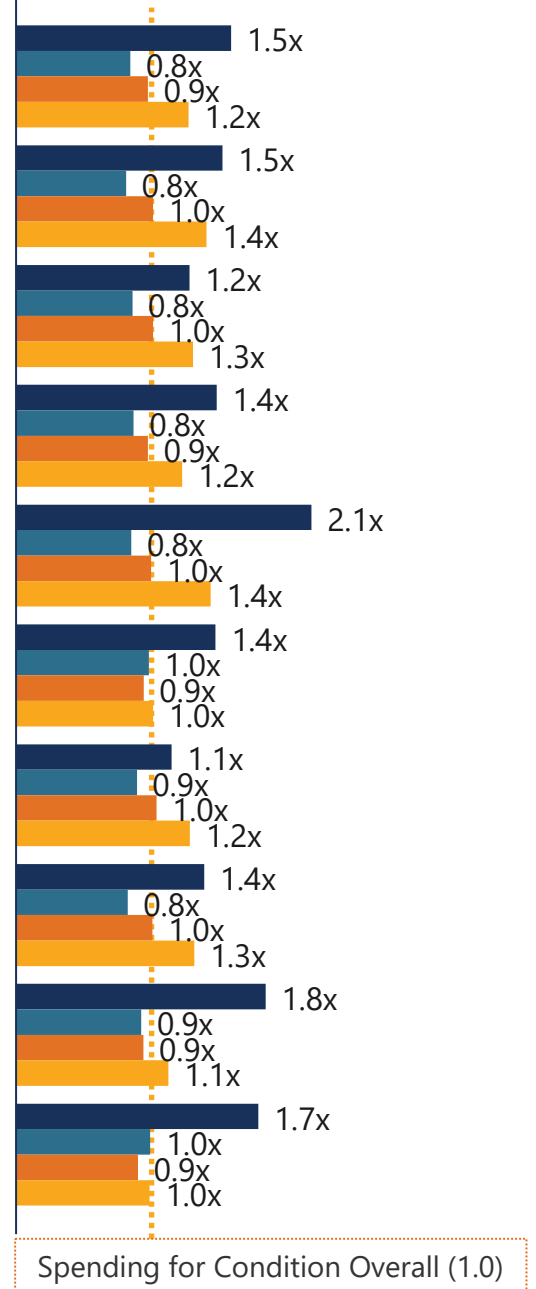
Chronic Conditions by Age Group

Among the 10 most prevalent conditions, eight were most common among those ages 85 and older. Beneficiaries under age 65 experienced the highest Medicare spending for nine of the 10 conditions.

Prevalence by Age Group



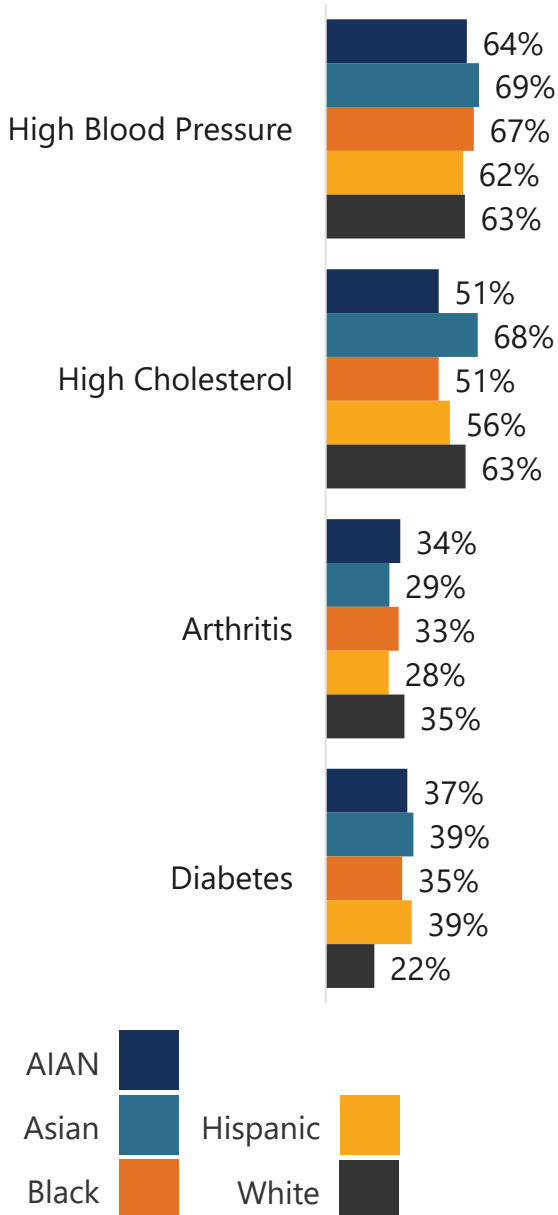
Total Medicare Spending



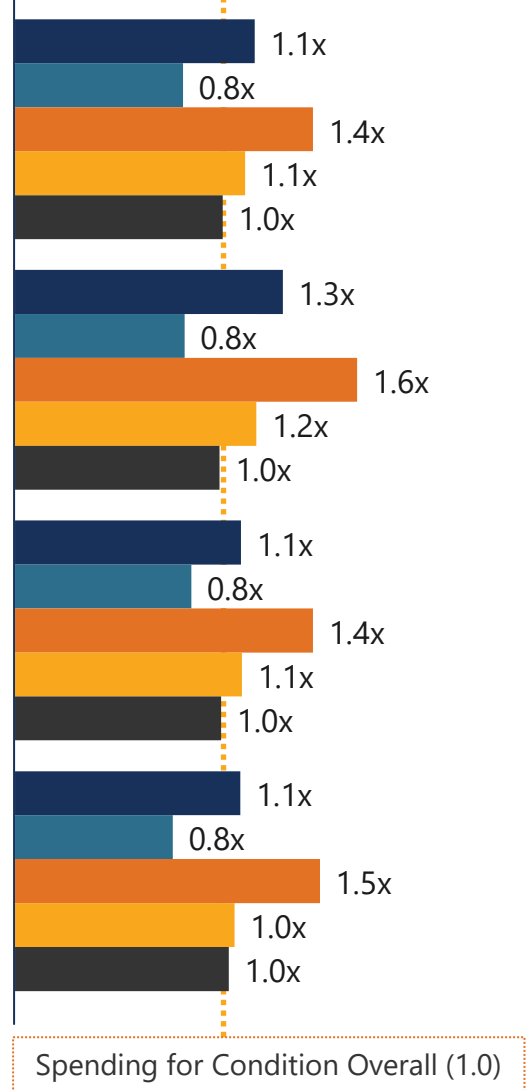
Chronic Conditions by Race and Ethnicity

Among the 10 most prevalent conditions, prevalence varied by race and ethnicity in 2021. Black beneficiaries experienced the highest Medicare spending, and Asian beneficiaries experienced the lowest spending across all 10 conditions.

Prevalence by Race and Ethnicity



Total Medicare Spending

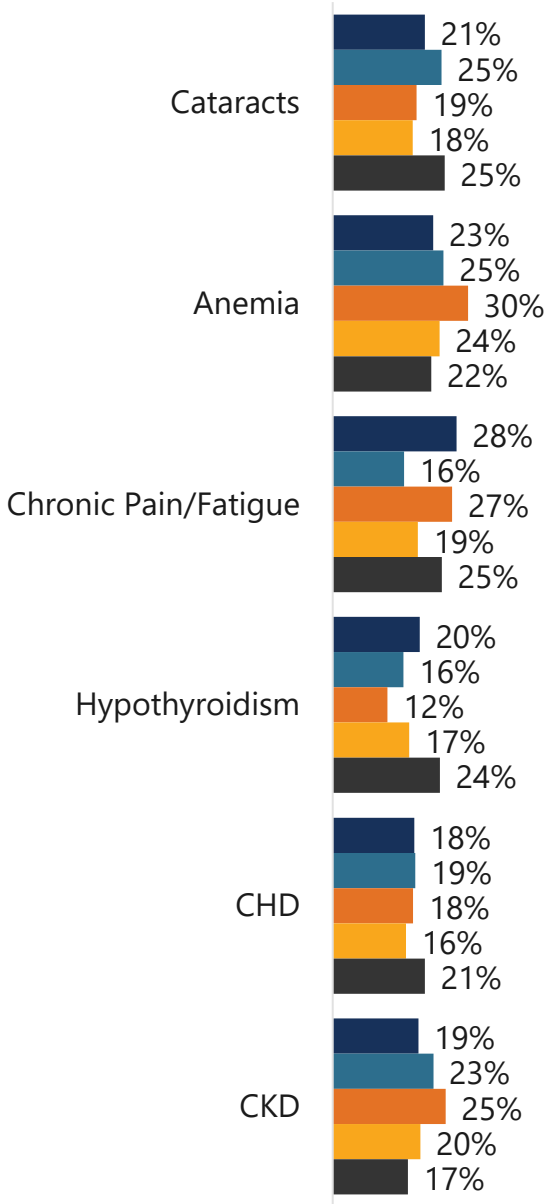


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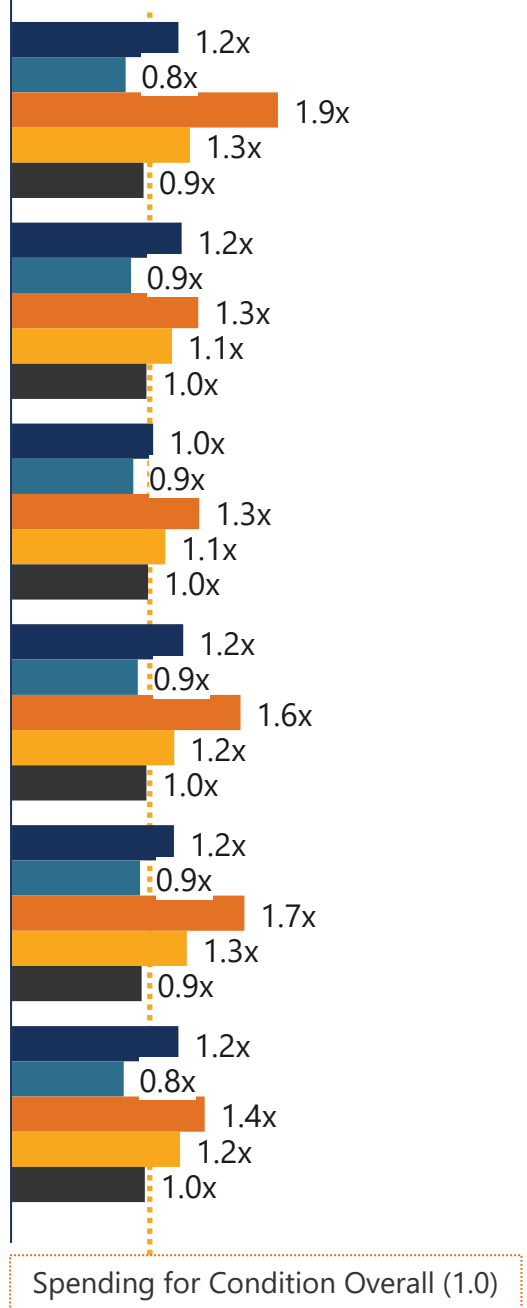
Chronic Conditions by Race and Ethnicity

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Prevalence by Race and Ethnicity



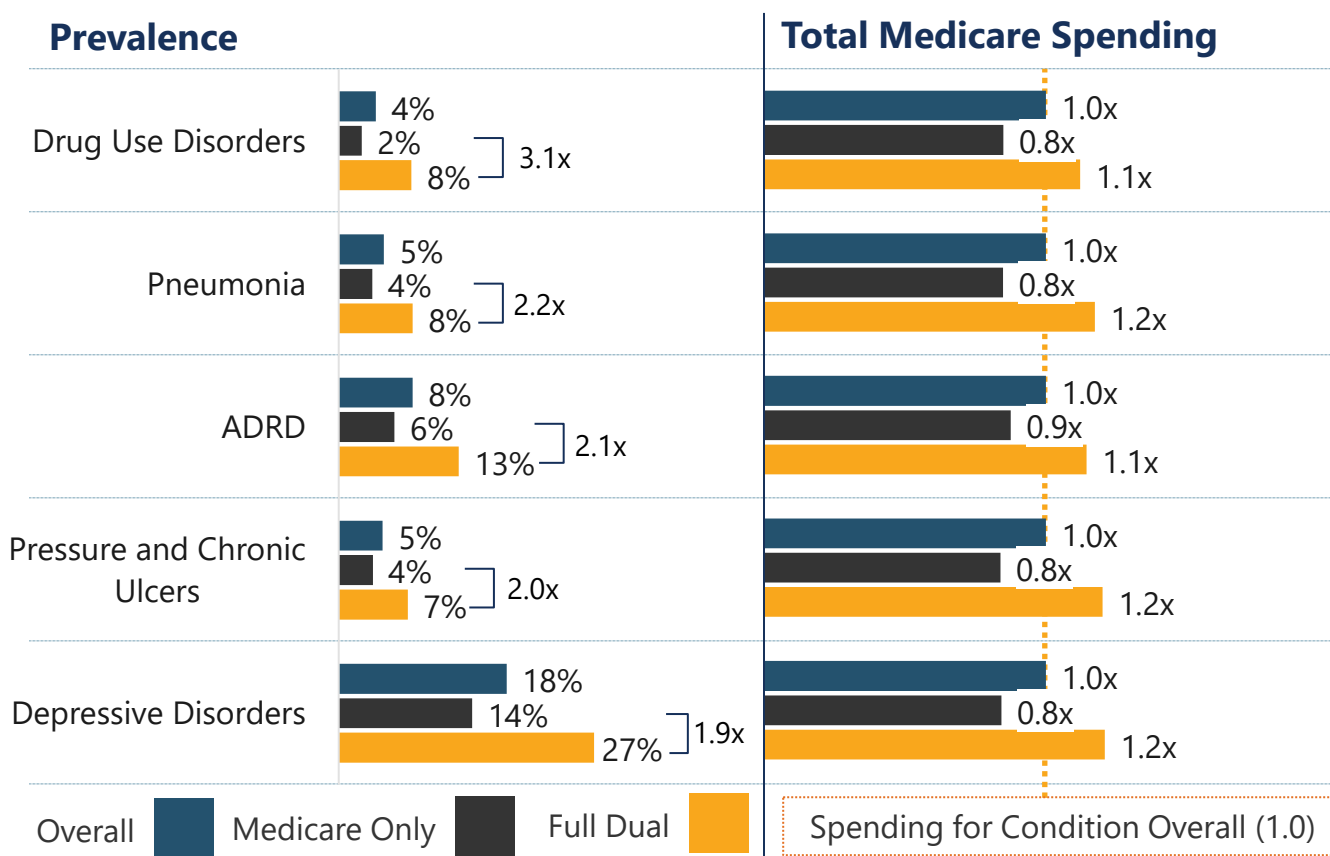
Total Medicare Spending



Chronic Conditions That Are More Common Among Dual Beneficiaries than Medicare-Only Beneficiaries

Many conditions were more common for Californians with Original Medicare who also had Medi-Cal in 2021 (full dual beneficiaries) than for those without Medi-Cal (Medicare-only beneficiaries). These included some high-spending conditions.

The following chart shows the top five conditions that were experienced by more than 5% of full dual beneficiaries and that had the greatest difference in prevalence between full dual and Medicare-only beneficiaries. Conditions are sorted by that difference.



Sample interpretation: Drug use disorders are 3.1x as prevalent among full dual beneficiaries as Medicare-only beneficiaries. Among those with drug use disorders, Medicare spending was 1.1 times higher for full dual beneficiaries than the state average.

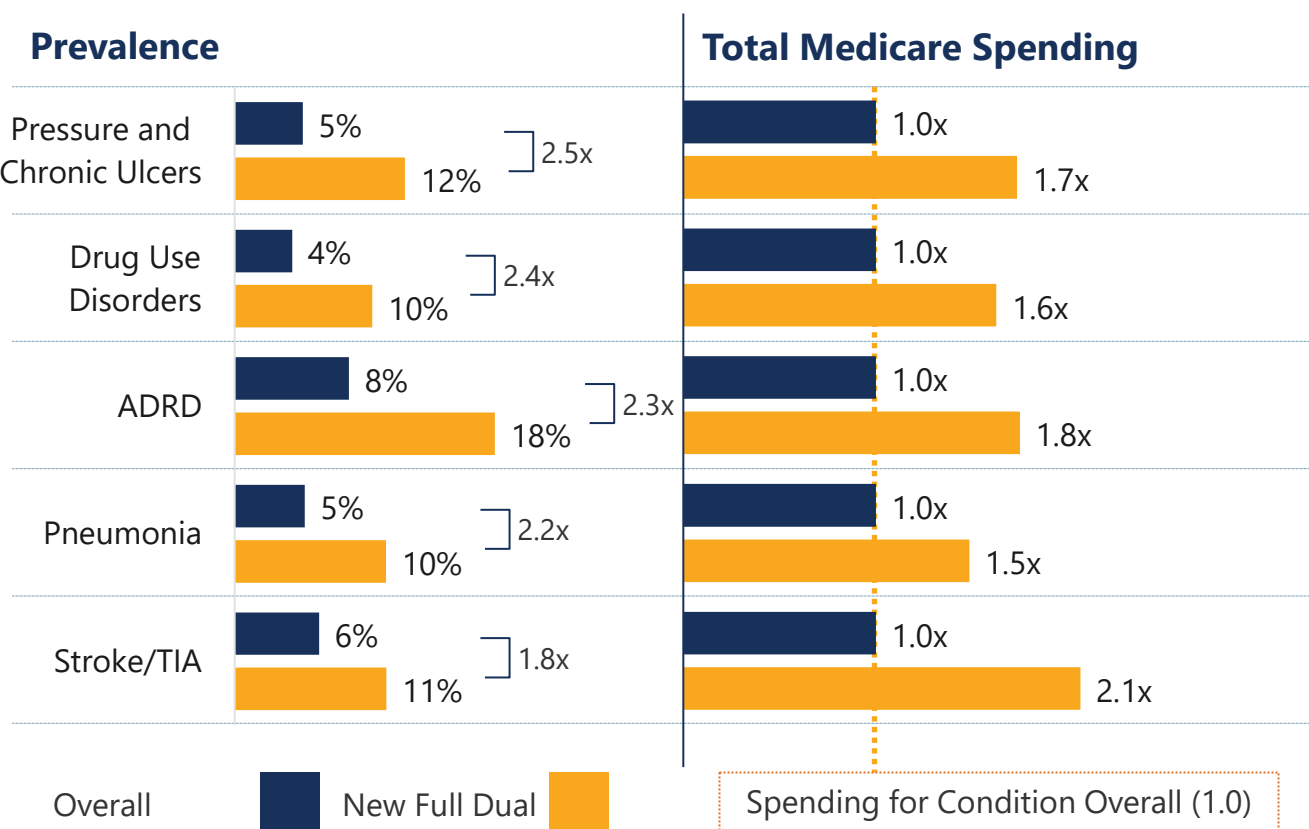


Medicare spending PPY represents the total spending for individuals with that chronic condition, and is not restricted to spending for one condition

Chronic Conditions That Are More Common Among New Full Dual Beneficiaries Than Others

Many conditions were more common for Californians with Original Medicare who entered Medicaid during 2021 (new full dual beneficiaries) than for all Californians with Original Medicare. These included some high-spending conditions.

The following chart shows the five conditions that were experienced by more than 5% of new full dual beneficiaries and that have the greatest difference in prevalence between new full dual beneficiaries and all Californians with Original Medicare. Conditions are sorted by that difference.



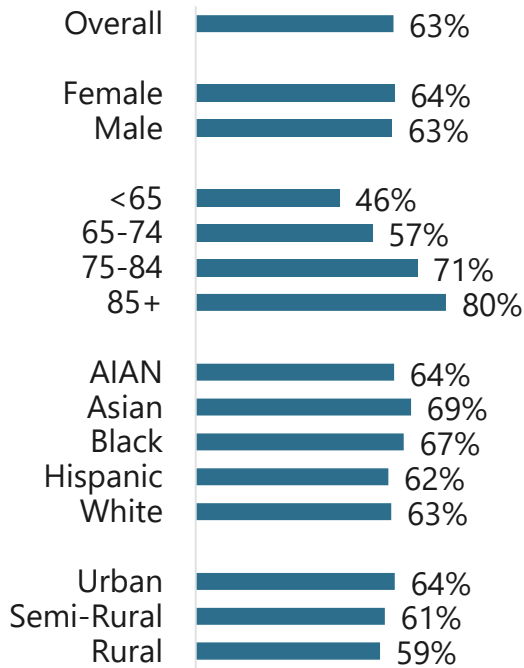
Sample interpretation: pressure and chronic ulcers are 2.5x as prevalent for new full dual beneficiaries as others. Among those with pressure and chronic ulcers, Medicare spending was 1.7 times higher for new full dual beneficiaries than the state average.

💡 Medicare spending PPY represents the total spending for individuals with that chronic condition, and is not restricted to spending for one condition

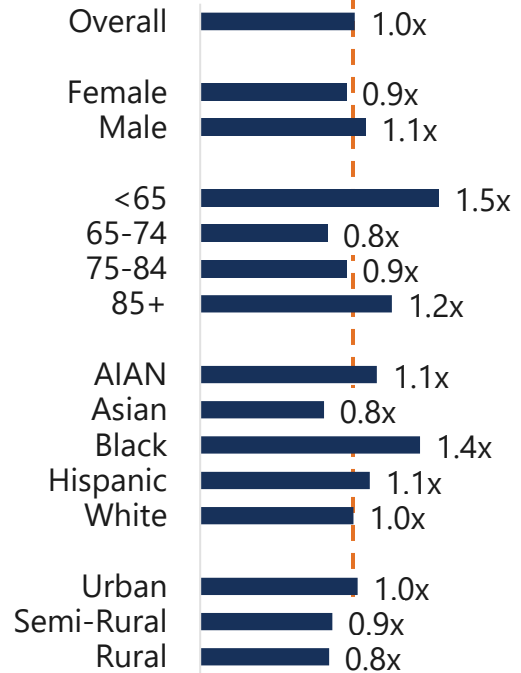
High Blood Pressure

63% of Californians with Original Medicare had high blood pressure in 2021. Prevalence differed most widely by age: 80% of Medicare beneficiaries ages 85+ had high blood pressure compared to 46% of beneficiaries under ages 65.

Prevalence



Total Medicare Spending



Individuals with this condition typically had **six** chronic conditions

Medicare spending PPY for those with high blood pressure : **\$20,097**

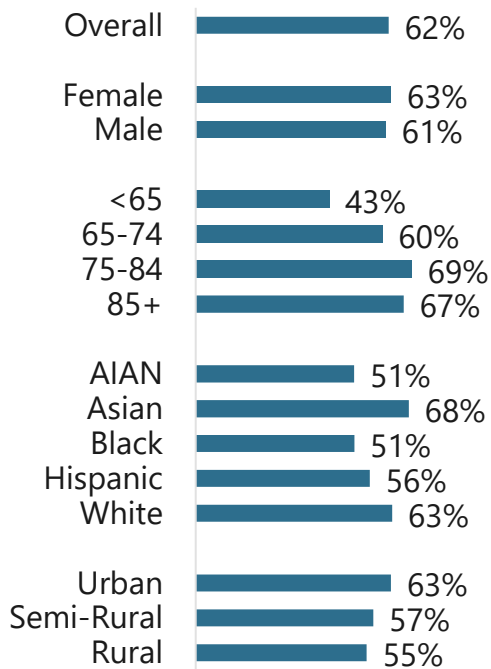
Dual Eligibility Comparison: Prevalence and Spending Compared to All Californians with Original Medicare Who Had High Blood Pressure

Metric	Overall	New Full Dual	Full Dual	Medicare-Only
Prevalence	63%	1.0x	1.1x	1.0x
Medicare Spending PPY	\$20,097	2.6x	1.4x	0.8x

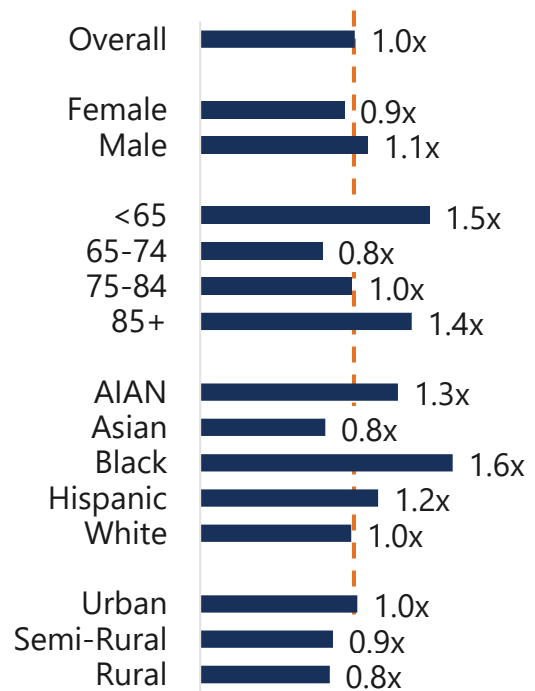
High Cholesterol

62% of Californians with Original Medicare had high cholesterol in 2021. Prevalence differed most widely by age: 69% of Medicare beneficiaries ages 75-84 had high cholesterol compared to 43% of beneficiaries under age 65. Prevalence also differed widely by race and ethnicity: 68% of Asian beneficiaries had high cholesterol compared to 51% of American Indian/Alaska Native (AIAN) beneficiaries and Black beneficiaries.

Prevalence



Total Medicare Spending



Individuals with this condition typically had **six** chronic conditions

Medicare spending PPY for those with high cholesterol: **\$18,322**

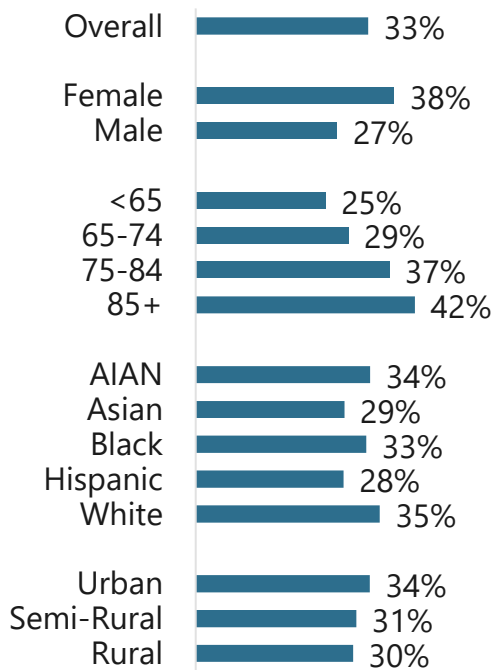
Dual Eligibility Comparison: Prevalence and Spending Compared to All Californians with Original Medicare Who Had High Cholesterol

Metric	Overall	New Full Dual	Full Dual	Medicare-Only
Prevalence	62%	0.8x	1.0x	1.0x
Medicare Spending PPY	\$18,322	2.8x	1.4x	0.8x

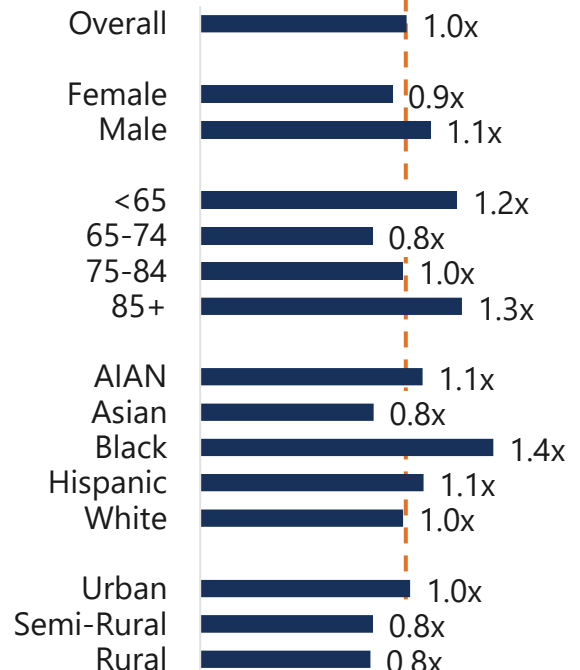
Arthritis

33% of Californians with Original Medicare had arthritis in 2021. Prevalence differed most widely by age: 42% of Medicare beneficiaries ages 85+ had arthritis compared to 25% of beneficiaries under age 65. Prevalence also differed by gender: 38% of female beneficiaries had arthritis compared to 27% of male beneficiaries. Lastly, prevalence differed by race and ethnicity: 35% of white beneficiaries had arthritis compared to 28% of Hispanic beneficiaries.

Prevalence



Total Medicare Spending



Individuals with this condition typically had **seven** chronic conditions

Medicare spending PPY for those with arthritis: **\$23,804**

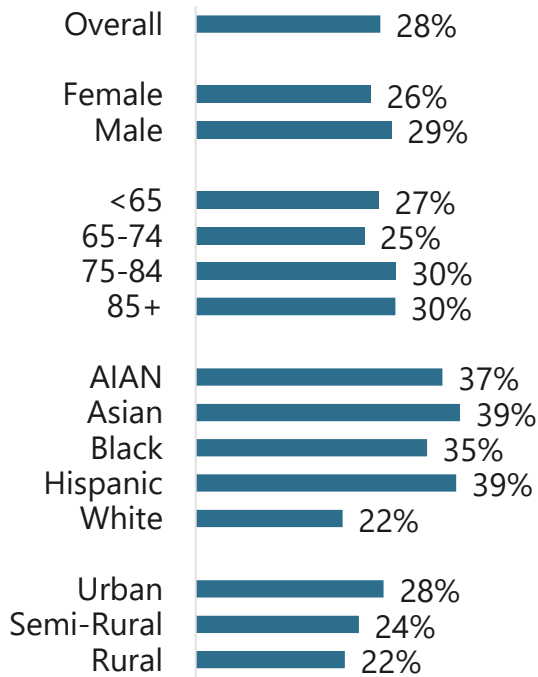
Dual Eligibility Comparison: Prevalence and Spending Compared to All Californians with Original Medicare Who Had Arthritis

Metric	Overall	New Full Dual	Full Dual	Medicare-Only
Prevalence	33%	0.9x	1.1x	1.0x
Medicare Spending PPY	\$23,804	2.4x	1.3x	0.9x

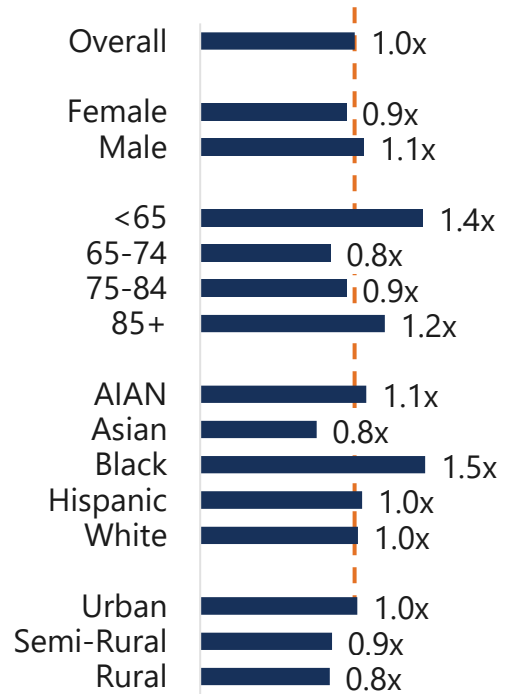
Diabetes

28% of Californians with Original Medicare had diabetes in 2021. Prevalence differed most widely by dual eligibility: full dual beneficiaries were 1.5 times as likely to have diabetes as the overall Medicare population. Prevalence also differed widely by race and ethnicity: 39% of Asian and Black beneficiaries had diabetes compared to 22% of white beneficiaries.

Prevalence



Total Medicare Spending



Individuals with this condition typically had **seven** chronic conditions

Medicare spending PPY for those with diabetes: **\$24,690**

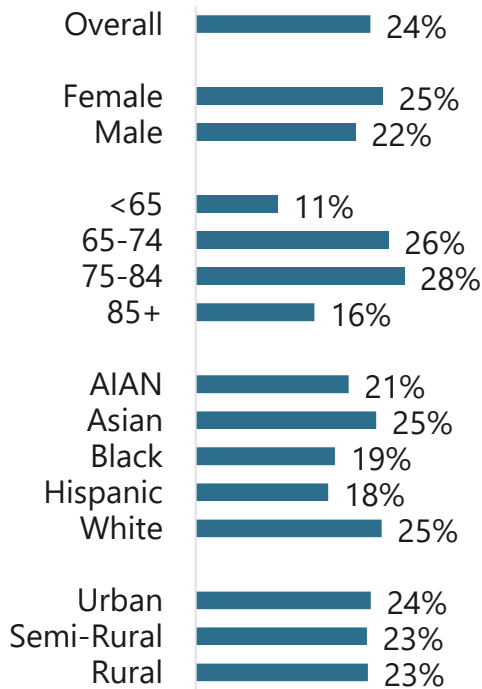
Dual Eligibility Comparison: Prevalence and Spending Compared to All Californians with Original Medicare Who Had Diabetes

Metric	Overall	New Full Dual	Full Dual	Medicare-Only
Prevalence	28%	1.2x	1.5x	0.8x
Medicare Spending PPY	\$24,690	2.3x	1.3x	0.8x

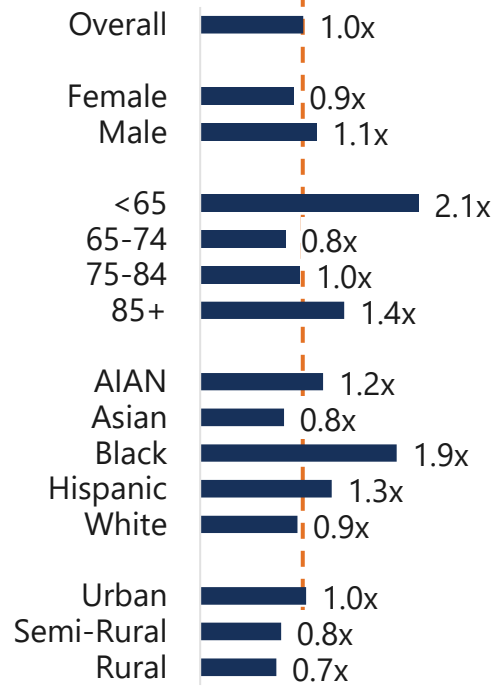
Cataracts

24% of Californians with Original Medicare had cataracts in 2021. Prevalence differed most widely by age: 28% of Medicare beneficiaries ages 75-84 had cataracts compared to 11% of beneficiaries younger than 65. Notably, cataracts were much less common among beneficiaries ages 85 or older than among those ages 65-84. Among those with cataracts, Medicare spending was about two times higher for Black beneficiaries and beneficiaries younger than 65 than the state Medicare average.

Prevalence



Total Medicare Spending



Individuals with this condition typically had **six** chronic conditions

Medicare spending PPY for those with cataracts: **\$16,187**

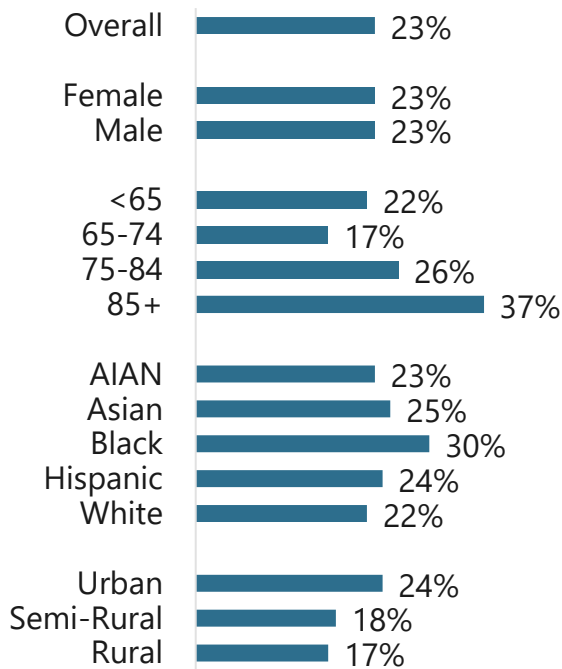
Dual Eligibility Comparison: Prevalence and Spending Compared to All Californians with Original Medicare Who Had Cataracts

Metric	Overall	New Full Dual	Full Dual	Medicare-Only
Prevalence	24%	0.8x	0.9x	1.1x
Medicare Spending PPY	\$16,187	3.4x	1.8x	0.8x

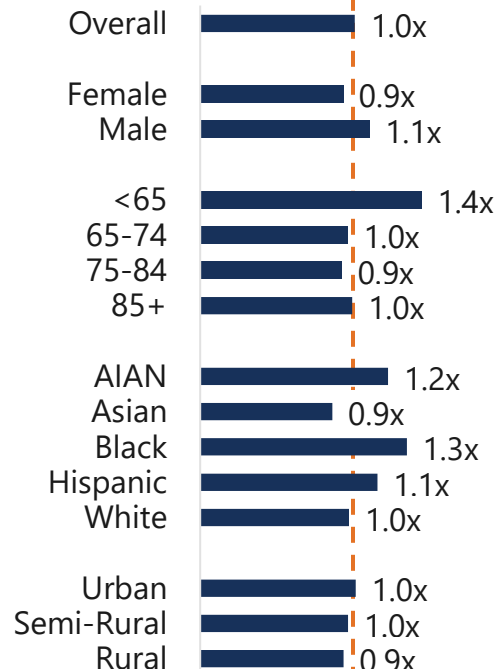
Anemia

23% of Californians with Original Medicare had anemia in 2021. Prevalence differed most widely by age: 37% of Medicare beneficiaries ages 85 or older had anemia compared to 17% of beneficiaries ages 65-74. Prevalence also differed widely by rurality: 24% of urban beneficiaries had anemia compared to 17% of rural beneficiaries.

Prevalence



Total Medicare Spending



Individuals with this condition typically had **eight** chronic conditions

Medicare spending PPY for those with anemia: **\$37,817**

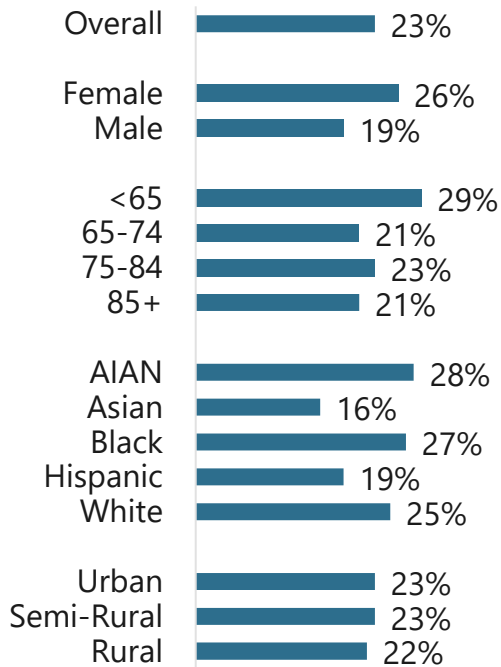
Dual Eligibility Comparison: Prevalence and Spending Compared to All Californians with Original Medicare Who Had Anemia

Metric	Overall	New Full Dual	Full Dual	Medicare-Only
Prevalence	23%	1.3x	1.3x	0.9x
Medicare Spending PPY	\$37,817	1.3x	1.3x	0.8x

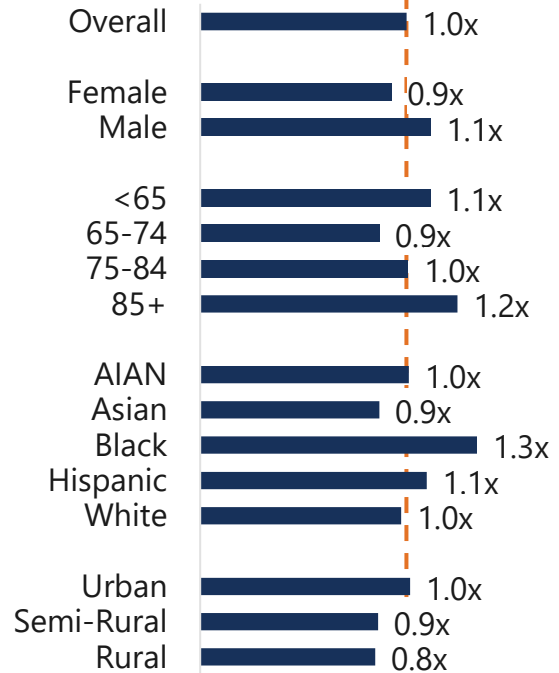
Chronic Pain or Chronic Fatigue

23% of Californians with Original Medicare had chronic pain or fatigue in 2021. Prevalence differed most widely by race and ethnicity: 28% of AIAN beneficiaries had chronic pain or fatigue compared to 16% of Asian beneficiaries. Prevalence also differed by age: 29% of beneficiaries under age 65 had chronic pain or fatigue compared to 21% of beneficiaries ages 65-74 or 85 or older.

Prevalence



Total Medicare Spending



Individuals with this condition typically had **seven** chronic conditions

Medicare spending PPY for those with chronic pain/fatigue: **\$26,406**

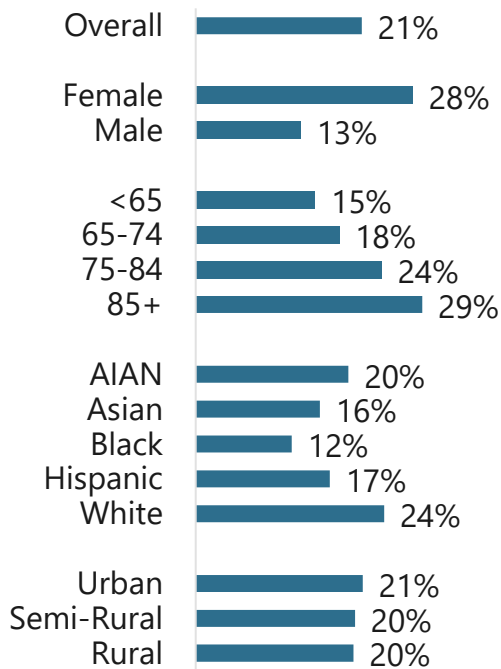
Dual Eligibility Comparison: Prevalence and Spending Compared to All Californians with Original Medicare Who Had Chronic Pain or Fatigue

Metric	Overall	New Full Dual	Full Dual	Medicare-Only
Prevalence	23%	1.2x	1.2x	0.9x
Medicare Spending PPY	\$26,406	1.3x	1.3x	0.9x

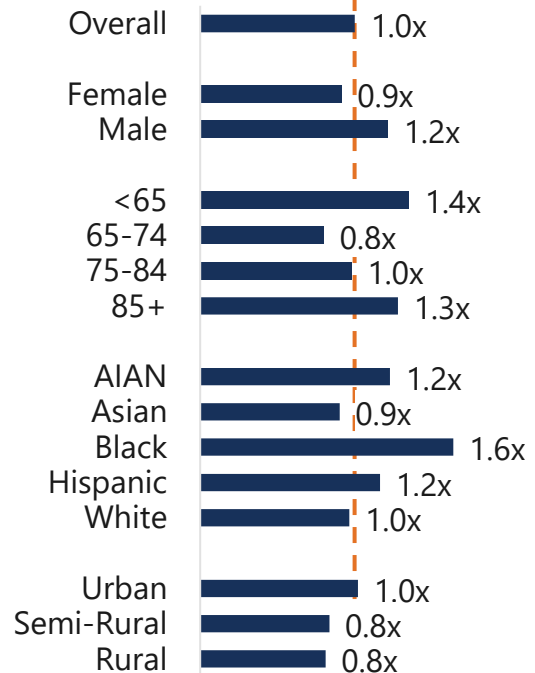
Hypothyroidism

21% of Californians with Original Medicare had hypothyroidism in 2021. Prevalence differed most widely by gender: 28% of female Medicare beneficiaries had hypothyroidism compared to 13% of male beneficiaries. Prevalence also differed widely by race and ethnicity: 24% of white beneficiaries had hypothyroidism compared to 12% of Black beneficiaries. Among those with hypothyroidism, Medicare spending was 1.6 times higher for Black beneficiaries than the state average.

Prevalence



Total Medicare Spending



Individuals with this condition typically had **seven** chronic conditions

Medicare spending PPY for those with hypothyroidism: **\$21,069**

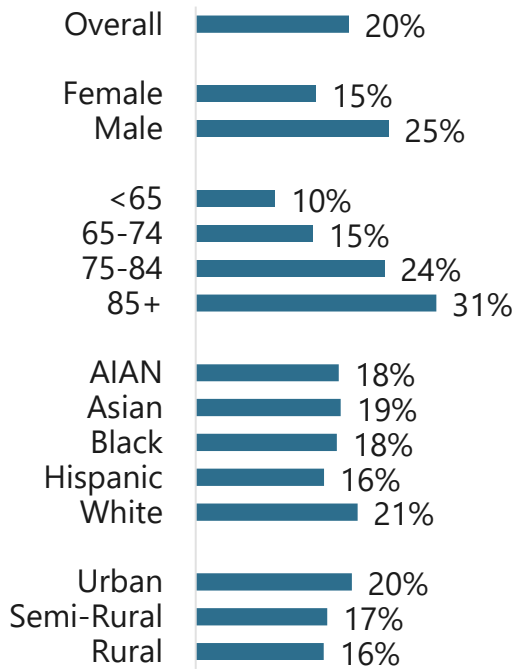
Dual Eligibility Comparison: Prevalence and Spending Compared to All Californians with Original Medicare Who Had Hypothyroidism

Metric	Overall	New Full Dual	Full Dual	Medicare-Only
Prevalence	21%	0.9x	0.9x	1.0x
Medicare Spending PPY	\$21,069	1.5x	1.5x	0.8x

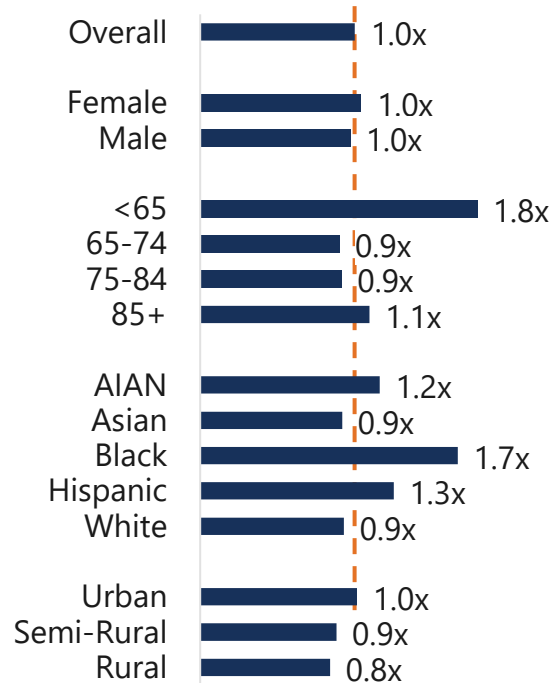
Coronary Heart Disease (CHD)

20% of Californians with Original Medicare had CHD in 2021. Prevalence differed most widely by age: 31% of Medicare beneficiaries ages 85+ had CHD compared to 10% of beneficiaries under age 65. Prevalence also differed widely by gender: 25% of male beneficiaries had CHD compared to 15% of female beneficiaries. Among those with CHD, Medicare spending was 1.7 and 1.8 times higher for Black beneficiaries and beneficiaries younger than 65 than the state average, respectively.

Prevalence



Total Medicare Spending



Individuals with this condition typically had **eight** chronic conditions

Medicare spending PPY for those with CHD: **\$32,316**

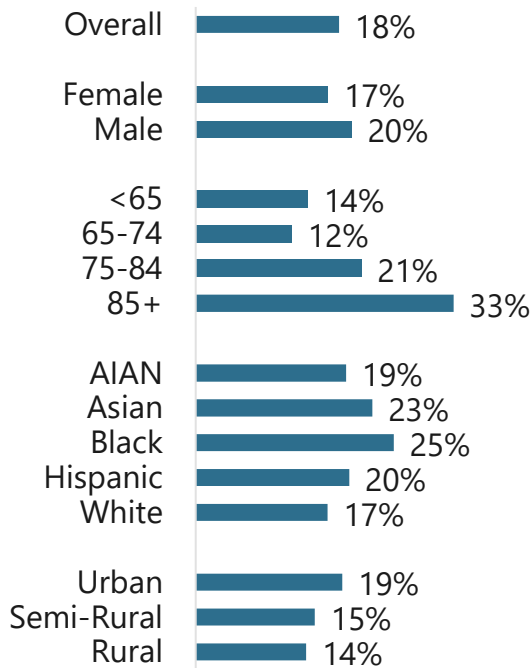
Dual Eligibility Comparison: Prevalence and Spending Compared to All Californians with Original Medicare Who Had CHD

Metric	Overall	New Full Dual	Full Dual	Medicare-Only
Prevalence	20%	1.1x	1.1x	1.0x
Medicare Spending PPY	\$32,316	1.4x	1.4x	0.8x

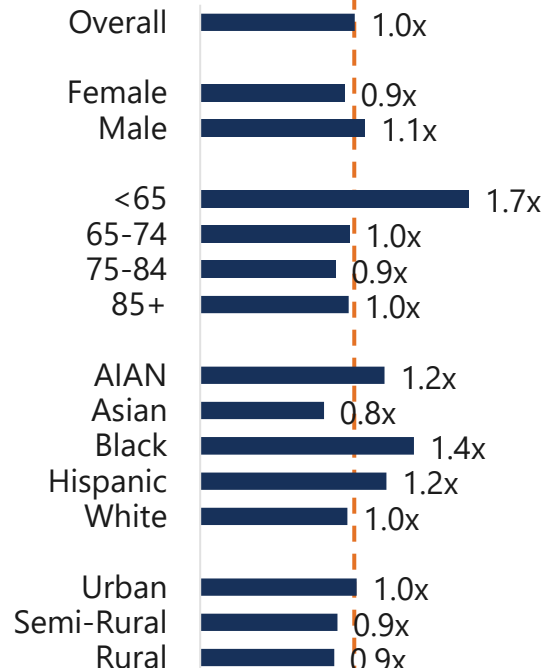
Chronic Kidney Disease (CKD)

18% of Californians with Original Medicare had CKD in 2021. Prevalence differed most widely by age: 33% of Medicare beneficiaries ages 85+ had CKD compared to 12% of beneficiaries ages 65-74. Prevalence also differed by race and ethnicity: 25% of Black beneficiaries had CKD compared to 17% of white beneficiaries. Among those with CKD, Medicare spending was about 1.7 times higher for beneficiaries younger than 65 than the state average.

Prevalence



Total Medicare Spending



Individuals with this condition typically had **eight** chronic conditions

Medicare spending PPY for those with CKD: **\$34,709**

Dual Eligibility Comparison: Prevalence and Spending Compared to All Californians with Original Medicare Who Had CKD

Metric	Overall	New Full Dual	Full Dual	Medicare-Only
Prevalence	18%	1.3x	1.3x	0.9x
Medicare Spending PPY	\$34,709	1.3x	1.4x	0.8x

About This Chartbook and Its Contributors

This chartbook, **Chronic Conditions Experienced by Californians with Original Medicare in 2021**, is the fifth in a series exploring the demographics, needs, and health care experiences of Californians with Medicare.

Chronic conditions drive a substantial portion of health care needs and spending in the United States.^{2,3} The conditions in this chartbook are measured by examining the ICD-10 codes in Original Medicare claims. The chartbook shows 38 conditions, from the Chronic Conditions Warehouse (CCW) lists of chronic conditions and other chronic and potentially debilitating conditions.

In Original Medicare, people with multiple chronic conditions that cause risk of acute exacerbation or decompensation, or functional decline, can receive regular Chronic Care Management from their care providers. In Medicare Advantage (MA), plans can offer special supplemental benefits for the chronically ill, tailored by condition and non-medical needs. MA plans have discretion to offer supplemental benefits and the type, amount, and coverage of benefits vary across plans and throughout the state.

This chartbook examines the 10 most common conditions, showing the average Medicare spending per-person-year for Original Medicare beneficiaries with those conditions, and the median number of co-occurring conditions. Analyses are stratified by demographics, rural-urban geography, dual status, and entry into Medi-Cal during 2021.

Prepared by ATI Advisory

ATI Advisory

ATI Advisory (ATI) is a research and advisory services firm working to transform the delivery of health care and aging services for older adults. ATI conducts research, generates new ideas, and helps organizations lead and deliver change in senior care. For more information visit www.atiadvisory.com.

Funded by The SCAN Foundation



Supported by a grant from The SCAN Foundation - advancing a coordinated and easily navigated system of high-quality services for older adults that preserve dignity and independence. For more information, visit www.TheSCANFoundation.org.

2. Dieleman and colleagues, "[US Health Care Spending by Payer and Health Condition, 1996-2016](#)." JAMA, March 3, 2020.

3. Gerteis and colleagues, "[Multiple Chronic Conditions Chartbook: 2010 MEPS Data](#)." Agency for Health Research and Quality, April 2014.

Data Sources and Methods

Medicare FFS Chronic Conditions Data Available in the Open Data Portal

The data shown in this chartbook are part of a larger dataset that includes prevalence, spending, and co-occurring conditions for all analyzed chronic conditions. In the [California Department of Health and Human Services Open Data Portal](#), you can find, explore, and download the full data set, which includes the underlying spending data and regional-level analyses not shown in this chartbook.

Sources and Methods

ATI Advisory analyzed the 2021 CMS Medicare Master Beneficiary Summary File, identifying chronic conditions with the CMS Chronic Conditions Warehouse (CCW) algorithms run by CMS, which draw from claims' diagnosis and procedure codes filed by a licensed clinician to CMS during a reference period of one to three years. The number of individuals included in each condition analysis depended on the length of the condition's reference period, the period in which CCW algorithms search claims data for the condition. Study eligibility required having fee-for-service (FFS) Medicare Parts A & B at least throughout 2021, or for all months of 2021 before death for those who died. Medicare Advantage (MA) enrollees are not included in this analysis because MA diagnosis data are incomplete.

Analyzed conditions include the [30 CCW Chronic Conditions list](#) and nine conditions on the [Other Chronic and Potentially Debilitating Conditions list](#). The only deviation from the CCW methods is the combination of two conditions, Alzheimer's Disease and Non-Alzheimer's Dementia, to create a single Alzheimer's Disease and Related Dementias (ADRD) condition.

The annualized average of total spending for individuals with the condition counts all FFS and per diem payments by Medicare. Spending includes all Medicare Part A and B spending by Medicare for analyzed individuals with a given condition during 2021. This is not a condition-attributable spending measure.

Beneficiaries' dual status, age, and geographic residence can change over time; these variables are defined based on the last analysis-eligible month of the year. Other variables, like sex and race, are constant across the year in CMS data.

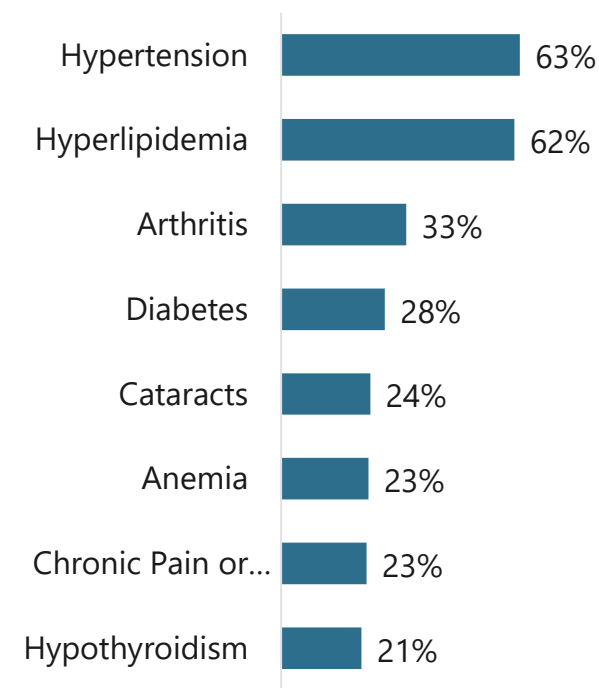
Geography is defined based on beneficiaries' ZIP code of residence, classified according to the Rural Urban Commuting Area (RUCA) codes and the [three-way categorization](#) from the University of Washington Rural Health Research Center. "Rural" areas are Small and Isolated Small Rural Town codes (7.0, 7.2, 8.0, 8.2, 9.0, 10.0, 10.2, 10.3), and "semi-rural" areas are Large Rural City/Town codes (4.0, 5.0, 6.0); other RUCA codes are "urban."

Age and sex data are shown as provided by CMS. Race and ethnicity data are based on the RTI race code provided by CMS, which improves the completeness of CMS race and ethnicity data. Unspecified or unknown race or ethnicity is not shown in the race or ethnicity comparisons in this chartbook because the data lack interpretability.

Appendix: 38 Chronic Conditions Among Californians with Medicare

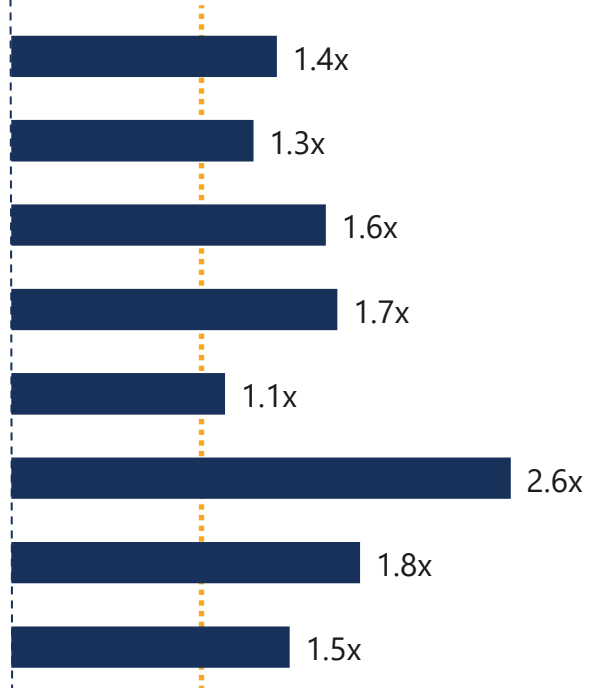
The following three pages show the prevalence of all 38 analyzed chronic conditions among Californians with Original Medicare, alongside the difference in Medicare spending between all Californians with Original Medicare and those with the condition.

Prevalence of 38 Chronic Conditions among Californians with Original Medicare



Californians included in the analysis: 2.6 million*

Medicare Spending for Californians with Original Medicare with Condition Compared to Overall



Statewide Average Medicare Spending PPY: \$14,525



Medicare spending PPY represents the total spending for individuals with that chronic condition, and is not restricted to spending for one condition

*The number of Californians included differs from condition to condition, ranging from 1.8 million to 2.6 million, depending on the length of time used for identifying the condition in Medicare FFS claims.

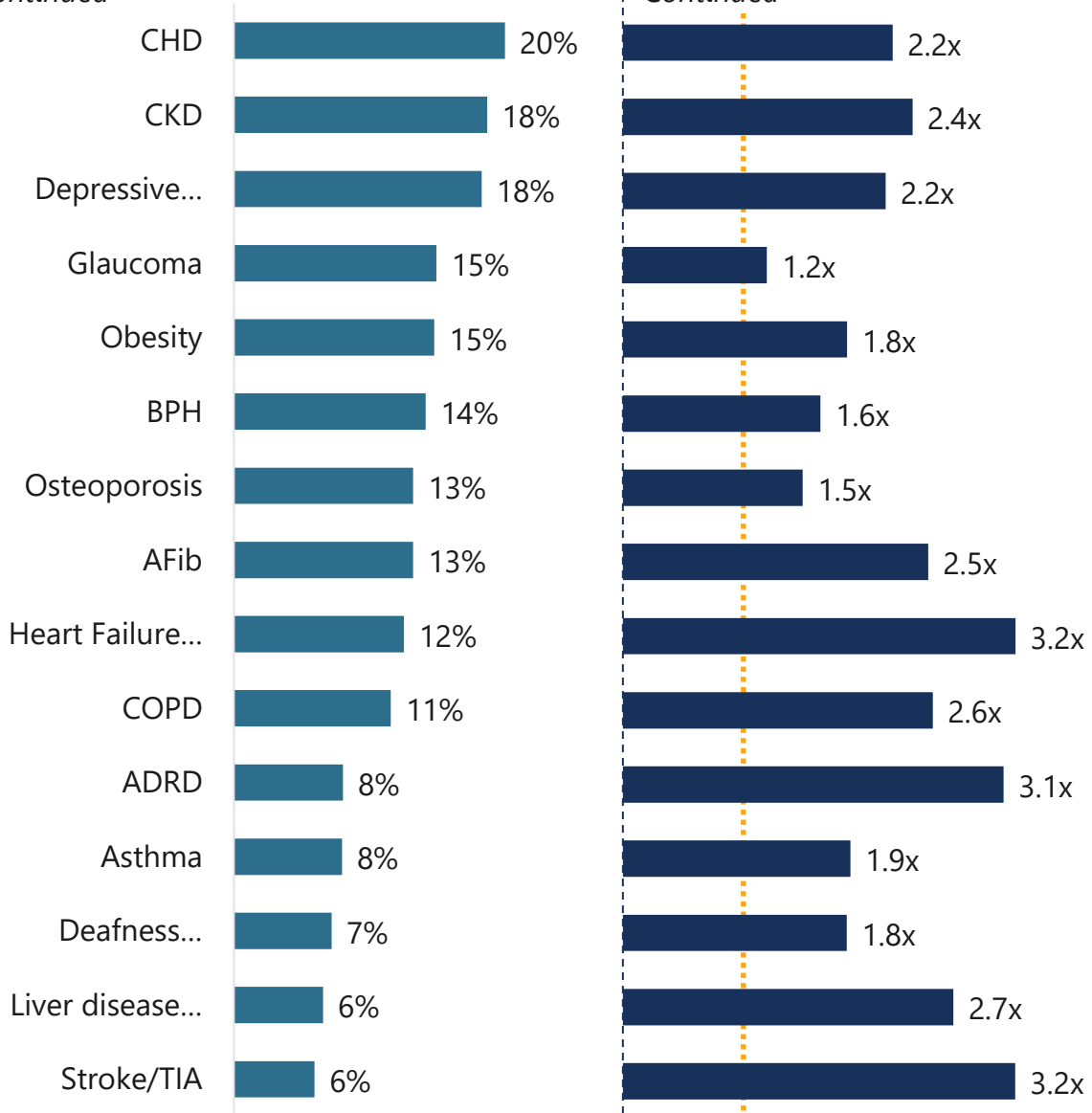
Appendix: 38 Chronic Conditions Among Californians with Medicare (Continued)

Prevalence

Total Medicare Spending

Continued

Continued



Statewide Average Medicare Spending PPY: \$14,525

CHD: Coronary Heart Disease. CKD: Chronic Kidney Disease. BPH: Benign Prostatic Hyperplasia. AFib: Atrial Fibrillation/Flutter. COPD: Chronic Obstructive Pulmonary Disease. ADRD: Alzheimer's Disease and Related Dementias. TIA: Trans-Ischemic Attack

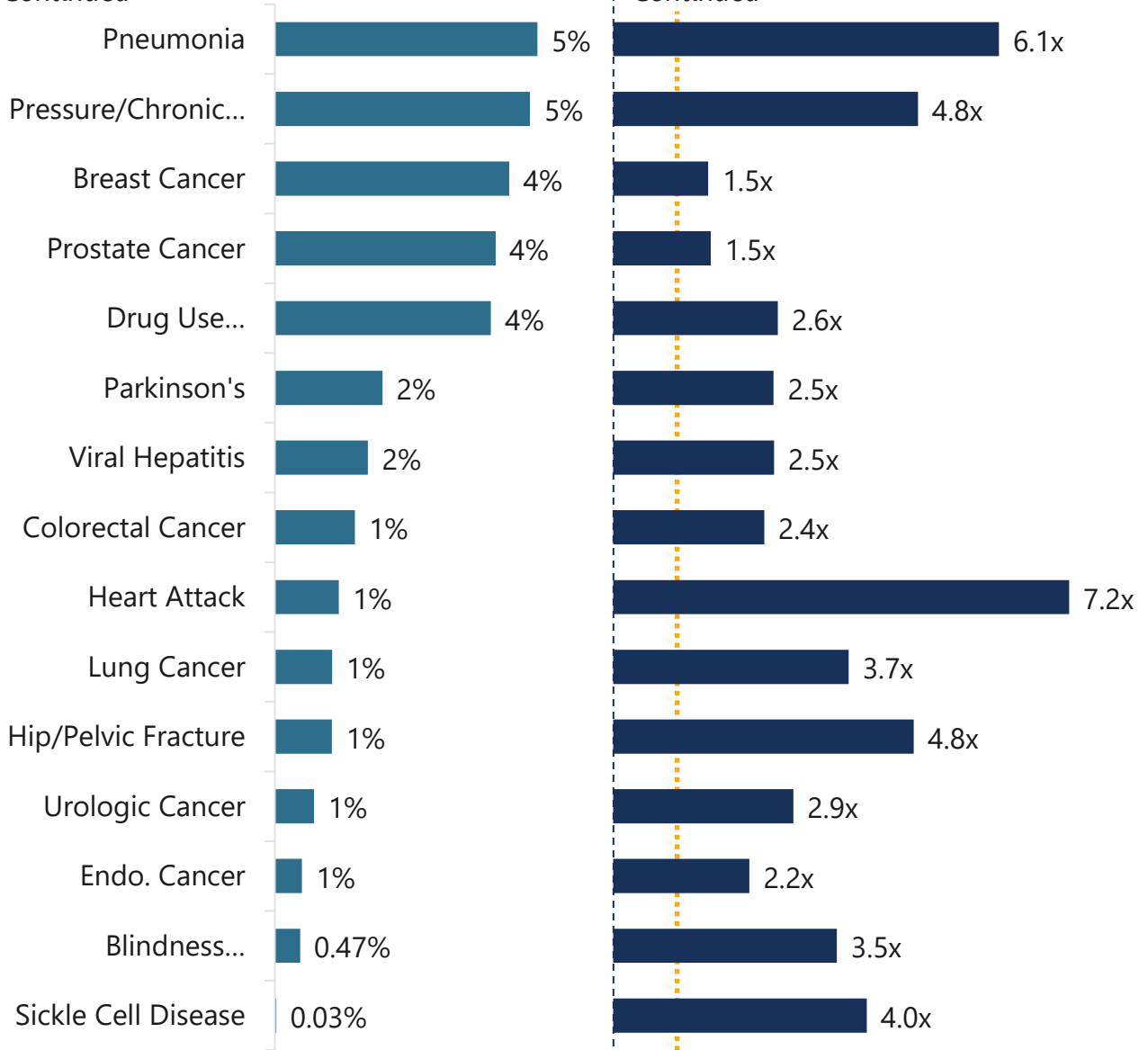
Appendix: 38 Chronic Conditions Among Californians with Medicare (Continued)

Prevalence

Total Medicare Spending

Continued

Continued



Statewide Average Medicare Spending PPY: \$14,525

Endo. Cancer: Endometrial cancer.