

The US Medicaid Program

Coverage, Financing, Reforms, and Implications for Health Equity

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IMPORTANCE Medicaid is the largest health insurance program by enrollment in the US and has an important role in financing care for eligible low-income adults, children, pregnant persons, older adults, people with disabilities, and people from racial and ethnic minority groups. Medicaid has evolved with policy reform and expansion under the Affordable Care Act and is at a crossroads in balancing its role in addressing health disparities and health inequities against fiscal and political pressures to limit spending.

OBJECTIVE To describe Medicaid eligibility, enrollment, and spending and to examine areas of Medicaid policy, including managed care, payment, and delivery system reforms; Medicaid expansion; racial and ethnic health disparities; and the potential to achieve health equity.

EVIDENCE REVIEW Analyses of publicly available data reported from 2010 to 2022 on Medicaid enrollment and program expenditures were performed to describe the structure and financing of Medicaid and characteristics of Medicaid enrollees. A search of PubMed for peer-reviewed literature and online reports from nonprofit and government organizations was conducted between August 1, 2021, and February 1, 2022, to review evidence on Medicaid managed care, delivery system reforms, expansion, and health disparities. Peer-reviewed articles and reports published between January 2003 and February 2022 were included.

FINDINGS Medicaid covered approximately 80.6 million people (mean per month) in 2022 (24.2% of the US population) and accounted for an estimated \$671.2 billion in health spending in 2020, representing 16.3% of US health spending. Medicaid accounted for an estimated 27.2% of total state spending and 7.6% of total federal expenditures in 2021. States enrolled 69.5% of Medicaid beneficiaries in managed care plans in 2019 and adopted 139 delivery system reforms from 2003 to 2019. The 38 states (and Washington, DC) that expanded Medicaid under the Affordable Care Act experienced gains in coverage, increased federal revenues, and improvements in health care access and some health outcomes. Approximately 56.4% of Medicaid beneficiaries were from racial and ethnic minority groups in 2019, and disparities in access, quality, and outcomes are common among these groups within Medicaid. Expanding Medicaid, addressing disparities within Medicaid, and having an explicit focus on equity in managed care and delivery system reforms may represent opportunities for Medicaid to advance health equity.

CONCLUSIONS AND RELEVANCE Medicaid insures a substantial portion of the US population, accounts for a significant amount of total health spending and state expenditures, and has evolved with delivery system reforms, increased managed care enrollment, and state expansions. Additional Medicaid policy reforms are needed to reduce health disparities by race and ethnicity and to help achieve equity in access, quality, and outcomes.

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Medicaid is the largest health insurance program by enrollment in the US and the largest means-tested (ie, income-based eligibility) program by both expenditures and population served.¹⁻³ Medicaid disproportionately insures people from underserved racial and ethnic minority groups. Medicaid also has an important role financing care for older adults and people with physical, intellectual, and mental health disabilities.⁴ Medicaid has improved access to care and reduced health insurance disparities by race, ethnicity, and social class.⁵⁻⁸

Medicaid is jointly financed by federal and state governments but is administered separately by states within federal guidelines. This structure enabled states to test different models of delivering benefits. However, it also led to considerable variation in policy and constraints on spending because Medicaid accounts for a sizable share of state spending and states are required to balance their budgets.^{9,10}

Medicaid is at a crossroads in fulfilling its mandate to insure large populations amid conflicting fiscal and political pressures. The COVID-19 pandemic and racial justice movements spurred initiatives to reduce racial and ethnic disparities in Medicaid.^{11,12} Race has been a central factor shaping the design, implementation, and outcomes of the Medicaid program.^{11,13,14} However, short-term spending constraints may limit Medicaid's capacity to make long-term investments in care to address health inequities.¹⁵

This Special Communication describes the population insured by Medicaid, explains how Medicaid is financed, and focuses on 3 evolving areas of Medicaid policy: managed care, payment, and delivery system reforms; Affordable Care Act (ACA) Medicaid expansion; and potential Medicaid policy reforms to reduce racial and ethnic disparities and advance health equity.

Methods

Publicly available data from several sources were analyzed to describe Medicaid enrollment and expenditures using the most recent and complete data available as of July 1, 2022. Information on Medicaid enrollment in the first quarter of 2022 was obtained from the Centers for Medicare & Medicaid Services (CMS).² The 2020 National Health Expenditure reports were used to analyze Medicaid spending, federal and state shares of Medicaid spending, and Medicaid spending as a proportion of US health spending (overall and by service).³ Information on Medicaid's share of 2021 federal and state budgets was collected from the US Office of Management and Budget and National Association of State Budget Officers.^{16,17} Information on 2019 Medicaid enrollment and per capita spending by eligibility group (eg, children vs adults) was obtained from the Medicaid and CHIP Payment and Access Commission (MACPAC).¹⁸ MACPAC reports were also used to describe managed care enrollment from 2003 to 2019 as well as changes in federal and state Medicaid spending in states that did and did not expand Medicaid between 2014 and 2019.^{19,20}

The American Community Survey was used to analyze the racial, ethnic, age, and sex composition of Medicaid beneficiaries in 2019 and to estimate 2010 to 2019 trends in the proportion of the US population enrolled in Medicaid by race and ethnicity and by ACA Medicaid expansion status. The 2020 American Community Survey was not analyzed due to low response rates during the COVID-19 pandemic.²¹ The 2018 and 2019 Medical Expenditure Panel Sur-

Key Points

Question Who does Medicaid insure, how is the program financed and delivered, how have policies evolved, and how could reforms address racial and ethnic health equity?

Findings In 2022, Medicaid insured approximately 80.6 million individuals (56.4% from racial and ethnic minority groups in 2019). In 2020, estimated Medicaid spending was \$671.2 billion (16.3% of total US health spending). The proportion of beneficiaries enrolled in Medicaid managed care was 69.5% in 2019. 45 states have pursued 139 Medicaid delivery system reforms from 2003 to 2019, and 38 states and Washington, DC, have expanded Medicaid under the Affordable Care Act. Racial and ethnic health disparities are common within Medicaid, and evidence on the association of Medicaid policies and reforms with achieving racial health equity remains limited.

Meaning Medicaid is an important source of insurance and accounts for substantial health care spending. Medicaid reforms have expanded coverage and provide further opportunities to reduce disparities and address health inequities.

veys were used to estimate the median household income of Medicaid beneficiaries (inflated to 2022 dollars using the Consumer Price Index) and assess differences in beneficiaries' access to care and use of preventive services by race and ethnicity. Racial and ethnic identity was self-reported by respondents to both surveys (see eAppendix 1 in the [Supplement](#)). We produced weighted estimates, using survey weights provided with these data sets, to obtain nationally representative estimates.

Information on the number and type of Medicaid delivery system reforms implemented by states each year from 2003 to 2019 was obtained from reports published by the Kaiser Family Foundation,²² Primary Care Collaborative,²³ Center for Health Care Strategies,²⁴ Change Healthcare,²⁵ National Academy for State Health Policy,²⁶ and MACPAC,²⁷ as well as from state plan amendments and Medicaid waivers.²⁸

A search of PubMed for peer-reviewed literature and online publications produced by government and nonprofit organizations was conducted first on August 1, 2021, and updated on February 1, 2022, to identify evidence related to Medicaid managed care and delivery system reforms; health, economic, and social outcomes associated with Medicaid expansion; association of Medicaid with health care use and outcomes by race and ethnicity; and racial and ethnic disparities within Medicaid (eAppendixes 2-5 in the [Supplement](#)). Studies and reports published between January 1, 2003, and February 1, 2022, were included. Collection and analysis of data, reports, and articles were performed between September 2021 and July 2022.

This article reports data by race and ethnicity. When evidence of disparities was cited, groups between which a disparity was measured were specified (eg, Black and White individuals). When discussing the larger policy context, the term *racial and ethnic minority groups* was used to refer to individuals identifying as African American/Black, American Indian/Alaska Native, Asian, Hispanic, Native Hawaiian/Pacific Islander, and multiracial—groups that historically have experienced different but overlapping disadvantages because of the political, social, and economic effects of structural racism.²⁹

Results

Medicaid Eligibility, Population Characteristics, and Financing

Eligibility

Medicaid eligibility is based on household income, age, citizenship, and other characteristics (eg, pregnancy or disability status).^{4,30} Federal law established minimum requirements for eligibility rules, although substantial state flexibility is permitted.

Medicaid eligibility rules evolved over time. From 1965, when Medicaid was established, to the early 1980s, Medicaid eligibility was limited to families with dependent children who received welfare assistance through the Aid to Families with Dependent Children program and to people with disabilities and adults 65 years and older who received Supplemental Security Income.⁴ Medicaid expansions in the 1980s and 1990s broadened eligibility^{6,7} and required all states to provide coverage for pregnant persons and children with household incomes of up to 133% of the federal poverty level, although many states extended eligibility above this level.³⁰ In 1997, the Children's Health Insurance Program (CHIP) was established to provide public insurance for children in low- to moderate-income families.³⁰ In some states, CHIP operates as a separate program from Medicaid, providing coverage for children with household income above Medicaid eligibility thresholds, whereas in other states, federal CHIP funding is used to increase Medicaid eligibility for children.

In 1996, Medicaid eligibility for adults was delinked from welfare eligibility, and some states applied for and received waivers from CMS to cover additional adult populations.^{31,32} States continued to use federal waivers to expand Medicaid coverage or to require premiums or cost-sharing.³³ In 2010, the ACA established a new state option (beginning in 2014) to cover all adults aged 19 to 64 years with incomes of 138% or less of the federal poverty level.

Older adults and persons with physical, intellectual, and mental health disabilities can obtain Medicaid coverage if they have low incomes or have exhausted their resources to pay for long-term services and supports. Medicaid is the largest insurer for long-term care in the US, and in 2016 Medicaid provided coverage for 62% of all residents in nursing homes (ie, residential facilities providing long-term care). Medicaid accounted for 27.0% of nursing home expenditures in 2020 (Table 1).³⁴⁻³⁷ This difference between the population covered and spending reflects Medicaid's low payment rates. Most Medicaid beneficiaries receiving long-term care are dually eligible for and enrolled in Medicare. Individuals who were dual eligible comprised 15.1% of the Medicaid population in 2019.³⁵

Population Characteristics

In 2022, Medicaid enrolled a mean 80.6 million individuals per month. Different Medicaid rules by age and eligibility group contributed to variation in the population share enrolled in Medicaid by age. In 2019, Medicaid insured 41.8% of children 5 years and younger and 16.3% of adults 25 to 29 years old (eFigure 1 in the Supplement). The share in Medicaid was higher among older adults (23.5% of adults aged ≥ 90 years) due to Medicaid payment for long-term care. In 2019, Medicaid insured an estimated 26.6 million children (aged <19 years), 27.2 million adults aged 19 to 64 years, 9.2 million

persons aged 64 years or younger with a disability, and 7.2 million adults aged 65 years and older (Table 1).

In 2019, an estimated 56.4% of Medicaid beneficiaries were from racial and ethnic minority groups. The racial and ethnic distribution of Medicaid beneficiaries differed from the US population (Table 2), reflecting income inequality by race and ethnicity and the restriction of Medicaid eligibility to low-income populations. Non-Hispanic Black individuals represented 12.4% of the US population and 19.8% of Medicaid beneficiaries in 2019. Hispanic individuals represented 17.7% of the US population and 26.5% of Medicaid beneficiaries that year. Medicaid also plays a disproportionate role in insuring racial and ethnic minority groups among children, adolescents, and adults 80 years and older (eTable in the Supplement).

Financing

In 2020, total Medicaid spending was estimated at \$671.2 billion (Table 1).

Nationally, federal sources covered 68.5% of Medicaid spending and states financed the remaining 31.5% in 2020.^{31,17} In 2020, the federal share of Medicaid costs, known as the federal medical assistance percentage (FMAP), ranged from 56.2% to 83.2% across states and was higher in states with lower per-capita incomes.³⁸ Thus, Medicaid is redistributive both in benefitting low-income individuals and in generating transfers from wealthier to poorer states.

Medicaid accounted for an estimated 27.2% of total state spending (15.2% if FMAP is removed and only state funds are counted) and 7.6% of total federal spending in 2021 (Table 1).^{16,17} Medicaid's share of federal spending decreased from 2019 to 2021 due to increases in federal spending on pandemic-related economic assistance.²⁰ Medicaid covered 24.2% of the US population in 2022.³⁹ However, Medicaid accounted for 16.3% of US health spending in 2020.³ Medicaid spending growth has been lower than in commercial insurance and Medicare,⁴⁰ due in part to persistently low Medicaid payment rates to hospitals and clinicians.⁴¹

In 2019, mean per-capita spending was \$8141 among all Medicaid beneficiaries. Medicaid expenditures differed by eligibility group, reflecting differences in these groups' health status and needs for care. In 2019, mean per-capita expenditures were highest among disabled individuals (\$21 368) and beneficiaries older than 65 years (\$17 885) vs \$3336 for children and \$4908 for parents.³⁶

Medicaid and COVID-19

Medicaid provisions were included in federal policy responses to the COVID-19 pandemic. Because Medicaid is a countercyclical program (ie, enrollment and expenditures increase during economic downturns when state revenues decrease), Congress authorized a 6.2 percentage point increase in the FMAP to help states finance higher expected Medicaid costs during the pandemic. A condition of receiving this funding was for states to meet "maintenance of eligibility" requirements, which enabled people to maintain continuous Medicaid coverage.⁴² These policies, which were associated with an estimated increase in Medicaid enrollment of 22.2 million compared with 2019,⁴³ remain in effect until the federally declared COVID-19 public health emergency ends. The US Department of Health and Human Services has renewed the public health emergency declaration several times, most recently in July 2022, and has indicated that it will notify states at least 2 months before any change.

Table 1. Medicaid Facts

	%
Medicaid enrollment, mean per month in 2022 (millions) ^a	80.6
Share of US population enrolled	
In Medicaid, 2022 ^b	24.2
In Medicaid by age in 2019, y ^c	
<19	37.6
19-64	14.6
65-79	13.5
>80	19.2
Medicaid enrollment, total and by eligibility group, FY 2019 (millions) ^d	70.2
Children (aged <19 y) ^e	26.6
Adult (aged 19-64 y, including Medicaid expansion population)	27.2
Disabled (aged <64 y) ^f	9.2
Age >65 y ^g	7.2
Sex of Medicaid beneficiaries, share in category, in 2019 ^c	
Female	53.8
Male	46.2
Share of Medicaid beneficiaries dually eligible for Medicare, FY 2019 ^h	15.1
Per-capita Medicaid spending, FY 2019 mean all Medicaid beneficiaries, \$ ⁱ	8141
Per-capita spending by eligibility group, FY 2019 mean, \$ ⁱ	
Children (age <19 y) ^j	3336
Other adult (eg, parents with dependent children)	4908
Medicaid expansion adults	6451
Disabled (aged <64 y)	21 368
Age >65 y ^g	17 885
Household income of Medicaid beneficiaries aged 19-64 y in 2021, median (IQR) \$ ^k	26 391 (12 719-44 351)
Total Medicaid spending in FY 2020 (billions) ^l	671.2
Federal spending on Medicaid program as share of total Medicaid spending in FY 2020 ^l	68.5
Federal spending on Medicaid as share of federal spending in FY 2021 ^m	7.6
State spending on Medicaid as share of total state spending in FY 2021 ^{n,o}	27.2
State spending on Medicaid as share of state-only funds in FY 2021 ^{n,p}	15.2
Medicaid spending as a share of total US health care expenditures in FY 2020 ^q	16.3
Medicaid spending as a share of total US health care spending by type of expenditure in FY 2020, %^r	
Hospitals	17.4
Physicians and other clinician services	10.7
Nursing homes	27.0
Home health	32.5
Other home and community-based services ^s	58.4
Prescription drugs	9.9
Dental services	8.9
Other professional services ^t	7.1
Durable medical equipment	15.6
Share of Medicaid spending by type of expenditure in FY 2020^u	
Hospitals	32.9
Physicians and other clinician services	12.9
Nursing homes	7.9
Home health	6.0
Other home and community-based services ^s	18.2
Prescription drugs	5.1
Dental services	1.9
Other professional services ^t	1.2
Durable medical equipment	1.3
Administrative (nonmedical) costs ^v	12.6

(continued)

Table 1. Medicaid Facts (continued)

	%
Share of CHIP spending by type of expenditure in FY 2020^w	
Hospitals	24.5
Physicians and other clinician services	22.1
Prescription drugs	10.3
Dental services	10.6
Other medical costs ^x	13.0
Administrative (nonmedical) costs ^v	19.4

Abbreviations: CHIP, Children's Health Insurance Programs; FY, fiscal year.

^a Number does not include enrollment in states with separate CHIP. In March 2022, CHIP covered an additional 7.0 million children.²

^b Based on mean Medicaid enrollment by month Medicaid during quarter 1 in 2022 and US population of 332.4 million in January 2022 estimated by US Census Bureau. Proportion does not include the share of the population enrolled in CHIP.

^c Estimated from 2019 American Community Survey Public Use Microdata files.

^d Mean number of Medicaid beneficiaries enrolled per month during federal fiscal year 2019. Numbers do not include enrollment in CHIP.¹⁸

^e An additional 9.7 million children were enrolled in CHIP at any point in federal fiscal year 2019 (mean monthly enrollment not reported).³⁴

^f Disabled category includes children (aged <19 years) and adults (aged 19-64 years) who qualified for Medicaid through a disability pathway.

^g Includes individuals who qualified for Medicaid through a disability pathway and were aged ≥65 years.

^h MACStats: Medicaid Enrollment by State, Eligibility Group, and Dually Eligible Status, federal fiscal year 2019. Shown is the proportion of dual-eligibles with either full or partial Medicaid enrollment (partial Medicaid is limited to coverage of Medicare premiums and, in some cases, cost sharing).³⁵

ⁱ MACStats: Medicaid Benefit Spending Per Full-Year Equivalent Enrollee by Eligibility Group and Service Category, federal fiscal year 2019.³⁶

^j Excludes spending per CHIP enrollee.

^k Estimated from the Medical Expenditure Panel Survey, 2019 Household Component Consolidated Full Year Data file. Estimates are among adults aged 19 to 64 years who were enrolled in Medicaid at any point in 2019, excluding those with Medicare. Income inflated to 2021 dollars using the Consumer Price Index for all urban consumers.

^l Total CHIP spending was approximately \$21.3 billion in federal FY 2020; federal spending represented 83.4% of total CHIP spending.³

^m Federal spending on CHIP represented 0.3% of federal expenditures in federal fiscal year 2021. Spending on Medicaid and CHIP as a proportion of total federal expenditures was lower in federal FYs 2020 and 2021 than in prior FYs due to increased federal spending on pandemic-related relief (eg, unemployment compensation and economic impact payments).¹⁷

ⁿ Total state spending is the sum of state expenditures from state and federal

funds. State-only funds are all state funds, excluding capital funds raised through bonds.^{16,17}

^o Equals total state Medicaid expenditures (sum of state general funds, other state funds, and federal funds provided to state Medicaid programs) as a proportion of total state spending.

^p Equals total state Medicaid expenditures from state-only funds (sum of state general funds and other state funds) as a proportion of state spending from general funds and state-only funds (excluding capital funds raised through bonds).

^q Number does not include CHIP spending. CHIP spending represented 0.5% of total US health care spending in 2020.³

^r Percentages are out of total health care spending for the service category shown among all US payers in 2020. Percentages do not include CHIP spending. In 2020, CHIP spending accounted for 0.6% of total US health care spending on physicians and other professional services, 0.6% of total spending on prescription drugs, 1.6% of spending on dental services, and less than 0.5% of total spending on the other categories displayed. In 2020, private insurers accounted for 32.2% of hospital spending, 371% of spending on physician and other clinician services, 8.5% of nursing home spending, and 40.4% of prescription drug spending. In 2020, Medicare accounted for 25.1% of hospital spending, 24.1% of spending on physician and other clinician services, 20.1% of nursing home spending, and 31.5% of prescription drug spending.³

^s Includes spending for Medicaid home- and community-based waivers and care in residential treatment facilities for people with intellectual disabilities, mental health disorders, and substance use disorders.

^t Includes services by chiropractors, podiatrists, optometrists, and physical, occupational, and speech therapists.

^u Percentages are out of total Medicaid spending in 2020.³

^v Includes net costs of insurance (net costs of insurance are the difference between premiums/revenues and outlays for health care services).

^w Percentages are out of total CHIP spending in 2020. Percentages do not add to 100% due to rounding.³

^x Other medical costs include durable medical equipment and other professional services.

Medicaid Managed Care and Delivery System Reforms

States have a long history of contracting with managed care organizations to finance and deliver care for Medicaid beneficiaries.⁴⁴ Further, throughout Medicaid's history, states have tested delivery system reforms that affected how Medicaid pays clinicians and hospitals, and the number of such reforms increased from 2003 to 2019. This section describes the evolution of Medicaid managed care and delivery system reforms; reviews evidence on the association of these policies with spending and quality of care; and identifies areas in need of research to inform policy.

Medicaid Managed Care

The proportion of beneficiaries enrolled in Medicaid managed care increased from 40.0% in 2003 to 69.5% in 2019 (Figure 1). In 2019, 37 states enrolled 50% or more of their Medicaid beneficiaries in

comprehensive managed care plans, which received upfront monthly payments and bear risk for spending.²⁰ Managed care plans covered most children and adults aged 64 years or younger, but until recently covered smaller proportions of older adults (aged ≥65 years) and disabled persons receiving long-term services and supports. Medicaid beneficiaries not enrolled in managed care plans were enrolled in a fee-for-service system, in which Medicaid (rather than a managed care plan) bears risk for spending.

States had several policy goals for Medicaid managed care.⁴⁵ First, by making upfront (ie, capitated) payments to plans, states sought to control spending growth and attain predictable costs.^{46,47} Second, policymakers hoped managed care would improve primary and preventive care because capitation created incentives for plans to avoid costly care (eg, emergency department visits).⁴⁸ Third, early managed care programs were expected to improve access to

Table 2. Racial and Ethnic Distribution in Medicaid and in the US Population, 2019^a

Race and ethnicity	%	
	Medicaid beneficiaries ^b	US population ^c
American Indian and Alaska Native	1.1	0.7
Asian ^d	4.5	5.6
Black, non-Hispanic	19.8	12.4
Hispanic ^e	26.5	17.7
Native Hawaiian and Other Pacific Islander ^f	0.2	0.2
White, non-Hispanic	43.6	60.4
Multiracial or other race or ethnicity ^g	4.2	3.0

^a Estimates are weighted to be nationally representative. Percentages may not sum to 100% due to rounding. Race and ethnicity data were missing for less than 0.01% of survey respondents. Percentages in the table are based only on individuals with known race and/or ethnicity data. Source: 2019 American Community Survey Public Use Microdata files.

^b All individuals living in the US who reported having Medicaid at the time of the American Community Survey (excludes Medicaid beneficiaries living in US territories).

^c All individuals living in the US, excluding residents of US territories (eg, Guam and Puerto Rico).

^d Includes individuals identifying as East Asian (eg, peoples tracing their origins to China, Korea, and Japan), South Asian (eg, peoples tracing their origins to India, Pakistan, and Bangladesh), and Southeast Asian (eg, peoples tracing their origins to Thailand, Vietnam, and the Philippines).

^e Includes individuals of Hispanic ethnicity across all racial groups.

^f Refers to individuals who are Native Hawaiian and people tracing their origins to countries such as Papua New Guinea, the Mariana Islands, and Tonga.

^g Includes individuals identifying with 2 or more racial groups or who reported their race and ethnicity as "other."

care. Policymakers anticipated that large insurers administering Medicaid managed care plans would establish clinician and hospital networks similar to those serving commercially insured populations.⁴⁹ Fourth, states sought flexibility in covering a broader array of services in managed care. For example, federal rules granted managed care plans flexibility to pay for nonmedical support services that addressed social determinants of health (eg, housing-related services) from the capitation rates plans received.⁵⁰

More recently, states have implemented managed care programs for older adults and disabled persons receiving long-term services and supports; 17 states introduced new programs between 2004 and 2020.⁵¹ These changes were prompted in part by a goal of optimizing Medicaid spending on services in community vs institutional settings, with the expectation that managed care plans would facilitate community-based care as a lower-cost alternative to institutional care.⁵² Because most Medicaid beneficiaries who receive long-term services and supports are dually eligible for Medicare, these changes provided an opportunity to coordinate Medicaid and Medicare coverage. Policymakers have tested new models that integrate Medicaid and Medicare benefits within managed care plans to control costs, improve care coordination, and potentially reduce health care disparities (46% of dual-eligible individuals are members of racial and ethnic minority groups).⁵³ However, in 2019, only 10% of individuals who were dual eligible were enrolled in such integrated plans.⁵⁴

Research does not provide clear evidence that managed care has been consistently associated with lower spending or improved quality compared with fee-for-service Medicaid. While some studies linked managed care with improvements in primary and preventive care use, these gains were not consistent among different populations of Medicaid beneficiaries.^{46,55} Research also did not find consistent reductions in hospital use or lower spending associated with managed care.^{44,46,48,56} Given the growth of Medicaid managed care, more evidence is needed on its effects.

Delivery System Reforms

Typically, managed care plans have paid clinicians on a fee-for-service basis even when the states' payments to plans were capitated.⁵⁷ Efforts have been undertaken to reform how Medicaid pays clinicians and hospitals to control costs and improve quality. Increasingly, these reforms incorporate a focus on addressing social determinants of health and, in some programs, reducing health disparities.

Between 2003 and 2019, 45 states and Washington, DC, implemented 139 new delivery system reforms (Figure 1). These models included accountable care organizations (13 states); Delivery System Reform Incentive Payment programs (12 states); Medicaid Health Homes (27 states); and patient-centered medical homes (26 states). Multistate reforms have also been initiated at the federal level but were outside the scope of this review.⁵⁸

State delivery system reforms varied considerably in their aims, structure, and scope. For example, in 2012, Oregon launched coordinated care organizations, which paid clinician groups a global budget and enabled them to earn bonuses by reducing spending and improving quality (similar to accountable care organizations).⁵⁹ Oregon's program was supported by a 5-year federal investment and included goals for reducing health disparities.⁶⁰ New York's Delivery System Reform Incentive Payment program was authorized to spend up to \$12.8 billion over 6 years to implement value-based payment and care coordination initiatives, several of which sought to integrate social and medical services.⁶¹ In Maryland, a Medicaid Health Home model focused on providing care coordination and referral services to address social determinants of health for individuals with serious mental illness and substance use disorders.⁶²

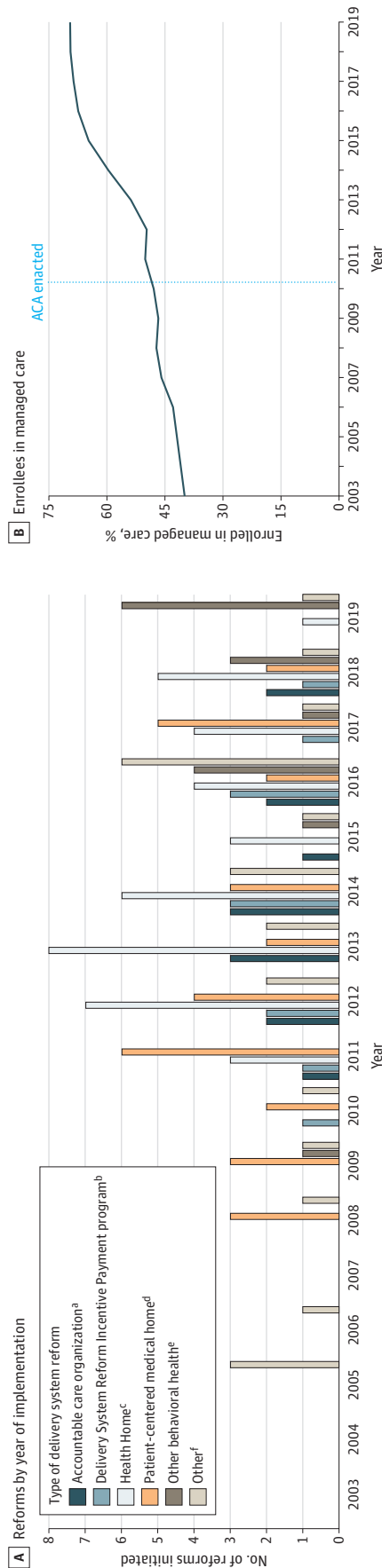
The published studies that evaluated health homes (ie, programs to coordinate care for vulnerable patients, such as those with serious mental illness) and studies of accountable care organizations demonstrated potential for programs to improve care coordination and reduce costly utilization.⁶³⁻⁶⁵ However, studies also suggested that gains may depend on programmatic priorities and investments to improve care.⁶⁶ For example, some models provided upfront investments to strengthen clinician and hospital care coordination infrastructure and address social determinants of health.²⁷ Rigorous research has not kept pace with the volume and breadth of delivery system reforms undertaken by state Medicaid agencies.

ACA Medicaid Expansion

History and Context

Arguably, the most consequential change to Medicaid in the last decade, and one marked by substantial state variation, was the ACA expansion of Medicaid to new adult populations. The ACA committed the federal government to funding 100% of costs for newly eligible adults in 2014, gradually declining to 90% by 2020.

Figure 1. Number of State-Initiated Medicaid Delivery System Reforms by Year of Implementation and Proportion of Medicaid Beneficiaries Enrolled in Comprehensive Managed Care, 2003-2019



Sources for information on comprehensive managed care enrollment include "Report to the Congress: The Evolution of Managed Care in Medicaid" (2011), "Medicaid and CHIP Program Statistics: June 2011 MACStats" (2011), and "MACStats: Medicaid and CHIP Data Book" (2021) from the Medicaid and CHIP Payment and Access Commission. Medicaid Delivery System Reforms were identified from several sources (see eAppendix 3 in the Supplement for search terms and sources).

^a Accountable care organizations are groups of clinicians and hospitals that voluntarily coordinate care for individuals, often under a shared-savings or capitated payment arrangement.

^b Delivery System Reform Incentive Payment programs (and similar programs) direct supplemental funds from Medicaid programs to clinicians to reform a broad array of types of care for beneficiaries.

^c Health Homes were created under the Affordable Care Act as a state plan option where the federal government

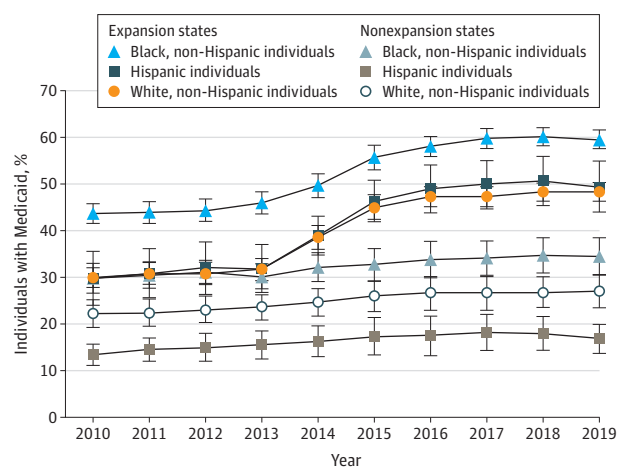
would temporarily pay for 90% of the cost. These programs offer care management to particularly vulnerable populations.

^d Patient-centered medical homes are a type of enhanced primary care delivery that seeks to provide whole-person, coordinated, and comprehensive care to patients.

^e Behavioral health reforms included both broad system transformations through 1115 waivers as well as more focused initiatives on integrating behavioral health care within primary care.

^f Examples of "other" reforms include value-based purchasing programs (such as episode of care payment programs), and care coordination programs, among others. The delivery system reforms presented here are not necessarily focused on managed care enrollees.

Figure 2. Trends in Medicaid Coverage Among Adults Aged 19 to 64 Years With Incomes at 138% or Less of the Federal Poverty Level by Race, Ethnicity, and State Medicaid Expansion Status, 2010-2019



Estimates among adults aged 19 to 64 years with household income at 138% or less of the federal poverty level (limited to US residents, excluding residents of US territories). In 2019, 138% of the federal poverty level corresponded to an income of \$29 435 for a family of 3. Estimates weighted to be nationally representative. The error bars represent 95% CIs for estimates and were constructed using robust standard errors clustered by state. States categorized by their Medicaid expansion status as of December 31, 2016.⁶⁸ Source: 2010-2019 American Community Survey Public Use Microdata files.

As of January 2022, 38 states and Washington, DC, had adopted the Medicaid expansion.

Evaluations of Medicaid Expansions

Research has indicated that Medicaid expansions were associated with gains in insurance, access to care, and health among low-income adults, with a recent review compiling evidence from 601 studies.⁶⁷ From 2010 to 2019, Medicaid coverage among low-income adults increased in expansion states relative to nonexpansion states by 11.2 and 16.2 percentage points among low-income Black adults and Hispanic adults, respectively (Figure 2).⁶⁸ The ACA expansion was associated with increases in insurance coverage (from any source) of 6 to 14 percentage points for Black adults and 6 to 8 percentage points for Hispanic adults after 2 to 4 years.⁶⁹⁻⁷¹ ACA expansions were associated with lower insurance coverage reductions due to job loss among Black adults and Hispanic adults during the COVID-19 pandemic.⁷²

Medicaid expansions were associated with improvements in having a usual source of care,^{73,74} receipt of preventive services,⁷⁵ and timely detection of and treatment for cancer.⁷⁶ These improvements in care were associated with gains in health outcomes. For example, Medicaid expansion was associated with a 0.13–percentage point absolute (9.4% relative) reduction in mortality among low-income adults aged 55 to 64 years at the time of expansion.⁷⁷

Medicaid expansion was also associated with gains in social outcomes, including reductions in medical debt and poverty and lower rates of high school dropout, home eviction, and crime.⁷⁸⁻⁸⁶ Expansion also provided vital financial support to some clinicians and hospitals. For example, the rate of rural hospital closures in expansion

states slowed following Medicaid expansion compared with trends in nonexpansion states.⁸⁷

Because the federal government fully funded the initial costs of expansion, Medicaid expansion has been consequential for state finances.¹⁰ From 2014 to 2019, expansion states experienced a 42.8% mean increase in federal Medicaid spending vs a 19.8% mean increase in nonexpansion states (Figure 3), whereas the mean increase in state Medicaid spending between 2014 and 2019 was similar between expansion and nonexpansion states (17.6% and 16.8%, respectively).

Structural Racism and the Politics of Medicaid Expansion

The weight of evidence demonstrates that Medicaid expansion has been beneficial to individuals, families, communities, and states. Twelve states have not expanded Medicaid, largely attributable to political factors, some of which reflect structural racism—ie, racial inequity produced through rules, practices, norms, and attitudes that affect politics and policy.¹¹ For example, US public opinion polling in 2020 found that White individuals were less likely to support Medicaid expansion (55% indicated support) than Hispanic individuals and Black individuals (76% and 87% supported expansion, respectively).⁸⁸ However, evidence suggests that support for Medicaid expansion among White individuals, compared with support among Black individuals and Hispanic individuals, was more strongly associated with state adoption of Medicaid expansion.⁸⁹

Social science research from 2014 identified several ways in which Medicaid politics has become racialized,⁹⁰ meaning that perceptions and practices related to Medicaid were linked to race even though the program serves individuals of all racial and ethnic backgrounds. For example, states with higher levels of racial resentment (ie, negative attitudes toward racial and ethnic minority groups) were less likely to expand Medicaid.¹³ State governors were more likely to receive a higher vote share after expanding Medicaid in states with larger shares of White Medicaid beneficiaries.⁹¹ Public support for some policies, such as Medicaid work reporting requirements, has been contingent on racial dynamics: White individuals with high racial resentment were more likely to support work requirements as a condition of receiving Medicaid.⁹²

Despite local and racial and ethnic differences in support for Medicaid, national opinion polls have shown that 75% of adults hold a favorable view of Medicaid, with majorities of Democrats, Independents, and Republicans reporting approval.⁹³ Public support for expansion increased from 50% in 2013—just before states implemented expansions—to 66% in 2020,⁸⁸ and support has continued to be demonstrated through voters favoring expansion in ballot initiatives. Thus, prospects for full implementation of Medicaid expansion may depend on the extent to which public support continues to encounter resistance, such as from racially influenced politics.

Medicaid and Health Equity

Medicaid can have an important role in advancing racial and ethnic health equity in the US. This section reviews evidence on the association of Medicaid with access to care and health among racial and ethnic minority groups in the US and with racial and ethnic disparities within Medicaid and identifies potential policy changes states and the federal government could adopt to make Medicaid more equity focused.

Figure 3. Change in State and Federal Spending on Medicaid by State and Medicaid Expansion Decision From Fiscal Year (FY) 2014 to 2019



Spending on Children’s Health Insurance Program (CHIP) is excluded from these calculations. North Dakota was an outlier on increases in both state and federal Medicaid spending and was excluded from the figure. State Medicaid spending grew by 141.3% and federal spending grew 236.6% in North Dakota from 2014 to 2019. Extreme values could be due to multiple factors, including changes to the coverage of benefits for certain enrollees, payments to managed care organizations, pre-ACA eligibility criteria, the performance of the state’s economy, and the proportion of the state’s enrollees who are enrolled through Medicaid expansion. Total federal and state spending in expansion states was \$339.6 billion in FY 2014 and increased to \$441.4 billion in FY 2019. Total federal and state spending in nonexpansion states was \$128 billion in FY 2014 and increased to \$153.2 billion in FY 2019. Reported spending changes are not adjusted for national medical price inflation. Adjusting for a national medical price inflation factor would not affect comparisons of relative spending changes between states. The solid blue lines represent the mean changes in federal spending; dashed blue lines, mean changes in state spending in states stratified by Medicaid expansion status; and dotted blue line, zero change in spending (for reference). Sources include “MACStats: Medicaid and CHIP Data Book” from December 2015 and 2020 by the Medicaid and CHIP Payment and Access Commission and Status of State Medicaid Expansion Decisions: Interactive Map (<https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/>) from the Kaiser Family Foundation.

^a New York’s state share of Medicaid spending declined to \$17 billion in FY 2019, down from \$33 billion in FY 2018. Thus, FY 2019 spending in New York could be an aberration and reported decreases in state spending relative to FY 2014 could be inflated as a result.

Medicaid Coverage Among Racial and Ethnic Minority Groups

Research has demonstrated that the growth of Medicaid was associated with long-term health improvements among individuals from racial and ethnic minority groups. One study estimated that, following the introduction of Medicaid in the 1960s, receiving Medicaid was associated with a 20% reduction in mortality among children (aged <14 years) from racial and ethnic minority groups (relative to a baseline mortality rate of 392 deaths per 100 000

children).⁵ Health improvements associated with Medicaid coverage among Black children have been found to last into late adolescence and early adulthood.^{6,7}

Expanding and Extending Medicaid Coverage

Expanding and extending Medicaid could yield broader coverage and health gains. According to one report, if the 12 nonexpansion states adopted expansion, an estimated 2.2 million individuals

could potentially qualify for Medicaid, of whom an estimated 60% would be from racial and ethnic minority groups.⁹⁴ An estimated 54% of uninsured Hispanic individuals live in states that have not expanded Medicaid.⁹⁵ Notably, the 2021 American Rescue Plan added an incentive for nonexpansion states: a 2-year, 5–percentage point increase in FMAP.⁹⁶ Beyond expansion, states could increase continuity of Medicaid coverage through multiple mechanisms. These include 12-month continuous eligibility to allow individuals to retain Medicaid even if their income fluctuates within the year^{97,98}; eliminating coverage gaps for individuals after incarceration⁹⁹; and extending postpartum coverage from 2 to 12 months.¹⁰⁰ Each of these policies would disproportionately benefit people from racial and ethnic minority groups.^{97,101}

Racial and Ethnic Disparities Within Medicaid

Expansion is necessary, but not sufficient, for advancing health equity because of substantial racial and ethnic disparities within Medicaid.^{102–104} Data from 2018 indicate that compared with White adults with Medicaid insurance, Hispanic adults with Medicaid insurance were less likely to have a usual source of care, received a checkup, and had their blood pressure checked in the last year (eFigure 2 in the [Supplement](#)). Black and Hispanic Medicaid beneficiaries with depression were less likely to receive treatment compared with White Medicaid beneficiaries,¹⁰⁵ and Black adults with opioid use disorder were less likely to receive medication treatment than White adults.¹⁰⁶ Black Medicaid beneficiaries were less likely to receive postpartum care than White beneficiaries.¹⁰⁷ Furthermore, evaluations found that ACA Medicaid expansions did not eliminate disparities in access to care and health because gains associated with expansion were similar, or in some cases smaller, for low-income Black adults and Hispanic adults compared with White adults.^{70,108}

Strategies to Address Racial and Ethnic Inequities Within Medicaid

Efforts to advance equity in access, quality, and outcomes within Medicaid require measurement of disparities and policies to address them. The strategies reviewed in this section highlight possible policy approaches for monitoring and advancing equity in access, quality, and outcomes within Medicaid.

Measurement of Racial and Ethnic Disparities | Incomplete race and ethnicity data have hindered efforts to monitor disparities within Medicaid. Although the ACA required states to collect data on race and Hispanic origin for Medicaid applicants, a recent analysis found this information was incomplete for a large share of beneficiaries in 17 states and unusable in 5 states.¹⁰⁹ There are also inconsistencies in how race and ethnicity data are collected and reported by states. Analysts recommend that Medicaid programs standardize application questions on race and ethnicity; accommodate additional granularity in how individuals self-identify their race and ethnicity; and add “explainer” text to Medicaid applications to explain how race and ethnicity data will be used.¹¹⁰

Complete data on Medicaid beneficiaries’ race and ethnicity could enable policymakers to monitor disparities. For example, some states have launched equity dashboards in Medicaid.¹¹¹ CMS could also require states to report Medicaid child and adult quality measures stratified by race and ethnicity, similar to what has been required of Medicare Advantage plans since 2016.¹¹² Further, annu-

ally surveying Medicaid beneficiaries about their experiences with and access to care, along with detailed collection of information on race, ethnicity, and language, could enable monitoring of disparities within Medicaid. Such efforts would likely require federal funding to support a national Medicaid beneficiary survey, similar to surveys administered in Medicare.

Managed Care Contract Levers to Advance Equity | Research has reached conflicting conclusions about the association of Medicaid managed care with equity.^{113–117} However, research to inform the dissemination of equity-focused policies within Medicaid managed care remains limited. For example, despite evidence that clinicians and hospital networks vary extensively across plans, there is little evidence about whether plan networks are associated with equitable access to care.^{118,119}

More robust evidence on racial and ethnic disparities at the level of managed care plans could lay the groundwork for making equity an explicit goal of Medicaid managed care programs.¹²⁰ Some states have required that managed care plans report quality measures stratified by race, ethnicity, and language, allowing states to set targets for plans to reduce disparities.¹²¹ Some states have already leveraged contracts with plans to require implementation of culturally and linguistically appropriate standards of care.¹²²

Payment and Delivery System Reforms | States may also explicitly incorporate health equity provisions in payment and delivery system reforms. For example, Pennsylvania recently introduced an episode-based obstetrical care model that includes incentive payments for reducing Black-White disparities in obstetrical care and infant well visits.¹²³ Models in Washington and Oregon have similarly made equity a component of alternative payment models.⁶⁰ An evaluation of Oregon’s coordinated care organizations found that they were associated with a reduction in racial disparities in primary care access.⁶⁰

CMS could advance these efforts by requiring all states undertaking delivery system reforms through federal waivers to include health equity goals and requirements for reporting progress toward reducing disparities. CMS recently signaled its interest in testing new equity-focused payment models in Medicaid.¹²⁴ However, these models require development of a validated set of health equity measures and a robust data infrastructure to monitor equity.¹²⁵

Workforce Policies | States could advance equity through policies focused on the clinician and hospital networks serving Medicaid beneficiaries. Access challenges in Medicaid, due in part to low clinician payment rates,¹²⁶ are exacerbated by structural factors including racial residential segregation, which often leaves racial and ethnic minority populations underserved by primary care clinicians¹²⁷ and even segregation of patients within hospitals.¹²⁸ Investments in Federally Qualified Health Centers and in training additional community health workers and primary care clinicians may also lessen access disparities.^{129,130} States could also audit the clinician networks of Medicaid managed care plans to ensure they meet network adequacy standards, particularly for racial and ethnic minority communities. Evidence of racial disparities even among patients of the same hospital¹³¹ underscores the importance of a comprehensive approach that also addresses sources of within-clinician disparities.¹³²

Discussion

After nearly 6 decades, Medicaid has become the largest health insurance program by enrollment in the US and accounts for a substantial amount of health care expenditures. Medicaid has improved access to care and health among low-income populations and disproportionately insures people from racial and ethnic minority groups. Medicaid has significantly reduced, but has not eliminated, racial and ethnic disparities in insurance coverage, access to care, and health outcomes. Additional policy reforms are needed to achieve equity in access, quality, and outcomes.

Unique features of Medicaid's financing and governance influenced the evolution of Medicaid populations and benefits over time. First, Medicaid is a means-tested program that, by definition, serves people with low incomes. Second, Medicaid is a joint federal-state partnership, with states administering Medicaid programs and sharing costs with the federal government. State administration has led to considerable variation in Medicaid policy including adoption of the ACA Medicaid expansion. This joint federal-state framework contributes to fiscal constraints in Medicaid that do not exist in other health care programs because states, which finance an average of 35% of Medicaid's costs, must balance their budgets. Third, federal Medicaid financing is based on a formula that provides greater support to states with lower per-capita incomes. On several occasions, the federal government has adjusted Medicaid's financing formula to advance policy goals including expanding Medicaid under the ACA and covering higher costs during the COVID-19 pandemic.

Medicaid enrollment is at an historic high, covering 80.6 million people in 2022. Since the beginning of the COVID-19 pandemic, Medicaid enrollment has increased by an estimated 22 million people. The federal provisions that enabled this growth will expire with the end of the federal COVID-19 public health emergency (currently scheduled to end in October 2022, if not renewed), leaving beneficiaries to navigate potential changes in coverage and states with the challenge of maintaining access to care amid renewed funding constraints.

To control costs, state Medicaid programs have kept payment rates to clinicians and hospitals low relative to Medicare or private insurers, extensively used managed care, and adopted payment and delivery system reforms. However, the full implications of delivery system reforms for health care quality, costs, and equity remain

poorly understood. Similarly, evidence on the optimal structure of managed care programs in Medicaid, in which 69.5% of beneficiaries are enrolled, is limited.

Given its disproportionate role in covering people from racial and ethnic minority groups, Medicaid is positioned to lead efforts to advance racial and ethnic health equity. Adoption of ACA Medicaid expansion (in the 12 states that have not adopted it) and improving continuity of coverage would disproportionately extend Medicaid coverage to individuals from racial and ethnic minority populations. To reduce racial disparities within Medicaid, states could improve collection of race and ethnicity data, include equity-focused incentives in managed care programs and delivery system reforms, and adopt workforce strategies targeting longstanding gaps in access to and quality of care in racial and ethnic minority groups. In addition, national collection of patient-reported health outcomes data could identify barriers and facilitators to health equity.

Limitations

This report has several limitations. First, to provide an overview of the structure of Medicaid and current areas of policy, it was not possible to provide a systematic review on each topic. Some important issues in Medicaid, such as reimbursement for prescription drugs, were not covered. Second, while the report provided examples of Medicaid reforms in several states, a comprehensive survey of initiatives was beyond scope. Third, this article focused on racial and ethnic inequities in Medicaid; inequities by disability, sex, and rurality merit additional attention. Fourth, this report included the most recent and complete data available on Medicaid populations, spending, and financing. In some cases, data sources permitted examination of changes in Medicaid during the COVID-19 pandemic whereas in other cases (eg, characteristics of the population) more recent data were not available.

Conclusions

Medicaid insures a substantial portion of the US population, accounts for a significant amount of total health spending and state expenditures, and has evolved with delivery system reforms, increased managed care enrollment, and state expansions. Additional Medicaid policy reforms are needed to reduce disparities by race and ethnicity and to help achieve equity in access, quality, and outcomes.

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REFERENCES

- US Government Accountability Office. Federal low-income programs: eligibility and benefits differ for selected programs due to complex and varied rules. June 2017. Accessed September 30, 2021. <https://www.gao.gov/assets/gao/17-558.pdf>
- Centers for Medicare & Medicaid Services. Monthly Medicaid & CHIP application, eligibility determination, and enrollment reports & data. Accessed July 22, 2022. <https://www.medicaid.gov/medicaid/national-medicaid-chip-program-information/medicaid-chip-enrollment-data/monthly-medicaid-chip-application-eligibility-determination-and-enrollment-reports-data/index.html>
- Centers for Medicare & Medicaid Services. National health expenditure data, table 19: national health expenditures by type of expenditure and program: calendar year 2020. Accessed July 22, 2022. <https://www.cms.gov/files/zip/nhe-tables.zip>
- Colello HJ, Morton WR. Medicaid eligibility: older adults and individuals with disabilities. December 9, 2019. August 26, 2022. <https://crsreports.congress.gov/product/pdf/R/R46111>
- Goodman-Bacon A. Public insurance and mortality: evidence from Medicaid implementation. *J Polit Econ*. 2018;126(1):216-262. doi:10.1086/695528
- Wherry LR, Miller S, Kaestner R, Meyer BD. Childhood Medicaid coverage and later-life health care utilization. *Rev Econ Stat*. 2018;100(2):287-302. doi:10.1162/REST_a_00677
- Wherry LR, Meyer BD. Saving teens: using a policy discontinuity to estimate the effects of Medicaid eligibility. *J Hum Resour*. 2016;51(3):556-588. doi:10.3368/jhr.51.3.0913-5918R1
- Brown CC, Moore JE, Felix HC, et al. Association of state Medicaid expansion status with low birth weight and preterm birth. *JAMA*. 2019;321(16):1598-1609. doi:10.1001/jama.2019.3678
- Michener J. *Fragmented Democracy: Medicaid, Federalism, and Unequal Politics*. Cambridge University Press; 2018. doi:10.1017/978108224987
- Gruber J, Sommers BD. Paying for Medicaid: state budgets and the case for expansion in the time of coronavirus. *N Engl J Med*. 2020;382(24):2280-2282. doi:10.1056/NEJMp2007124
- Michener JD. Politics, pandemic, and racial justice through the lens of Medicaid. *Am J Public Health*. 2021;111(4):643-646. doi:10.2105/AJPH.2020.306126
- Centers for Medicare & Medicaid Services. Innovation Center strategic direction. Accessed Feb 2, 2022. <https://innovation.cms.gov/strategic-direction>
- Lanford D, Quadagno J. Implementing ObamaCare: the politics of Medicaid expansion under the Affordable Care Act of 2010. *Social Perspect*. 2016;59(3):619-639. doi:10.1177/0731121415587605
- Michener J. Race, politics, and the Affordable Care Act. *J Health Polit Policy Law*. 2020;45(4):547-566. doi:10.1215/03616878-8255481
- Gee RE, Shulkin D, Romm I. A blueprint for comprehensive Medicaid reform. *JAMA*. 2021;325(7):619-620. doi:10.1001/jama.2021.0013
- National Association of State Budget Officers. State expenditure report. Accessed July 22, 2022. <https://www.nasbo.org/reports-data/state-expenditure-report>
- US Government Publishing Office. Budget FY 2022: table 15.1: outlays for health programs: 1962-2026. Accessed July 15, 2022. <https://www.govinfo.gov/app/details/BUDGET-2022-TAB/BUDGET-2022-TAB-16-1>
- Medicaid and CHIP Payment and Access Commission. Exhibit 15: Medicaid full-year equivalent enrollment by state and eligibility group, FY 2019 (thousands). Accessed January 15, 2022. <https://www.macpac.gov/wp-content/uploads/2015/11/EXHIBIT-15.-Medicaid-Full-Year-Equivalent-Enrollment-by-State-and-Eligibility-Group-FY-2019-thousands.pdf>
- Medicaid and CHIP Payment and Access Commission. MACStats: Medicaid and CHIP data book. December 2015. Accessed October 14, 2021. <https://www.macpac.gov/wp-content/uploads/2020/07/MACStats-Medicaid-and-CHIP-Data-Book-December-2015.pdf>
- Medicaid and CHIP Payment and Access Commission. MACStats: Medicaid and CHIP data book. December 2021. Accessed July 22, 2022. <https://www.macpac.gov/wp-content/uploads/2021/12/MACStats-Medicaid-and-CHIP-Data-Book-December-2021.pdf>
- US Census Bureau. Census Bureau releases analytical report on COVID-19 impact on the 2020 American Community Survey. October 27, 2021. Accessed July 15, 2022. <https://www.census.gov/newsroom/press-releases/2021/covid-19-impact-on-2020-acs.html>
- Kaiser Family Foundation. Medicaid waiver tracker: approved and pending Section 1115 waivers by state. Accessed May 28, 2021. <https://www.kff.org/medicaid/issue-brief/medicaid-waiver-tracker-approved-and-pending-section-1115-waivers-by-state/>
- Primary Care Collaborative. Primary care innovations and PCMH programs by title. Accessed May 28, 2021. <https://www.pccpc.org/initiatives/list>
- Center for Health Care Strategies Inc. Medicaid accountable care organization programs: state profiles. Accessed February 15, 2022. <https://www.chcs.org/resource/medicaid-accountable-care-organization-programs-state-profiles/>
- Change Healthcare. Value-based care in America: state-by-state. Accessed February 15, 2022. <https://www.pccpc.org/resource/value-based-care-america-state-state>
- National Academy for State Health Policy. State delivery system and payment reform map. Accessed May 28, 2021. <https://www.nashp.org/state-delivery-system-payment-reform-map/#toggle-id-1>
- Medicaid and CHIP Payment and Access Commission. Delivery System Reform Incentive Payment programs. April 2020. Accessed February 15, 2022. <https://www.macpac.gov/publication/delivery-system-reform-incentive-payment-programs/>
- Centers for Medicare & Medicaid Services. Medicaid.gov. Accessed February 2, 2022. <http://www.medicaid.gov>
- Perez EO. *Diversity's Child: People of Color and the Politics of Identity*. University of Chicago Press; 2021. doi:10.7208/chicago/9780226799933.001.0001
- Congressional Research Service. Medicaid: an overview. Updated February 22, 2021. Accessed February 15, 2022. <https://crsreports.congress.gov/product/pdf/R/R43357>
- Thompson FJ, Burke C. Executive federalism and Medicaid demonstration waivers: implications for policy and democratic process. *J Health Polit Policy Law*. 2007;32(6):971-1004. doi:10.1215/03616878-2007-039
- McMorrow S, Kenney GM, Long SK, Goin DE. Medicaid expansions from 1997 to 2009 increased coverage and improved access and mental health outcomes for low-income parents. *Health Serv Res*. 2016;51(4):1347-1367. doi:10.1111/1475-6773.12432
- Jarlenski M, Rocco P, Tipirneni R, Kennedy AJ, Gunturi N, Donohue J. Shaping health policy for low-income populations: an assessment of public comments in a new Medicaid waiver process. *J Health Polit Policy Law*. 2017;42(6):1039-1064. doi:10.1215/03616878-4193618
- Centers for Medicare & Medicaid Services. Federal fiscal year (FFY) 2019 statistical enrollment data system (SEDS) reporting. November 10, 2020. Accessed February 15, 2022. <https://www.medicaid.gov/chip/downloads/fy-2019-childrens-enrollment-report.pdf>
- Medicaid and CHIP Payment and Access Commission. Exhibit 14: Medicaid enrollment by state, eligibility group, and dually eligible status, FY 2019 (thousands). Accessed January 15, 2022. <https://www.macpac.gov/wp-content/uploads/2015/01/EXHIBIT-14.-Medicaid-Enrollment-by-State-Eligibility-Group-and-Dually-Eligible-Status-FY-2019-thousands.pdf>
- Medicaid and CHIP Payment and Access Commission. Exhibit 19: Medicaid benefit spending per full-year equivalent (FYE) enrollee by eligibility group and service category, FY 2019. Accessed September 15, 2021. <https://www.macpac.gov/wp-content/uploads/2015/01/EXHIBIT-19.-Medicaid-Benefit-Spending-Per-Full-Year-Equivalent-FYE-Enrollee-by-Eligibility-Group-and-Service-Category-FY-2019.pdf>
- Medicaid and CHIP Payment and Access Commission. Nursing facilities. Accessed September 15, 2021. <https://www.macpac.gov/subtopic/nursing-facilities/>
- Medicaid and CHIP Payment and Access Commission. Medicaid 101 financing. Accessed September 15, 2021. <https://www.macpac.gov/medicaid-101/financing/>
- Medicaid and CHIP Payment and Access Commission. Exhibit 1: Medicaid and CHIP enrollment as a percentage of the US population. Accessed September 15, 2021. <https://www.macpac.gov/publication/medicaid-and-chip-enrollment-as-a-percentage-of-the-u-s-population/>
- Clemans-Cope L, Holahan J, Garfield R. Medicaid spending growth compared to other payers: a look at the evidence. Kaiser Family Foundation. April 13, 2016. Accessed January 15, 2022. <https://www.kff.org/report-section/medicaid-spending-growth-compared-to-other-payers-issue-brief/>
- Kaiser Family Foundation. Medicaid-to-Medicare fee index. Accessed July 15, 2022. <https://www.kff.org/medicaid/state-indicator/medicaid-to-medicare-fee-index/?currentTimeframe=0&sortModel=%7B%22colId%22:%22Location%22,%22sort%22:%22asc%22%7D>

42. Williams E, Rudowitz R. The impact of the COVID-19 recession on Medicaid coverage and spending. Kaiser Family Foundation. March 1, 2022. Accessed July 15, 2022. <https://www.kff.org/medicaid/issue-brief/the-impact-of-the-covid-19-recession-on-medicaid-coverage-and-spending/#footnote-548447-3>
43. Williams E, Rudowitz R, Corallo B. Fiscal and enrollment implications of Medicaid continuous coverage requirement during and after the PHE ends. Kaiser Family Foundation. May 10, 2022. Accessed July 15, 2022. <https://www.kff.org/medicaid/issue-brief/fiscal-and-enrollment-implications-of-medicaid-continuous-coverage-requirement-during-and-after-the-phe-ends/>
44. Franco Montoya D, Chehal PK, Adams EK. Medicaid managed care's effects on costs, access, and quality: an update. *Annu Rev Public Health*. 2020;41:537-549. doi:10.1146/annurev-publhealth-040119-094345
45. Sparer M. Medicaid managed care: costs, access, and quality of care. Robert Wood Johnson Foundation. September 2012. Accessed September 15, 2021. <https://www.rwjf.org/content/dam/farm/reports/reports/2012/rwjf401106>
46. Zuckerman S, Brennan N, Yemane A. Has Medicaid managed care affected beneficiary access and use? *Inquiry*. 2002;39(3):221-242. doi:10.5034/inquiryjrn1.39.3.221
47. Marton J, Yelowitz A, Talbert JC. A tale of two cities? the heterogeneous impact of Medicaid managed care. *J Health Econ*. 2014;36:47-68. doi:10.1016/j.jhealeco.2014.03.001
48. Herring B, Adams EK. Using HMOs to serve the Medicaid population: what are the effects on utilization and does the type of HMO matter? *Health Econ*. 2011;20(4):446-460. doi:10.1002/hec.1602
49. Draper DA, Hurley RE, Short AC. Medicaid managed care: the last bastion of the HMO? *Health Aff (Millwood)*. 2004;23(2):155-167. doi:10.1377/hlthaff.23.2.155
50. Hinton E, Stolyar L. Medicaid authorities and options to address social determinants of health (SDOH). Kaiser Family Foundation. August 5, 2021. Accessed July 15, 2022. <https://www.kff.org/medicaid/issue-brief/medicaid-authorities-and-options-to-address-social-determinants-of-health-sdoh/>
51. Medicaid and CHIP Payment and Access Commission. Chapter 3: managed long-term services and supports: status of state adoption and areas of program evolution. Accessed September 15, 2021. <https://www.macpac.gov/wp-content/uploads/2018/06/Managed-Long-Term-Services-and-Supports-Status-of-State-Adoption-and-Areas-of-Program-Evolution.pdf>
52. Centers for Medicare & Medicaid Services. Long-term services and supports rebalancing toolkit. November 2020. Accessed February 15, 2022. <https://www.medicare.gov/medicaid/long-term-services-supports/downloads/ltss-rebalancing-toolkit.pdf>
53. Medicare Payment Advisory Commission; Medicaid and CHIP Payment and Access Commission. Beneficiaries dually eligible for Medicare and Medicaid. Accessed February 5, 2022. <https://www.macpac.gov/wp-content/uploads/2022/02/Beneficiaries-Dually-Eligible-for-Medicare-and-Medicaid-February-2022.pdf>
54. Centers for Medicare & Medicaid Services. Medicare-Medicaid Coordination Office: FY 2019 report to Congress. 2019. Accessed February 15, 2022. <https://www.cms.gov/files/document/mmco-report-congress.pdf>
55. Baker LC, Afendulis C. Medicaid managed care and health care for children. *Health Serv Res*. 2005;40(5, pt 1):1466-1488. doi:10.1111/j.1475-6773.2005.00427.x
56. Ndumele CD, Cohen MS, Cleary PD. Association of state access standards with accessibility to specialists for Medicaid managed care enrollees. *JAMA Intern Med*. 2017;177(10):1445-1451. doi:10.1001/jamainternmed.2017.3766
57. Kaiser Family Foundation. Medicaid delivery system and payment reform: a guide to key terms and concepts. June 2015. Accessed June 1, 2015. <https://files.kff.org/attachment/issue-brief-medicaid-delivery-system-and-payment-reform-a-guide-to-key-terms-and-concepts>
58. Centers for Medicare & Medicaid Services. Health Care Innovation Awards. Accessed October 14, 2021. <https://innovation.cms.gov/innovation-models/health-care-innovation-awards>
59. McConnell KJ. Oregon's Medicaid coordinated care organizations. *JAMA*. 2016;315(9):869-870. doi:10.1001/jama.2016.0206
60. McConnell KJ, Charlesworth CJ, Meath THA, George RM, Kim H. Oregon's emphasis on equity shows signs of early success for Black and American Indian Medicaid enrollees. *Health Aff (Millwood)*. 2018;37(3):386-393. doi:10.1377/hlthaff.2017.1282
61. Medicaid and CHIP Payment and Access Commission. Delivery system reform incentive payment programs. April 2020. Accessed July 15, 2022. <https://www.macpac.gov/wp-content/uploads/2018/03/Delivery-System-Reform-Incentive-Payment-Programs.pdf>
62. Mohamoud S, Idala D, Perez R, Malomo-Paris K. Health home program evaluation: CY 2013 to CY 2018. Hilltop Institute, University of Maryland Baltimore County. March 18, 2021. Accessed July 15, 2022. <https://www.hilltopinstitute.org/wp-content/uploads/publications/HealthHomeProgramEvaluationCY2013ToCY2018-March2021.pdf>
63. McConnell KJ, Renfro S, Chan BK, et al. Early performance in Medicaid accountable care organizations: a comparison of Oregon and Colorado. *JAMA Intern Med*. 2017;177(4):538-545. doi:10.1001/jamainternmed.2016.9098
64. Shane DM, Nguyen-Hoang P, Bentler SE, Damiano PC, Momany ET. Medicaid health home reducing costs and reliance on emergency department: evidence from Iowa. *Med Care*. 2016;54(8):752-757. doi:10.1097/MLR.0000000000000555
65. McGinty EE, Stone EM, Kennedy-Hendricks A, et al. Effects of Maryland's Affordable Care Act Medicaid Health Home Waiver on quality of cardiovascular care among people with serious mental illness. *J Gen Intern Med*. 2020;35(11):3148-3158. doi:10.1007/s11606-020-05690-9
66. McGinty EE, Kennedy-Hendricks A, Linden S, Choksy S, Stone E, Daumit GL. An innovative model to coordinate healthcare and social services for people with serious mental illness: a mixed-methods case study of Maryland's Medicaid health home program. *Gen Hosp Psychiatry*. 2018;51:54-62. doi:10.1016/j.genhosppsych.2017.12.003
67. Guth M, Ammula M. Building on the evidence base: studies on the effects of Medicaid expansion, February 2020 to March 2021. Kaiser Family Foundation. May 6, 2021. Accessed September 15, 2021. <https://www.kff.org/medicaid/report/building-on-the-evidence-base-studies-on-the-effects-of-medicaid-expansion-february-2020-to-march-2021/>
68. Kaiser Family Foundation. Status of state Medicaid expansion decisions: interactive map. July 21, 2022. Accessed May 15, 2021. <https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/>
69. Wehby GL, Lyu W. The impact of the ACA Medicaid expansions on health insurance coverage through 2015 and coverage disparities by age, race/ethnicity, and gender. *Health Serv Res*. 2018;53(2):1248-1271. doi:10.1111/1475-6773.12711
70. Lee H, Porell FW. The effect of the Affordable Care Act Medicaid expansion on disparities in access to care and health status. *Med Care Res Rev*. 2020;77(5):461-473. doi:10.1177/1077558718808709
71. Baumgartner JC, Collins SR, Radley DC, Hayes SL. How the Affordable Care Act has narrowed racial and ethnic disparities in access to health care. The Commonwealth Fund. January 16, 2020. Accessed August 15, 2021. https://www.commonwealthfund.org/sites/default/files/2020-01/Baumgartner_ACA_racial_ethnic_disparities_db.pdf
72. Figueroa JF, Khorrami P, Bhanja A, Orav EJ, Epstein AM, Sommers BD. COVID-19-related insurance coverage changes and disparities in access to care among low-income US adults in 4 southern states. *JAMA Health Forum*. 2021;2(8):e212007. doi:10.1001/jamahealthforum.2021.2007
73. Hill SC, Abdus S. The effects of Medicaid on access to care and adherence to recommended preventive services. *Health Serv Res*. 2021;56(1):84-94. doi:10.1111/1475-6773.13603
74. Simon K, Soni A, Cawley J. The impact of health insurance on preventive care and health behaviors: evidence from the first two years of the ACA Medicaid expansions. *J Policy Anal Manage*. 2017;36(2):390-417. doi:10.1002/pam.21972
75. Hendryx M, Luo J. Increased cancer screening for low-income adults under the Affordable Care Act Medicaid expansion. *Med Care*. 2018;56(11):944-949. doi:10.1097/MLR.0000000000000984
76. Soni A, Simon K, Cawley J, Sabik L. Effect of Medicaid expansions of 2014 on overall and early-stage cancer diagnoses. *Am J Public Health*. 2018;108(2):216-218. doi:10.2105/AJPH.2017.304166
77. Miller S, Johnson N, Wherry LR. Medicaid and mortality: new evidence from linked survey and administrative data. *Quarterly Journal of Economics*. 2021;136(3):1783-1829. doi:10.1093/qje/qjab004
78. Zewde N, Eliason E, Allen H, Gross T. The effects of the ACA Medicaid expansion on nationwide home evictions and eviction-court initiations: United States, 2000-2016. *Am J Public Health*. 2019;109(10):1379-1383. doi:10.2105/AJPH.2019.305230
79. Allen HL, Eliason E, Zewde N, Gross T. Can Medicaid expansion prevent housing evictions? *Health Aff (Millwood)*. 2019;38(9):1451-1457. doi:10.1377/hlthaff.2018.05071

80. Callison K, Walker B. Medicaid expansion and medical debt: evidence from Louisiana, 2014-2019. *Am J Public Health*. 2021;111(8):1523-1529. doi:10.2105/AJPH.2021.306316
81. Miller S, Hu L, Kaestner R, Mazumder B, Wong A. The ACA Medicaid expansion in Michigan and financial health. National Bureau of Economic Research Working Paper Series. Revised March 2020. Accessed September 15, 2021. https://www.nber.org/system/files/working_papers/w25053/w25053.pdf
82. Zewde N, Wimer C. Antipoverty impact of Medicaid growing with state expansions over time. *Health Aff (Millwood)*. 2019;38(1):132-138. doi:10.1377/hlthaff.2018.05155
83. Yeung R. The effect of the Medicaid expansion on dropout rates. *J Sch Health*. 2020;90(10):745-753. doi:10.1111/josh.12937
84. He Q, Barkowski S. The effect of health insurance on crime: evidence from the Affordable Care Act Medicaid expansion. *Health Econ*. 2020;29(3):261-277. doi:10.1002/hec.3977
85. Vogler J. Access to health care and criminal behavior: short-run evidence from the ACA Medicaid expansions. SSRN. November 14, 2017. Accessed September 15, 2021. <https://ssrn.com/abstract=3042267> doi:10.2139/ssrn.3042267
86. Fry CE, McGuire TG, Frank RG. Medicaid Expansion's spillover to the criminal justice system: evidence from six urban counties. *RSF*. 2020;6(2):244-263. doi:10.7758/rsf.2020.6.2.11
87. Lindrooth RC, Perrailon MC, Hardy RY, Tung GJ. Understanding the relationship between Medicaid expansions and hospital closures. *Health Aff (Millwood)*. 2018;37(1):111-120. doi:10.1377/hlthaff.2017.0976
88. Hamel L, Kearny A, Kirzinger A, Lopes L, Brodie M. KFF health tracking poll: May 2020. Kaiser Family Foundation. May 27, 2020. Accessed July 15, 2022. <https://www.kff.org/coronavirus-covid-19/report/kff-health-tracking-poll-may-2020/>
89. Grogan CM, Park SE. The racial divide in state Medicaid expansions. *J Health Polit Policy Law*. 2017;42(3):539-572. doi:10.1215/03616878-3802977
90. Omi M, Winant H. *Racial Formation in the United States*. 3rd ed. Routledge; 2014. doi:10.4324/9780203076804
91. Fording RC, Patton DJ. Medicaid expansion and the political fate of the governors who support it. *Policy Stud J*. 2019;47(2):274-299. doi:10.1111/psj.12311
92. Haeder SF, Sylvester SM, Callaghan T. Lingering legacies: public attitudes about Medicaid beneficiaries and work requirements. *J Health Polit Policy Law*. 2021;46(2):305-355. doi:10.1215/03616878-8802198
93. Kaiser Family Foundation. Data note: 5 charts about public opinion on Medicaid. February 28, 2020. Accessed September 15, 2021. <https://www.kff.org/medicaid/poll-finding/data-note-5-charts-about-public-opinion-on-medicaid/>
94. Solomon J. Federal action needed to close Medicaid "coverage gap," extend coverage to 2.2 million people. Center on Budget and Policy Priorities. May 6, 2021. Accessed September 15, 2021. <https://www.cbpp.org/sites/default/files/5-6-21health.pdf>
95. Artiga S, Orgera K, Damico A. Changes in health coverage by race and ethnicity since implementation of the ACA, 2013-2017. Kaiser Family Foundation. February 2019. Accessed September 15, 2021. <https://files.kff.org/attachment/Issue-Brief-Health-Coverage-by-Race-and-Ethnicity-Changes-Under-the-ACA>
96. Musumeci MB. Medicaid provisions in the American Rescue Plan Act. Kaiser Family Foundation. March 18, 2021. Accessed July 15, 2022. <https://www.kff.org/medicaid/issue-brief/medicaid-provisions-in-the-american-rescue-plan-act/>
97. Goldman AL, Sommers BD. Among low-income adults enrolled in Medicaid, churning decreased after the Affordable Care Act. *Health Aff (Millwood)*. 2020;39(1):85-93. doi:10.1377/hlthaff.2019.00378
98. Solomon J. *Continuous Coverage Protections in Families First Act Prevent Coverage Gaps by Reducing "Churn."* Center on Budget and Policy Priorities; 2020.
99. Albertson EM, Scannell C, Ashtari N, Barnert E. Eliminating gaps in Medicaid coverage during reentry after incarceration. *Am J Public Health*. 2020;110(3):317-321. doi:10.2105/AJPH.2019.305400
100. Kumar NR, Borders A, Simon MA. Postpartum Medicaid extension to address racial inequity in maternal mortality. *Am J Public Health*. 2021;111(2):202-204. doi:10.2105/AJPH.2020.306060
101. Thielke A, Curtis P, King V. Addressing COVID-19 health disparities: opportunities for Medicaid programs. Milbank Memorial Fund. June 28, 2021. Accessed September 15, 2021. <https://www.milbank.org/publications/addressing-covid-19-health-disparities-opportunities-for-medicaid-programs/>
102. Medicaid and CHIP Payment and Access Commission. Racial and ethnic disparities in Medicaid: an annotated bibliography. April 2021. Accessed September 15, 2021. <https://www.macpac.gov/wp-content/uploads/2021/04/Racial-and-Ethnic-Disparities-in-Medicaid-Annotated-Bibliography.pdf>
103. Barnett ML, Clark KL, Sommers BD. State policies and enrollees' experiences in Medicaid: evidence From a new national survey. *Health Aff (Millwood)*. 2018;37(10):1647-1655. doi:10.1377/hlthaff.2018.0505
104. Nguyen KH, Wilson IB, Wallack AR, Trivedi AN. Racial and ethnic disparities in patient experience of care among nonelderly Medicaid managed care enrollees. *Health Aff (Millwood)*. 2022;41(2):256-264. doi:10.1377/hlthaff.2021.01331
105. McGregor B, Li C, Baltrus P, et al. Racial and ethnic disparities in treatment and treatment type for depression in a national sample of Medicaid recipients. *Psychiatr Serv*. 2020;71(7):663-669. doi:10.1176/appi.ps.201900407
106. Donohue JM, Jarlenski MP, Kim JY, et al; Medicaid Outcomes Distributed Research Network (MODRN). Use of medications for treatment of opioid use disorder among US Medicaid enrollees in 11 states, 2014-2018. *JAMA*. 2021;326(2):154-164. doi:10.1001/jama.2021.7374
107. Parekh N, Jarlenski M, Kelley D. Prenatal and postpartum care disparities in a large Medicaid program. *Matern Child Health J*. 2018;22(3):429-437. doi:10.1007/s10995-017-2410-0
108. Lee H, Hodgkin D, Johnson MP, Porell FW. Medicaid expansion and racial and ethnic disparities in access to health care: applying the National Academy of Medicine definition of health care disparities. *Inquiry*. 2021;58(Jan-Dec):46958021991293.
109. Centers for Medicare & Medicaid Services. Beneficiary information: race and ethnicity. Accessed October 7, 2021. <https://www.medicaid.gov/dq-atlas/landing/topics/single/map?topic=g3m16>
110. State Health & Value Strategies. Collection of race, ethnicity, language (REL) data in Medicaid applications: a 50-state review of the current landscape. May 21, 2021. Accessed July 15, 2022. <https://www.shvs.org/resource/collection-of-race-ethnicity-language-rel-data-in-medicaid-applications-a-50-state-review-of-the-current-landscape/>
111. Smithy A, Patel S; Center for Health Care Strategies. Building a culture of health equity from within: spotlight on Virginia Medicaid. June 14, 2021. Accessed September 20, 2021. <https://www.chcs.org/building-a-culture-of-health-equity-from-within-spotlight-on-virginia-medicaid/>
112. Office of Minority Health, Centers for Medical & Medicaid Services. Paving the way to equity: a progress report. Accessed September 20, 2021. <https://www.cms.gov/files/document/paving-way-equity-cms-omh-progress-report.pdf>
113. Cook BL. Effect of Medicaid managed care on racial disparities in health care access. *Health Serv Res*. 2007;42(1, pt 1):124-145. doi:10.1111/j.1475-6773.2006.00611.x
114. Marton J, Yelowitz A, Shores M, Talbert JC. Does Medicaid managed care help equalize racial and ethnic disparities in utilization? *Health Serv Res*. 2016;51(3):872-891. doi:10.1111/1475-6773.12396
115. Bindman AB, Chattopadhyay A, Osmond DH, Huen W, Bacchetti P. The impact of Medicaid managed care on hospitalizations for ambulatory care sensitive conditions. *Health Serv Res*. 2005;40(1):19-38. doi:10.1111/j.1475-6773.2005.00340.x
116. Aizer A, Currie J, Moretti E. Does managed care hurt health? evidence from Medicaid mothers. *Rev Econ Stat*. 2007;89(3):385-399. doi:10.1162/rest.89.3.385
117. Kuziemko I, Meckel K, Rossin-Slater M. Does managed care widen infant health disparities? evidence from Texas Medicaid. *Am Econ J Econ Policy*. 2018;10(3):255-293. doi:10.1257/pol.20150262
118. Swaminathan S, Ndumele CD, Gordon SH, Lee Y, Trivedi AN. Association of Medicaid-focused or commercial Medicaid managed care plan type with outpatient and acute care. *JAMA Intern Med*. 2020;180(12):1672-1679. doi:10.1001/jamainternmed.2020.5408
119. Wallace J. What does a provider network do? evidence from random assignment in Medicaid managed care. SSRN. May 7, 2019. Accessed August 15, 2021. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3544928
120. Bailit Health. Medicaid managed care contract language: health disparities and health equity. August 2021. Accessed September 20, 2021. https://www.shvs.org/wp-content/uploads/2021/02/SHVS-MCO-Contract-Language-Health-Equity-and-Disparities_August-2021.pdf
121. Taylor E, Dyer MB, Bailit M. Promoting health equity in Medicaid managed care: a guide for states. Bailit Health. September 9, 2021. Accessed July 15,

2022. <https://www.shvs.org/resource/promoting-health-equity-in-medicare-managed-care-a-guide-for-states/>
- 122.** US Department of Health and Human Services Office of Minority Health. Think Cultural Health. Updated October 2, 2018. Accessed September 30, 2021. <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=53>
- 123.** Pennsylvania Department of Human Services. Pennsylvania receives grant funding to promote racial equity in pregnancy and child health. September 9, 2021. Accessed July 15, 2022. https://www.media.pa.gov/Pages/DHS_details.aspx?newsid=746
- 124.** Brooks-LaSure C, Fowler E, Seshamani M, Tsai D. Innovation at the centers for Medicare and Medicaid Services: a vision for the next 10 years. *Health Affairs*. August 12, 2021. Accessed August 28, 2021. <https://www.healthaffairs.org/doi/10.1377/hblog20210812.211558/full/>
- 125.** Agniel D, Martino SC, Burkhart Q, et al. Incentivizing excellent care to at-risk groups with a health equity summary score. *J Gen Intern Med*. 2021;36(7):1847-1857. doi:10.1007/s11606-019-05473-x
- 126.** Holgash K, Heberlein M. Physician acceptance of new Medicaid patients: Medicaid and CHIP Payment and Access Commission. January 24, 2019. Accessed July 25, 2022. <https://www.macpac.gov/wp-content/uploads/2019/01/Physician-Acceptance-of-New-Medicaid-Patients.pdf>
- 127.** Gaskin DJ, Dinwiddie GY, Chan KS, McCleary RR. Residential segregation and the availability of primary care physicians. *Health Serv Res*. 2012;47(6):2353-2376. doi:10.1111/j.1475-6773.2012.01417.x
- 128.** Vinekar K. Pathology of racism: a call to desegregate teaching hospitals. *N Engl J Med*. 2021;385(13):e40. doi:10.1056/NEJMp2113508
- 129.** Kangovi S, Mitra N, Norton L, et al. Effect of community health worker support on clinical outcomes of low-income patients across primary care facilities: a randomized clinical trial. *JAMA Intern Med*. 2018;178(12):1635-1643. doi:10.1001/jamainternmed.2018.4630
- 130.** Silver JK, Bean AC, Slocum C, et al. Physician workforce disparities and patient care: a narrative review. *Health Equity*. 2019;3(1):360-377. doi:10.1089/heap.2019.0040
- 131.** Howell EA, Egorova NN, Janevic T, et al. Race and ethnicity, medical insurance, and within-hospital severe maternal morbidity disparities. *Obstet Gynecol*. 2020;135(2):285-293. doi:10.1097/AOG.0000000000003667
- 132.** Maina IW, Belton TD, Ginzberg S, Singh A, Johnson TJ. A decade of studying implicit racial/ethnic bias in healthcare providers using the implicit association test. *Soc Sci Med*. 2018;199:219-229. doi:10.1016/j.socscimed.2017.05.009