Reports and Research

Table of Contents

June 3, 2025, Board Meeting

Federal Data and Reports

Other Reports and Research

- *Dental Coverage Through the Marketplace: A 2024 Snapshot of Enrollment, Market Participation and Premiums* – ***Georgetown University & Center on Health Insurance Reforms***
  April 29, 2025

- *2025 Budget Stakes: Working Families Could Lose Vital Health, Food, and Other Assistance* – ***Center on Budget and Policy Priorities***
  April 28, 2025

- *Strengthening California's Health Data Exchange: The Need for Enduring Leadership* – ***California Health Care Foundation***
  April 28, 2025

- *States' Use Of Medicaid Managed Care 'In Lieu Of Services' Authority To Address Poor Nutrition* – ***Health Affairs***
  April 7, 2025

Department of Health and Human Services
Office of Inspector General
Office of Evaluation and Inspections

DATA SNAPSHOT

May 2025 | OEI-05-23-00520

Most Medicare Part D Plans' Formularies Included Humira Biosimilars for 2025

HHS Office of Inspector General
HIGHLIGHTS

May 2025 | OEI-05-23-00520

DATA SNAPSHOT

Most Medicare Part D Plans' Formularies Included Humira Biosimilars for 2025

Why OIG Did This Review

- Humira, a biologic drug used to treat autoimmune conditions such as rheumatoid arthritis, is one of the best-selling prescription drugs in the world. In the United States, it has an annual list price of approximately $90,000. In 2022, it cost the Part D program and enrollees $5.4 billion before accounting for rebates and other price concessions.
- The launch of Humira biosimilars (which are highly similar to Humira, with no clinically meaningful differences) has been anticipated as an opportunity to lower biologic drug costs through competition. However, if Part D plans' formularies restrict access to Humira biosimilars, competitive pressure—and its potential effects on lowering drug costs—may be limited.
- Previous OIG work found that many Part D formularies did not cover biosimilars available for other expensive biologic drugs. OIG also found that this lack of formulary coverage could limit wider biosimilar use and any potential savings for Medicare Part D.

What OIG Found

Part D plans' formulary coverage of Humira biosimilars increased substantially between 2024 and 2025. Nearly all Part D Prescription Drug Plans (PDPs) (96 percent), and 88 percent of Medicare Advantage Prescription Drug (MAPD) plans, covered at least 1 of the 10 available Humira biosimilars on their 2025 formulary—including some plans that covered Humira biosimilars only and not Humira. This represents substantial growth in formulary coverage from 2024, when only 65 percent of PDPs and 52 percent of MAPD plans covered at least one of Humira's biosimilars. However, 1 percent of PDP enrollees and 10 percent of MAPD enrollees were in plans that covered Humira only in 2025, which in effect prevents these enrollees' use of Humira biosimilars.

Almost none of the formularies that covered Humira and its biosimilars used preferential tier placement to encourage biosimilar use. Ninety-nine percent of these formularies placed Humira and its biosimilars on the same cost-sharing tier. Likewise, these formularies either applied or did not apply utilization management requirements (i.e., prior authorization or step therapy) to both Humira and covered biosimilars. This means that the formularies did not use such tools to encourage the use of biosimilars, nor to discourage their use.

What OIG Concludes

Most—but not all—Part D plans covered Humira biosimilars in 2025. This increase in coverage is a positive trend, as both the Medicare Payment Advisory Commission and the Federal Trade Commission have raised concerns about the anticompetitive effects of limited biosimilar formulary coverage. OIG previously recommended that CMS monitor biosimilar coverage on formularies to identify any concerning trends, such as exclusion of biosimilars from formularies or preferential treatment for reference products like Humira. In response, CMS assessed whether 2024 Part D formularies included available biosimilars in addition to their reference products. We encourage CMS to continue this formulary monitoring.

Primer: Biosimilars and Part D Formulary Coverage

Biologic drugs like Humira (usually large, complex molecules produced in a living system) are some of the most expensive drugs available.[1]

A **biosimilar** is a biologic that is highly similar to and has no clinically meaningful difference from an existing Food and Drug Administration (FDA)-approved biologic (i.e., the biosimilar's "reference product").[2] Biosimilars compete with their reference products and are often less expensive.[3] Nine Humira biosimilars launched in 2023, with a tenth becoming available in 2024.[4]

Part D Prescription Drug Plans. Enrollees in traditional Medicare get their Part D prescription drug coverage from stand-alone prescription drug plans (PDPs), while Medicare Advantage includes prescription drug coverage through Medicare Advantage prescription drug (MAPD) plans. Our 2025 analysis includes 524 PDPs and 4,663 MAPD plans.

Formularies. Each PDP or MAPD plan has a formulary, which lists the drugs that the plan covers and organizes them into tiers with different cost-sharing requirements. Plans use formularies to encourage or discourage the use of certain covered drugs and to control costs. The same formulary may be used by multiple PDPs and/or MAPD plans. Our 2025 analysis includes 353 unique formularies.

Plans' formularies can **exclude drugs**—including biosimilars, like those for Humira—to in effect prevent their enrollees from using them.[5, 6]

Formulary coverage of Humira only

Effectively prevents biosimilar use

Formulary coverage of Humira + biosimilars

Enables biosimilar use

Formulary coverage of biosimilars only

Effectively requires biosimilar use

Plans can also use other **formulary tools** to encourage use of a covered drug or discourage the use of its competitors. For example, Part D plans can:

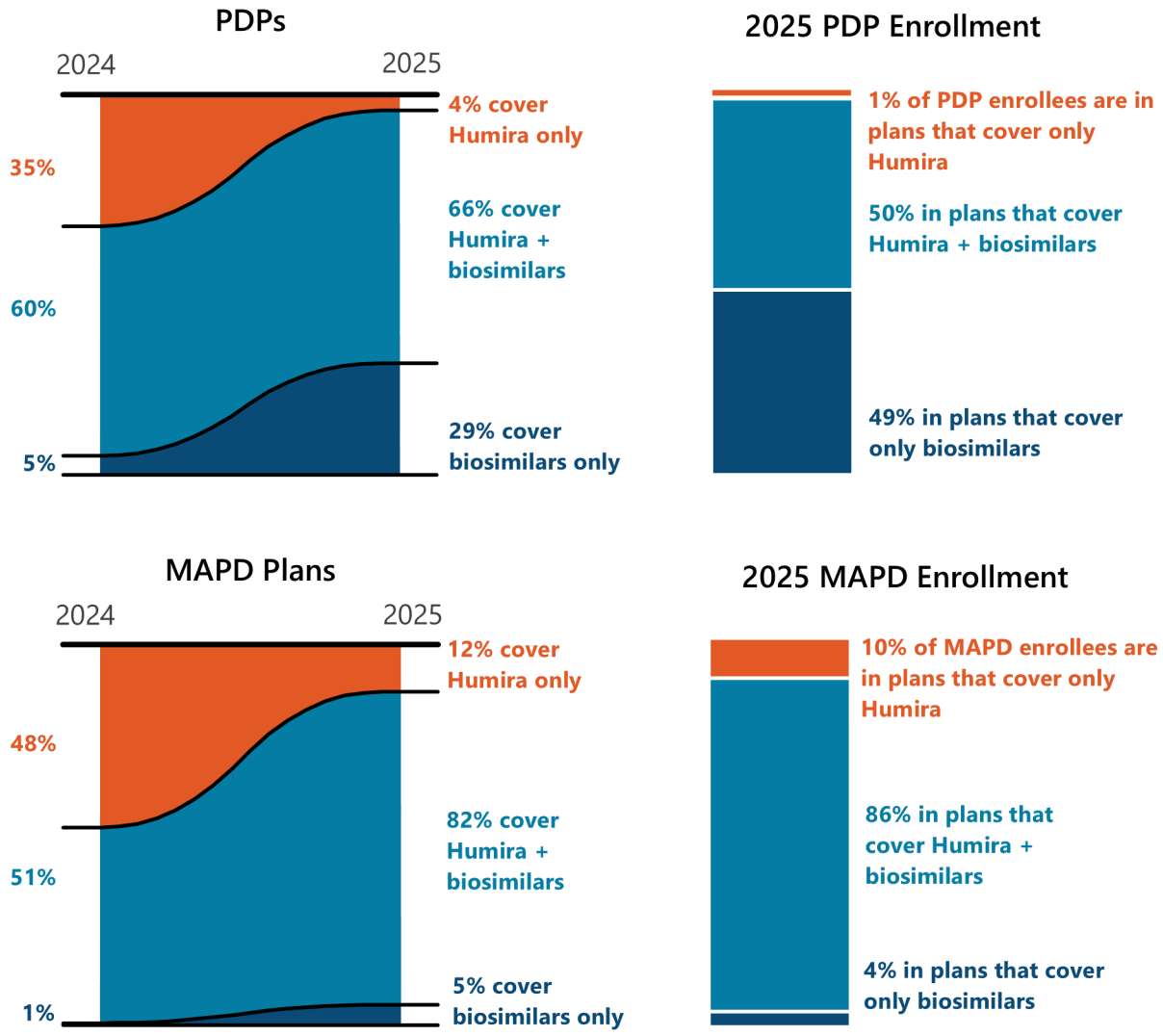
- Put a drug on a **lower formulary tier**—with lower enrollee cost-sharing—than its competitors to promote its use.[7]
- Implement **utilization management** requirements such as prior authorization and step therapy for a drug's competitors.
    - **Prior authorization** requires prescribers to obtain approval from the Part D plan before it will cover a specific drug; implementing prior authorization for Humira, but not its biosimilars, would make it easier for an enrollee to access the biosimilar.
    - **Step therapy** typically requires beneficiaries to first try a less expensive drug before moving to a more expensive drug; a plan could implement step therapy for Humira that required enrollees to first try a less expensive Humira biosimilar before getting approval to use Humira.

Formulary Review. The Center for Medicare & Medicaid Services (CMS) conducts an annual formulary review to ensure that Part D plans' formularies align with best practices, provide sufficient access to a range of drugs, and do not discourage the enrollment of certain enrollees.[8] At a minimum, formularies must cover commonly needed drugs and generally must offer at least two different drugs in each drug class and category.[9] The formulary review process does not include an assessment of drugs' costs to enrollees or the Medicare program because CMS cannot generally intervene in the negotiations between drug manufacturers and plan sponsors; require a particular formulary; or set a price structure for the reimbursement of covered Part D drugs.[10]

Part D Plans' Coverage of Humira Biosimilars

Part D plans' formulary coverage of Humira biosimilars increased substantially between 2024 and 2025. Nearly all Part D PDPs (96 percent) and 88 percent of MAPD plans included at least one of the 10 available Humira biosimilars on their 2025 formulary. This represents substantial growth in Humira biosimilar formulary coverage compared to the previous year, when only 65 percent of PDPs and 52 percent of MAPD plans covered any Humira biosimilar. Because plan size can vary, we also analyzed the proportion of enrollees in these plans. Overall, 99 percent of enrollees in PDPs and 90 percent of enrollees in MAPD plans had access to at least one Humira biosimilar in 2025. See Exhibit 1 below for the change in plans' Humira biosimilar coverage over time and 2025 enrollment in these plans.

Exhibit 1. Both MAPD plans and PDPs have increased coverage of Humira biosimilars, with at least 90 percent of enrollees in each plan type having access to a Humira biosimilar in 2025.



Source: OIG analysis of CMS Part D formulary data, landscape files, and enrollment information (2024-2025).
Note: Totals do not always add up to 100 percent due to rounding.

Some plans covered only the Humira biosimilars. Many enrollees were in plans that **covered Humira biosimilars only in 2025, which in effect requires the use of Humira biosimilars**. This type of exclusive biosimilar coverage can more effectively drive biosimilar use than covering a Humira biosimilar in addition to Humira.[11] A much higher proportion of PDP enrollees (49 percent) were in plans that used such formularies than MAPD enrollees (4 percent).

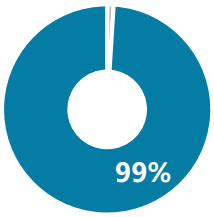
Some plans still restricted enrollees' access to the Humira biosimilars. Some enrollees were in plans that still **covered Humira only in 2025, which in effect prevents the use of its biosimilars**. A higher proportion of MAPD enrollees (10 percent) were in plans that used such formularies than PDP enrollees (1 percent).[12]

See Appendix A for additional details about plans and enrollment in 2024 and 2025.

Formularies Used by Plans

We analyzed the unique Part D formularies used by PDPs and MAPD plans to determine whether they used formulary tools such as differences in tier placement, prior authorization, or step therapy to encourage Humira biosimilar use. We also assessed whether Humira biosimilar formulary coverage differed by the drugs' characteristics.

Almost none of the formularies that covered Humira and its biosimilars used preferential tier placement to encourage biosimilar use. The vast majority of these formularies placed Humira and its biosimilars on the same cost-sharing tier. Likewise**,** these formularies either applied or did not apply utilization management requirements (i.e., prior authorization or step therapy) to both Humira and covered biosimilars. This means that the formularies did not use such tools to encourage the use of Humira biosimilars, nor to discourage their use.

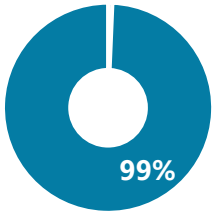


Almost all of these formularies included both Humira and its biosimilars on the **same cost-sharing tier**.

- Ninety-nine percent of these formularies placed Humira and its biosimilars on the same cost-sharing tier—usually on a specialty tier with enrollee coinsurance between 25 and 33 percent, where differences in enrollees' out-of-pocket (OOP) spending for a prescription depends on the plan-negotiated prices for these products. For enrollees who regularly use a Humira biosimilar or Humira on a specialty tier to treat a chronic condition, total annual OOP spending would likely be limited by the $2,000 cap on Part D OOP spending that took effect in 2025.[13]

- A few plans used formularies that placed a Humira biosimilar on a lower cost-sharing tier than Humira. For example, some plans used a formulary that placed one Humira biosimilar on a preferred brand tier, with lower cost-sharing in the form of a fixed-dollar copayment, and all other covered Humira biosimilars on the same specialty tier as Humira with percentage-based

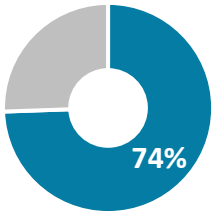
coinsurance. This placement creates an incentive for enrollees to use the one Humira biosimilar with the lowest cost-sharing.



Almost all of these formularies **either used or did not use utilization management requirements, such as prior authorization or step therapy**, for both Humira and covered biosimilars.

- Specifically, for 99 percent of these formularies, prior authorization and step therapy requirements either applied or did not apply to both Humira and covered biosimilars. Most formularies did require prior authorization for both Humira and covered biosimilars, but typically did not require step therapy for either.
- We did not assess whether the specifics of formularies' prior authorization policies differed for Humira and covered biosimilars. A formulary's prior authorization policy for Humira could specify that enrollees must try a covered biosimilar before receiving approval for a Humira prescription.

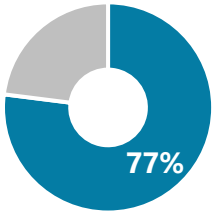
Seventy-four percent of formularies with Humira biosimilars included one of the six available interchangeable options, which a pharmacist can dispense instead of Humira.



Pharmacists can substitute Humira biosimilars that FDA has designated as "interchangeable" for a Humira prescription without contacting the prescriber, as is allowed for small-molecule brand and generic drugs.[14] Any formulary that covers one of these six interchangeable options in addition to Humira provides an additional opportunity for an enrollee to use the biosimilar rather than Humira.

FDA has recently supported considering all biosimilars to be interchangeable with their reference products—a change that would allow pharmacists to fill Humira prescriptions with any of the available Humira biosimilars.[15]

Seventy-seven percent of formularies with Humira biosimilars included an option that, like Humira, reduces injection site pain.



The most prescribed version of Humira has two characteristics that reduce injection site pain:

- Citrate-free formulation
- High concentration[16]

Most formularies included at least one of the six Humira biosimilars available in a citrate-free, high-concentration version. Patients and prescribers may be more willing to use Humira biosimilars if they are available with these characteristics.[17] All formularies that exclusively covered Humira biosimilars—and therefore in effect prevented the use of Humira—included a citrate-free, high-concentration version.

Primer: List Prices and Rebates

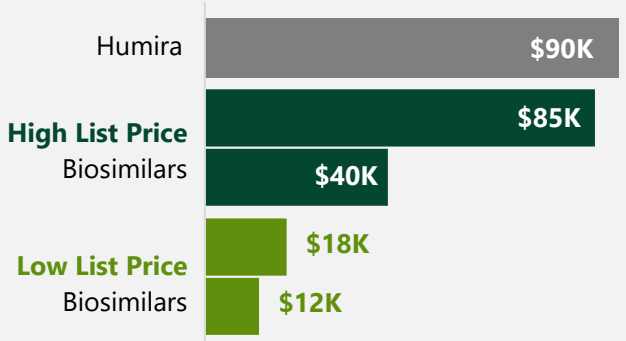
Manufacturer List Prices. List prices are manufacturers' published wholesale prices. They do not represent the transaction prices paid by Part D plans or include retroactive rebates paid by manufacturers. Manufacturers can offer their drugs at a low list price, likely with little or no rebate. Alternately, manufacturers may offer high list price drugs which can be paired with a rebate that results in a lower net cost to Part D plans than the published list price.[18]

Rebate Dynamics and Price Competition. There have been longstanding concerns about the effects of high list price, highly rebated drugs on drug price competition and Medicare Part D spending.[19] The Federal Trade Commission has noted that rebates for reference products like Humira may prevent competition from lower-cost biosimilars.[20] Specifically, agreeing to exclusively cover a high list price drug with a rebate may be more profitable for Part D plans than including lower-price competitors with little (or no) rebate on their formularies. This can lead to the exclusion of drugs like biosimilars from formularies, which limits enrollee access and thus reduces the competitive pressure to lower prices.[21] However, changes to the Part D benefit that went into effect in 2025—such as plans' increased liability for drug costs—have likely altered these incentives in ways that are yet to be determined.[22]

Formulary Coverage by List Price

To compete with Humira, biosimilar manufacturers have taken a variety of pricing approaches. An annual course of treatment for rheumatoid arthritis with Humira has a list price of $90,000, but the net cost to the Part D program would likely be lower after accounting for rebates.[23] Some Humira biosimilar manufacturers take a similar approach and offer their biosimilars at a high list price, which may come with a rebate, while others offer their biosimilars at a much lower list price than Humira. Some manufacturers use both pricing strategies for the same Humira biosimilar to appeal to different customers.[24, 25] We classified Humira biosimilars as either high list price or low list price according to their list prices relative to that of Humira for an annual course of rheumatoid arthritis treatment. See Exhibit 2 for the range of "high" and "low" Humira biosimilar list prices.

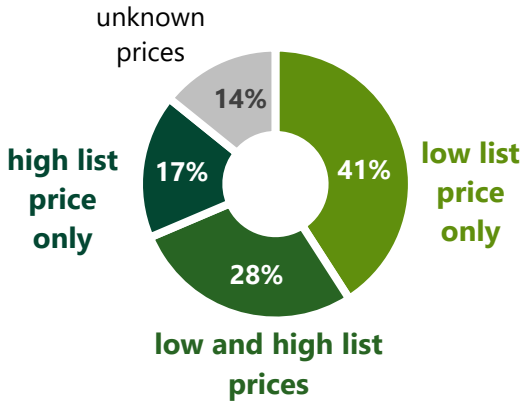
Exhibit 2. The range of list prices for an annual course of rheumatoid arthritis treatment varied among Humira biosimilars.



Source: OIG analysis of September 2024 Wholesale Acquisition Costs.
Note: List prices do not represent the transaction prices paid by Part D plans or include retroactive rebates paid by manufacturers.

We found that formularies varied in whether they covered Humira biosimilars with low list prices, high list prices, or both. Of the formularies that covered Humira biosimilars, 41 percent covered only low list price biosimilars, while 28 percent covered both low list price biosimilars and high list price biosimilars. Seventeen percent of formularies covered only high list price Humira biosimilars. We could not determine whether the remaining 14 percent of formularies covered high or low list price Humira biosimilars due to data limitations.[26] See Exhibit 3.

Exhibit 3. Formularies varied in whether they included low list price Humira biosimilars, high list price Humira biosimilars, or both.



Source: OIG analysis of Part D 2025 formulary data and September 2024 Wholesale Acquisition Costs.

What OIG Concludes

Part D plans' coverage of Humira biosimilars has grown substantially since 2024, and most plans' formularies included Humira biosimilars in 2025. This is a positive trend, as multiple groups have noted that biosimilar formulary coverage is critical for drug price competition to lower prescription drug costs for Medicare. For example, the Medicare Payment Advisory Commission has noted that Part D plans' coverage of biosimilars will be key to generating the competitive pressure necessary to lower already high—and rising—biologic drug prices.[27] Furthermore, expensive biologic drugs like Humira are excluded by law from Medicare Part D drug price negotiations when biosimilar competitors are available. Thus, biosimilars for these drugs must be included on formularies to create meaningful competition for manufacturers of reference products.

OIG previously recommended that CMS monitor biosimilar coverage on formularies to identify any concerning trends, such as exclusion of biosimilars from formularies or preferential treatment for reference products like Humira.[28] In response to this recommendation, CMS assessed whether 2024 Part D formularies included available biosimilars in addition to their reference products. CMS has also taken additional steps to encourage biosimilar formulary coverage, such as making it easier for plans to replace reference products with newly available biosimilars beginning in 2025.[29] We encourage CMS to continue monitoring plans' formularies to determine whether they include these alternatives to expensive biologic drugs.

Methodology

We determined the extent to which Medicare Part D PDPs' and MAPD plans' approved 2024 and 2025 formularies covered Humira and its biosimilars.[30, 31]

- We used formulary data from CMS's Health Plan Management System (HPMS) to identify formularies and covered biologic drugs.
- We used First DataBank National Drug Data as of September 2024 to identify the drug product information—including pricing—for Humira and its biosimilars.
- We used the FDA Purple Book to determine which Humira biosimilars were interchangeable.
- We used information from HPMS and the 2024 and 2025 Part D landscape files from CMS to identify unique PDPs and MAPD plans.
- We used information from CMS's Integrated Data Repository to determine the number of enrollees in PDPs and MAPD plans in January 2024 and January 2025.

To evaluate formulary coverage of Humira and its biosimilars, we took the following steps:

- We calculated the percentage of unique PDPs and MAPD plans using formularies that covered Humira and/or its biosimilars in 2024 and 2025, as well as the percentage of enrollees in those plans.
- Our analysis included 388 unique formularies in 2024 and 353 unique formularies in 2025. In both years, all formularies used by PDPs and MAPD plans covered (1) only Humira; (2) Humira and a Humira biosimilar; or (3) only a Humira biosimilar.

- For 2025 formularies that covered Humira and a Humira biosimilar, we calculated the percentage that (1) placed them on different formulary tiers and (2) had a step therapy or prior authorization requirement for Humira, but not its biosimilars (or vice versa). We did not analyze the details of the prior authorization requirements.
- For each unique formulary, we also examined the characteristics of the covered Humira biosimilars (e.g., interchangeability, concentration, and manufacturer list price).

We compared the list prices for Humira and its biosimilars on the basis of the strength and concentration used for treatment of rheumatoid arthritis. To compare these list prices, we took the following steps:

- We used Wholesale Acquisition Cost (WAC) prices from First DataBank to calculate the list price per 40mg syringe, vial, or autoinjector (unit).
- We categorized Humira biosimilars with per-unit list prices at least 80 percent lower than Humira as "low list price" and the rest as "high list price."
- We calculated annual list prices by multiplying the list price per unit by 26 (the average number of units used to treat rheumatoid arthritis over the course of a year).
- We also calculated the percentage of formularies covering low- and high-cost Humira biosimilars.

Limitations

This study evaluated Humira biosimilar inclusion on formularies only, and not the use of these biosimilars by enrollees. Additionally, the WAC prices we used to categorize Humira biosimilars as having "high" or "low" list prices may be different from the prices negotiated by Part D plans with manufacturers and do not account for retroactive rebates paid by manufacturers. We did not assess whether formularies specify prior authorization requirements differently for Humira and covered biosimilars (e.g., whether requirements to document previous treatments or current conditions differ). Finally, Part D plans may update their formularies over the course of the plan year. Our analysis does not reflect any of these mid-year changes.

Standards

We conducted this study in accordance with the *Quality Standards for Inspection and Evaluation* issued by the Council of the Inspectors General on Integrity and Efficiency.

Appendix

Appendix A: Humira Biosimilar Formulary Coverage by Plan and Plan Enrollment (2024-2025)

Table A1: PDPs

Formulary Coverage	2024 Plans		2025 Plans		2024 Enrollees		2025 Enrollees	
Humira Only	234	(34.6%)	22	(4.2%)	10,381,565	(59.1%)	206,800	(1.1%)
Humira and Biosimilar	408	(60.4%)	348	(66.4%)	6,374,642	(36.3%)	9,099,861	(50.2%)
Biosimilar Only	34	(5.0%)	154	(29.4%)	824,642	(4.7%)	8,809,750	(48.6%)
TOTALS	676		524		17,580,849		18,116,411	

Table A2: MAPD Plans

Formulary Coverage	2024 Plans		2025 Plans		2024 Enrollees		2025 Enrollees	
Humira Only	2,308	(48.1%)	576	(12.4%)	8,386,419	(32.4%)	2,787,045	(10.3%)
Humira and Biosimilar	2,463	(51.3%)	3,835	(82.2%)	17,420,909	(67.2%)	23,240,347	(85.7%)
Biosimilar Only	30	(0.6%)	252	(5.4%)	104,329	(0.4%)	1,093,952	(4.0%)
TOTALS	4,801		4,663		25,911,657		27,121,344	

Source: OIG analysis of CMS Part D formulary data, landscape files, and enrollment information (2024-2025).
Notes: Differences in the percentage of plans covering a Humira biosimilar and the percentage of enrollees in plans covering a Humira biosimilar are the result of variation in plan size. Totals do not always add up to 100 percent due to rounding.

Endnotes

[1] Kaiser Permanente Business, "Biosimilars can significantly reduce employer pharmacy costs. Are you missing out?," October 24, 2023. Accessed on November 8, 2024.

[2] The Biologics Price Competition and Innovation Act (BPCIA), part of the Patient Protection and Affordable Care Act, created an abbreviated approval pathway for biosimilars to introduce competition and lower prices for biologics. Under BPCIA, the FDA may approve a biosimilar once its manufacturer demonstrates that the biosimilar is "highly similar" to the already approved biologic reference product and that there are no "clinically meaningful differences" between the reference product and biosimilar. P.L. 111–148, Title VII, §§ 7001-7003, and 42 U.S.C. § 262(i).

[3] National Council of State Legislatures, *Brief: Decreasing Drug Costs Through Generics and Biosimilars*, January 21, 2022. Accessed on December 18, 2024.

[4] While FDA approved the first Humira biosimilar in 2016, patent litigation and patent dispute settlements prevented these potentially more affordable biologic drugs from launching in the U.S. market until 2023. While the first Humira biosimilar, Amjevita, became available in January 2023, the remaining nine Humira biosimilars became available in July 2023 or later. FDA, "FDA approves Amjevita, a biosimilar to Humira," September 23, 2016. Accessed on September 6, 2023. See also Mike Zhai, Ameet Sarpatwari, and Aaron Kesselheim, "Why Are Biosimilars Not Living up to Their Promise in the US?," *AMA Journal of Ethics*, August 2019, p. 671. Accessed on June 15, 2021.

[5] Nitzan Arad, et al., Duke-Robert J. Margolis Center for Health Policy, *Realizing the Benefits of Biosimilars: Overcoming Rebate Walls*, March 9, 2022, p. 6. Accessed on October 3, 2024.

[6] Enrollees can use an exceptions and appeals process to request coverage of drugs excluded from their plan's formulary, but this requires them to take administrative actions and does not guarantee that they can get the drugs. Enrollees could also opt to pay out of pocket for noncovered drugs.

[7] According to CMS, tier 1 should be the lowest cost-sharing tier available to beneficiaries, and any subsequent tiers should be higher cost-sharing tiers in ascending order. CMS, *Medicare Prescription Drug Benefit Manual*, Ch. 6, § 30.2.7. Accessed on November 3, 2024.

[8] CMS, *Medicare Prescription Drug Benefit Manual*, Ch. 6, § 30.2.7. Accessed on November 3, 2024.

[9] 42 CFR § 423.120(b)(2).

[10] There is an exception to this prohibition for the small number of single-source drugs that are subject to Medicare Part D drug price negotiations. The Social Security Act, 1860D-11(i).

[11] In the commercial market, exclusive biosimilar formulary coverage has been a strong driver of biosimilar use. See STAT, "Thanks to CVS, a biosimilar version of AbbVie's Humira is grabbing huge market share," April 15, 2024. Accessed on October 3, 2024.

[12] While enrollees can opt into a Part D plan with biosimilar coverage during set enrollment periods, they have limited opportunities to switch to a plan covering a biosimilar later in the plan year. See CMS, "Joining a plan." Accessed on October 3, 2024.

[13] Inflation Reduction Act of 2022. P.L. No. 117-169, § 11201(a).

[14] Biosimilars can be deemed "interchangeable" by FDA if the manufacturer can demonstrate that the biosimilar produces the same clinical result as the reference product in any given patient. This designation primarily affects biosimilar use in the pharmacy setting, as in most States, pharmacists can substitute an interchangeable biosimilar for its reference product without involving the prescriber. 42 U.S.C. § 262(k)(4).

[15] For example, FDA has made it easier for manufacturers to achieve an interchangeable designation and has also supported proposals to consider all biosimilars to be interchangeable. FDA, *Considerations in Demonstrating Interchangeability With a Reference Product: Update*, June 2024. Accessed on October 3, 2024. See also Endpoints News, "FDA is ready to eliminate the

interchangeability designation for biosimilars," April 15, 2024. Accessed on October 3, 2024. See also U.S. Department of Health and Human Services, *Fiscal Year 2025 Budget in Brief*, p. 83. Accessed on April 17, 2025.

[16] Vizient, "Biosimilars are the Same, Yet Different, and That May Impact Utilization," January 25, 2023. Accessed on March 17, 2025.

[17] Cardinal Health, *2024 Biosimilars Report: Insights on a pivotal year of evolution and expansion*, 2024, p. 23. Accessed on October 24, 2024.

[18] Congressional Research Service, *Negotiation of Drug Prices in Medicare Part D*, May 23, 2022, p. 1. Accessed on October 3, 2024.

[19] GAO, *Medicare Part D: CMS Should Monitor Effects of Rebates on Plan Formularies and Beneficiary Spending* (GAO-23-105270), September 5, 2023, pp. 2-3. Accessed on November 26, 2024.

[20] Federal Trade Commission, *Policy Statement of the Federal Trade Commission on Rebates and Fees in Exchange for Excluding Lower-Cost Drug Products*, June 16, 2022. Accessed on October 4, 2024.

[21] For example, manufacturers can withdraw rebates for a reference product like Humira—or for a bundle of products—if a biosimilar competitor is added to the formulary. Without widespread adoption of the biosimilar, the savings from the lower net cost biosimilar may not be enough to offset the loss of rebates for the more widely used reference product (or bundle of products). Nitzan Arad, et al., Duke-Robert J. Margolis Center for Health Policy, *Realizing the Benefits of Biosimilars: Overcoming Rebate Walls*, March 9, 2022, pp. 7-10. Accessed on October 3, 2024.

[22] Milliman, *A primer on Medicare Part D prescription drug rebates: Insights into the possible impact of the Inflation Reduction Act*, p. 4, September 29, 2023. Accessed on November 21, 2024.

[23] Research indicates that rebates for Humira were substantial before biosimilar competition and increased with the launch of the first Humira biosimilars. The exact amount of these rebates is not publicly disclosed. Stanton Mehr, "Sustaining competition for biosimilars on the pharmacy benefit: Use it or lose it," *Journal of Managed Care and Specialty Pharmacy*, June 2024, p. 601. Accessed on November 5, 2024.

[24] Some manufacturers offer an unbranded version with a low list price and a branded version with a higher list price and a large rebate. Others offer both high and low list prices for the same branded drug. See Mariam Sunny and Patrick Wingrove, "Boehringer launches 81% discounted biosimilar of AbbVie's Humira," *Reuters*, October 3, 2023. Accessed on October 4, 2024. See also Fierce Pharma, "Amgen's Humira biosimilar Amjevita hits the market with 2 different list prices," January 31, 2023. Accessed on October 4, 2024.

[25] This includes some co-branded versions of Humira biosimilars launched by manufacturers in partnership with pharmacy benefit managers, such as CVS Caremark and Express Scripts. CVS, *CVS Health launches Cordavis*, August 23, 2023.

[26] The remaining 14 percent of formularies included a single Humira biosimilar available at both high and low list prices (e.g., a branded Humira biosimilar with two different list prices). Due to the structure of Part D formulary data, we could not determine whether these formularies covered the high or low list price version of these Humira biosimilars, and therefore could not categorize the formularies as covering high list price Humira biosimilars, low list price Humira biosimilars, or both.

[27] The Medicare Payment Advisory Commission (MedPAC), *"Chapter 11: The Medicare prescription drug program (Part D): Status report," Report to the Congress: Medicare Payment Policy*, March 2024, pp. 335-337. Accessed on October 4, 2024.

[28] OIG, *Medicare Part D and Beneficiaries Could Realize Significant Spending Reductions With Increased Biosimilar Use* (OEI-05-20-00480), March 2022.

[29] 89 Fed. Reg. 30448, 30451 (April 23, 2024).

[30] Our analysis includes Special Needs Plans. It excludes employer group plans, demonstration projects, PACE plans, and plans only operating in U.S. territories.

[31] Enrollees chose plans that used the 2025 formularies during calendar year (CY) 2025 open enrollment, while the 2024 approved formularies were in use at the beginning of CY 2024.

A Call for New Research in the Area of Nutritional Standards in SNAP

Posted by : Noelia Duchovny

On May 2, 2025

The Supplemental Nutrition Assistance Program (SNAP) provides benefits that help eligible low-income households purchase food. Most enrolled households supplement SNAP benefits with personal funds (Tiehen, Newman, and Kirlin 2017). The Congressional Budget Office estimates that in 2025, an average of 42.5 million people will receive SNAP benefits each month, with an average monthly benefit of $188 per recipient (CBO 2025).

SNAP benefits can be used to buy many foods, although some items, such as hot prepared meals, are excluded. Lawmakers have asked CBO how adding nutritional standards to SNAP might affect the federal budget. Such standards would restrict purchases of foods linked to poor health outcomes, such as sugar-sweetened beverages, using SNAP benefits. New research would help the agency assess their budgetary effects.

How Would Nutritional Standards in SNAP Affect the Federal Budget?

To assess the budgetary effects of adding nutritional standards to SNAP, CBO would estimate:

- The costs of implementing the policy,
- Any offsetting savings resulting from the improved health of SNAP recipients, and
- Any savings from reduced participation in the program.

Estimating savings from improved health requires evidence about changes in food purchases and consumption and how those changes affect diet quality, health outcomes, and spending on health care. The federal budgetary effects would depend on SNAP recipients' health insurance coverage and federal subsidies for that coverage. Although CBO's cost estimates focus on a 10-year period, the agency would, if practicable, assess longer-term budgetary effects.

To gather that evidence, the agency examined two main types of research: randomized controlled trials (RCTs) and simulation models specific to the SNAP population. In CBO's assessment, that research literature has limitations stemming from the relatively small number of existing studies and from differences in conclusions among studies that have used different methodological approaches.

CBO also reviewed the literature on how taxes on sugar-sweetened beverages affect food consumption, health, and health care spending. If restrictions on SNAP purchases effectively raise the prices of targeted items, people may respond much as they do to those taxes. Although other interventions also aim to reduce the consumption of unhealthy foods, CBO focused on sugar-sweetened beverage taxes because of the strength and depth of the evidence in that area.

What Have RCTs Found About the Effects of Nutritional Standards in SNAP or Similar Programs on Diet Quality?

In CBO's assessment, the evidence on how SNAP beneficiaries would respond to restrictions on items that are eligible for purchase with SNAP benefits is unclear. Two RCTs found that restrictions on sugary foods alone did not improve the diets of low-income households receiving SNAP-like benefits (Harnack and others 2024; Harnack and others 2016). The lack of an effect may have been due to recipients' use of their own funds to buy restricted items or their substitution of similar foods.

Those studies also examined the combined effects of restrictions and incentives (that is, additional funds for the purchase of healthier foods), with mixed results. The 2016 study showed improved diet quality, but the 2024 study found no improvement. Methodological differences could explain those inconsistent findings.

Direct evidence that incentives can improve food consumption among SNAP recipients has come from the Healthy Incentives Pilot, a 2011 RCT involving a large group of SNAP recipients. In that study, participants who received an additional 30 cents for every SNAP dollar spent on certain fruits and vegetables consumed about 25 percent more of those items daily than participants who received standard SNAP benefits (Bartlett and others 2014).

What Do Simulation Models Suggest About the Effects of Nutritional Standards in SNAP on Health and Health Care Spending?

Diet quality can affect health. For certain populations, such as people with diet-related chronic diseases, dietary improvements can have clear benefits in the near term (see, for example, Estruch and others 2018; Appel and others 1997). For other populations, such as children, some evidence suggests that improvements in diet quality, including lower exposure to sugar, can improve health over the longer term (Gracner, Boone, and Gertler 2024; Gertler and Gracner 2022).

Three simulation studies have estimated how nutritional restrictions in SNAP would affect health and health care spending (Choi, Wright, and Bleich 2021; Mozaffarian and others 2018; Basu and others 2014). Those studies modeled how SNAP recipients would change

their consumption behavior in response to changes in program rules, accounting for the fact that recipients often shift some spending between SNAP benefits and personal funds when SNAP policies change. The studies linked the projected changes in consumption to expected health outcomes and health care costs, using evidence from prior research.

Findings from those simulation studies suggest that restricting purchases of sugar-sweetened beverages with SNAP dollars would improve health outcomes. One study found that restrictions would lead to lower obesity rates and lower incidence of type 2 diabetes (Basu and others 2014). Another suggested that restrictions would reduce cases of cardiovascular disease and health care spending (Mozaffarian and others 2018). The third study found that restricting purchases of sugar-sweetened beverages would reduce dental cavities among children, but the effects on obesity would vary depending on food substitutions (Choi, Wright, and Bleich 2021).

Two of those three studies also modeled the effects of incentives alone, with mixed results: One found that incentives on their own would not change health outcomes (Basu and others 2014), whereas the other found that incentives would lead to improvements in health and reductions in health care spending (Mozaffarian and others 2018).

What Have Research Studies Found About the Effects of Sugar-Sweetened Beverage Taxes on Health?

Eight cities or areas in the United States have imposed taxes on sugar-sweetened beverages (World Bank 2023). There is substantial evidence showing that taxes reduce sales of such beverages but limited evidence linking those reductions in sales to improvements in health (Hoffer and Macumber-Rosin 2025; Cawley and Frisvold 2023). Improvements in health may be limited because people substitute the taxed beverages with other high-calorie products or travel to areas without such taxes to purchase them (Hoffer and Macumber-Rosin 2025; Cawley and others 2019).

SNAP participants may respond to restrictions on unhealthy food purchases similarly to how consumers react to sugar-sweetened beverage taxes—by reducing consumption—if they perceive those restrictions as price increases. That perception depends on whether participants view SNAP benefits as equivalent to cash. If they do, they may simply use cash to buy restricted items. But people often treat SNAP benefits and cash differently (Hastings and Shapiro 2018). In that case, restrictions may effectively raise the perceived cost of targeted products, decreasing their consumption.

What New Research Would Be Especially Useful?

Additional research on how nutritional standards affect SNAP recipients' food choices, health outcomes, and health care spending would help CBO provide more complete

information to the Congress. Key areas that would benefit the agency's analysis include the effects of the consumption of specific foods on overall diet quality; the extent to which changes in diet alone affect health, when many factors influence health; differences in policy effects among subgroups of people (based on age or prevalence of chronic conditions); and the near- and long-term implications of nutritional standards for health and health care spending. Research on how SNAP enrollment changes in response to nutritional standards is also needed. Restrictions could make the program less desirable, potentially reducing enrollment. Evidence on such changes in enrollment would help CBO estimate the effects on the program's costs. And additional evidence on how participants substitute between SNAP benefits and cash would further inform the agency's projections of the likely effects of nutritional standards in the program.

Different study designs could help fill those gaps:

- New RCTs would be valuable. Ideally, studies would randomly assign SNAP benefits with and without nutritional standards to large numbers of recipients across geographic areas, track purchases of food with SNAP benefits and with personal funds, and collect information on consumption. Linking that information to health metrics, health care spending, disability claims, and employment records would allow CBO to examine a wide range of near- and long-term outcomes.
- Studies using simulation models could illustrate the sensitivity of results to different inputs and assumptions. CBO would also benefit from reviewing the code underlying those models.
- Natural experiments, in which policy changes subject some people to an intervention but not others, would also be useful. Those studies would compare outcomes in areas where nutritional standards are adopted with outcomes in similar areas where they are not adopted.

Because each design has strengths and limitations, those different designs are complementary. For example, RCTs are considered ideal for isolating the effects of an intervention, but their relevance can be limited by small sample sizes, short time frames, and high attrition rates. Simulation models can use survey data to assess larger samples over longer time frames, but they require simplification of complex behavioral and physiological mechanisms and are dependent on the quality of inputs and assumptions. A mix of designs would therefore strengthen the evidence base.

Noelia Duchovny is an analyst in CBO's Health Analysis Division. This blog post includes contributions from the following CBO staff: Susan Yeh Beyer, Elizabeth Cove Delisle,

Jennifer Gray, Tamara Hayford, Rebecca Heller, Jeffrey Kling, Aditi Sen, Emily Stern, Julie Topoleski, Chapin White, and Heidi Williams (a consultant to CBO).

As part of the legislative process, CBO supplies the Congress with cost estimates for legislation, economic and budget projections, and other economic assessments. Information from the research community is an important element of CBO's analyses. This is the 11th in a series of blog posts discussing research that would enhance the quality of the information that CBO uses in its work. (Earlier posts in the series discussed the need for new research in the areas of energy and the environment, finance, health, hepatitis C, labor, macroeconomics, national security, new drug development, obesity, and taxes and transfers.) Please send comments to communications@cbo.gov.

2.4 Million Parents Would Lose Medicaid If States Eliminate the ACA Expansion

National and State Projections for 2026

Jennifer M. Haley, Genevieve M. Kenney, and Michael Simpson

Prior research using the Urban Institute's Health Insurance Policy Simulation Model found that if states dropped their Affordable Care Act (ACA) Medicaid expansions in response to reduced federal funding, 15.9 million people would lose Medicaid coverage in 2026 in the 40 states and DC that adopted the expansion, with around two-thirds likely becoming uninsured and the remainder finding coverage through an employer or the Marketplaces (Buettgens 2025). Here, we extend that analysis to assess how many parents living with children would be at risk of losing Medicaid coverage under this scenario. Although uninsurance declined among parents following ACA implementation (Haley et al. 2021), federal funding cuts that lead states to roll back expansions could reverse that progress and increase parents' uninsurance.

ELIMINATION OF THE MEDICAID EXPANSION WOULD AFFECT AN ESTIMATED 2.4 MILLION PARENTS IN 2026

About 1.4 million mothers and 1 million fathers would have expansion coverage in 2026 and be at risk of losing Medicaid if expansions were eliminated (table 1). White parents constitute the single largest racial/ethnic group (57.5 percent or 1.4 million). At risk as well are 439,000 Hispanic parents, 402,000 Black parents, and 190,000 parents of other races/ethnicities. Almost half (48.7 percent) have incomes below the federal poverty level, and 56.0 percent live with a child under age 6. At least 100,000 parents have expansion coverage in California, Indiana, Kentucky, Louisiana, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Virginia, and Washington, with tens of thousands covered in other states (table 2). Elimination of expansions would also cause noncustodial parents to lose coverage, and millions more parents could lose Medicaid if expansion funding cuts cause states to impose enrollment barriers or reduce eligibility for other groups of parents.

TABLE 1

Elimination of Medicaid Expansion Would Affect 2.4 Million Custodial Parents in 2026

Characteristics	Number (thousands)	Percent
Total	**2,431**	**100.0%**
Parent type		
Mothers	1,438	59.2%
Fathers	992	40.8%
Race/ethnicity		
American Indian/Alaska Native	58	2.4%
Asian and Pacific Islander	101	4.2%
Black, non-Hispanic	402	16.6%
Hispanic	439	18.1%
White, non-Hispanic	1,399	57.5%
Other	31	1.3%
Family income		
0–100% of the federal poverty level	1,184	48.7%
Above 100% of the federal poverty level	1,247	51.3%
Presence of young children in household/family		
Includes one or more children from birth to age 6	1,364	56.0%
Includes only older children ages 7–18	1,066	43.8%

Source: Authors' analysis of Urban Institute's Health Insurance Policy Simulation Model based on Buettgens (2025).

Notes: Indicates the projected number of parents enrolled under the Affordable Care Act's expansion, where parents are ages 18 to 64 and live with dependent children ages 18 and under. Estimates include some new mothers and pregnant women who could qualify for Medicaid under a postpartum extension or for pregnancy-related coverage. If expansion enrollment is higher in 2026 than projected in our model, estimated coverage losses would be higher.

TABLE 2

Number (thousands) of Custodial Parents Who Could Lose Expansion Coverage in 2026, by State

State	Number	State	Number	State	Number	State	Number
Northeast	**325**	**South**	**806**	**West**	**766**	**Midwest**	**538**
Connecticut	<3	Arkansas	92	Alaska	<3	Illinois	<3
Maine	3	Delaware	5	Arizona	55	Indiana	152
Massachusetts	<3	DC	<3	California	224	Iowa	51
New Hampshire	13	Kentucky	120	Colorado	73	Michigan	169
New Jersey	104	Louisiana	136	Hawaii	8	Minnesota	<3
New York	3	Maryland	17	Idaho	40	Missouri	3
Pennsylvania	198	North Carolina	191	Montana	22	Nebraska	29
Rhode Island	<3	Oklahoma	74	Nevada	64	North Dakota	7
Vermont	<3	Virginia	127	New Mexico	58	Ohio	114
		West Virginia	42	Oregon	71	South Dakota	12
				Utah	35		
				Washington	115		

Source: Authors' analysis of Urban Institute's Health Insurance Policy Simulation Model based on Buettgens (2025).

Notes: Indicates the projected number of parents enrolled under the Affordable Care Act's expansion, where parents are ages 18 to 64 and live with dependent children ages 18 and under. Estimates include some new mothers and pregnant women who could qualify for Medicaid under a postpartum extension or for pregnancy-related coverage. If expansion enrollment is higher in 2026 than projected in our model, estimated coverage losses would be higher.

ELIMINATING MEDICAID EXPANSION WOULD HAVE ADVERSE IMPLICATIONS FOR PARENTS AND CHILDREN

Medicaid expansions increased adults' treatment for chronic health issues and reduced their mortality; improved parents' coverage, access to care, mental health, and their families' financial well-being; and had spillover benefits for children (Guth and Ammula 2021; McMorrow et al. 2017; Hudson and Moriya 2017). Rolling back expansion coverage would likely have the opposite effects, causing many custodial and noncustodial parents to become uninsured and others to move to employer-sponsored or Marketplace plans, which would have higher cost-sharing. This would likely increase parents' unmet health needs, stress, morbidity, and financial burdens, with their children being adversely affected because of deterioration in parental health, greater material hardships, and loss of health insurance coverage. Although eliminating ACA expansions would not target children directly, millions of children would be at risk of harm to their well-being.

REFERENCES

Buettgens, Matthew. 2025. *Reducing Federal Support for Medicaid Expansion Would Shift Costs to States and Likely Result in Coverage Losses*. Washington, DC: Urban Institute.

Guth, Madeline, and Meghana Ammula. 2021. *Building on the Evidence Base: Studies on the Effects of Medicaid Expansion, February 2020 to March 2021.* San Francisco: KFF.

Haley, Jennifer M., Genevieve M. Kenney, Clare Wang Pan, Robin Wang, Victoria Lynch, and Matthew Buettgens. 2021. *Uninsurance Rose among Children and Parents in 2019: National and State Patterns*. Washington, DC: Urban Institute.

Hudson Julie, and Asako Moriya. 2017. "Medicaid Expansion for Adults Had Measurable 'Welcome Mat' Effects on Their Children." *Health Affairs* 36 (9): 1643–51.

McMorrow, Stacey, Jason A. Gates, Sharon K. Long, and Genevieve M. Kenney. 2017. "Medicaid Expansion Increased Coverage, Improved Affordability, and Reduced Psychological Distress for Low-Income Parents." *Health Affairs* 36 (5): 808–18.

This research is funded by the David and Lucile Packard Foundation. The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Further information on the Urban Institute's funding principles is available at urban.org/fundingprinciples.

5.7 Million Women of Reproductive Age Would Lose Medicaid If States Eliminate the ACA Expansion

National and State Projections for 2026

Emily Burroughs, Emily M. Johnston, and Michael Simpson

Medicaid is a critical support for women of reproductive age across the US, providing access to general preventive and curative care and family planning services that allow women to choose whether and when to become pregnant. It also promotes the health of women and infants by ensuring access to preconception, prenatal, and maternity care. Congress is considering cuts to Medicaid that could cause many states to drop their Affordable Care Act Medicaid expansions. Prior research using the Urban Institute's Health Insurance Policy Simulation Model found this would leave 15.9 million people in 40 expansion states and DC without Medicaid coverage in 2026 (Buettgens 2025). This new extension of that research finds that women of reproductive age (18–49) would comprise over one-third of those losing Medicaid coverage. The Medicaid expansion has been shown to decrease uninsurance among low-income women of reproductive age (Johnston et al. 2018). Rolling back the expansion could reverse that progress, increasing uninsurance among millions of women across the US.

ELIMINATING MEDICAID EXPANSION WOULD LEAVE AN ESTIMATED 5.7 MILLION WOMEN WITHOUT MEDICAID

We estimate that 5.7 million women of reproductive age would have expansion coverage in 2026 and be at risk of losing Medicaid if the expansion were eliminated (table 1). White women of reproductive age constitute the single largest racial/ethnic group at risk of losing Medicaid expansion coverage (54 percent or 3.1 million), while 1.1 million women who are Hispanic, 927,000 who are Black, and 601,000 of other races/ethnicities are also at risk. Close to 3.6 million of the women with Medicaid expansion coverage (62.9 percent) have incomes below the federal poverty level, and more than half (56.3 percent) are between the ages of 18 and 29. We estimate that at least 100,000 women of reproductive age would have Medicaid expansion coverage in 2026 in Arizona, Arkansas, California, Colorado, Illinois, Indiana, Kentucky, Louisiana, Maryland, Michigan, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, Virginia, and Washington (table 2).

TABLE 1

Elimination of Medicaid Expansion Would Affect 5.7 Million Women of Reproductive Age in 2026

Characteristics	Number (thousands)	Percent
Total	**5,715**	**100.0%**
Race/Ethnicity		
American Indian/Alaska Native	134	2.3%
Asian and Pacific Islander	357	6.2%
Black, non-Hispanic	927	16.2%
Hispanic	1,103	19.3%
White, non-Hispanic	3,085	54.0%
Other	110	1.9%
Family Income		
0–100% of the federal poverty level	3,596	62.9%
Above 100% of the federal poverty level	2,119	37.1%
Age group		
18–29	3,219	56.3%
30–39	1,299	22.7%
40–49	1,198	21.0%

Source: Authors' analysis of Urban Institute's Health Insurance Policy Simulation Model data based on Buettgens (2025).
Notes: Estimates include some new mothers and pregnant women who could qualify for Medicaid under a postpartum extension or for pregnancy-related coverage.

TABLE 2

Number (thousands) of Women of Reproductive Age Who Could Lose Medicaid Expansion Coverage, by State

State	Number	State	Number	State	Number	State	Number
Northeast	**1,261**	**South**	**1,273**	**West**	**2,083**	**Midwest**	**1,097**
Connecticut*	68	Arkansas	110	Alaska	12	Illinois*	184
Maine*	14	Delaware	20	Arizona	187	Missouri**	70
Massachusetts	67	District of Columbia	26	California*	1,101	Nebraska	33
New Hampshire*	21	Kentucky	188	Colorado*	149	North Dakota	10
New Jersey*	164	Louisiana*	217	Hawaii	26	Ohio	224
New York*	615	Maryland*	106	Idaho	38	South Dakota	15
Pennsylvania*	281	North Carolina*	280	Montana*	36		
Rhode Island*	25	Oklahoma*	90	Nevada	92		
Vermont*	6	Virginia*	176	New Mexico*	98		
		West Virginia	60	Oregon*	117		
				Utah	44		
				Washington*	183		

Source: Authors' analysis of Urban Institute's Health Insurance Policy Simulation Model data based on Buettgens (2025).

Notes: Estimates include some new mothers and pregnant women who could qualify for Medicaid under a postpartum extension or for pregnancy-related coverage. * indicates state operates a Medicaid family planning program. ** indicates state operates an entirely state-funded family planning program.

ELIMINATING MEDICAID EXPANSION WOULD IMPEDE WOMEN'S ACCESS TO REPRODUCTIVE HEALTH CARE

Medicaid expansions improved women's access to and utilization of health care, increased use of effective contraceptive methods, reduced infant mortality, and improved postpartum health (Guth and Diep 2023; Johnston et al. 2018; Margerison et al. 2020). Rolling back the Medicaid expansion would put 5.7 million women of reproductive age at risk of losing comprehensive, affordable coverage. Most would become uninsured, but some would be eligible for up to a year of Medicaid coverage through postpartum extensions, while others would transition to private coverage but face higher cost-sharing. Those who become uninsured may be eligible for a Medicaid family planning program, available in 22 expansion states.[1] Some may have access to federally funded Title X services such as cancer screening, contraceptive care, sexually transmitted infection testing, and pregnancy testing.[2] However, neither Medicaid family planning programs nor Title X provides the full scope of health insurance offered by Medicaid coverage, and ongoing access to these programs is not guaranteed.

REFERENCES

Buettgens, Matthew. 2025. *Reducing Federal Support for Medicaid Expansion Would Shift Costs to States and Likely Result in Coverage Losses*. Washington, DC: Urban Institute.

Guth, Madeline and Karen Diep. 2023. "What Does the Recent Literature Say About Medicaid Expansion?: Impacts on Sexual and Reproductive Health." San Francisco: KFF.

Johnston, Emily M., Andrea Strahan, Peter Joski, Anne Dunlop, Kathleen Adams. 2018. "Impacts of the Affordable Care Act's Medicaid Expansion on Women of Reproductive Age: Differences by Parental Status and State Policies." *Women's Health Issues* 28 (2): 122–129.

Margerison, Claire E., Colleen L. MacCallum, Jiajia Chen, Yasamean Zamani-Hank, and Robert Kaestner. 2020. "Impacts of Medicaid Expansion on Health Among Women of Reproductive Age." *American Journal of Preventive Medicine 58* (1): 1–11.

[1] KFF, "States that Have Expanded Eligibility for Coverage of Family Planning Services Under Medicaid," accessed May 7, 2025.

[2] Office of Population Affairs, "About Title X Service Grants," accessed May 7, 2025.

This research is funded by the David and Lucile Packard Foundation. The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Further information on the Urban Institute's funding principles is available at urban.org/fundingprinciples.

A More Holistic Approach To Measurement For Value-Based Care

- Sam Simon, Jeff Ballou, Anita Somplasky, Dmitry Poznyak, Jennifer Starling

May 8, 202510.1377/forefront.20250507.692879

Editor's Note

This article is the latest in the Health Affairs Forefront *featured topic, Accountable Care for Population Health, featuring analysis and discussion of how to understand, design, support, and measure patient-centered, cost-efficient care under the umbrella of accountable care. Additional articles will be published throughout 2025. Readers are encouraged to review the Call for Submissions for this featured topic. We are grateful to Arnold Ventures for their support of this work.*

Through pay-for-reporting and pay-for-performance programs, payers such as the Centers for Medicare and Medicaid Services (CMS) rely on quality measures to incentivize and make inferences about care quality and evaluate the performance of health care delivery innovations.

The growth of pay-for-performance and value-based care (VBC) programs in the United States drives demand for quality measures as the basis for payment. One result of the growth of pay-for-performance and VBC is an overwhelming preponderance of measures. For CMS's Merit-based Incentive Payment System (MIPS) program alone, clinicians can choose from more than 200 clinical quality measures. Even among accountable care organization programs—despite their common goal of rewarding providers who successfully contain their patients' total cost of care while improving quality and access—measure sets vary routinely from one program to the next.

Provider performance on quality measures can have a significant impact on reimbursement. For the Medicare Advantage (MA) Star Ratings program, quality ratings impact financial performance of MA plans, with a drop of a 1/2 star resulting in a 5 percent decrease in bonus payment. Similarly, clinicians participating in CMS's MIPS program have 30 percent of their MIPS score based on quality measure performance.

While measures play a central role in paying for care, developing valid measures of providers' quality of care has proven to be something of a Gordian knot. Many have noted a preponderance of clinical quality measures, which, in addition to being costly, can be burdensome when assigned to a single provider or provider type. At the same time, many medical specialties have few measures to infer quality, leaving some specialists to report measures that have little relevance to the care they provide. For example, while hospitalists are eligible to participate in CMS's MIPS program, there are no specialty-specific measures

for hospitalists in the MIPS program. “Never events” such as lung puncture can also be difficult to capture accurately due to measurement error arising from infrequent numerator occurrences.

Recognizing the importance, complexity, and financial implications of quality measurement, CMS sponsors a consensus-based entity (CBE) to identify, classify, vet, and endorse measures that meet well-defined criteria, including importance, feasibility, usability, reliability, and validity. While some measures undergo CBE review, each measure used in CMS’s quality programs is evaluated for suitability by the Pre- Rulemaking Measure Review (PRMR) committee, as required under federal law. The PRMR committee uses a consensus-based approach to inform the inclusion of measures for CMS’s quality reporting and value-based programs.

The emphasis on vetting of individual measures has produced a wealth of measures with relatively little attention regarding the need for an approach to thoughtfully assemble measures into a cohesive set that will make sense to providers and encourage true quality improvement. For example, measures that are individually reliable and valid may be far less useful for determination of quality when combined in a set, particularly if measures in a set are conceptually redundant or work against each other (that is, are inversely correlated). We maintain that for payers to understand provider quality, measures must demonstrate utility independently and when used together as a set to infer quality.

The Problem: Lack Of Process And Standards To Assess Measure Sets For VBC Settings

While CMS and other payers link quality measure performance with payment in VBC schemes, payers and their stakeholders lack understanding as to how measures, when bundled as a set (such as CMS’s MIPS Value Pathways), impact assessments of quality. If the set of selected measures, taken together, does not properly capture the quality the payer seeks to reward, tying financial incentives to the individual measures risks unintentionally rewarding providers for an undue focus on certain dimensions of their practice while potentially neglecting others. That is, tying financial incentives to a poorly constructed measure set could harm rather than improve the quality of care. Currently, payment programs and care model sponsors lack a transparent and empirical process to demonstrate that measures function as a cohesive and robust approach to measure provider quality. In addition to evaluating the individual suitability of measures for a quality program, sponsors should evaluate the suitability of each set of measures to understand how they work together.

Potential Solution: Evaluate Measures As A Set

The National Quality Forum defines a measure set as "a group of individual measures, created for a specific purpose, that address an aspect of quality or cost." Measure sets are already used in CMS's payment programs and care model evaluations. All current CMS Innovation Center models use a set of quality measures to evaluate care for a given condition. For example, the Guiding an Improved Dementia Experience (GUIDE) model focuses on comprehensive, coordinated dementia care to improve quality of life for people with dementia, reduce strain on their unpaid caregivers, and enable people with dementia to remain in their homes and communities. The GUIDE model uses five performance measures to assess quality of care. The Innovation Center often uses measures that are CBE-endorsed, but no other objective criteria are applied to measure selection to confirm that the measures provide consistent information about care quality for patients in the model. In the case of the GUIDE model, there are measures related to patient and caregiver experience, use, and cost to assess model performance.

The latest iteration of the MIPS program is another measure set use case. MIPS Value Pathways, or MVPs, consist of a subset of measures and activities related to a specialty or medical condition. For 2025, CMS offers 21 distinct MIPS Value Pathways, which consist of quality, cost, and improvement measures. For example, the Quality Care in Mental Health and Substance Use Disorders MVP requires clinicians to report four quality measures from a list of 14 measures in addition to cost measures and improvement activities.

How It Could Work

A collection of measures, taken together, should capture the aspects of quality it purports to assess. Payers could address a series of questions using the approaches described in exhibit 1, modeled on current CBE measure assessment criteria. Similar to individual measures, the components that comprise a measure set should demonstrate that they are conceptually important to quality of care and that the components represent a cohesive measurement approach to assess quality. This can be evaluated qualitatively through review by a technical expert panel for individual measures, supplemented by quantitative analyses to evaluate performance of the measures as a set. The set of measures should be reliable, that is, the measures should work together in a way that is internally consistent. Correlation-based analyses, as listed in exhibit 1, can demonstrate how the individual measures that comprise a set are related. Careful review of the measures as a collection may yield a more streamlined set of measures with which to evaluate care by removing measures that are redundant (highly correlated) or are inversely correlated. Artificial intelligence, using large language models, may also help to address the validity of the measures in the set by identifying the metrics most associated with higher provider quality.

Exhibit 1: Measure set evaluation criteria and analytic approaches

Source: Authors' analysis.

Potential Benefits

The primary benefit of the qualitative and quantitative assessment of measure set characteristics described in exhibit 1 is accuracy of quality assessment through use of a refined set of measures that empirically demonstrate utility. A second, but no less important, benefit is reduced waste through limiting assessment to those metrics that truly address quality. Evaluating measure sets to eliminate redundant or uncorrelated measures can reduce measurement burden by promoting implementation of measures deemed most valuable.

Potential Pitfalls

Thresholds and standards for measure set criteria would need to be established, likely through a consensus-development approach such as the one employed by CMS's CBE. The approach described in exhibit 1 would require data from program participants to assess properties of measures as a set.

While program data will be useful to make analysis of measure sets as externally valid as possible, evaluation of a large number of measures is likely to run into methodological issues. For example, among specialty providers, some entities may have too few patients to report a given measure, requiring approaches to handling missing data. An initial period of low-stakes reporting of measures to support data collection could facilitate evaluation of the measures.

Looking Ahead

Although methodological and logistical issues remain, payers, providers, and patients stand to reap significant benefits from considering the characteristics (that is, reliability and validity) of measure sets used in value-based care to prune the set of quality measures that meet the intent of the measure set. CMS's existing CBE may be well-positioned to evaluate a measure set's fit for purpose.

Authors' Note

All authors are employees of Mathematica.

Access and Coverage for Mental Health Care for Women

Karen Diep, Brittni Frederiksen, Usha Ranji, Ivette Gomez, and Alina Salganicoff
Published: May 06, 2025

Mental health continues to be a growing area of health concern for people, with 90% of Americans saying there is a mental health crisis in the U.S. in a 2023 KFF-CNN poll. Women's mental health often differs from men's, with women experiencing some mental health symptoms more commonly than men but also conditions that are unique to women, such as perinatal and perimenopausal depression.

This brief analyzes data from the 2024 KFF Women's Health Survey (WHS), a nationally representative survey of 6,246 adults ages 18 to 64, including 5,055 women and 1,191 men, conducted from May 15 to June 18, 2024. In addition to several topics related to reproductive health and well-being, the survey asked respondents about their mental health and their experiences accessing mental health services in the past year. This issue brief presents KFF WHS data on access to mental health services among women and men ages 18 to 64, and it also takes a closer look at mental health coverage among women. See the Methodology section for details.

Key Takeaways

- Nearly three in ten women ages 18 to 64 (28%) describe their mental health or emotional well-being as "fair" or "poor", including higher shares of women with low incomes (38%) and those who identify as LGBT+ (45%). Nearly three quarters of those who say they have a mental health-related disability (73%) report having "fair/poor" mental well-being.
- Three in ten (29%) women say they received mental health services in the past 12 months. About half of women who describe their mental health as "fair/poor" say they received mental health care in the past year (48%). While eight in 10 ten women with a self-reported mental health-related disability (81%) say they received care, one in five did not.
- Among women who report receiving mental health services, the most commonly reported services are one-on-one care with a provider, in-person (60%) and/or via telehealth (55%). Just over half of this group report receiving a prescription for medication (52%). Few women say they received care through a mental health

therapy app (7% of those who report receiving services) or other services like in-patient hospitalization or group therapy (8%).

- Four in ten women overall (38%) say it is difficult for women to get mental health services in their state. One-third (32%) of all women say they did not get mental health services despite needing them, citing barriers such as cost, stigma, or inability to get time off from work.
- Among women who were able to get mental health care, half (50%) say it is difficult for women to access mental health services in their state, and more than half say they experienced barriers during care-seeking (55%). These challenges include trouble finding a provider that was accepting new patients (25%) or one that accepted their insurance (21%). The large majority of women with Medicaid say their most recent mental health care visit was covered completely by Medicaid (85%), whereas most women with private insurance had to pay some (48%) or all (14%) costs out-of-pocket.
- Cost is a significant barrier to obtaining mental health services. More than one in ten women 18 to 64 (13%) say they did not get mental health care or could not continue to afford the mental health care they were receiving because of cost. More than twice as many women without insurance (29%) cite cost as a reason for not getting care.

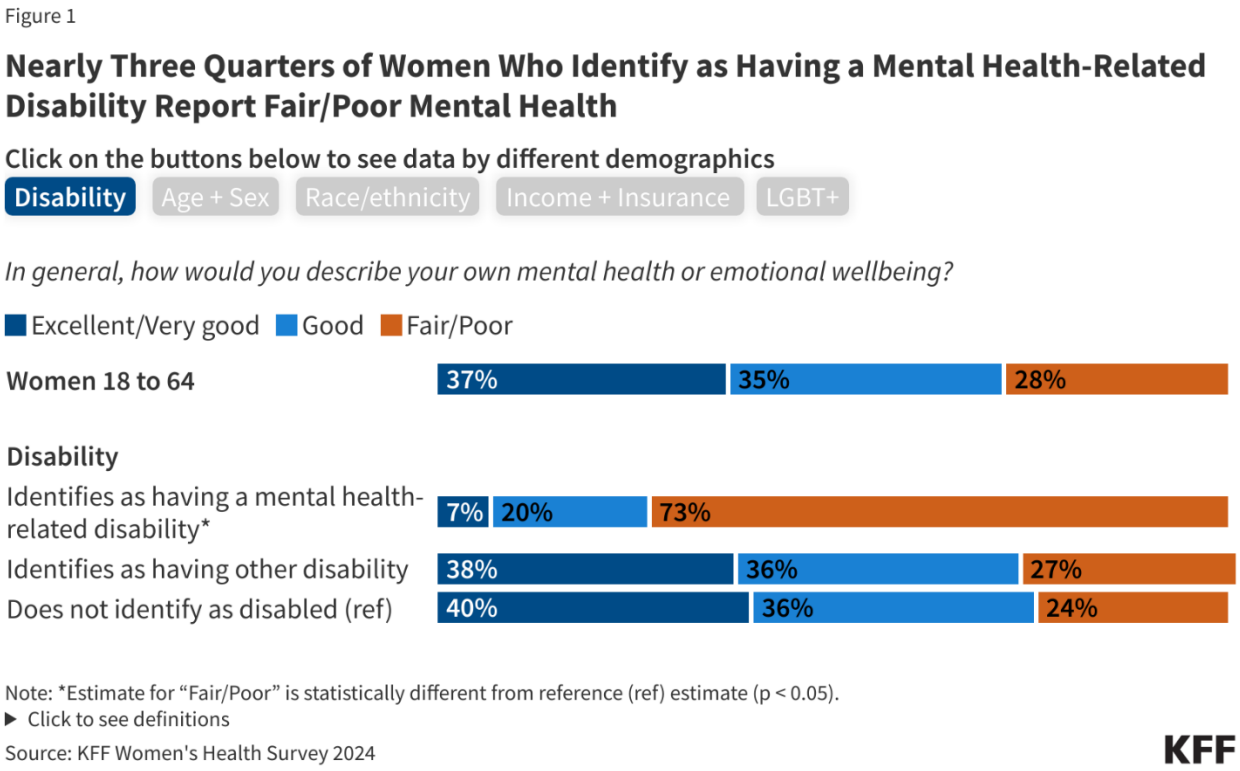
Self-Described Mental Health

In general, slightly larger shares of women describe their mental health status as "fair" or "poor" compared to men (28% vs. 23%). Most women (72%) and men (77%) describe their mental health as either "good" or "excellent/very good" (**Figure 1**).

As other research has found, younger adults report mental health challenges at higher rates than older adults. Over one third of younger women ages 18 to 25 describe their mental health status as "fair" or "poor" (36%), compared to a smaller share of women ages 50 to 64 (21%). A higher share of 50 to 64 — about half (49%) – describe their mental well-being as "excellent" or "very good," which is considerably higher than just three in ten (30%) younger women ages 18 to 25.

About 4 in 10 women (38%) who have low incomes (below 200% of the federal poverty level (FPL)) report fair or poor mental health status, nearly double the rate reported by those with higher incomes (21%). Nearly two times as many women who identify as LGBT+ (45%) say their mental health is "fair" or "poor" compared to those who do not identify as LGBT+ (24%). Not surprisingly, nearly three-quarters of women who identify as having a mental health-related disability (73%) say they have "fair" or "poor" mental health, three times the

rate of those who do not identify as being disabled (24%) or who have another non-mental health disability (27%).



Source: KFF Women's Health Survey 2024Get the dataDownload PNG

KFF

Mental Health Care Utilization

Not only do a slightly larger share of women than men report poorer mental health status, but compared to men, a somewhat larger share of women report receiving mental health care in the past 12 months (**Figure 2**). Roughly three in the ten women (29%) say they received mental health services from a mental health professional, compared to 22% of men.

Younger women are also more likely to use mental health services than older women. One in three women under the age of 50 say they received professional mental health care in the past year, compared to just 22% of women between age 50 and 64. Compared to their White counterparts (31%), smaller shares of Asian (19%) and Hispanic (24%) women say they received mental health care in the past year, consistent with previous mental health findings from KFF polling. Black (30%) and White women report obtaining mental health care at similar rates.

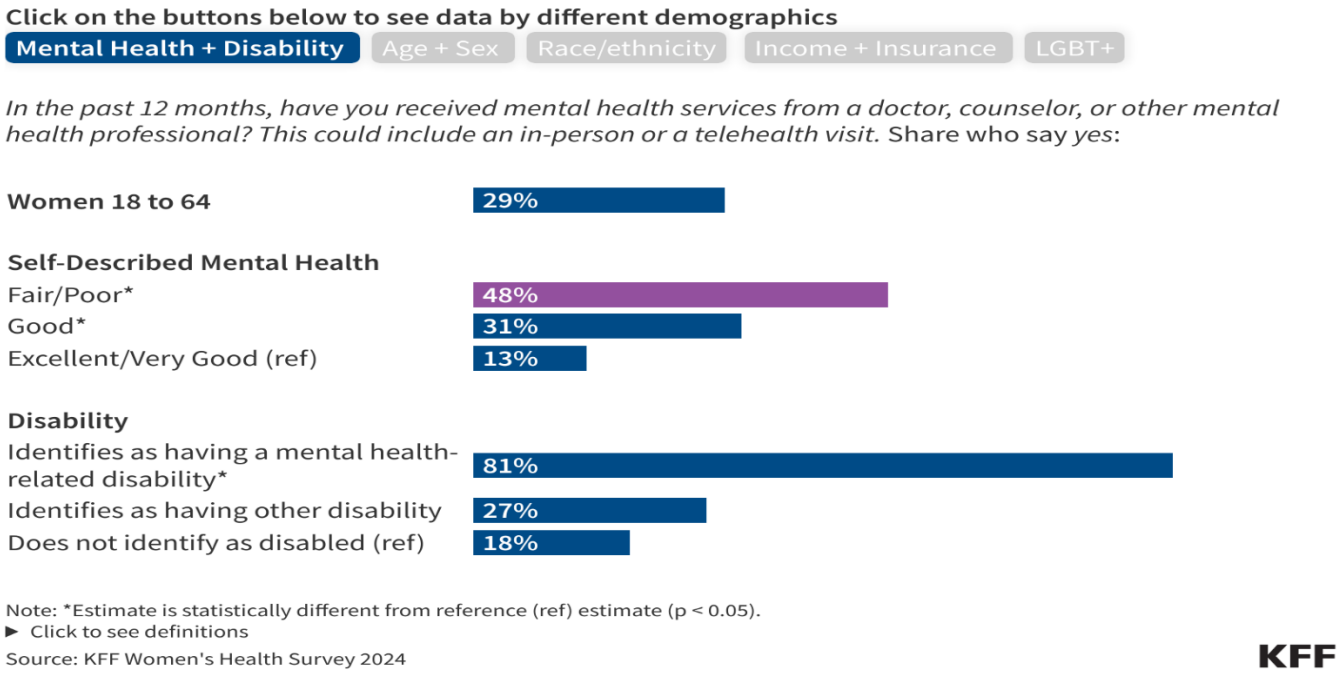
Consistent with the findings on self-described mental well-being, nearly twice as many women who identify as LGBT+ (45%) than those who do not (27%) say they received mental health care in the past 12 months. Similarly, eight in ten women who identify as having a mental health-related disability (81%) say they received mental health services, compared to 27% of women who identify as having another disability and 18% of women who do not identify as disabled.

Higher shares of women with lower incomes and those covered by Medicaid say they obtained mental health services compared to their higher income and privately insured counterparts. While mental health services can be very costly and private insurance coverage is often limited and associated with high out-of-pocket costs, Medicaid, a program designed for people with low incomes, typically has nominal or very low out-of-pocket costs for enrollees.

While use of mental health services is higher among many of the subpopulations that rate their mental health lower, still about half (48%) of women who rate their mental health as “fair” or “poor” say they obtained mental health care, suggesting that many women with “fair” or “poor” mental health who could benefit from care are not getting it. The survey also shows that mental health services are used by people across the mental health continuum. Three in ten (31%) women who rate their mental health as “good” and more than one in ten (13%) who describe it as “excellent” or “very good” say they received care in the past year.

Figure 2

Less Than Half of Women With Fair or Poor Mental Health Report Receiving Mental Health Services in the Past 12 Months



Note: *Estimate is statistically different from reference (ref) estimate ($p < 0.05$).
► Click to see definitions
Source: KFF Women's Health Survey 2024

KFF

KFF

When asked what kind of mental health services they received in the past 12 months, most women who say they received care say they received 1-on-1 care with a provider, either in-person (60%) or via telehealth (55%). About half of women who say they received mental health care in the past year report getting a prescription for a medication (52%).

Fewer than one in ten women who report receiving care (7%) say they received care through a mental health therapy app, like BetterHelp or Talkspace, which connect patients to a clinician for virtual appointments but outside of the traditional medical system, or through another avenue (8%) such as inpatient hospitalization or group therapy (**Table 1**).

The types of mental health services women use vary by demographics. While similar shares of women across all age groups say they received in-person 1-on-1 care with a provider, larger shares of women ages 26 to 35 compared to women ages 50 to 64 say they used digital services for care, such as telehealth services (59% vs. 49%, respectively) and care through a mental health therapy app (8% vs. 3%, respectively). One in ten women ages 18 to 25 who say they received care say they received care through a mental health therapy

app. There were no statistically significant differences by age for prescription medications and other mental health services.

Among those who report receiving mental health services in the past year, nearly six in ten (59%) women who rate their mental health as "fair" or "poor" report receiving a prescription medication, as do half (50%) of women who describe their mental health as "good" and more than a third (37%) of those who rate it as "excellent/very good."

Among those who report receiving mental health care, larger shares of women who identify as LGBT+ than those are not LGBT+ say they accessed mental health care through telehealth service (65% vs. 52%) or through a mental health therapy app (12% vs 6%). More women who identify as LGBT+ also say they received a prescription for a medication compared to their non-LGBT+ counterparts (60% vs. 50%).

Over half of women say they received more than one type of mental health service in the past 12 months (58%). Higher shares of women with "fair" or "poor" mental health (65%) and/or who identify as having a mental health-related disability (73%) say they received more than one type of service in the past year.

Table 1

Mental Health Services Used By Women 18 to 64

Click on the buttons below to see data by different demographics
Mental Health + Disability Age + Sex Race/ethnicity Income + Insurance LGBT+

What kind of mental health services did you receive in the past 12 months? Please select all that apply.

Table with 7 columns and 9 rows.

	1 on 1 in-person care with a provider	Telehealth care with a provider	Care through a mental health therapy app	A prescription for medication	Other	More Than 1 Type Service
Women Age 18 to 64	**60%**	**55%**	**7%**	**52%**	**8%**	**58%**

Table with 7 columns and 9 rows.

	1 on 1 in-person care with a provider	Telehealth care with a provider	Care through a mental health therapy app	A prescription for medication	Other	More Than 1 Type Service
Self-Described Mental Health Status						
Fair/Poor	63%	57%	8%*	59%*	10%*	65%*
Good	55%	55%	6%	50%*	6%	55%*
Excellent/Very Good (ref)	62%	49%	4%	37%	5%	43%
Disability						
Identifies as having a mental health-related disability	63%	59%	7%	72%*	9%	73%*
Identifies as having other disability	61%	53%	6%	44%	9%	51%
Does not identify as disabled (ref)	59%	54%	7%	48%	7%	55%

Note: Among women who received mental health services in the past 12 months.
*Estimate is statistically different from reference group (ref) ($p < 0.05$). "Other" includes group therapy, inpatient hospitalization, and other mental health services.Click to see definitions

Source: KFF Women's Health Survey 2024Get the dataDownload PNG

KFF

Coverage of Mental Health Services

While federal laws require parity for insurance coverage of mental health care, gaps in coverage remain. All state Medicaid programs provide coverage for mental health services for beneficiaries with low incomes, and the Affordable Care Act (ACA) requires most individual and small group insurance insurers to cover behavioral health care, which includes mental health services. However, the scope of coverage varies, provider networks are limited in many plans, and mental health providers may not accept all insurance plans or in some cases, any insurance.

The large majority of women with Medicaid coverage who access care say their most recent visit was completely covered by Medicaid (85%) (**Figure 3**). Of the remaining 15%, 4% say they received free services at a clinic or health center. Medicaid is the single largest payer of behavioral health services, which includes mental health care and substance use services. By design, Medicaid charges very little cost-sharing.

Most women with private insurance say they had to pay at least some out-of-pocket costs for their most recent mental health care. Nearly half (48%) paid some of the cost out-of-pocket while their insurance covered part of the cost and 14% paid the full cost out-of-pocket. About one in three (32%) women with private insurance say their most recent visit was completely covered by their insurance plan.

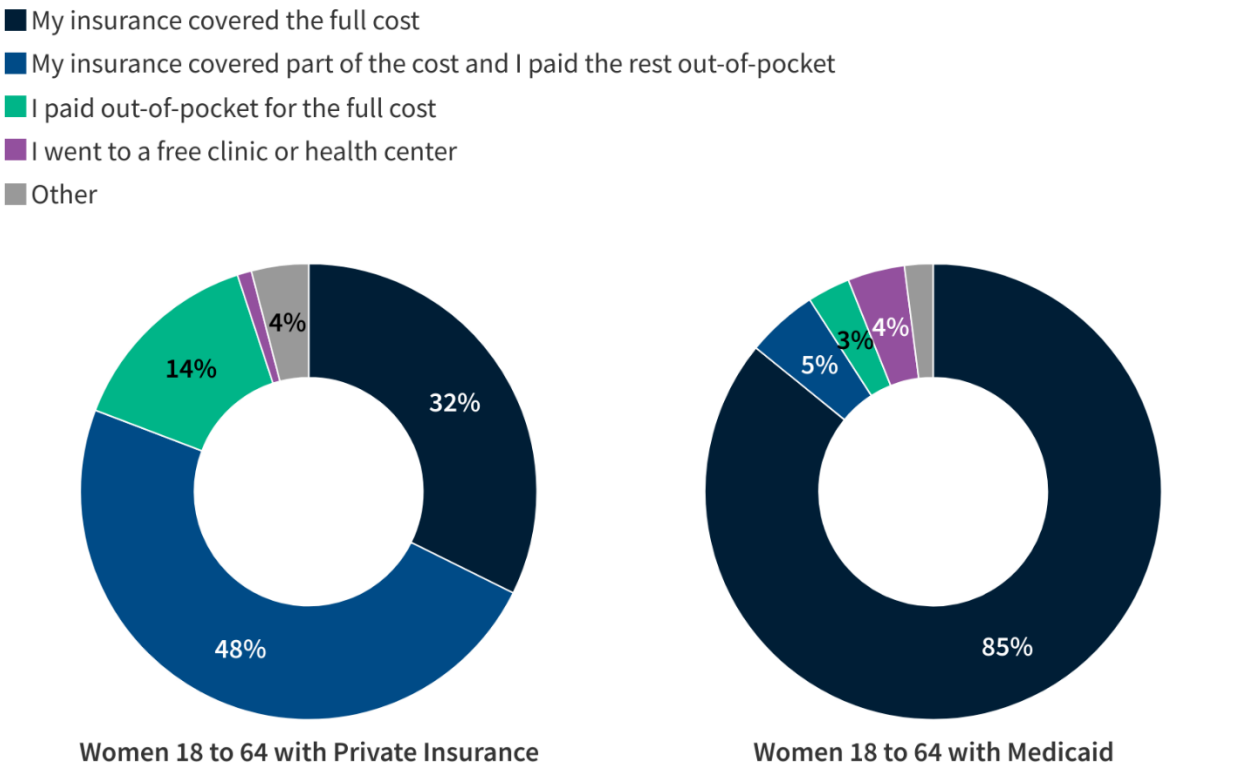
Figure 3

Only One Third of Women With Private Insurance Say Their Insurance Covered the Full Cost of Their Most Recent Mental Health Service

Figure 3

Only One Third of Women With Private Insurance Say Their Insurance Covered the Full Cost of Their Most Recent Mental Health Service

How was your most recent visit with this mental health provider paid for?



Note: Among women 18 to 64 with private insurance or Medicaid who say they received mental health services in the past 12 months. Totals do not add to 100% due to rounding.

Source: KFF Women's Health Survey 2024

KFF

Source: KFF Women's Health Survey 2024Get the dataDownload PNG

KFF

Barriers to Accessing Mental Health Care

Overall, four in ten women (38%) say it is difficult to access mental health services in their state, but this share rises to half (49%) among women who say they recently received mental health care in the past year (**Figure 4**).

Figure 4

Among Women Who Say They Received Mental Health Care in the Past 12 Months, Half Say It Is Difficult to Get Mental Health Services in Their State

Figure 4

Among Women Who Say They Received Mental Health Care in the Past 12 Months, Half Say It Is Difficult to Get Mental Health Services in Their State

Thinking about women's ability to get MENTAL HEALTH SERVICES in your state, how would you describe it?

Source: KFF Women's Health Survey

KFF

Source: KFF Women's Health Survey[Get the data](#)[Download PNG](#)

KFF

One in three women (32%) say they did not get mental health services in the past year even though they needed them (**Figure 5**). More than one third of women younger than 50 say they did not get the care they needed compared to 22% of women 50 to 64. Four in ten uninsured women (40%) say they needed mental health care but did not get it, compared to 31% of women with private insurance. Half of women who identify as LGBT+ (50%) say they needed mental health care but did not get it, compared to three in ten who do not identify as LGBT+ (29%). Similarly, nearly half of women with a mental health disability (47%) say they did not get mental health care even though they needed it. More than half of women with "fair" or "poor" mental health did not get the care they say they needed (55%).

Figure 5

One in Three Women Say They Did Not Get Mental Health Services Even Though They Needed Them, Including Over Half of Those Who Describe Their Mental Health as Fair or Poor

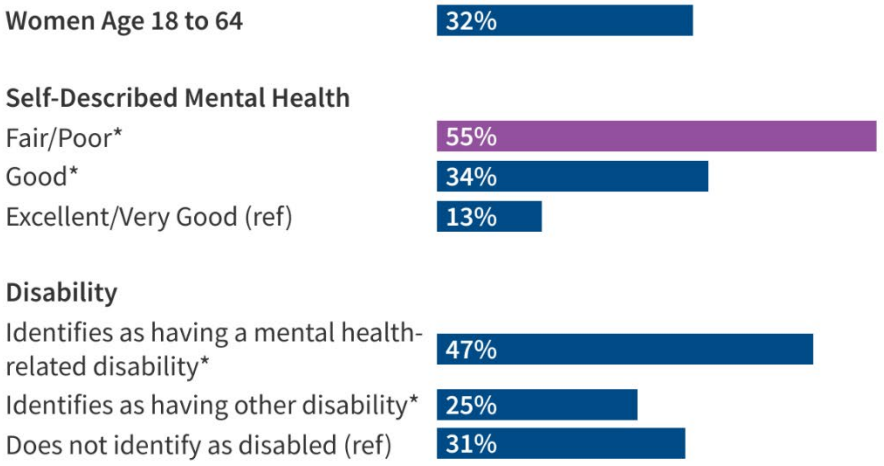
Figure 5

One in Three Women Say They Did Not Get Mental Health Services Even Though They Needed Them, Including Over Half of Those Who Describe Their Mental Health as Fair or Poor

Click on the buttons below to see data by different demographics

Mental Health + Disability | Age + Sex | Race/ethnicity | Income + Insurance | LGBT+

Was there a time in the past 12 months when you thought you might need mental health services or medication, but didn't get them? Share who say *yes:*



Note: *Estimate is statistically different from reference group (ref) ($p < 0.05$).

▶ Click to see definitions

Source: KFF Women's Health Survey 2024

KFF

Source: KFF Women's Health Survey 2024Get the dataDownload PNG

KFF

When asked to indicate the reason(s) why they did not get the care they needed, many women say they did not get care because they felt better or dealt with their mental health issues by themselves (38%) (**Figure 6**). However, three in ten women who say they did not get needed care cite cost (32%), being unable to take time off from work or being too busy (29%), or feeling afraid, embarrassed, or ashamed to seek care (31%). A small share of women cites some other reason (8%), such as transportation barriers or challenges with reaching providers to coordinate a visit.

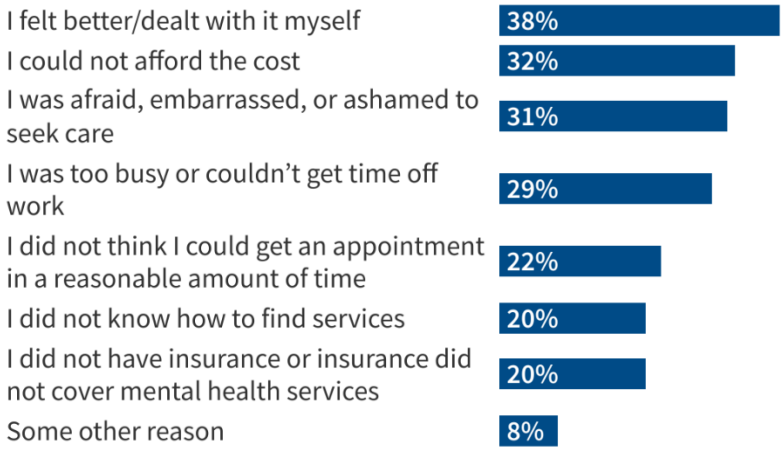
Figure 6

While Some Women Say They Dealt With Their Mental Health Themselves, Many Cite Cost, Time-off From Work, and Shame as Reasons They Did Not Receive Care

Figure 6

While Some Women Say They Dealt With Their Mental Health Themselves, Many Cite Cost, Time-off From Work, and Shame as Reasons They Did Not Receive Care

Please indicate the reason(s) you did not get the mental health services you thought you needed.



Note: Among women who said there a time in the past 12 months when they thought they might have needed mental health services or medication, but didn't get them (32% of all women).

Source: KFF Women's Health Survey 2024

KFF

Source: KFF Women's Health Survey 2024Get the dataDownload PNG

KFF

It is not uncommon for those who receive care to also experience challenges while trying to find care. Among women who received mental health care in the past 12 months, more than half (55%) say they experienced a barrier during their care seeking journey (**Figure 7**). One in four women who say they received care say they had trouble finding a provider that was accepting new patients (25%) and about one in five had trouble finding a provider that accepted their insurance (21%). One in four women who received mental health care in the past year say they had trouble scheduling an appointment in a reasonable amount of time (24%).

There were few differences between women of different subgroup, with the exception of higher shares of LGBT+ women experienced challenges getting mental health services (66%) compared to 52% of women who do not identify as LGBT+, including trouble finding a provider, and affording the cost. These findings reflect well documented shortages, burnout, and high demand among clinicians in the mental health profession.

Figure 7

More Than Half of Women Say They Experienced Barriers When Trying To Get Care

Thinking about your experience trying to get mental health services in the past 12 months, have you experienced any of the following? Please select all that apply.

Table with 4 columns and 8 rows. Sorted descending by column "Women Age 18 to 64"

	Women Age 18 to 64	LGBT+	Non LGBT+
Experienced any of the following*	55% 55% 55%	66% 66% 66%	52% 52% 52%
Some of the providers I contacted were not taking new patients*	25% 25% 25%	31% 31% 31%	23% 23% 23%
It was hard to find an appointment in a reasonable amount of time	24% 24% 24%	28% 28% 28%	23% 23% 23%
Trouble finding a provider that accepted my insurance*	21% 21% 21%	31% 31% 31%	18% 18% 18%
I could not afford the cost or continue to afford the cost*	19% 19% 19%	26% 26% 26%	17% 17% 17%
I had trouble finding a provider*	17% 17% 17%	24% 24% 24%	16% 16% 16%
I was too busy or couldn't get time off work	17% 17% 17%	22% 22% 22%	16% 16% 16%

Table with 4 columns and 8 rows. Sorted descending by column "Women Age 18 to 64"

	Women Age 18 to 64	LGBT+	Non LGBT+
I had difficulty finding a provider who spoke my language/from a similar racial/ethnic background as myself	5% 5% 5%	7% 7% 7%	5% 5% 5%

Note: Among women who say they received mental health services in the past 12 months (29% of all women). *Estimate for LGBT+ is statistically different from estimate for Non LGBT+ ($p < 0.05$).

Source: KFF Women's Health Survey 2024Get the dataDownload PNG

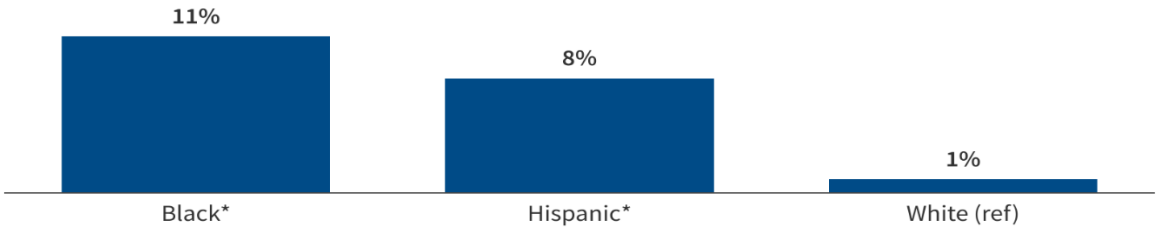
KFF

While only 5% of all women say they had difficulty finding a provider who spoke their language or one from a similar racial or ethnic background as themselves, these findings vary by race/ethnicity. Significantly larger shares of Hispanic (11%) and Black (8%) women report facing this challenge, compared to just 1% of White women (**Figure 7**). These findings are consistent with previous KFF polling, underscoring the additional and disproportionate challenges people of color face when accessing mental health care.

Figure 8

Larger Shares of Women of Color Say They Had Difficulty Finding a Mental Health Care Provider From a Similar Racial/Ethnic Background As Themselves

*Thinking about your experience trying to get mental health services in the past 12 months, have you **had difficulty finding a provider from a similar racial/ethnic background as yourself?***



Note: Among those who say they received mental health services in the past 12 months (29%), 5% of women 18 to 64 say they had difficulty finding a provider from a similar racial/ethnic background as themselves. *Estimate is statistically different from reference (ref) estimate ($p < 0.05$).

Source: KFF Women's Health Survey 2024

KFF

Source: KFF Women's Health Survey 2024Get the dataDownload PNG

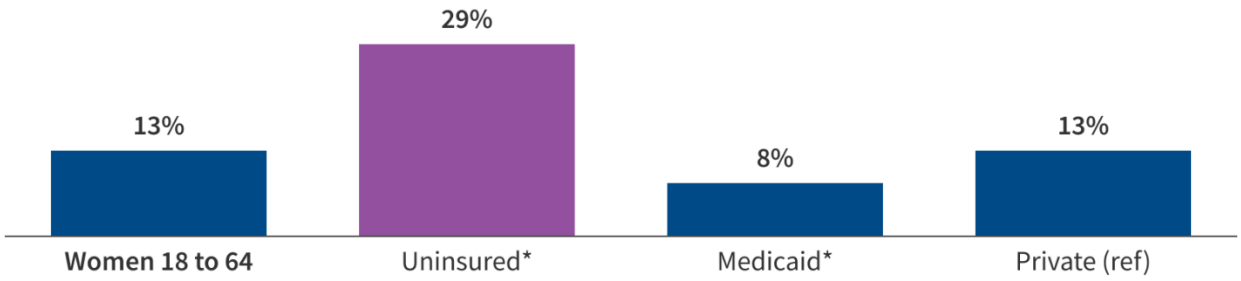
KFF

Cost continues to be a commonly reported barrier to mental health care. More than one in ten women 18 to 64 (13%) say they did not get mental health care or could not continue to afford the mental health care they were receiving because of cost (**Figure 9**). Thirteen percent (13%) of women with private insurance say they did not get care because of cost, and more than twice as many women without insurance (29%) cite cost as reason for not getting care. The share is lower among women with Medicaid, reflecting the program's important role in providing access to mental health services, but still 8% cite cost as a barrier. The barriers are multi-pronged. Insurance networks can be very narrow for mental health care, and a significant portion of mental health clinicians do not participate in insurance networks. These findings on cost barriers underscore the ongoing challenges with affordable mental health care, especially among the uninsured, but even for those with coverage.

Figure 9

Cost Of Mental Health Services Is A Barrier to Care Especially For Uninsured Women, But Also For Those With Insurance

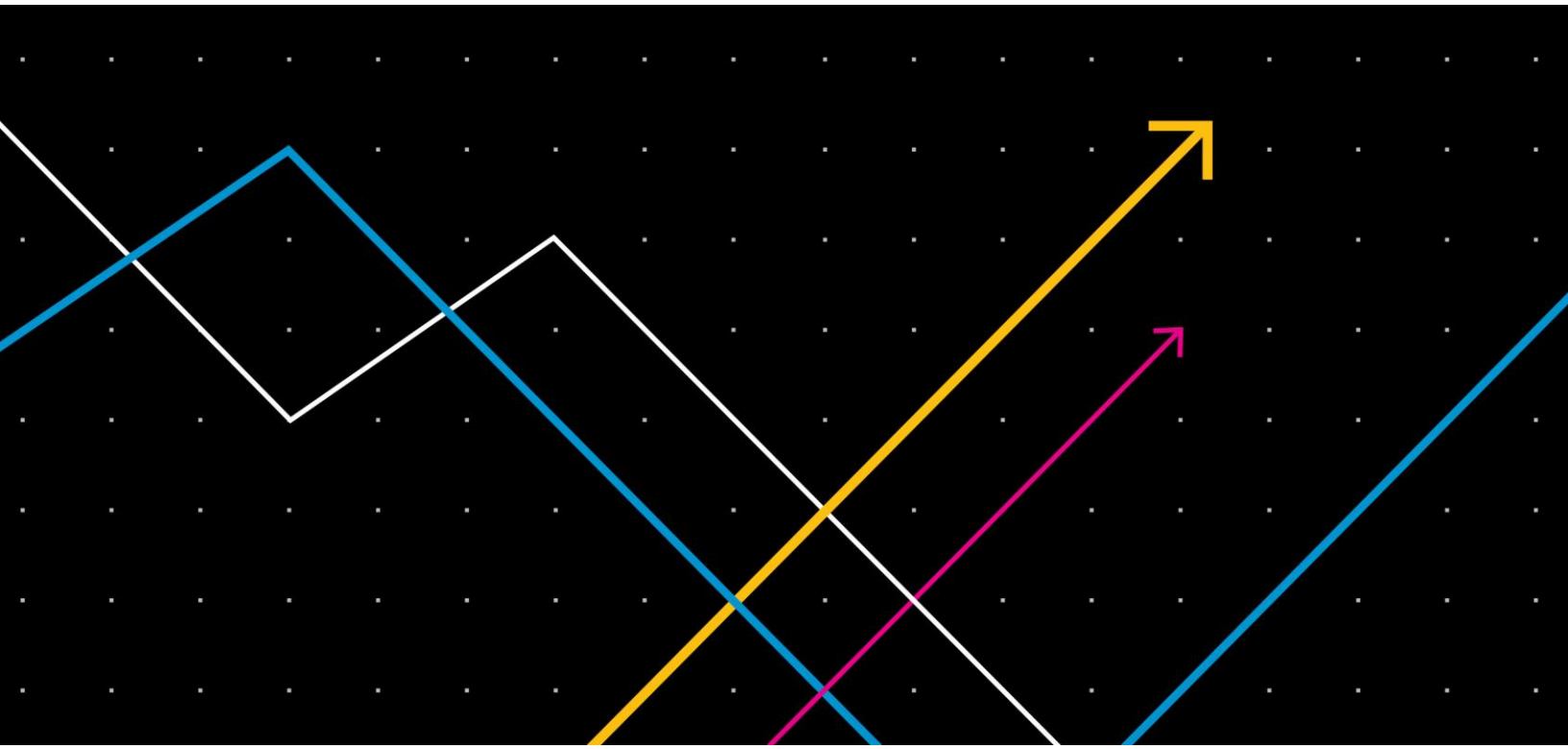
Share of women who did not get mental health care because of cost, or who received mental health care but could not afford to continue the cost



Note: *Estimate is statistically different from reference group (ref) ($p < 0.05$).
Source: KFF Women's Healthy Survey 2024

KFF

Source: KFF Women's Healthy Survey 2024Get the dataDownload PNG



RESEARCH REPORT

The Impact of Lowering Federal Matching Commitments to Medicaid in 10 States and the District of Columbia

Lisa Dubay
URBAN INSTITUTE

Claire O'Brien
URBAN INSTITUTE

John Holahan
URBAN INSTITUTE

May 2025

URBAN INSTITUTE

rwjf robert wood johnson foundation

ABOUT THE URBAN INSTITUTE

The Urban Institute is a nonprofit research organization that provides data and evidence to help advance upward mobility and equity. We are a trusted source for changemakers who seek to strengthen decisionmaking, create inclusive economic growth, and improve the well-being of families and communities. For more than 50 years, Urban has delivered facts that inspire solutions—and this remains our charge today.

ABOUT THE ROBERT WOOD JOHNSON FOUNDATION

The Robert Wood Johnson Foundation is a leading national philanthropy dedicated to taking bold leaps to transform health in our lifetime. To get there, we must work to dismantle structural racism and other barriers to health. Through funding, convening, advocacy, and evidence-building, we work side-by-side with communities, practitioners, and institutions to achieve health equity faster and pave the way, together, to a future where health is no longer a privilege, but a right.

Contents

Acknowledgments

This report was funded by the Robert Wood Johnson Foundation. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute's funding principles is available at urban.org/fundingprinciples.

The authors thank Genevieve M. Kenney and Stephen Zuckerman for their thoughtful review.

Executive Summary

Majority leadership in the House of Representatives has proposed implementing substantial federal funding cuts that would affect the Medicaid program over the next 10 years.[1] This paper is one in a series that assesses the potential impacts of different policies being considered for Medicaid (Buettgens 2025; Holahan, O'Brien, and Dubay 2025; Karpman, Haley, and Kenney 2025). This report focuses on proposals considering the removal of the 50 percent floor on the federal medical assistance percentage (FMAP), which determines federal contributions to state Medicaid programs, and to reduce the 70 percent FMAP for the District of Columbia to 50 percent, which would upend a matching rate structure that has been in place for decades.[2] We also assess the fiscal implications of these reductions in the FMAP, combined with the elimination of the 90 percent enhanced FMAP for adults made eligible for the Medicaid expansion under the Affordable Care Act.

Given the populations that Medicaid serves, cuts in federal Medicaid funding would place more of the responsibility on states for financing the care of millions of vulnerable people, including children, disabled and elderly people, and pregnant women (Rudowitz et al. 2024). Because most states are required to balance their budgets, any decreases in the federal government's contribution to state Medicaid costs will be met by increases in state taxes, reductions in spending on other state programs, or cuts to Medicaid eligibility, benefits, or provider payments.

In this paper, we estimate federal Medicaid funding declines and state budgetary impacts for 2026–35 in the 10 states (California, Colorado, Connecticut, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Washington, and Wyoming) that would be affected by eliminating the FMAP floor and in the District if its FMAP was reduced by 20 percentage points.[3] We also consider the effects of these FMAP reductions in combination with a lowered FMAP for the Medicaid expansion population, which would affect DC and all these states except for Wyoming. Wyoming did not expand Medicaid under the Affordable Care Act. Our analysis uses state-specific data from MACPAC on spending for each of the five eligibility pathways (children, traditional nondisabled adults, nonelderly disabled, elderly ages 65 and older, and Medicaid expansion adults), trended forward for each eligibility pathway and state from 2026 to 2035 using Congressional Budget Office growth rate projections.[4]

We find the following:

- The elimination of the FMAP floor and the reduction in the DC FMAP would result in drops in the FMAP, ranging from 2.1 percentage points in Maryland to 26.1 percentage points in Massachusetts.

- The FMAP cuts would lower federal funding for Medicaid in the 10 states and DC by $467.7 billion over 10 years.
- In the absence of increased state spending by these states, these FMAP changes would result in cuts of $50.1 billion for children, $67.1 billion for nondisabled and nonexpansion adults, $189.5 billion for disabled people, and $161.1 billion for the elderly.
- To maintain their current Medicaid programs in the face of these FMAP reductions, the 10 states and DC would have to increase their state spending each year on Medicaid, with increases ranging from 4.1 percent in Maryland to 51.3 percent in Massachusetts and 63.2 percent in DC.
- If the enhanced match for the Medicaid expansion were also to be eliminated, DC and the nine states that would be affected would face total cuts in federal contributions of $835.3 billion, with federal funding cuts ranging from 16.4 percent of Medicaid spending in Maryland to 53.0 percent in Connecticut.
- In 2026, state Medicaid spending would have to increase by between 21 percent in Maryland and by 66 and 83 percent in Connecticut and DC, respectively, to offset the loss in federal contributions if the FMAP floor were eliminated and the DC FMAP were reduced in combination with eliminating the enhanced expansion FMAP.

These policies represent an unprecedented change in the founding principles of the partnership between the federal government and states to finance the Medicaid program. Moreover, these polices explicitly shift the responsibility for financing health care for low-income and disabled people from the federal government to the states. The scale of the reduction in federal contributions to state Medicaid programs that would occur from these policies would likely result in changes to the Medicaid program that would diminish eligibility for the program, covered benefits, and access to care for children, pregnant women, disabled adults, the elderly, and others. Ultimately, the proposed policy changes would have negative health and financial consequences for low-income people and adverse economic consequences for providers and communities in these states and DC (Blavin, Buettgens, and Simpson 2025; Ku et al. 2025).

The Impact of Lowering Federal Matching Commitments to Medicaid in 10 States and the District of Columbia

Introduction

Majority leadership in the House of Representatives has proposed implementing substantial federal funding cuts that would affect the Medicaid program over the next 10 years.[5] This paper is one in a series that assesses the implications of different policy changes being considered for Medicaid (Buettgens 2025 and Holahan, O'Brien, and Dubay 2025; Karpman, Haley, and Kenney 2025). This report focuses on proposals considering the removal of the 50 percent floor on the federal medical assistance percentage (FMAP), which determines federal contributions to state Medicaid programs, and to reduce the 70 percent FMAP for the District of Columbia to 50 percent, which would upend a matching rate structure that has been in place for decades.[6] We also assess the fiscal implications of these reductions in the FMAP combined with the elimination of the enhanced FMAP for adults made eligible for Medicaid expansion under the Affordable Care Act (ACA).

Given the populations that Medicaid serves, cuts in federal Medicaid funding would place more of the responsibility on states for financing the care of millions of vulnerable people, including children, the disabled, the elderly, and pregnant women (Rudowitz et al. 2024). Because most states are required to balance their budgets, any decreases in the federal government's contribution to state Medicaid costs will be met by increases in state taxes, reductions in spending on other state programs, or cuts to Medicaid eligibility, benefits, or provider payments.

In this paper, we estimate federal Medicaid funding declines and state budgetary impacts for 2026–35 in the 10 states (California, Colorado, Connecticut, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Washington, and Wyoming) that would be affected by eliminating the FMAP floor and in the District if its FMAP was reduced by 20 percentage points to 50 percent.[7] We also consider the effects of these FMAP reductions in combination with a lowered FMAP for the Medicaid expansion population, which would affect DC and all these states except for Wyoming. Wyoming did not expand

Medicaid under the ACA. The following section provides background information on the Medicaid program and its current financing structure; in subsequent sections, we describe our data and methods, present the results, and discuss policy implications.

Background

Medicaid is a joint federal and state program that provides comprehensive health insurance coverage for medical and long-term care services and supports for 1 in 5 Americans (Rudowitz et al. 2024). Together with the Children's Health Insurance Program (CHIP), Medicaid provides health insurance coverage for 41 percent of all births, 39 percent of children, and 16 percent of nonelderly adults.[8] In addition, Medicaid finances care for many people with complex health needs, including 44 percent of nonelderly people with disabilities and 63 percent of people residing in nursing homes (Rudowitz et al. 2024).[9]

To participate in the Medicaid program, states must provide health insurance coverage for certain mandated populations and benefits, but states can also cover optional populations and provide optional benefits (MACPC 2017). State choices about who and what to cover, along with choices about provider payments and geographic variation in the costs of health care, result in differences in Medicaid spending across states. The federal government and states share the cost of covering mandatory and optional populations and benefits, as well as state administrative costs.

The share of Medicaid expenditures on medical services and long-term services and supports in a state paid for by the federal government is referred to as the FMAP. Under long-standing rules in place since the program's inception, a state's standard FMAP, which applies in most cases, is calculated using a two-part formula. The first part is a calculation that results in a higher FMAP for states with lower per capita income. The second part limits the FMAP to a floor at a 50 percent match and a ceiling at an 83 percent match.[10] Exceptions to the formula exist for certain populations, services, and providers under which states receive a higher FMAP.[11]

Congress can and has increased the FMAP at various times to address the countercyclical nature of the Medicaid program and that states cannot engage in deficit spending to address increased demands on the program during economic downturns. The FMAP was increased during the Great Recession through the American Recovery and Reinvestment Act and during the COVID-19 public health emergency through the Families First Coronavirus Response Act.

House Republicans' proposals target several aspects of the FMAP: the 50 percent FMAP floor and two exceptions to the FMAP formula—the 90 percent match rate for adults made eligible for Medicaid through the ACA and the 70 percent FMAP for the DC. The 50 percent FMAP floor has been in place since the enactment of the Medicaid program in 1965, emblematic of the federal-state partnership that has been the bedrock of the program. Currently, 10 states have matching rates at the FMAP floor of 50 percent.[12]

The enhanced match for the expansion population was included in the ACA to avoid imposing an excessive unfunded mandate on states to cover substantial new costs associated with expansion. Between 2014 and 2016, the federal government financed 100 percent of the costs of the expansion population. By 2020, the enhanced federal match rate was phased down to the current match of 90 percent.[13] House Republicans have considered dropping the expansion FMAP from 90 percent to the state's standard match, which would affect DC and the 40 states that have expanded coverage under the ACA. Except for Wyoming, which did not expand Medicaid under the ACA, DC and 9 of the 10 states affected by the removal of the FMAP floor would also experience an additional loss of federal funding if the enhanced FMAP for the expansion population were eliminated.

The FMAP for DC was set at 70 percent in the National Capital Revitalization and Self-Government Improvement Act of 1997 to account for DC's unique circumstances, reflecting its hybrid status as a city/state and the statutory limits Home Rule imposes on DC's ability to generate revenue (Bouker 2016).

Methods

To conduct this analysis, we estimate what Medicaid spending would be in 2026 for medical care and long-term care supports and services under current law. We then simulate what the FMAP rate would be in 2026 under current law to determine federal and state contributions, identify the states that would be affected by the removal of the FMAP floor, and simulate what federal and state contributions to Medicaid would be under the proposed policy changes if implemented immediately in 2026 and states maintained the current structure of their Medicaid programs.

Estimating Medicaid Spending from 2026 to 2035

We develop state-specific estimates of what Medicaid spending will be in 2026 for each of the five eligibility pathways (children,[14] traditional nondisabled adults,[15] nonelderly disabled, elderly ages 65

and older, and Medicaid expansion adults). We begin with Medicaid and CHIP Access Commission's (MACPAC) data on spending by eligibility pathway in 2019. MACPAC data are developed using the Transformed Medicaid Statistical Information System (T-MSIS) data and are adjusted to align with the CMS-64 totals. The alignment to the CMS-64 is critical for our analysis because the CMS-64 data is used to determine federal payments to states.

Rather than use MACPAC's most recent data from 2022 as our baseline, we chose to use data from 2019 because the 2022 data include continuous Medicaid eligibility for persons enrolled during the public health emergency. Continuous eligibility could affect spending if the populations enrolled during the pandemic are different than pre- and postpandemic for health care needs or length of enrollment. In one case where there was a clear inaccuracy, we imputed spending for the expansion adult pathway and traditional nondisabled adult pathway.[16]

We grew MACPAC's estimates of spending from 2019 to 2024 using the Congressional Budget Office's (CBO) growth rates for each of the five eligibility pathways and align our estimates of spending to CBO at the national level, an approach we have used in other analyses (Holahan, O'Brien, and Dubay 2025). For the expansion eligibility pathway, we use spending data from the Urban Institute's Health Insurance Policy Simulation Model (Buettgens 2025).

First, we grew spending to 2026 and then to 2035 using the same growth rates used by CBO in their June 2024 baseline;[17] CBO reports growth rates for spending each of the five eligibility pathways for the entire period. We assume all states grow by the same percentage over time. This is unlikely to be true, but we have no other way of making credible assumptions about state-specific growth rates under current law. With this dataset in place, we have estimates of the projected amount of spending for each state and the five pathways for 2026 through 2035. The final step is to calculate the difference between the formula used in the policy and the actual projected growth rate to determine the impact on spending for each state.

Both CBO's estimates and our model include spending for people receiving limited benefits, such as family planning. Our data include supplemental payments to providers, but do not include disproportionate share hospital payments since they are not included in the MACPAC data. Administrative costs are not included in our analysis as states receive a different FMAP for those costs than for health care costs. The resulting dataset matches CBO's national totals for spending for each of the five pathways but also reflects the variation across states in spending. We use this dataset as the basis of our analysis and project spending for each additional year, using CBO's projected spending growth rate for each of the five pathways.

As with all projections, our estimates have limitations, notably with respect to the inherent uncertainty around future enrollment and per capita costs by Medicaid enrollment pathway and how they would vary across states. As noted above, we based our assumptions on the growth rates used by CBO in their June 2024 baseline because it had projections by eligibility pathway, but a more recent release suggests that CBO is now anticipating higher Medicaid spending growth in the coming years.[18] To the extent that our Medicaid enrollment and per capita spending estimates under/overstate what actual enrollment and per capita costs would be in future years under current law, our estimates would also under/overstate the corresponding reductions in federal Medicaid spending and over/under state the increases in state spending on Medicaid that would be required to maintain the current Medicaid program structure.

Identifying States Affected by the FMAP Floor

To simulate the impact of the removal of the FMAP floor, we first identify the states with an FMAP of 50 percent and estimate what the FMAP would be if the floor were not in place. As mentioned previously, the FMAP is determined using a two-part formula. The first part of the formula is:

$$FMAP_{state} = 1 - ((\text{Per capita income}_{state})^2 / (\text{Per capita income}_{US})^2) * 0.45)$$

The formula is designed so that a state with a per capita income that is the same as the national average receives an FMAP of 55 percent. The second part of the formula sets an FMAP floor of 50 percent and an FMAP ceiling of 83 percent. The three most recent years of data on per capita income from the Commerce Department's Bureau of Economic Analysis are used to calculate the FMAP. To calculate the revised FMAP for this analysis, we use data from 2021, 2022, and 2023.

Simulating Policy Change

We focus on the states that would be affected by the elimination of the FMAP floor and the reduction in DC's FMAP to 50 percent.[19] We estimate the policy impact for 2026, assuming immediate implementation, and from 2026 to 2035. To simulate the fiscal impacts of the proposed changes to the FMAP, we:

- estimate the federal and state share of Medicaid spending using the 50 percent match rate under current policy and maintaining the 90 percent enhanced match rate for expansion-eligible adults;

- simulate the federal and state share of Medicaid spending if the FMAP floor is removed, and the enhanced match of 90 percent is maintained for expansion-eligible adults; and
- simulate the impact of eliminating both the FMAP floor and the enhanced match for expansion-eligible adults.

We focus on DC and the 10 states we identified as affected by the FMAP floor. For each state, we estimate the following:

- the reduction in federal contributions to state Medicaid costs, in total, and across eligibility pathways
- the reduction in federal contributions to state Medicaid costs as a share of federal contributions to state Medicaid costs
- the percentage increase in state spending that would be required to replace the loss of federal contributions as a share of state Medicaid spending

As mentioned, states would likely respond to reductions in federal contributions with a combination of measures: increasing state spending on Medicaid, cutting eligibility, and making other program changes. But state responses are impossible to predict with any certainty. To put the potential reductions in context, we consider them in relation to state budgets collected by the National Association of State Budget Officers for 2025, trending forward to 2026 based on CBO's inflation estimate.[20]

Results

States Affected by FMAP Floor Changes

As indicated above, we find that 10 states would be affected by the removal of the FMAP floor: California, Colorado, Connecticut, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Washington, and Wyoming. Table 1 shows the reduction each of these states would face, with Massachusetts facing the greatest change, moving from a 50 percent match to a 24 percent match, while Maryland would face a much smaller change, moving from 50 percent to 48 percent.

TABLE 1

Estimated 2026 FMAP If the 50 Percent FMAP Floor Is Eliminated in Medicaid

State	2026 FMAP if floor is eliminated
Massachusetts	24.0%
Connecticut	26.2%
New Jersey	37.7%
New York	37.7%
California	38.1%
Washington	40.7%
Wyoming	41.1%
Colorado	41.6%
New Hampshire	42.1%
Maryland	47.9%

Source: Urban Institute estimates of 2026 FMAP based on 2021–23 data on per capita income from the Commerce Department's Bureau of Economic Analysis.
Notes: FMAP = federal medical assistance percentage.

Remove the FMAP Floor and Reduce DC's FMAP to 50 Percent

CHANGES IN FEDERAL SPENDING BY STATE

Together, the elimination of the FMAP floor and DC's FMAP reduction to 50 percent would result in a reduction of $37.0 billion in federal contributions in 2026 and $467.7 billion between 2026 and 2035 (table 2). As the two largest states, California and New York would see the greatest absolute decrease in federal contributions at $156.5 billion and $116.2 billion in 2026–35, respectively. However, Massachusetts and Connecticut would face the greatest percentage reduction in federal contributions at 46.4 percent and 36.3 percent, respectively. Maryland would face the smallest percentage reduction in federal contributions at 3.0 percent of federal contributions, and DC and the other states would face cuts that ranged from 12 to 24 percent.

TABLE 2

Reduction in Federal Contributions to State Medicaid Costs If the 50 Percent FMAP Floor Is Eliminated and the DC FMAP Is Reduced to 50 Percent, 2026 and 2026–35

	Federal Medicaid Spending 2026 (in billions)				Federal Medicaid Spending 2026–35 (in billions)			
	Current law	Reduced FMAP	Difference between current law and reduced FMAP	Percent difference between current law and reduced FMAP	Current law	Reduced FMAP	Difference between current law and reduced FMAP	Percent difference between current law and reduced FMAP
California	$68.4	$56.0	-$12.4	-18.1%	$876.8	$720.3	-$156.5	-17.9%
Colorado	$8.3	$7.3	-$1.0	-11.8%	$107.0	$94.7	-$12.3	-11.5%
Connecticut	$7.1	$4.5	-$2.6	-36.8%	$91.7	$58.4	-$33.2	-36.3%
District of Columbia	$3.4	$2.6	-$0.8	-23.8%	$43.6	$33.3	-$10.3	-23.5%
Maryland	$10.6	$10.3	_$0.3	-3.1%	$135.8	$131.7	-$4.1	-3.0%
Massachusetts	$13.7	$7.3	-$6.4	-46.7%	$173.8	$93.2	-$80.6	-46.4%
New Hampshire	$1.5	$1.4	-$0.2	-11.8%	$19.9	$17.6	-$2.3	-11.6%
New Jersey	$13.0	$10.6	-$2.4	-18.2%	$167.1	$137.2	-$29.9	-17.9%
New York	$52.0	$42.8	-$9.2	-17.6%	$670.0	$553.9	-$116.2	-17.3%
Washington	$13.2	$11.5	-$1.7	-12.8%	$169.9	$148.7	-$21.2	-12.5%
Wyoming	$0.5	$0.4	-$0.1	-17.9%	$6.2	$5.1	-$1.1	-17.9%
Total	**$191.7**	**$154.7**	**-$37.0**	**-19.3%**	**$2,461.9**	**$1,994.1**	**-$467.7**	**-19.0%**

Source: Authors' analysis of MACPAC and Congressional Budget Office data (see methods section for details).

Notes: FMAP = federal medical assistance percentage. We assume all states and the District of Columbia offset federal funding cuts by increasing state Medicaid spending.

REDUCTIONS IN FEDERAL SPENDING BY ELIGIBILITY PATHWAY

Table 3 shows the reduction in federal spending that would occur between 2026 and 2035 for each eligibility pathway. The elimination of the FMAP floor would result in $50.1 billion in federal Medicaid funding cuts for children. Federal spending on adults who are not disabled and not eligible because of the Medicaid expansion would be reduced by $67.1 billion. Medicaid spending on the disabled and elderly constitutes a much larger share of Medicaid spending than spending on children and traditional nondisabled adults, and funding decreases would be greatest for these eligibility pathways. Funding for nonelderly disabled people would be reduced by $189.5 billion. Federal spending on the elderly would be cut by $161.1 billion.

TABLE 3

Reduction in Federal Contributions to State Medicaid Costs If the 50 Percent FMAP Floor Is Eliminated and the DC FMAP Is Reduced to 50 Percent by Eligibility Pathway, 2026–35 (in billions)

	Children	Traditional nondisabled adults	Disabled	Elderly	Total
California	-$18.7	-$28.5	-$59.3	-$50.0	-$156.5
Colorado	-$1.8	-$2.2	-$5.4	-$3.0	-$12.3
Connecticut	-$4.8	-$5.5	-$10.6	-$12.3	-$33.2
District of Columbia	-$1.1	-$1.6	-$4.9	-$2.7	-$10.3
Maryland	-$0.6	-$0.9	-$1.7	-$0.9	-$4.1
Massachusetts	-$6.1	-$10.4	-$38.2	-$25.9	-$80.6
New Hampshire	-$0.4	-$0.1	-$0.9	-$0.9	-$2.3
New Jersey	-$3.5	-$2.4	-$14.1	-$9.9	-$29.9
New York	-$8.8	-$11.6	-$45.6	-$50.1	-$116.2
Washington	-$4.1	-$3.7	-$8.4	-$5.0	-$21.2
Wyoming	-$0.2	-$0.1	-$0.5	-$0.3	-$1.1
Total	-$50.1	-$67.1	-$189.5	-$161.1	-$467.7

Source: Authors' analysis of MACPAC and Congressional Budget Office data (see methods section for details).
Notes: FMAP = federal medical assistance percentage; We assume all states and the District of Columbia offset federal funding cuts by increasing state Medicaid spending.

INCREASES IN STATE SPENDING REQUIRED TO OFFSET FEDERAL FUNDING REDUCTIONS

Table 4 presents estimates of the percent increase in state funding required to maintain these Medicaid programs as currently structured from 2026–35 if the FMAP floor were removed and DC's FMAP was reduced to 50 percent. Massachusetts and Connecticut would need to increase state Medicaid spending by 51.3 percent and 45.9 percent, respectively, to replace federal contributions, while Maryland would have to increase its state Medicaid spending by 4.1 percent. DC would have to increase spending on Medicaid by 63.2 percent to keep its program as currently structured if its FMAPs were reduced to 50 percent. The 2026 estimate shows that these states and DC would need to increase state

spending to maintain the program immediately following the reduction in the FMAP. Approximately the same percentage increase would be required each year.

TABLE 4

Increase in State Medicaid Costs Required to Retain Current Medicaid Program Structure If the 50 Percent FMAP Floor Is Eliminated and the DC FMAP Is Dropped to 50 Percent, 2026 and 2026–35

	State Medicaid Spending 2026 (in billions)			State Medicaid Spending 2026–35 (in billions)		
	Current law	Spending needed to offset federal cuts	Percent increase	Current law	Spending needed to offset federal cuts	Percent increase
California	$54.1	$12.4	22.9%	$684.4	$156.5	22.9%
Colorado	$6.1	$1.0	16.1%	$77.0	$12.3	16.0%
Connecticut	$5.7	$2.6	46.0%	$72.4	$33.2	45.9%
District of Columbia	$1.3	$0.8	63.4%	$16.2	$10.3	63.2%
Maryland	$8.0	$0.3	4.1%	$101.4	$4.1	4.1%
Massachusetts	$12.4	$6.4	51.4%	$157.0	$80.6	51.3%
New Hampshire	$1.2	$0.2	15.2%	$15.2	$2.3	15.2%
New Jersey	$10.0	$2.4	23.6%	$126.6	$29.9	23.6%
New York	$39.0	$9.2	23.5%	$495.8	$116.2	23.4%
Washington	$9.5	$1.7	17.8%	$119.8	$21.2	17.7%
Wyoming	$0.5	$0.1	17.9%	$6.2	$1.1	17.9%
Total	$147.8	$37.0	25.0%	$1,872.2	$467.7	25.0%

Source: Authors' analysis of MACPAC and Congressional Budget Office data (see methods section for details).
Notes: FMAP = federal medical assistance percentage. We assume all states and the District of Columbia offset federal funding cuts by increasing state Medicaid spending.

Remove the FMAP Floor, Reduce DC's FMAP to 50 percent, and Eliminate the Enhanced Match for the Medicaid Expansion

CHANGES IN FEDERAL SPENDING BY STATE

Elimination of the FMAP floor and the enhanced match for the Medicaid expansion, and the reduced FMAP for DC would result in a reduction in federal spending of $64.3 billion in 2026 and $835.3 billion over the 2026 to 2035 period (table 5). Most of the affected states would face a reduction in federal funding of between 25 and 35 percent, but Connecticut and Massachusetts would experience reductions in federal funding exceeding 50 percent, and Wyoming and Maryland would experience reductions of 17.9 and 16.4 percent, respectively.

TABLE 5

Reduction in Federal Contributions to State Medicaid Costs If FMAP Floor Is Eliminated, the DC FMAP Is Reduced to 50 Percent, and Expansion FMAP Is Reduced, 2026 and 2026–35

	Federal Medicaid Spending 2026 (in billions)				Federal Medicaid Spending 2026–35 (in billions)			
	Current law	Reduced FMAP	Difference between current law and reduced FMAP	Percent difference between current law and reduced FMAP	Current law	Reduced FMAP	Difference between current law and reduced FMAP	Percent difference between current law and reduced FMAP
California	$68.4	$46.7	-$21.7	-31.7%	$876.8	$595.6	-$281.2	-32.1%
Colorado	$8.3	$6.0	-$2.3	-27.9%	$107.0	$76.5	-$30.5	-28.5%
Connecticut	$7.1	$3.4	-$3.8	-52.8%	$91.7	$43.1	-$48.6	-53.0%
District of Columbia	$3.4	$2.4	-$1.1	-31.2%	$43.6	$29.9	-$13.7	-31.4%
Maryland	$10.6	$8.9	-$1.7	-15.8%	$135.8	$113.6	-$22.3	-16.4%
Massachusetts	$13.7	$6.3	-$7.4	-54.2%	$173.8	$79.4	-$94.5	-54.3%
New Hampshire	$1.5	$1.2	-$0.4	-25.3%	$19.9	$14.7	-$5.1	-25.8%
New Jersey	$13.0	$8.7	-$4.3	-33.3%	$167.1	$110.8	-$56.3	-33.7%
New York	$52.0	$34.4	-$17.6	-33.9%	$670.0	$440.1	-$230.0	-34.3%
Washington	$13.2	$9.2	-$4.0	-30.1%	$169.9	$117.8	-$52.1	-30.7%
Wyoming	$0.5	$0.4	-$0.1	-17.9%	$6.2	$5.1	-$1.1	-17.9%
Total for 10 states and District of Columbia	**$191.7**	**$127.4**	**-$64.3**	**-33.5%**	**$2,461.9**	**$1,626.6**	**-$835.3**	**-33.9%**

Source: Authors' analysis of MACPAC and Congressional Budget Office data (see methods section for details).

Notes: FMAP = federal medical assistance percentage. We assume all states and the District of Columbia offset federal funding cuts by increasing state Medicaid spending.

INCREASES IN STATE SPENDING REQUIRED TO OFFSET FEDERAL FUNDING REDUCTIONS

The combination of eliminating the FMAP floor, DC's enhanced FMAP, and the enhanced match for the ACA Medicaid expansion would reduce federal spending by $64.3 billion in 2026 and by $835.3 billion between 2026 and 2035, requiring substantial increases in state spending on Medicaid to maintain their programs as currently structured. Of the $835.3 billion, $367.6 billion would be reductions in federal contributions to Medicaid expansion populations (data not shown). States would face large increases in Medicaid state spending, ranging from 17.9 percent in Wyoming and 22.0 percent in Maryland to about 60 percent or more in Massachusetts, Connecticut, and DC from 2026 to 2035 (table 6). Other states would need to increase state Medicaid spending by 30 to 50 percent.

TABLE 6

Increase in State Medicaid Costs Required to Retain Current Medicaid Program Structure If FMAP Floor Is Eliminated, the DC FMAP Is Dropped to 50 percent, and Expansion FMAP Is Reduced, 2026 and 2026–35

	State Medicaid Spending 2026 (in billions)			State Medicaid Spending 2026–35 (in billions)		
	Current law	Spending needed to offset federal cuts	Percent increase	Current law	Spending needed to offset federal cuts	Percent increase
California	$54.1	$21.7	40.0%	$684.4	$281.2	41.1%
Colorado	$6.1	$2.3	38.1%	$77.0	$30.5	39.6%
Connecticut	$5.7	$3.8	66.0%	$72.4	$48.6	67.1%
District of Columbia	$1.3	$1.1	83.1%	$16.2	$13.7	84.2%
Maryland	$8.0	$1.7	20.9%	$101.4	$22.3	22.0%
Massachusetts	$12.4	$7.4	59.7%	$157.0	$94.5	60.2%
New Hampshire	$1.2	$0.4	32.7%	$15.2	$5.1	33.8%
New Jersey	$10.0	$4.3	43.3%	$126.6	$56.3	44.5%
New York	$39.0	$17.6	45.1%	$495.8	$230.0	46.4%
Washington	$9.5	$4.0	42.0%	$119.8	$52.1	43.5%
Wyoming	$0.5	$0.1	17.9%	$6.2	$1.1	17.9%
Total for 10 states and the District of Columbia	**$147.8**	**$64.3**	**43.5%**	**$1,872.2**	**$835.3**	**44.6%**

Source: Authors' analysis of MACPAC and Congressional Budget Office data (see methods section for details).
Notes: FMAP = federal medical assistance percentage. We assume all states offset federal funding cuts by increasing state Medicaid spending.

Impact on State Budgets

The large declines in federal contributions to state Medicaid spending that would occur under the proposed policy scenarios would make it extremely difficult for states to maintain their Medicaid programs as currently structured. States are generally required to balance their budgets, so in the face of the proposed FMAP changes, they would be forced to alter their Medicaid programs, raise additional revenues, or cut other state programs.[21] Table 7 displays the increase in the share of state general and other funds that would be required in 2026 to maintain Medicaid programs as currently structured should the FMAP floor be removed and DC's FMAP be reduced to 50 percent alone, and in combination with the elimination of the enhanced match for the ACA eligibility pathway. If these policies were implemented, the increase in state spending across these 10 states and DC that would be required to maintain their current Medicaid program would constitute 7.5 percent of the total state budgets, ranging from 0.6 percent in Maryland to 16.1 percent in Connecticut, requiring substantial offsetting revenue increases and/or reductions in spending on other state programs.

TABLE 7

Increase in State General and Other Funds Required to Maintain Medicaid Programs If FMAP Floor Is Eliminated, the DC FMAP Is Dropped to 50 percent, and Expansion FMAP Is Reduced, 2026

		Increase in Spending Needed to Maintain Medicaid (in billions)		Percent Increase in Spending Needed to Maintain Medicaid	
	General and other funds (in billions)	Eliminate FMAP floor and reduce DC FMAP to 50 percent	Eliminate FMAP floor and reduce the expansion FMAP	Eliminate FMAP floor and reduce DC FMAP to 50 percent	Eliminate FMAP floor and reduce the expansion FMAP
California	$239.4	$12.4	$21.7	5.2%	9.0%
Colorado	$16.4	$1.0	$2.3	6.0%	14.2%
Connecticut	$23.4	$2.6	$3.8	11.2%	16.1%
District of Columbia	$12.1	$0.8	$1.1	6.7%	8.8%
Maryland	$267.7	$0.3	$1.7	0.1%	0.6%
Massachusetts	$67.8	$6.4	$7.4	9.4%	10.9%
New Hampshire	$3.2	$0.2	$0.4	5.6%	12.1%
New Jersey	$37.5	$2.4	$4.3	6.3%	11.6%
New York	$110.4	$9.2	$17.6	8.3%	16.0%
Washington	$75.0	$1.7	$4.0	2.2%	5.3%
Wyoming	$5.3	$0.1	$0.1	1.7%	1.7%
Total	**$858.2**	**$37.0**	**$64.3**	**4.3%**	**7.5%**

Source: General and other funds data come from "Summaries of Fiscal Year 2025 Enacted Budgets," National Association of State Budget Officers, September 10, 2025. Policy change data comes from the authors' analysis of MACPAC and Congressional Budget Office data (see methods section for details).

Notes: FMAP = federal medical assistance percentage. We assume all states and the District of Columbia offset federal funding cuts by increasing state Medicaid spending.

Discussion

The new Congress has signaled its intention to enact large cuts in federal spending that would affect state Medicaid programs.[22] Potential Medicaid cuts include removing the FMAP floor of 50 percent, which would affect 10 states, reducing the 70 percent FMAP for DC to 50 percent, and eliminating the enhanced FMAP for people made eligible for Medicaid under the ACA expansion. These policies would explicitly shift the costs of the Medicaid program to states, and eliminating the FMAP floor of 50 percent would be an unprecedented change in the founding principles of Medicaid financing.

These changes would result in large reductions in federal contributions to the affected states' Medicaid programs. In combination, these changes would reduce the federal contributions to state Medicaid programs by $64.3 billion in 2026 and $835.3 billion between 2026 and 2035. These changes would constitute a reduction in federal contributions of between 18 and 54 percent for states affected, requiring additional contributions that would increase state Medicaid spending by between 17 and 66 percent to replace federal dollars and maintain their current Medicaid programs, with the median state requiring an increase of 44 percent.

More specifically, the elimination of the FMAP floor and reduction of the District's FMAP to 50 percent would result in decreases in federal Medicaid spending of $50.1 billion for children, $67.1 billion for adults eligible through traditional nondisabled pathways, $189.5 billion for disabled people, and $161.1 billion for the elderly. If the enhanced FMAP for the Medicaid expansion group were also to be dropped, there would be $367.6 billion fewer federal dollars allocated to adults eligible through the Medicaid expansion in the nine states affected by the elimination of the FMAP floor that expanded and the District. If states and the District cannot replace these federal dollars with state funds, access to care and the health of these groups of people will likely be compromised.

Many states face structural deficits, with revenues projected to be less than expenditures in the coming years, leading to concerns about financing the growing costs of Medicaid and K–12 education (Goodman 2025). In 2024, Medicaid accounted for 18.7 percent of state general fund expenditures, second only to the 33.6 percent for K–12 education (NASBO 2024). Our estimates indicate that if states affected by the FMAP policy changes considered here were to maintain current Medicaid and other state programs, they would have to increase their general revenue funds by up to 16 percent, with a median increase of 12 percent, to replace the cut in federal Medicaid dollars (table 7).

It is impossible to predict how the 10 states that could be affected by the elimination of the FMAP floor would respond to changes in federal Medicaid contributions and the consequences of state actions for individuals currently covered by Medicaid. But the proposed cuts in federal contributions are large

and would likely have significant implications for those currently covered by Medicaid and the providers that serve them. To the extent that states alter their Medicaid programs to reduce spending in response to changes in their FMAPs, federal contributions would be further reduced. Even if states reduce spending on the Medicaid program to balance their budgets, they would receive the lower federal match on Medicaid spending going forward, producing even greater reductions in federal contributions than estimated here, an explicit shift in responsibility for financing the Medicaid program from the federal government to the states.

The removal of the FMAP floor is focused on the 10 states with the highest per capita income. Higher-income states spend more per person in poverty on their Medicaid programs when federal and state spending is combined, but federal spending per person in poverty remains at or below the median state in 5 out of the 10 states that would be affected by the elimination of the FMAP floor. These 10 states and DC already have state contributions per person in poverty that are much higher than the median state (see appendix table A.1.) Although these 10 states cover a variety of optional eligibility pathways, they are not outside the norm across all states.[23]

Moreover, the level of spending and coverage provided by the high per capita states may be more optimal for population health and well-being than that of lower per capita income states, Regarding the flow of federal revenues to and from states, 9 of the 10 states affected by eliminating the FMAP floor, received fewer federal funds than it sent to the federal government in taxes in 2022 (Holland and Schumacher 2024).

States that have chosen to expand the Medicaid program beyond federal minimums may experience major reductions in federal contributions. The House Budget Committee budget blueprint one-pagers state that "the Obamacare expansion for able-bodied adults is crowding out services for the most vulnerable Medicaid populations."[24] In fact, the most recent data indicates that spending per enrollee in each of the five eligibility pathways (i.e., children, the disabled) was higher in expansion states than nonexpansion states (Mathers et al. 2025). The Medicaid expansions under the ACA have reduced uninsurance, improved access to and affordability of care, and increased financial stability for low-income populations, providers, especially rural hospitals, and improved health outcomes, including mortality (Guth and Ammula 2021). Eliminating the enhanced match for expansion-eligible adults will likely reverse this progress, given that many states would not be able to provide the state funding required to maintain their expansions.

Conclusion

We estimate that there would be large reductions in federal contributions to state Medicaid programs if Congress were to remove the FMAP floor, eliminate the enhanced match for people made eligible for Medicaid through the ACA Medicaid expansion, and reduce the FMAP for DC. This policy is an explicit cost shift from the federal government to the states. The potential reduction in federal contributions would make it fiscally difficult for states to maintain their current Medicaid programs. Consequently, these changes would likely result in major reductions in Medicaid coverage and access to needed services for poor, low-income, and disabled people who depend on the Medicaid program.

The proposed changes to the FMAP described in this brief make fundamental changes in the original funding mechanism contained in the laws that created the Medicaid program and expanded it through the ACA. Medicaid was designed to allow states to implement programs that meet the needs of their residents, achieve state-specific policy goals, and recognize geographic variation in the cost of health care. State costs of the Medicaid program were to be matched based on the FMAP, which provided more generous financing to states with lower per capita income and had a floor of 50 percent. Since the Medicaid program's inception, the FMAP formula has never been permanently changed and has only been temporarily decreased once.[25] Similarly, the enhanced FMAP afforded to states that expanded their Medicaid programs under the ACA was crucial to enacting the law and addressing concerns by governors and state lawmakers of unfunded mandates. The FMAP changes analyzed here represent fundamental shifts in the federal-state partnership for the financing of the Medicaid program, which would place fiscal strains on states and likely result in losses of coverage, declines in access to care, poorer health outcomes, and greater financial burdens for the most vulnerable people in America.

Appendix

TABLE A.1

Total, Federal, and State Medicaid Spending per Person in Poverty, 2026

Total spending per person in poverty		Federal spending per person in poverty		State spending per person in poverty	
National	$22,974	National	$13,220	National	$9,755
Georgia	$12,066	**Wyoming**	**$7,459**	Alabama	$3,664
Texas	$13,202	Texas	$7,899	Mississippi	$4,004
Alabama	$13,387	Georgia	$8,012	Georgia	$4,054
South Carolina	$13,945	Florida	$8,197	South Carolina	$4,249
Florida	$14,325	South Dakota	$8,552	Texas	$5,303
Nevada	$14,804	Illinois	$8,775	West Virginia	$5,476
Wyoming	**$14,917**	Nevada	$8,853	Tennessee	$5,842
Tennessee	$16,301	South Carolina	$9,697	Kentucky	$5,903
South Dakota	$16,766	Alabama	$9,723	Nevada	$5,951
Illinois	$16,933	Tennessee	$10,458	Oklahoma	$6,089
Mississippi	$17,335	Kansas	$10,930	Florida	$6,128
Kansas	$18,017	Utah	$11,523	New Mexico	$6,233
Oklahoma	$18,160	Oklahoma	$12,071	Louisiana	$6,387
Utah	$18,450	Hawaii	$12,774	Utah	$6,927
Louisiana	$19,854	**New Jersey**	**$12,990**	Kansas	$7,086
Kentucky	$20,646	Mississippi	$13,331	Michigan	$7,426
West Virginia	$21,243	**California**	**$13,400**	**Wyoming**	**$7,459**
Michigan	$21,403	**Colorado**	**$13,434**	Arkansas	$7,604
Hawaii	$21,404	Virginia	$13,459	Idaho	$7,992
New Mexico	$21,999	Louisiana	$13,467	Arizona	$8,042
Montana	$22,010	Montana	$13,530	Illinois	$8,158
Arizona	$22,553	Michigan	$13,977	Ohio	$8,186
Ohio	$23,285	Nebraska	$14,152	South Dakota	$8,214
North Carolina	$23,693	North Dakota	$14,248	North Carolina	$8,383
Iowa	$23,739	Arizona	$14,511	Montana	$8,480
Idaho	$24,153	**New Hampshire**	**$14,548**	Hawaii	$8,630
Arkansas	$24,714	**Washington**	**$14,641**	Iowa	$8,855
Wisconsin	$25,092	Kentucky	$14,742	Missouri	$9,131
Missouri	$25,677	Iowa	$14,884	Wisconsin	$9,866
New Jersey	**$25,981**	Ohio	$15,099	Indiana	$10,978
Nebraska	$26,035	Wisconsin	$15,226	Oregon	$11,200
Oregon	$26,508	Oregon	$15,308	Nebraska	$11,883
Virginia	$26,709	North Carolina	$15,310	**New Jersey**	**$12,990**
California	**$26,800**	New Mexico	$15,765	Virginia	$13,250
Colorado	**$26,868**	West Virginia	$15,767	Delaware	$13,263
North Dakota	$27,942	Idaho	$16,161	**California**	**$13,400**
New Hampshire	**$29,095**	**Maryland**	**$16,313**	**Colorado**	**$13,434**
Washington	**$29,281**	Missouri	$16,546	North Dakota	$13,694
Indiana	$31,136	**New York**	**$16,984**	Maine	$13,980
Maryland	**$32,625**	Arkansas	$17,110	**New Hampshire**	**$14,548**
Delaware	$32,673	**Connecticut**	**$17,821**	Pennsylvania	$14,634
Pennsylvania	$33,306	**Massachusetts**	**$18,471**	**Washington**	**$14,641**
New York	**$33,967**	Pennsylvania	$18,672	Rhode Island	$14,888

Total spending per person in poverty		Federal spending per person in poverty		State spending per person in poverty	
Rhode Island	$35,026	Delaware	$19,410	**District of Columbia**	**$15,760**
Connecticut	**$35,642**	Minnesota	$19,975	**Maryland**	**$16,313**
Maine	$36,117	Rhode Island	$20,139	Vermont	$16,955
Massachusetts	**$36,942**	Indiana	$20,158	**New York**	**$16,984**
Minnesota	$39,414	Alaska	$21,668	**Connecticut**	**$17,821**
Alaska	$41,337	Maine	$22,137	**Massachusetts**	**$18,471**
Vermont	$41,362	Vermont	$24,408	Minnesota	$19,439
District of Columbia	**$52,532**	**District of Columbia**	**$36,772**	Alaska	$19,670

Source: Authors' analysis of MACPAC and Congressional Budget Office data (see methods section for details). Number of people in poverty from "Distribution of Total Population by Federal Poverty Level," KFF, accessed February 4, 2025, https://www.kff.org/other/state-indicator/distribution-by-fpl.

Notes: State Medicaid spending is for 2026. Number of people in poverty is for 2023. The 10 states and the District of Columbia that are the focus of this paper are bolded. Shaded state is the median.

Notes

[1] Ben Leonard, Meredith Lee Hill, and Kelsey Tamborrino, "House GOP Puts Medicaid, ACA, Climate Measures on Chopping Block," *Politico*, January 10, 2025, https://www.politico.com/news/2025/01/10/spending-cuts-house-gop-reconciliation-medicaid-00197541; and "House Budget Floats Menu of Reconciliation Options," *Punchbowl News*, January 17, 2025, https://punchbowl.news/article/finance/economy/house-budget-floats-menu-reconciliation-options/.

[2] Leonard, Lee Hill, and Tamborrino, "House GOP Puts Medicaid, ACA, Climate Measures on Chopping Block;" and "House Budget Floats Menu of Reconciliation Options," *Punchbowl News*.

[3] "House Budget Floats Menu of Reconciliation Options."

[4] "Details About Baseline Projections for Selected Programs," Congressional Budget Office, accessed February 6, 2025, https://www.cbo.gov/data/baseline-projections-selected-programs#9.

[5] Leonard, Lee Hill, and Tamborrino, "House GOP Puts Medicaid;" and "House Budget Floats Menu of Reconciliation Options."

[6] Leonard, Lee Hill, and Tamborrino, "House GOP Puts Medicaid;" and "House Budget Floats Menu of Reconciliation Options."

[7] "House Budget Floats Menu of Reconciliation Options."

[8] "2024 Medicaid & CHIP Beneficiaries at a Glance: Maternal Health," CMS, May 2024.

[9] "Distribution of Certified Nursing Facility Residents by Primary Payer Source," KFF, accessed February 25, 2025, https://www.kff.org/other/state-indicator/distribution-of-certified-nursing-facilities-by-primary-payer-source/.

[10] Mississippi has the highest FMAP rate among states at 76.9 percent. The FMAP for US territories varies and is set by statute.

[11] "Federal Match Rate Exceptions," MACPAC, accessed February 25, 2025, https://www.macpac.gov/federal-match-rate-exceptions/.

[12] "EXHIBIT 6. Federal Medical Assistance Percentages and Enhanced Federal Medical Assistance Percentages by State, FYs 2022–2025," MACPAC, December 2024, https://www.macpac.gov/publication/federal-medical-assistance-percentages-fmaps-and-enhanced-fmaps-e-fmaps-by-state-selected-periods/.

[13] "Financing," MACPAC, accessed February 6, 2025, https://www.macpac.gov/medicaid-101/financing/.

[14] Our analysis does not include spending under CHIP.

[15] Nondisabled enrollees are under age 65.

[16] For Washington, we took total expansion and traditional nondisabled adult spending and divided the spending between expansion adults and traditional nondisabled adults based on the split between these two pathways in the other states, because their share of spending on expansion adults seemed unrealistically high. MACPAC noted that expansion enrollment differed by more than 20 percent from the CMS-64 and total spending differed by more than 20 percent from the prior year.

[17] "Details About Baseline Projections for Selected Programs," Congressional Budget Office.

[18] "The Budget and Economic Outlook: 2025 to 2035," Congressional Budget Office, January 2025. https://www.cbo.gov/publication/61172#_idTextAnchor004.

[19] We simulate the reduction of DC's FMAP from 70 percent to 50 percent. We do not, in addition, simulate the impact of the dropping of the FMAP floor for DC. The elimination of the FMAP floor would result in an FMAP for

DC that is less than zero. Should Congress decide to reduce DC's FMAP below 50 percent through the elimination of the floor without special consideration for DC's unique city/state status, the impact on DC would be greater.

[20] "Summaries of Fiscal Year 2025 Enacted Budgets," National Association of State Budget Officers, September 10, 2025; and "Budget and Economic Data," Congressional Budget Office, accessed February 6, 2025, https://www.cbo.gov/data/budget-economic-data#4.

[21] Urban Institute & Brookings Institution Tax Policy Center's Briefing Book, "What Are State Balanced Budget Requirements and How Do They Work?," accessed February 6, 2025, https://taxpolicycenter.org/news/unrigging-economy-will-require-enforcing-tax-laws.

[22] Leonard, Lee Hill, and Tamborrino, "House GOP Puts Medicaid;" and "House Budget Floats Menu of Reconciliation Options."

[23] KFF eligibility rules for optional pathways for elderly and disabled populations, nondisabled adults, pregnant women, children, and lawfully residing immigrants. See for example, "Medicaid & CHIP," KFF, accessed February 6, 2025, https://www.kff.org/state-category/medicaid-chip/.

[24] "Sounding the Alarm: America's Unsustainable National Debt," House Budget Committee, accessed March 12, 2025.

[25] Under the Omnibus Budget Reconciliation Act of 1981, Medicaid match rates were decreased by 3 percent in 1982, 4 percent in 1983, and 4.5 percent in 1984. See *Omnibus Budget Reconciliation Act of 1981*, Public Law 97-35 (Selected Provisions Affecting the Elderly)," Special Committee on Aging, September 1981.

References

Blavin, Fredric, Matthew Buettgens, and Michael Simpson. 2025. "Health Care Providers Would Experience Significant Revenue Losses and Uncompensated Care Increases in the Face of Reduced Federal Support for Medicaid Expansion: Results by State and Substate Region, under the Scenario Where All States Drop the Medicaid Expansion." Washington, DC: Urban Institute.

Bouker, Jon. 2016. "The DC Revitalization Act: History, Provisions, and Promises." Washington, DC: Brookings.

Buettgens, Matthew. 2025. "Reducing Federal Support for Medicaid Expansion Would Shift Costs to States and Likely Result in Coverage Losses." Washington, DC: Urban Institute.

Goodman, Josh. 2025. "Lawmakers Face Budget Crunches, Tough Decisions to Close Expected Shortfalls: State Fiscal Debates to Watch in 2025." Washington, DC: Pew.

Guth, Madeline, and Meghana Ammula. 2021. *Building on the Evidence Base: Studies on the Effects of Medicaid Expansion, February 2020 to March 2021.* San Francisco: KFF.

Holahan, John, Claire O'Brien, and Lisa Dubay. 2025. *Imposing Per Capita Medicaid Caps and Reducing the Affordable Care Act's Enhanced Match: Impacts on Federal and State Medicaid Spending 2026–35.* Washington, DC: Urban Institute.

Holland, Lynn, and Patrick Schumacher. 2024. *Giving or Getting? New York's Balance of Payments with the Federal Government*. Albany, NY: Rockefeller Institute of Government.

Karpman, Michael, Jennifer M. Haley, and Genevieve M. Kenney. 2025. *Assessing Potential Coverage Losses among Medicaid Expansion Adults under a Federal Medicaid Work Requirement.* Washington, DC: Urban Institute.

Ku, Leighton, Kristine Namhee Kwon, Leticia Nketiah, Taylor Gorak, Maddie Krips, and Joseph J. Cordes. 2025. "How Potential Federal Cuts to Medicaid and SNAP Could Trigger the Loss of a Million-Plus Jobs, Reduced Economic Activity, and Less State Revenue." New York: The Commonwealth Fund.

MACPAC (Medicaid and CHIP Payment and Access Commission). 2017. "Chapter 1: Mandatory and Optional Enrollees and Services in Medicaid." in *Report to Congress on Medicaid and CHIP June 2017*.Washington, DC: MACPAC.

Mathers, Jessica, Jennifer Tolbert, Priya Chidambaram, and Sammy Cervantes. 2025. "5 Key Facts About Medicaid Expansion." San Francisco: KFF.

NASBO (National Association of State Budget Officers). 2024. *2024 State Expenditure Report: Fiscal Years 2022-2024*. Washington, DC: NASBO.

Rudowitz, Robin, Jennifer Tolbert, Alice Burns, Elizabeth Hinton, and Anna Mudumala. 2024. "Medicaid 101." San Francisco: KFF.

Sommers, Benjamin D., and Heidi L. Allen. 2020. "Medicaid Work Requirements Shift to New Terrain." *JAMA Forum* 1 (2): e200176.

About the Authors

Lisa Dubay is a Senior Fellow in the Health Policy Division at the Urban Institute. She is a nationally recognized expert on the Medicaid and CHIP programs. She is a health services researcher who has focused on evaluating the effects of Medicaid policies on access to care, health care utilization, health outcomes, and health insurance coverage using quasi-experimental designs. Previous work includes developing the Urban Institute's Medicaid eligibility simulation model. Her more recent work has focused on the impact of delivery reform efforts on access to and quality of care. Dubay works with researchers across the Urban Institute's policy centers to examine policies affecting the social determinants of health and their impacts. Dubay is the codirector of the Robert Wood Johnson Foundation's Polices for Action National Coordinating Center.

Claire O'Brien is a research associate in the Health Policy Division. She leverages Medicaid claims data to study racial, ethnic, and geographic disparities in the Medicaid program, studying outcomes such as preventable hospitalizations, well-child visits, and postpartum care access. Additionally, she has expertise in the ACA, including providing technical assistance to state agencies and conducting both quantitative and qualitative research on state and federal Marketplaces. She also has experience using national survey data to study mammogram usage, prescription drug access, telehealth, unfair treatment, and patient-provider racial concordance.

John Holahan is an Institute fellow in the Health Policy Division, where he previously served as center director for over 30 years. His recent work focuses on health reform, the uninsured, and health expenditure growth, developing proposals for health system reform, most recently in Massachusetts. He examines the coverage, costs, and economic impact of the ACA, including the costs of Medicaid expansion and the macroeconomic effects of the law. Holahan has also analyzed the health status of Medicaid and exchange enrollees and the implications for costs and exchange premiums. He has written about competition in insurer and provider markets, the implications for premiums and government subsidy costs, and the cost-containment provisions of the ACA.

Holahan has conducted significant work on Medicaid and Medicare reform, including analyses on the recent growth in Medicaid expenditures, implications of block grants and swap proposals on states and the federal government, and the effect of state decisions to expand Medicaid under the ACA on federal and state spending. Recent work on Medicare includes a paper on reforms that could reduce budgetary impacts and improve the structure of the program.

Statement of Independence

The Urban Institute strives to meet the highest standards of integrity and quality in its research and analyses and in the evidence-based policy recommendations offered by its researchers and experts. We believe that operating consistent with the values of independence, rigor, and transparency is essential to maintaining those standards. As an organization, the Urban Institute does not take positions on issues, but it does empower and support its experts in sharing their own evidence-based views and policy recommendations that have been shaped by scholarship. Funders do not determine our research findings or the insights and recommendations of our experts. Urban scholars and experts are expected to be objective and follow the evidence wherever it may lead.

500 L'Enfant Plaza SW
Washington, DC 20024

www.urban.org

JAMA Network Open

Original Investigation | Health Policy

High-Deductible Health Plans and Receipt of Guideline-Concordant Care for Adults With Chronic Illness

Risha Gidwani, DrPH; Veronica Yank, MD; Steven M. Asch, MD, MPH; Lane Burgette, PhD; Aaron Kofner, MS, MA; Alex Peltz, BA; Zachary Wagner, PhD

Abstract

IMPORTANCE High-deductible health plans (HDHPs) are a common insurance mechanism.

OBJECTIVE To evaluate whether HDHPs are meeting the medical needs of persons with chronical illness.

DESIGN, SETTING, AND PARTICIPANTS This longitudinal cohort study used 2016 to 2019 national administrative and claims data from MarketScan. Cohort members were adults aged 18 to 64 years with asthma, diabetes, hypertension, coronary artery disease, heart failure, or major depressive disorder. The treatment group was persons newly enrolling in an HDHP; the control group was persons continuously enrolled in non-HDHPs. Data were analyzed from October 2022 to April 2024, with revisions conducted between December and January 2025.

EXPOSURE New enrollment in an HDHP was instrumented by firms changing the plan choice options to promote HDHP enrollment (ie, restricted-choice firms). Analyses used difference-in-differences models combined with this instrumental variable. Entropy balancing was used to address residual confounding.

MAIN OUTCOMES AND MEASURES Use of annual recommended medical care, which was abstracted from disease-specific evidence-based clinical practice guidelines and included clinic visits, prescription drugs, laboratory tests, and an overall measure that combined all 3. Results were pooled across disease type to improve policy relevance of findings; disease-specific analyses were also conducted. Hypotheses were formulated prior to data collection.

RESULTS The cohort consisted of 343 137 adults (182 532 [53.20%] female; 149 760 [43.64%] aged 55-64 years [before entropy balancing]). Groups exhibited covariate balance after entropy balancing. Restricted-choice enrollment into an HDHP was associated with reduced use of recommended medical care, with persons in HDHPs reducing their use of recommended clinic visits by 3.1 (95% CI, −4.9 to −1.2) percentage points ($P < .001$), their use of recommended prescription drugs by 9.0 (95% CI, −11.8 to −6.2) percentage points ($P < .001$), and their use of recommended annual laboratory testing by 5.7 (95% CI, −8.2 to −3.2) percentage points ($P < .001$). Overall, HDHP enrollees were 4.7 (95% CI, −6.2 to −3.3) percentage points less likely to receive recommended medical care compared with non-HDHP enrollees ($P < .001$).

CONCLUSIONS AND RELEVANCE This longitudinal cohort study of 343 137 adults with chronic illness found HDHP enrollment was associated with reduced receipt of recommended medical care across a variety of conditions. These results have important implications for recently proposed federal legislation that proposes to exempt chronic illness management from HDHP deductibles.

JAMA Network Open. 2025;8(4):e258045. doi:10.1001/jamanetworkopen.2025.8045

Key Points

Question Do high-deductible health plans (HDHPs), a common insurance mechanism in the US, support the range of recommended medical care for individuals with chronic illness?

Findings In this cohort study of 343 137 adults using difference-in-differences models with instrumental variables and entropy balancing weights, HDHP enrollment was associated with statistically significantly lower use of evidence-based clinic, laboratory, and prescription drug care for patients, across a variety of common chronic illnesses.

Meaning These findings suggest that HDHPs may not be an appropriate insurance mechanism for individuals with chronic illness and have policy implications for recently proposed federal legislation.

+ Supplemental content

Author affiliations and article information are listed at the end of this article.

Introduction

High-deductible health plans (HDHPs) are a common insurance mechanism, covering 58% of privately insured people in the US.[1,2] HDHPs have high initial cost-sharing, requiring patients to pay for 100% of most health care costs until a (high) deductible is met. In 2024, the Internal Revenue Service (IRS) defined HDHPs as those with annual deductibles of at least $1600 for an individual and $3200 for a family.[3] However, mean deductibles can be much higher; in 2023, mean HDHP deductibles were $2418 for individuals and $4674 for families.[4] Deductibles differ from other forms of patient cost-sharing an important way: they provide $0 coverage for care, essentially withholding insurance coverage until a high dollar threshold is met. There are concerns that the high-deductible design feature of HDHPs may discourage patients from accessing necessary medical care. Approximately half of US households of individuals younger than 65 years do not have enough liquid assets to pay the mean HDHP deductible,[5] and almost 40% of people in the US do not have enough liquid assets to pay a $400 expense,[6] a cost easily incurred in 1 day of health care utilization.

The purpose of health insurance is to allow persons access to necessary medical care without catastrophic expense. The seminal study in the field of cost-sharing, the RAND Health Insurance Experiment, found insurance characterized by high cost-sharing reduced use of both appropriate and inappropriate care. Notably, higher cost-sharing resulted in poorer health outcomes among low-income individuals and individuals with chronic illness.[7,8] Much research in the 2010s found enrollment in HDHPs was associated with lower health care spending.[9,10] More recent studies have examined the impact of HDHP enrollment on individual chronic conditions, often focused on medication use. In one study, HDHP enrollment was associated with both increased out-of-pocket costs and reduced medication adherence for patients with cardiovascular disease.[11] However, when medications were exempt from HDHP deductibles, HDHPs were not associated with decreased pharmaceutical use.[12]

While previous quasi-experimental research indicates that HDHP enrollment was associated with reducing patients' use of health care services,[10,13] such studies have largely focused on 1 condition or a limited set of outcomes. In this study, we aim to provide a broader analysis of HDHPs across both a range of chronic conditions and a range of care processes recommended by the medical establishment. More than 60% of US residents are chronically ill,[14] yet the impact of health insurance for many chronic illnesses is understudied.[15] Persons with chronic conditions require regular care and are more likely to be top health care spenders.[16-18] In this study, we used a large, national dataset to investigate the association of HDHPs with receipt of recommended medical care for people with various common chronic conditions.

This study was designed to advance the HDHP evidence in 3 important ways: it studies multiple chronic conditions, thereby increasing the policy-relevance of findings; it evaluates receipt of a range of services recommended by evidence-based clinical practice guidelines; and it does so through combining multiple quasi-experimental techniques.

Methods

This cohort study was approved by the RAND Institutional Review Board with a waiver of informed consent due to it being a secondary analysis of existing data. This study is reported following the Strengthening the Reporting of Observational Studies in Epidemiology (STROBE) reporting guideline for cohort studies.

Data

Our analysis uses 2016 to 2019 national MarketScan data. These data contain insurance claims submitted by 350 employers and health plans. Data from 2016 to 2019 were chosen as they represent a time frame after the switch from *International Classification of Diseases, Ninth Revision* (*ICD-9*) to *International Statistical Classification of Diseases and Related Health Problems, Tenth*

Revision (*ICD-10*) coding but before the start of the COVID-19 pandemic, which was associated with a decline in elective and nonelective health care utilization.[19,20] Data from 2016 were used for cohort identification and assessment of parallel trends only; data from 2017 represent the pre period while data from 2018 (and 2019) represent the post period in main (and sensitivity) analyses. HDHP enrollment was identified by a combination of the plan type and deductible variables, compared with IRS deductible thresholds.[21] All plans operated on a calendar year basis.

Cohort

Our cohort included 343 137 persons aged 18 to 64 years with chronic illness enrolled in employer-sponsored insurance who were continually enrolled in insurance for 3 years (4 years in sensitivity analyses). Almost half of the US population is enrolled in employer-sponsored insurance. We study persons with the most common conditions in the US: diabetes, hypertension, asthma, heart failure, coronary artery disease, or major depressive disorder.[14] Chronic conditions were identified through the presence of 1 inpatient diagnosis or 2 outpatient diagnoses or procedure codes 30 days apart, using only 2016 data (eTable 1 in Supplement 1). We studied patients with 1 or 2 chronic conditions, who represent 94.3% of persons with our included chronic conditions in MarketScan data.

Recommended Medical Care

Our main outcomes are utilization of care recommended for each chronic condition. A team including 2 physician investigators and a health economist (R.G., V.Y., S.M.A., and A.P.) extracted recommended care from evidence-based clinical practice guidelines that were applicable during the study period and used these to create programming algorithms for claims data. For each condition, we identified guidelines published by national or international entities or specialty societies that provided details on their methods and evidence base.[22-29] Two reviewers independently extracted recommendations and then met to confirm, with disagreements resolved through discussion with a third party. Guideline recommendations that could be operationalized in claims data were included in the study (**Table 1**). These guidelines detail necessary care (eg, annual eye examination for individuals with known diabetic retinopathy, statin medication for individuals with known coronary artery disease), and represent the minimum level of care required. While measurement error and misclassification can never be ruled out, true deviation below these standards is likely to constitute underuse.

Outcomes

Our primary outcome was receipt of multidimensional recommended medical care, comprising clinic visits, prescription drugs and laboratory tests annually. This was constructed as a composite outcome ranging from 0 to 1, with a denominator of the number of recommended service categories for which the patient was eligible and a numerator of the number of service categories for which the patient actually received recommended care. For example, if a person had a chronic illness for which clinic visits, prescription drugs, and laboratory tests were recommended, that person's composite outcome would have a denominator of 3. Our approach relies on a generalization of the linear probability model.[30] Use of a composite outcome to evaluate multidimensional quality-of-care has been used extensively in the literature.[31,32] Use of recommended prescriptions, laboratory tests, and clinic visits were also constructed as separate secondary binary outcomes. To receive recommended laboratory or clinic care, patients had to meet the minimum number of relevant laboratory tests and outpatient visits required annually. To receive recommended drug care, patients had to have at least 80% of their days filled annually with the relevant prescriptions, an approach traditionally used in quality-of-care assessment.[33-35] None of the care we study is considered preventive under the Patient Protection and Affordable Care Act; therefore, all outcomes are subject to cost-sharing.

Table 1. Recommended Medical Care

Condition	Guideline category	Recommended utilization (evidence grade)	Guideline
Asthma	Clinic visit	2 Visits per y with any PCP or pulmonologist (B)	National Asthma Education and Prevention Program,[26] 2007: "Third Expert Panel on the Diagnosis and Management of Asthma. Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma"
Asthma	Prescription	Of 80% of the days covered by a LABA, 80% of those days also need to be covered by an inhaled corticosteroid (A)[a]	National Asthma Education and Prevention Program,[26] 2007: "Third Expert Panel on the Diagnosis and Management of Asthma. Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma"
Coronary artery disease	Clinic visit	1 Visit per y with any adult PCP or cardiologist (C)	Fihn et al,[23] 2012: "2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS guideline for the diagnosis and management of patients with stable ischemic heart disease: a report of the American College of Cardiology Foundation/American Heart Association task force on practice guidelines, and the American College of Physicians, American Association for Thoracic Surgery, Preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons"
Coronary artery disease	Prescription	≥80% Of days covered with a statin (A)	Fihn et al,[23] 2012: "2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS guideline for the diagnosis and management of patients with stable ischemic heart disease: a report of the American College of Cardiology Foundation/American Heart Association task force on practice guidelines, and the American College of Physicians, American Association for Thoracic Surgery, Preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons"
Coronary artery disease	Prescription	≥80% Of days covered with a β-blocker (B)	Fihn et al,[23] 2012: "2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS guideline for the diagnosis and management of patients with stable ischemic heart disease: a report of the American College of Cardiology Foundation/American Heart Association task force on practice guidelines, and the American College of Physicians, American Association for Thoracic Surgery, Preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons"
Diabetes	Clinic visit	Annual eye examination for patients with retinopathy (B)	American Diabetes Association,[22] 2015: "Standards of medical care in diabetes—2015"
Diabetes	Clinic visit	1 Visit per year with any PCP or endocrinologist (B)[b]	American Diabetes Association,[22] 2015: "Standards of medical care in diabetes—2015"
Diabetes	Laboratory testing	≥2 HbA_{1c} tests 90 d apart (E)	American Diabetes Association,[22] 2015: "Standards of medical care in diabetes—2015"
Diabetes	Laboratory testing	eGFR annually (B)	American Diabetes Association,[22] 2015: "Standards of medical care in diabetes—2015"
Diabetes	Laboratory testing	Urine albumin annually (B)	American Diabetes Association,[22] 2015: "Standards of medical care in diabetes—2015"
Diabetes	Laboratory testing	Serum creatinine/eGFR and potassium if using ACE inhibitor, ARB and/or diuretic annually (E)	American Diabetes Association,[22] 2015: "Standards of medical care in diabetes—2015"
Diabetes	Prescription	≥80% Of days covered with an ACE or ARB if the person also has hypertension (B)	American Diabetes Association,[22] 2015: "Standards of medical care in diabetes—2015"
Heart failure	Clinic visit	1 Visit per year with any adult PCP or cardiologist (B)	Yancy et al,[29] 2013: "2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology Foundation/American Heart Association Task Force on practice guidelines"
Heart failure	Prescription	≥80% Of days covered with an ACE or ARB for people with reduced ejection fraction (B)	Yancy et al,[29] 2013: "2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology Foundation/American Heart Association Task Force on practice guidelines"
Heart failure	Prescription	≥80% Of days covered with a β-blocker for people with reduced ejection fraction (B)	Yancy et al,[29] 2013: "2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology Foundation/American Heart Association Task Force on practice guidelines"
Hypertension	Clinic visit	1 Visit per year with any adult PCP or cardiologist (A)	National High Blood Pressure Education Program,[28] 2004: *Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure*
Hypertension	Laboratory testing	1 laboratory test per y for serum creatine with or without eGRF (B)	National Clinical Guideline Centre (UK),[27] 2011: *Hypertension: The Clinical Management of Primary Hypertension in Adults: Update of Clinical Guidelines 18 and 34*
MDD	Clinic visit	For all patients: 1 visit with a psychological professional, or 1 visit with a PCP where the visit has a MDD diagnosis or psychotherapy CPT code	Gelenberg et al,[24] 2010: *Practice Guideline for the Treatment of Patients With Major Depressive Disorder*

(continued)

Table 1. Recommended Medical Care (continued)

Condition	Guideline category	Recommended utilization (evidence grade)	Guideline
MDD	Clinic visit	For all patients with an MDD-based prescription: 2 visits with a psychological professional, or 2 visits with a PCP where the visit has a MDD diagnosis or psychotherapy CPT code (B)	Gelenberg et al,[24] 2010: *Practice Guideline for the Treatment of Patients With Major Depressive Disorder*
MDD	Prescription	For all patients with prescription days >0, ≥80% of days covered by antidepressants (B)	Gelenberg et al,[24] 2010: *Practice Guideline for the Treatment of Patients With Major Depressive Disorder*

Abbreviations: ACE, angiotensin-converting enzyme; ARB, angiotensin receptor blocker; CPT, Current Procedural Terminology; eGFR, estimated glomerular filtration rate; HbA_{1c}, hemoglobin A_{1c}; LABA, long-acting β agonist; MDD, major depressive disorder; PCP, primary care physician.

[a] If the patient was using a LABA for 50% of the year, and inhaled corticosteroid usage for 90% of the half year that they were using a LABA, the patient was considered to have received recommended medical care.

[b] This is based on a recommendation that all diabetic patients have an annual foot exam. Foot exam cannot be properly ascertained in the claims data, we therefore used a PCP or endocrinologist visit to proxy the foot examination.

Statistical Analysis

We combined different quasi-experimental approaches to identify the association of HDHPs and receipt of recommended medical care. Our overarching design exploits the fact that in January 2018 some firms (employers) newly incentivized HDHP enrollment by restricting the choices of plans offered for their employees, making HDHPs more appealing. These firms are hereafter called *restricted-choice firms*. Restricted-choice firms were identified based on a variable created for this study team by the MarketScan data vendor, which measured the proportion of employees and their dependents that were enrolled in an HDHP annually. This was constructed using firm identifier (a variable available only to the data vendor). We defined a firm as having restricted choice if 0% to 35% of employees and dependents were enrolled in an HDHP in the pre period and 80% or more of employees and dependents were enrolled in an HDHP in the post period. The control group consisted of firms in which 0% to 35% of employees and dependents were enrolled in HDHPs in both the pre and post periods. We used firm-level switch to restricted choice as an instrument for HDHP enrollment, where the first stage was a difference-in-differences model that used restricted choice to estimate individual HDHP enrollment, and the second stage estimated the association between estimated individual HDHP enrollment and outcomes of interest (eMethods in Supplement 1). This approach mitigates individual selection bias, which is otherwise a concern in studies comparing people who chose to enroll in HDHPs with those who did not.[36] Estimating our instrumental variable (IV) models within a difference-in-differences framework with a balanced panel controls for key time-invariant confounders, such as patients' underlying preferences for seeking nonurgent medical care and baseline income level. We also estimate reduced-form models, which compare how outcomes change differently between the pre and post periods for restricted-choice and non–restricted choice firms (ie, an intention-to-treat effect). While other studies in the HDHP literature have evaluated full-replacement or restricted-choice firms,[12,13,37] to the best of our knowledge, full-replacement or restricted-choice has not yet been used as an IV. All outcomes were assessed using linear models. Linear probability models were prioritized over logit models as our β coefficient of interest was an interaction term.[38]

We used entropy balancing to address any residual endogeneity. Entropy balancing assigns a positive weight to control group observations such that the means of relevant covariates in treatment and control groups are equivalent.[39] Variables used for entropy balancing included comorbidity indicator variables; dual morbidity; age category; sex; geographic region; enrollment in family vs individual plan; and in the baseline year (2016), decile of outpatient visits, number of ED visits, and number of hospital visits. The latter 3 variables were used to assess baseline patient preferences for care.

Additional Analyses

We analyzed each chronic condition separately to assess whether the direction and size of association was consistent. In disease-specific models, entropy balancing weights were derived separately for each disease-specific cohort.

Most recommendations were based on grade A or B evidence. However, there were 4 recommendations with lower-grade evidence (Table 1). As these are widely accepted guideline recommendations within the medical community (eg, for diabetic patients, 2 hemoglobin A1c [HbA_{1c}] laboratory tests ≥90 days apart [grade E]), we retained them in the main analysis, but explored the impact of excluding them in additional analyses.

Sensitivity Analyses

We conducted several sensitivity analyses to assess robustness of our main results. First, our main approach of instrumenting individual HDHP enrollment through presence in a restricted-choice firm prioritizes internal validity but somewhat limits external validity because many HDHP enrollees are not in a restricted-choice firm. To address this, we ran models that prioritize external validity (while reducing internal validity), eschewing IVs and using individual-level enrollment in an HDHP with an HSA (the most restrictive type of HDHP) as the main effect in a difference-in-differences model. Second, conceptually we expect the main manner through which HDHP enrollment is associated with use of recommended care is through increased cost-sharing. Model 1B uses our IV approach but also requires that the treatment group consist of anyone newly enrolled in an HDHP with an HSA. This is the highest internal validity model but has lower external validity than our main model. Model 1C also uses the IV approach but drops anyone enrolled in an HDHP in the pre period from the cohort. Model 1D clusters SEs within proxy firm identifier. As the terms of our agreement with MarketScan required firm-level identifiers be dropped from the dataset, we instead proxied firm identifiers using only variables that we know vary at the firm level and clustered SEs by the 37 proxy firm identifiers we derived. Model 1E uses the same specifications as the main model but adds in 2019 data.

P values were 2-sided, and statistical significance was set at $\alpha = .05$. Analyses were conducted using SAS version 9.4 (SAS Institute) and Staa version 18.0 (StataCorp). Programming and analyses were conducted from October 2022 to April 2024, with revisions conducted between December and January 2025.

Results

Our cohort consisted of 343 137 adults (182 532 [53.2%] female; 149 760 [43.6%] aged 55-64 years [before entropy balancing]). All persons were chronically ill, with 261 575 individuals (76.2%) having 1 chronic illness and 81 562 individuals (23.8%) having 2 chronic illnesses. Cohort members had the following conditions: 242 725 individuals (70.7%) had hypertension, 101 371 individuals (29.5%) had diabetes, 31 946 individuals (9.3%) had asthma, 31 129 individuals (9.1%) had major depressive disorder, 15 576 individuals (4.5%) had coronary artery disease, and 1952 individuals (0.6%) had heart failure. After entropy balancing, groups exhibited balance on all covariates (**Table 2**). **Figure 1** plots trends in outcomes between restricted-choice and control firms, showing that utilization trends were similar prior to the shift to restricted choice. This supports the key assumption of our difference-in-differences design: that trends in the control group are a good counterfactual for what would have happened in the treatment group in the absence of restricted choice.

People with chronic conditions used significantly less recommended medical care across all outcome categories after their firm switched to restricted choice (**Table 3**). Enrollees in restricted choice firms had 52.0 (95% CI, 50.9 to 53.0) percentage points increased likelihood of being enrolled in an HDHP relative to the control group. *F*-statistics ranged from 3477 to 9512, depending on the subcohort used (Table 3), indicating restricted-choice firm was a strong instrument for HDHP enrollment.

Main Results

Results from difference-in-differences models using IVs show that enrollment into an HDHP was associated with declines in use of recommended medical care across all care categories (Table 3). Persons with chronic illness in HDHPs reduced their use of recommended clinic visits by 3.1 (95% CI,

−4.9 to −1.2) percentage points compared with those in non-HDHPs ($P < .001$). HDHP enrollees were 9.0 (95% CI −11.8 to −6.2) percentage points less likely to have received recommended drug treatment ($P < .001$). HDHP enrollees also reduced their use of recommended annual laboratory testing by 5.7 (95% CI, −8.2 to −3.2) percentage points compared with non-HDHP enrollees ($P < .001$). Evaluations of the composite outcome showed that HDHP enrollees with chronic illness were 4.7 (95% CI, −6.2 to −3.3) percentage points less likely to receive overall recommended medical care than those in non-HDHPs ($P < .001$). Predicted probabilities generated from our IV models indicate that persons enrolled in HDHPs receiving medical care, compared with non-HDHP enrollees, were less likely to receive recommended clinic visits (72.1% vs 75.2%), drug treatment (30.9% vs 39.8%), laboratory testing (49.1% vs 54.9%), and overall medical care (56.8% vs 61.6%).

Figure 2 shows model results for the composite outcome in the form of a forest plot, with 1 estimate per disease type. The direction of association is consistent across disease types, with the exception of heart failure. Results were not statistically significant for asthma or heart failure; the latter was underpowered with wide CIs. Results were strongest for major depressive disorder.

Sensitivity Analyses

Results from other sensitivity analyses revealed no change in direction of association and virtually no change in significance. When excluding 4 recommendations with grade C or E evidence, results remained the same, with no change in direction or significance and β coefficients that changed only

Table 2. Demographic Characteristics of Cohort[a]

	Before entropy balancing				After entropy balancing		
		No. (%)			Effective sample size, No. (%)[b]		
Characteristic	Total No.	Non-RCF	RCF	*P* value	Non-RCF	RCF	*P* value
Total	343 137	334 168 (97.4)	8969 (2.6)	NA	189 007 (50.0)	8969 (50.0)	NA
Age, y							
18-34	28 116	27 385 (8.2)	731 (8.2)	<.001	15 404 (8.2)	731 (8.2)	>.99
35-44	50 557	49 665 (14.9)	892 (10)		18 806 (10.0)	892 (10.0)	
45-54	114 704	112 053 (33.5)	2651 (29.6)		55 870 (29.6)	2651 (29.6)	
55-64	149 760	145 065 (43.4)	4695 (52.4)		98 945 (52.4)	4695 (52.4)	
Sex							
Male	160 605	155 531 (46.5)	5074 (56.6)	<.001	106 921 (56.6)	5074 (56.6)	>.99
Female	182 532	178 637 (53.5)	3895 (43.4)		82 086 (43.4)	3895 (43.4)	
Region							
Northeast	41 094	39 254 (11.8)	1840 (20.5)	<.001	38 784 (20.5)	1840 (20.5)	>.99
North Central	79 956	79 891 (23.9)	65 (0.7)		1361 (0.7)	65 (0.7)	
South	189 156	183 844 (55)	5312 (59.2)		111 949 (59.2)	5312 (59.2)	
West	28 602	26 852 (8.0)	1750 (19.5)		36 875 (19.5)	1750 (19.5)	
Unknown	4329	4327 (1.3)	2 (<0.1)		38 (<0.1)	2 (<0.1)	
Plan type							
Individual	122 356	120 414 (36.0)	1942 (21.7)	<.001	40 920 (21.7)	1942 (21.7)	>.99
Family	220 781	213 754 (64.0)	7027 (78.4)		148 087 (78.4)	7027 (78.4)	
Chronic conditions, No.							
1	261 575	254 723 (76.2)	6852 (76.4)	.71	144 401 (76.4)	6852 (76.4)	>.99
2	81 562	79 445 (23.8)	2117 (23.6)		44 606 (23.6)	2117 (23.6)	
Coronary artery disease	15 576	15 135 (4.5)	441 (4.9)	.08	9299 (4.9)	441 (4.9)	>.99
Hypertension	242 725	236 575 (70.8)	6150 (68.6)	<.001	129 602 (68.6)	6150 (68.6)	>.99
Heart Failure	1952	1907 (0.6)	45 (0.5)	.39	945 (0.5)	45 (0.5)	>.99
Asthma	31 946	30 985 (9.3)	961 (10.7)	<.001	20 243 (10.7)	961 (10.7)	>.99
Major depressive disorder	31 129	30 202 (9.0)	927 (10.3)	<.001	19 543 (10.3)	927 (10.3)	>.99
Diabetes	101 371	98 809 (29.6)	2562 (28.6)	.04	53 999 (28.6)	2562 (28.6)	>.99

Abbreviations: NA, not applicable; RCF, restricted-choice firm.

[a] Data shown are from 2016. The cohort contains a balanced panel over time.

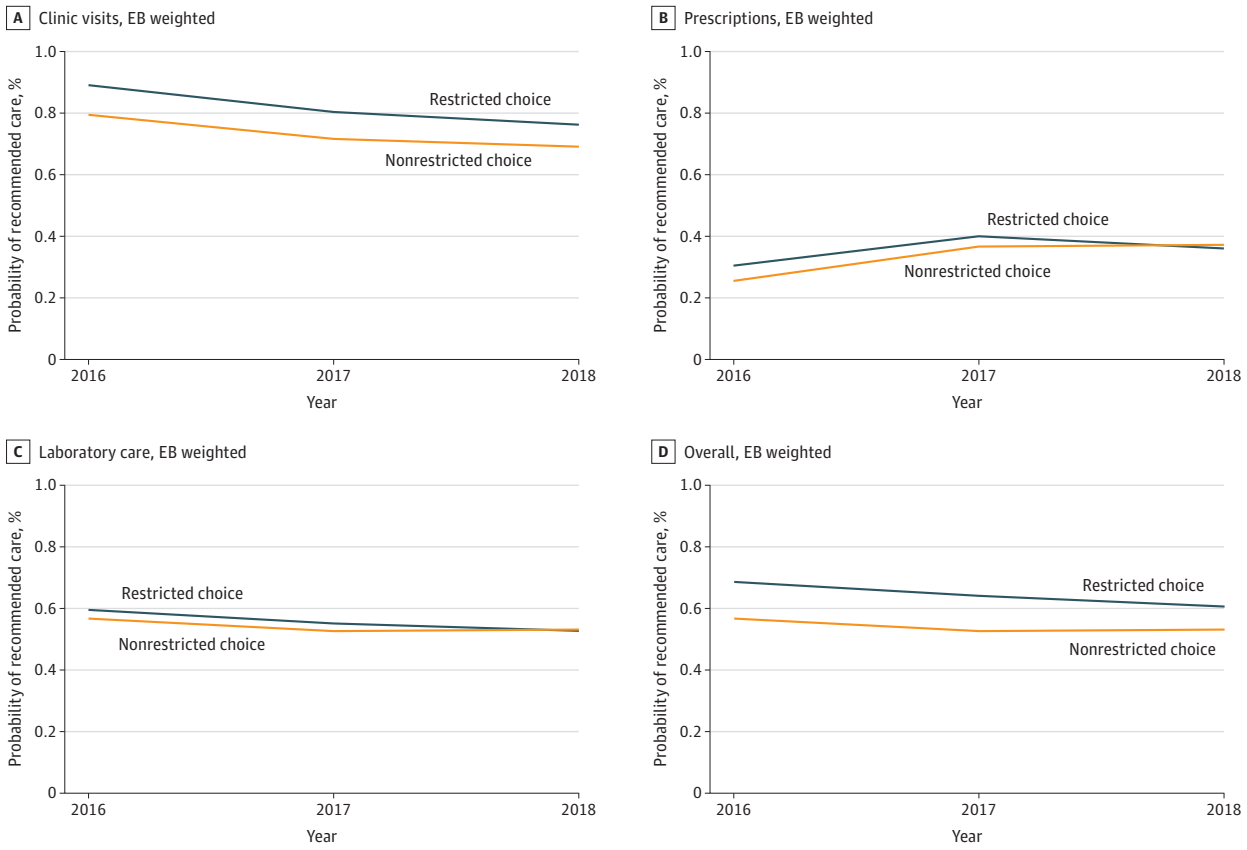
[b] Effective sample size applies to the control group only since treated observations are unweighted and reflects the impact of entropy balancing weights.

in the thousandths place (eTable 5 in Supplement 1). Model 1A found the same direction of associations with HDHPs in all 4 outcomes as the main model, with results remaining statistically significant, supporting the external validity of our main results. β coefficients were slightly muted (eTable 6 in Supplement 1). In both Model 1B and Model 1C, there was no change with respect to direction or significance of results and virtually no change to β coefficients. Model 1D, which clustered observations within proxy firm identifier, found no change with respect to magnitude or direction of association; however, in this analysis, the findings for HDHPs and clinic visits lost statistical significance (all 3 other outcomes remained significant). Model 1E, which added 2019 data to the post period, also found no change with respect to direction or significance of results and similar β coefficients as the main model.

Discussion

Results from our cohort study, which focuses on the most common chronic conditions in the US, indicate that HDHPs were associated with reduced access to medical care across multiple dimensions, including clinic visits, drugs, and recommended laboratory testing. Insurance is the gatekeeper through which most people in the US access health care. Persons with chronic illness, in particular, require regular access to medical care. Given the prevalence of chronic illness in this country, this translates into a large number of people negatively affected by enrollment in HDHPs. In 2018, there were 3 056 295 persons in MarketScan data with 1 of the chronic illnesses we studied. If 4.7% fewer of them receive recommended medical care, that corresponds to 143 646 fewer people each year in this dataset alone not receiving care required for chronic illness. The levels of care that

Figure 1. Trends in Likelihood of a Person in a Restricted Choice Firm vs Non–Restricted Choice Firm Receiving Recommended Medical Care



Likelihoods are adjusted for entropy balancing (EB) weights.

we study are minimal standards—for example, 1 visit a year to a medical professional for a patient with diagnosed heart failure or 1 eye examination a year for a patient with diabetes and diagnosed retinopathy. That such basic levels of care are less likely to be met when persons enroll in HDHPs engenders concern.

It is challenging to compare HDHP studies because group definitions vary widely. Some define HDHPs as plans with deductibles as low as $1000,[40] while others identify HDHPs where employer contributions render the effective deductible to be $0.[41] Studies that use full-replacement firms use varying HDHP enrollment thresholds, some as low as 70% or 73%.[42,43] Additionally, some studies exclude any pre period HDHP enrollment, while others allow it.[13,43] Such inconsistency complicates cross-study comparisons. Nonetheless our work adds to a robust literature indicating that enrollment

Table 3. Results Operationalized Using Instrumented Difference-in-Difference Models With Entropy Balancing Weights[a]

Model	Care received			
	Clinic visit	Prescription drug	Laboratory testing	Composite measure
Association of RCF with HDHP enrollment[a,b]				
Estimate (95% CI)	0.520 (0.509 to 0.530)	0.512 (0.495 to 0.529)	0.508 (0.496 to 0.519)	0.520 (0.509 to 0.530)
P value	<.001	<.001	<.001	<.001
F-Statistic[c]	9511.85	3477.19	7462.94	9511.85
Association of RCF with outcome[b,d]				
Estimate (95% CI)	−0.016 (−0.026 to −0.006)	−0.046 (−0.060 to −0.031)	−0.029 (−0.042 to −0.016)	−0.025 (−0.032 to −0.017)
P value	<.001	<.001	<.001	<.001
Association of HDHP with outcome[e]				
Estimate (95% CI)	−0.031 (−0.049 to −0.012)	−0.090 (−0.118 to −0.062)	−0.057 (−0.082 to −0.032)	−0.047 (−0.062 to −0.033)
P value	<.001	<.001	<.001	<.001
Individuals, No.				
Total	343 137	126 617	288 745	343 137
Treatment	8969	3452	7369	8969
Control	334 168	123 165	281 376	334 168
Predicted probability of receiving care[f]				
HDHP, estimate (95% CI), %	72.1 (70.7 to 73.5)	30.9 (28.7 to 33.0)	49.1 (47.2 to 52.4)	56.8 (55.7 to 57.9)
Non-HDHP, estimate (95% CI), %	75.2 (74.6 to 75.8)	39.8 (38.9 to 40.8)	54.9 (54.1 to 55.7)	61.6 (61.1 to 62.1)

Abbreviations: HDHP, high-deductible health plan; RCF, restricted choice firm.

[a] Probability of newly enrolling into an HDHP as estimated by a firm switching to restricted choice.

[b] Estimated using difference-in-difference models that interact RCF with the time variable (post).

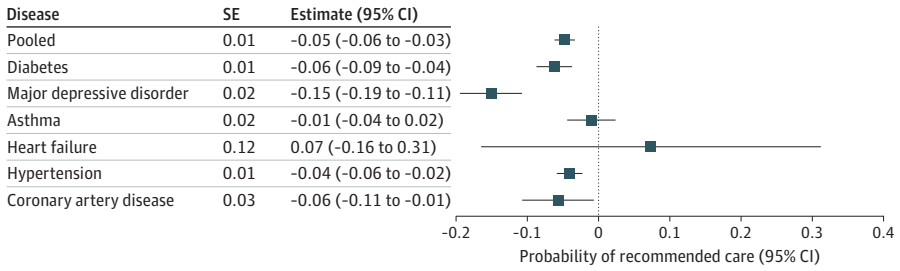
[c] *F*-statistics differ across clinic visit, prescription drug and laboratory testing outcomes, as the sample used for each of these outcomes varies (eg, all persons in the cohort were eligible for a clinic visit, but not all persons in the cohort are eligible for prescription drugs).

[d] Change in mean use of recommended care as estimated by a firm switching to restricted choice.

[e] Change in mean use of recommended care as estimated by HDHP. Estimated using an instrumental variables regression where restricted choice is used as an instrument for individual-level HDHP enrollment.

[f] Probabilities of received care are estimated from the IV difference-in-differences models and represent the absolute likelihood of receiving care if in an HDHP. All $P < .05$.

Figure 2. Difference in Likelihood of Receiving Recommended Medical Care by Disease Type for Persons Enrolled in High-Deductible Health Plans vs Non–High-Deductible Health Plans



Analyses based on regressions that instrument high-deductible health plan enrollment using employment in a restricted choice firm. The outcome presented is the composite measure of overall recommended medical care.

in HDHPs is associated with in lower health care utilization.[10,13,44] We studied, across multiple chronic conditions, care recommended vs care received. Our results indicate that HDHP enrollment was associated with a reduction in care, such that persons of numerous illness profiles were not receiving the minimum level of medical care recommended to manage their disease. Sensitivity analyses found that these results were robust to a number of model specifications. The sole exception to this was for clinic visits: models with SEs clustered within proxy firm identifiers showed no significant results for outpatient care, although remained significant for recommended drugs, laboratory tests, and overall care.

Our work also adds to the literature on the association between health insurance and chronic illness.[15,45] Our findings indicating lower receipt of recommended medical care, as well as other work indicating that higher cost-sharing for services for persons with chronic illness is associated with increases in emergency department visits or mortality,[15,46-48] together suggest that reductions in use of recommended medical care due to insurance-based cost-sharing will have commensurate negative effects on a chronically ill population.

Our work has direct implications for federal legislation. The bipartisan Chronic Disease Management Act of 2021, currently under review in Congress, proposes to exempt services that are low-cost and effective in treating chronic disease from the deductibles of HDHPs.[49] Our work suggests that access to evidence-based recommended medical care should be considered in the pool of candidate services and that major depressive disorder should be included in the list of chronic illnesses.

Limitations

This study has some limitations. Our results might not generalize to full populations enrolled in HDHPs. First, our data come from one of the largest sources of claims data for persons with employer-sponsored insurance in the US, including 25 million persons per year; however, the data do not contain the full population of persons with such insurance. We also required cohort members to be continuously enrolled in insurance for 3 years. However, our cohort does represent the population of persons with employer-sponsored insurance in the MarketScan data, with proportions of comorbidities similar to what is seen in the overall dataset. The exception to this was major depressive disorder, which our cohort was less likely to have than the overall MarketScan population. We found largest directions of HDHP associations for persons with major depressive disorder, suggesting that an even larger number of people would be negatively affected by HDHP enrollment than in the rough calculations we present. Second, our IV approach estimates a local average treatment effect, meaning the association of HDHP enrollment for persons who chose HDHPs under a restricted choice set who would otherwise have remained in a non-HDHP plan. Results from models using this IV may not generalize to persons who would have always chosen an HDHP or who would have never chosen an HDHP under any circumstance. However, that our sensitivity analysis using individual-level enrollment in HDHPs (model 1A) which did not use an IV approach, also showed significant reductions in use of all care indicates that the generalizability of our results may not be restricted only to individuals who chose the HDHP. Furthermore, our outcomes consisted of care practices that were present in evidence-based clinical practice guidelines and could be measured through administrative data. Some recommendations could not be translated into coding algorithms suitable for claims data, such as achieving a specific level of diastolic blood pressure. Thus, while our composite measure evaluates clinical care, prescription drugs, and laboratory tests, it is not a fully comprehensive measure of recommended medical care, and our estimates about the ability of HDHPs to connect patients to necessary medical care may therefore be conservative.

Conclusions

The findings of this cohort study indicate that while HDHPs and chronic illness are both highly prevalent in the US, they may not be appropriate bedfellows. All individuals with chronic illness

require a minimum level of care to manage their illness, including at least 1 visit a year to a medical professional, and laboratory tests and/or prescription drugs as appropriate. We found that HDHP enrollment was associated with a lower use of basic levels of recommended medical care for persons with chronic illness, a finding that may be informative to recently proposed federal legislation.

ARTICLE INFORMATION

Accepted for Publication: March 2, 2025.

Published: April 30, 2025. doi:10.1001/jamanetworkopen.2025.8045

Corresponding Author: Risha Gidwani, DrPH, Division of Health Care Policy and Research, University of Colorado School of Medicine, 13002 E 17th Pl, Fitzsimmons Building, Aurora, CO 80045 (risha.gidwani@cuanschutz.edu).

Author Affiliations: Division of Health Care Policy and Research, University of Colorado School of Medicine, Aurora (Gidwani); RAND Corporation, Santa Monica, California (Gidwani, Peltz, Wagner); University of California, Los Angeles (Gidwani); University of California, San Francisco (Yank); Stanford University, Palo Alto, California (Asch); RAND Corporation, Arlington, Virginia (Burgette, Kofner); University of Southern California, Los Angeles (Wagner).

Author Contributions: Dr Gidwani had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.

Concept and design: Gidwani, Yank, Wagner.

Acquisition, analysis, or interpretation of data: All authors.

Drafting of the manuscript: Gidwani, Peltz.

Critical review of the manuscript for important intellectual content: Gidwani, Yank, Asch, Burgette, Kofner, Wagner.

Statistical analysis: Gidwani, Burgette, Kofner, Wagner.

Obtained funding: Gidwani, Wagner.

Administrative, technical, or material support: Gidwani, Peltz.

Supervision: Gidwani, Wagner.

Conflict of Interest Disclosures: None reported.

Funding/Support: This work was supported by grant No. R01 AG072057 from the National Institute on Aging.

Role of the Funder/Sponsor: The funder had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

Data Sharing Statement: See Supplement 2.

Additional Contributions: We gratefully acknowledge the intellectual contributions of Neeraj Sood, PhD (University of Southern California); Kate Bundorf, PhD (Duke University); Jack Needleman, PhD (University of California, Los Angeles); and Cheryl Damberg, PhD (RAND Corporation), who provided insight and expertise that greatly assisted the research. They were not compensated for this work.

REFERENCES

1. Dolan R. High-deductible health plans. *Health Affairs*. February 4, 2016. Accessed February 2, 2021. https://www.healthaffairs.org/content/briefs/high-deductible-health-plans

2. Miller GE, Hegland TA, Moriya AS. *Medical Expenditure Panel Survey Insurance Component 2022 Chartbook*. Agency for Healthcare Research and Quality; 2023.

3. 26 CFR 601.602: Tax forms and instructions. Accessed March 24, 2025. https://www.ecfr.gov/current/title-26/chapter-I/subchapter-H/part-601/subpart-F/section-601.602

4. Kaiser Family Foundation. Employer health benefits, 2023 annual survey. Accessed March 24, 2025. https://files.kff.org/attachment/Employer-Health-Benefits-Survey-2023-Annual-Survey.pdf

5. Young G, Rae M, Claxton G, Wager E, Amin K. How many people have enough money to afford private insurance cost sharing? Accessed April 9, 2024. https://www.healthsystemtracker.org/brief/many-households-do-not-have-enough-money-to-pay-cost-sharing-in-typical-private-health-plans/

6. Board of Governors of the Federal Reserve System. Economic well-being of U.S. households (SHED): dealing with unexpected expenses. Accessed April 9, 2024. https://www.federalreserve.gov/publications/2022-economic-well-being-of-us-households-in-2021-dealing-with-unexpected-expenses.htm

7. Chernew ME, Newhouse JP. What does the RAND Health Insurance Experiment tell us about the impact of patient cost sharing on health outcomes? *Am J Manag Care*. 2008;14(7):412-414.

8. Manning WG, Newhouse JP, Duan N, Keeler EB, Leibowitz A, Marquis MS. Health insurance and the demand for medical care: evidence from a randomized experiment. *Am Econ Rev*. 1987;77(3):251-277.

9. Haviland AM, Eisenberg MD, Mehrotra A, Huckfeldt PJ, Sood N. Do "consumer-directed" health plans bend the cost curve over time? *J Health Econ*. 2016;46:33-51. doi:10.1016/j.jhealeco.2016.01.001

10. Beeuwkes Buntin M, Haviland AM, McDevitt R, Sood N. Healthcare spending and preventive care in high-deductible and consumer-directed health plans. *Am J Manag Care*. 2011;17(3):222-230.

11. Gupta R, Yang L, Lewey J, Navathe AS, Groeneveld PW, Khatana SAM. Association of high-deductible health plans with health care use and costs for patients with cardiovascular disease. *J Am Heart Assoc*. 2023;12(19):e030730. doi:10.1161/JAHA.123.030730

12. Galbraith AA, Ross-Degnan D, Zhang F, et al. Controller medication use and exacerbations for children and adults with asthma in high-deductible health plans. *JAMA Pediatr*. 2021;175(8):807-816. doi:10.1001/jamapediatrics.2021.0747

13. Brot-Goldberg Z, Chandra A, Handel B, Kolstad J. What does a deductible do: the impact of cost-sharing on health care prices, quantities, and spending dynamics. *Q J Econ*. 2015;132(3):1261-1318. doi:10.1093/qje/qjx013

14. Buttorff C, Ruder T, Bauman M. Multiple chronic conditions in the United States. *RAND*. May 26, 2017. Accessed March 24, 2025. https://www.rand.org/pubs/tools/TL221.html

15. Sommers BD, Gawande AA, Baicker K. Health insurance coverage and health—what the recent evidence tells us. *N Engl J Med*. 2017;377(6):586-593. doi:10.1056/NEJMsb1706645

16. Wright A, Salazar A, Mirica M, Volk LA, Schiff GD. The invisible epidemic: neglected chronic disease management during COVID-19. *J Gen Intern Med*. 2020;35(9):2816-2817. doi:10.1007/s11606-020-06025-4

17. Xu W, Goldberg SI, Shubina M, Turchin A. Optimal systolic blood pressure target, time to intensification, and time to follow-up in treatment of hypertension: population based retrospective cohort study. *BMJ*. 2015;350:h158. doi:10.1136/bmj.h158

18. Fronstin P, Roebuck MC. Persistency in high-cost health care claims: "it's where the spending is, stupid." Accessed March 24, 2025. https://www.ebri.org/docs/default-source/pbriefs/ebri_ib_493_highcostclaims-24oct19.pdf?sfvrsn=ced83c2f_6

19. Venkatesh AK, Janke AT, Shu-Xia L, et al. Emergency department utilization for emergency conditions during COVID-19. *Ann Emerg Med*. 2021;78(1):84-91. doi:10.1016/j.annemergmed.2021.01.011

20. Weiner JP, Bandeian S, Hatef E, Lans D, Liu A, Lemke KW. In-person and telehealth ambulatory contacts and costs in a large US insured cohort before and during the COVID-19 pandemic. *JAMA Netw Open*. 2021;4(3):e212618. doi:10.1001/jamanetworkopen.2021.2618

21. Internal Revenue Service. *Health Savings Accounts and Other Tax-Favored Health Plans*. Internal Revenue Service; 2017.

22. American Diabetes Association. Standards of medical care in diabetes—2015. *Diabetes Care*. 2015;38(suppl 1, theme issue):S1-S93.

23. Fihn SD, Gardin JM, Abrams J, et al; American College of Cardiology Foundation/American Heart Association Task Force. 2012 ACCF/AHA/ACP/AATS/PCNA/SCAI/STS guideline for the diagnosis and management of patients with stable ischemic heart disease: a report of the American College of Cardiology Foundation/American Heart Association task force on practice guidelines, and the American College of Physicians, American Association for Thoracic Surgery, Preventive Cardiovascular Nurses Association, Society for Cardiovascular Angiography and Interventions, and Society of Thoracic Surgeons. *Circulation*. 2012;126(25):e354-e471.

24. Gelenberg AJ, Freeman MP, Markowitz JC, et al. *Practice Guideline for the Treatment of Patients With Major Depressive Disorder*. American Psychiatric Association; 2010.

25. Vestbo J, Hurd SS, Agustí AG, et al. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease: GOLD executive summary. *Am J Respir Crit Care Med*. 2013;187(4):347-365. doi:10.1164/rccm.201204-0596PP

26. National Asthma Education and Prevention Program, Third Expert Panel on the Diagnosis and Management of Asthma. *Expert Panel Report 3: Guidelines for the Diagnosis and Management of Asthma*. National Heart, Lung, and Blood Institute; 2007.

27. National Clinical Guideline Centre (UK). *Hypertension: The Clinical Management of Primary Hypertension in Adults: Update of Clinical Guidelines 18 and 34*. Royal College of Physicians; 2011.

28. National High Blood Pressure Education Program. *The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure*. National Heart, Lung, and Blood Institute; 2004.

29. Yancy CW, Jessup M, Bozkurt B, et al; Writing Committee Members; American College of Cardiology Foundation/American Heart Association Task Force on Practice Guidelines. 2013 ACCF/AHA guideline for the management of heart failure: a report of the American College of Cardiology Foundation/American Heart Association Task Force on practice guidelines. *Circulation*. 2013;128(16):e240-e327. doi:10.1161/CIR.0b013e31829e8776

30. Angrist JD. Estimation of limited dependent variable models with dummy endogenous regressors. *J Bus Econ Stat*. 2012;19(1):2-28. doi:10.1198/07350010152472571

31. Agniel D, Haviland A, Shekelle P, Scherling A, Damberg CL. Distinguishing high-performing health systems using a composite of publicly reported measures of ambulatory care. *Ann Intern Med*. 2020;173(10):791-798. doi:10.7326/M20-0718

32. Kara P, Valentin JB, Mainz J, Johnsen SP. Composite measures of quality of health care: evidence mapping of methodology and reporting. *PLoS One*. 2022;17(5):e0268320. doi:10.1371/journal.pone.0268320

33. Loucks J, Zuckerman AD, Berni A, Saulles A, Thomas G, Alonzo A. Proportion of days covered as a measure of medication adherence. *Am J Health Syst Pharm*. 2022;79(6):492-496. doi:10.1093/ajhp/zxab392

34. Pharmacy Quality Alliance. PQA's specialty core measure set. Accessed April 18, 2024. https://www.pqaalliance.org/assets/Measures/PQA_Specialty_Measure_Core_Set.pdf

35. Seabury S, Dougherty S, Sullivan J. Medication adherence as a measure of the quality of care provided by physicians. *SSRN*. Preprint posted online November 2, 2017. doi:10.2139/ssrn.3064247

36. Greene J, Hibbard J, Murray JF, Teutsch SM, Berger ML. The impact of consumer-directed health plans on prescription drug use. *Health Aff (Millwood)*. 2008;27(4):1111-1119. doi:10.1377/hlthaff.27.4.1111

37. Graves AJ, Kozhimannil KB, Kleinman KP, Wharam JF. The association between high-deductible health plan transition and contraception and birth rates. *Health Serv Res*. 2016;51(1):187-204. doi:10.1111/1475-6773.12326

38. Ai C, Norton EC. Interaction terms in logit and probit models. *Econ Lett*. 2003;80(1). doi:10.1016/S0165-1765(03)00032-6

39. Hainmueller J. Entropy balancing for causal effects: a multivariate reweighting method to produce balanced samples in observational studies. *Polit Anal*. 2012;20(1):25-46. doi:10.1093/pan/mpr025

40. Wharam JF, Wallace J, Zhang F, et al. Association between switching to a high-deductible health plan and major cardiovascular outcomes. *JAMA Netw Open*. 2020;3(7):e208939. doi:10.1001/jamanetworkopen.2020.8939

41. Rowe JWBST, Brown-Stevenson T, Downey RL, Newhouse JP. The effect of consumer-directed health plans on the use of preventive and chronic illness services. *Health Aff (Millwood)*. 2008;27(1):113-120. doi:10.1377/hlthaff.27.1.113

42. Lewey J, Gagne JJ, Franklin J, Lauffenburger JC, Brill G, Choudhry NK. Impact of high deductible health plans on cardiovascular medication adherence and health disparities. *Circ Cardiovasc Qual Outcomes*. 2018;11(11):e004632. doi:10.1161/CIRCOUTCOMES.118.004632

43. Huckfeldt PJHA, Mehotra A, Wagner Z, Sood N. Patient responses to incentives in consumer-directed health plans: evidence from pharmaceuticals. Accessed March 24, 2025. https://www.nber.org/papers/w20927

44. Chou SC, Hong AS, Weiner SG, Wharam JF. Impact of high-deductible health plans on emergency department patients with nonspecific chest pain and their subsequent care. *Circulation*. 2021;144(5):336-349. doi:10.1161/CIRCULATIONAHA.120.052501

45. Sommers BD, Blendon RJ, Orav EJ, Epstein AM. Changes in utilization and health among low-income adults after Medicaid expansion or expanded private insurance. *JAMA Intern Med*. 2016;176(10):1501-1509. doi:10.1001/jamainternmed.2016.4419

46. Chandra A, Flack E, Obermeyer Z. The health costs of cost-sharing. Accessed March 24, 2025. https://www.nber.org/papers/w28439

47. Reddy SR, Ross-Degnan D, Zaslavsky AM, Soumerai SB, Wharam JF. Impact of a high-deductible health plan on outpatient visits and associated diagnostic tests. *Med Care*. 2014;52(1):86-92. doi:10.1097/MLR.0000000000000008

48. Wharam JF, Zhang F, Eggleston EM, Lu CY, Soumerai S, Ross-Degnan D. Diabetes outpatient care and acute complications before and after high-deductible insurance enrollment: a Natural Experiment for Translation in Diabetes (NEXT-D) Study. *JAMA Intern Med*. 2017;177(3):358-368. doi:10.1001/jamainternmed.2016.8411

49. Center for Value-Based Insurance Design. HSA-eligible high-deductible health plans. Accessed March 24, 2025. https://vbidcenter.org/initiatives/hsa-high-deductible-health-plans-2/

SUPPLEMENT 1.

eMethods.

eTable 1. *ICD-10* Codes Used to Identify Chronic Conditions

eTable 2. Recommended Medical Care: 2 Conditions

eTable 3. CPT Codes Used to Assess Office Visits for Chronic Illness Management

eTable 4. Full Model Results, Recommended Medical Care

eTable 5. Model Results, Operationalized Using Instrumented Difference-in-difference Models with Entropy Balancing Weights, Excluding 4 Care Recommendations With Grade C or E Evidence

eTable 6. Main Results From Sensitivity Analyses, Models 1A-1E

SUPPLEMENT 2.

Data Sharing Statement

Dental Coverage Through the Marketplace: A 2024 Snapshot of Enrollment, Market Participation and Premiums

GEORGETOWN UNIVERSITY McCourt School of Public Policy
CENTER ON HEALTH INSURANCE REFORMS

May 2025

By Zeynep Celik, Kevin Lucia, JoAnn Volk, Liz Bielic, and Madeline McBride

Dental insurance plays a critical role in access to care, promoting good oral health and overall health outcomes. Without access to dental care, individuals face a higher risk of serious complications in their physical and mental health and their ability to maintain and secure employment. However, cost barriers to dental coverage disproportionately impact low-income adults, preventing them from receiving treatment and leading to unmet dental care needs.

The Affordable Care Act (ACA) expanded access to private dental coverage by including pediatric dental services as an essential health benefit (EHB) that insurers must cover in the plans sold to individuals and small businesses. The Notice of Benefit and Payment Parameters (NBPP) for 2025 includes new flexibility for states to include adult dental services as an EHB starting in 2027. Currently, routine adult dental coverage through the ACA Marketplaces is typically only available through stand-alone dental plans (SADPs). However, because adult dental services are not classified as an EHB and SADPs are not covered by the same consumer protections as qualified health plans (QHPs), such as benefit standards and cost-sharing requirements, there is significant variation in plan offerings. Researchers have found that, while plans usually provide essential preventive and diagnostic care, they may come with limited benefits focused on major services such as crowns and surgeries. In addition, these plans come with annual or lifetime dollar limits on some benefits and a lack of annual out-of-pocket maximums, creating barriers to care due to cost for many adults. For example, in California, SADPs have an annual benefit maximum of $1,500 and some plans have 6 month waiting periods and lifetime limits on dental services such as root canals. Additionally, even though plans in California must have standardized cost-sharing for the benefits they cover, plans can opt not to cover some preventive services.

As state policymakers consider whether or not to include routine dental services as an EHB, it is important to understand the current marketplace for SADPs offered through the ACA Marketplaces. Leveraging CMS Public Use Files, this brief provides a state-level snapshot of SADP enrollment trends in state-based Marketplaces (SBMs) and Federally Facilitated Marketplaces (FFMs).* Additionally, it examines marketplace participation and premiums for SADPs offered through the FFMs, providing insights into the accessibility and affordability of adult dental coverage.

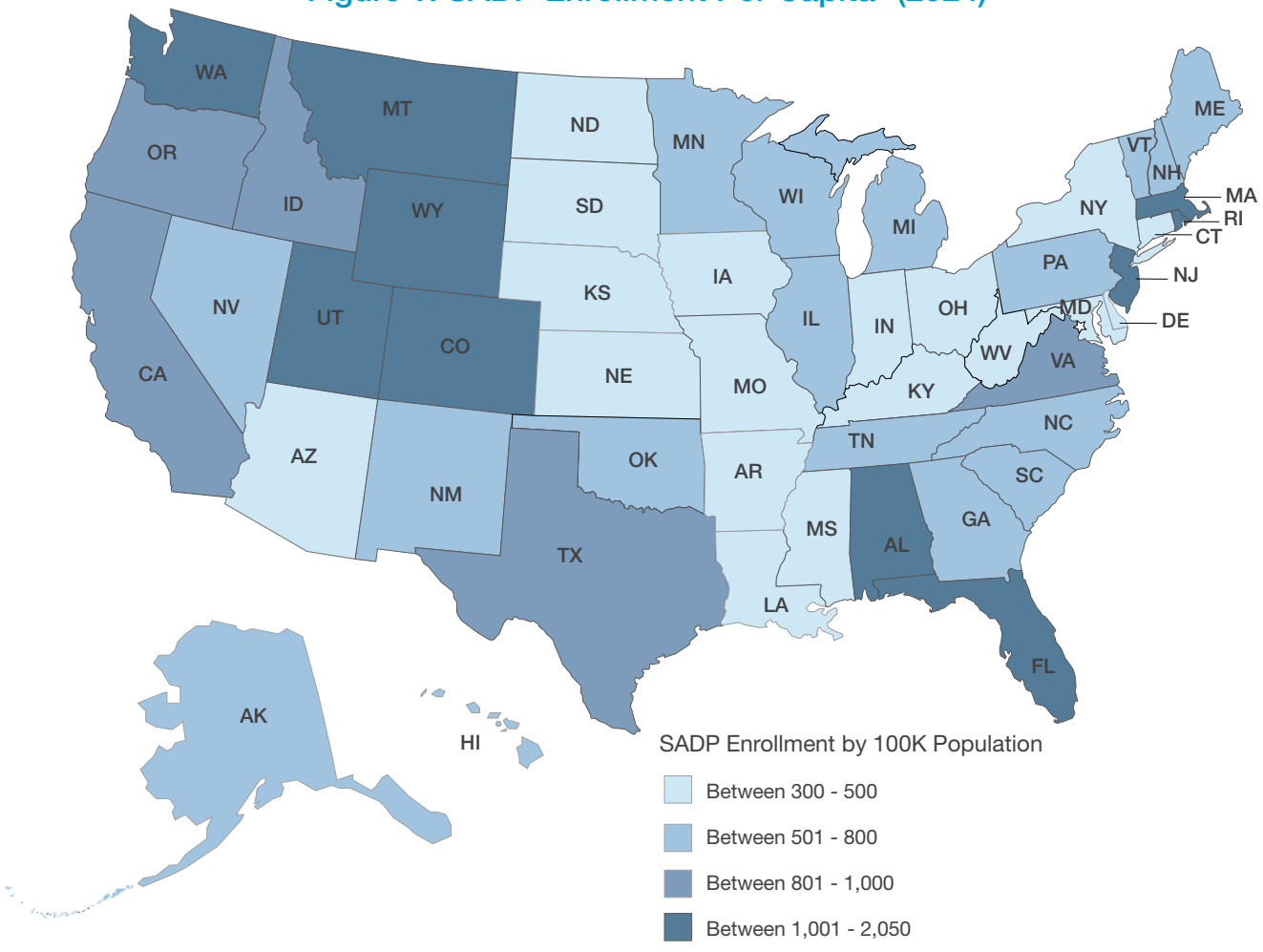
* Note: This analysis focuses on SADPs rather than QHPs with embedded dental coverage. CMS data do not consistently indicate which QHPs include embedded adult dental benefits. While a limited subset of plans includes this information, plans with embedded dental coverage accounted for only a small share of total QHP enrollment in the subset. Due to the lack of comprehensive data, this analysis does not distinguish between QHPs with and without embedded dental.

2024 Data Snapshot

Enrollment

In 2024, approximately 2.5 million adults and children were enrolled in SADPs through the ACA Marketplaces. California had the highest enrollment, with 350,000 enrollees. However, when adjusted for population size, Massachusetts, Rhode Island, and New Jersey, all SBMs, led enrollment nationally, with over 1,000 SADP enrollees per 100,000 residents (see Figure 1). On a national level, average SADP enrollment stood at 712 enrollees per 100,000 residents (about 0.7 percent), a figure notably lower than qualified health plan (QHP) enrollment, which reached 5,252 per 100,000 residents (about 5 percent).

Figure 1. SADP Enrollment Per Capita* (2024)



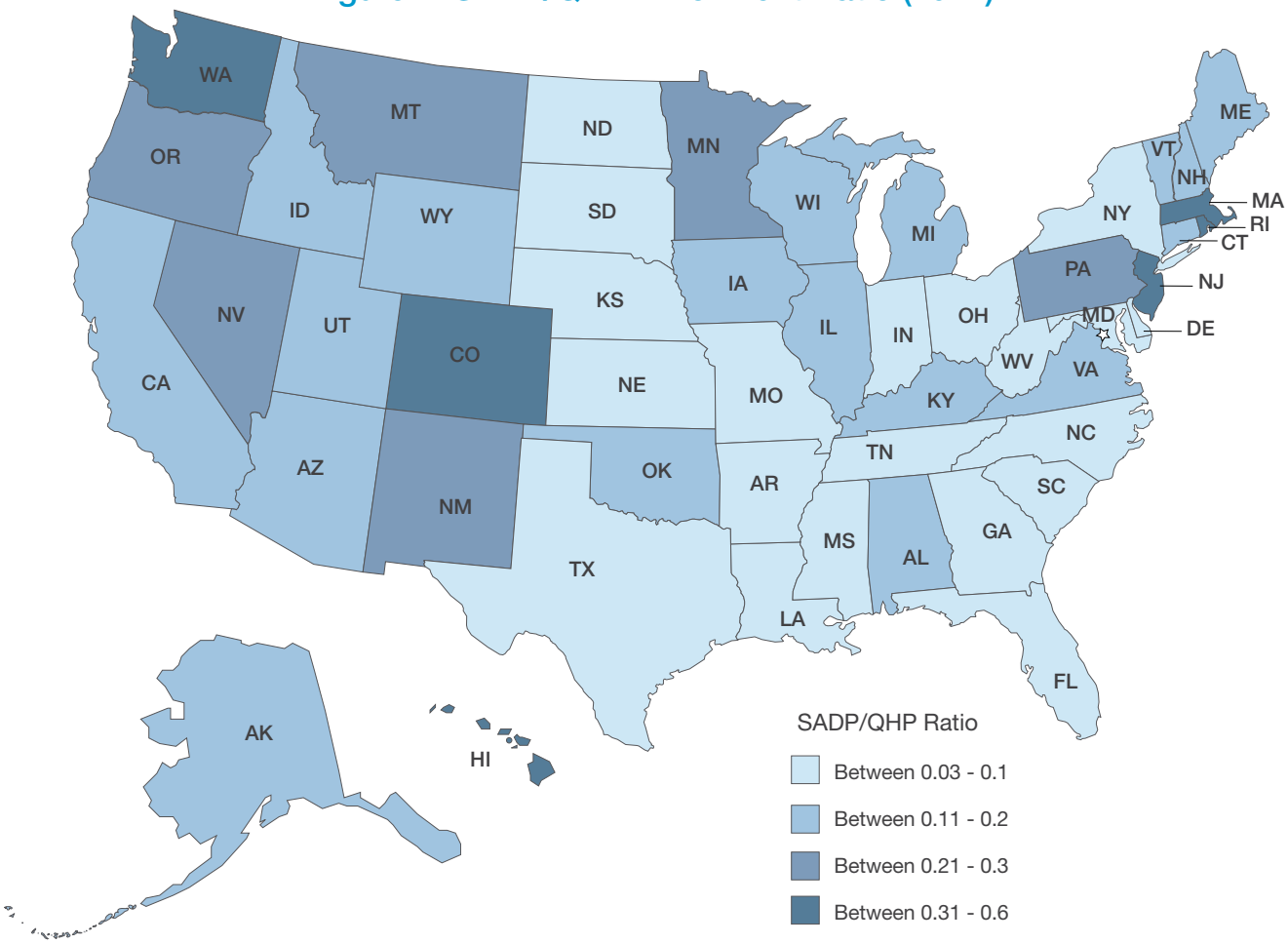
Source: Authors' analysis of CMS data

* Represents total state population, although not all residents may qualify for an SADP

The differences in SADP enrollment relative to QHP enrollment becomes more evident when we compare the ratio of SADP/QHP enrollment (see Figure 2). Nationally, for every 100 people enrolled in a QHP, only 16 people are enrolled in an SADP, resulting in an SADP/QHP ratio of 0.16, a figure that has remained constant since 2020.* Some states stand out from the national trend: Rhode Island and Massachusetts, both SBMs, have the highest SADP/QHP enrollment ratios at 0.56 and 0.47, respectively, indicating a much higher uptake rate of dental coverage within their overall marketplace enrollment when compared to other states. These enrollment data allow us to observe trends in total enrollment, but we are unable to see the overlap of individuals who have a QHP who are also enrolled in an SADP. While the marketplaces in FFM states require enrollment in a QHP to purchase an SADP, some SBM states allow individuals to purchase an SADP without a QHP.

* Note: QHP enrollment data includes plans with and without embedded dental benefits. As noted above, because CMS data do not consistently identify which plans include embedded adult dental coverage, this analysis does not distinguish between QHPs with and without embedded dental.

Figure 2. SADP/QHP Enrollment Ratio (2024)



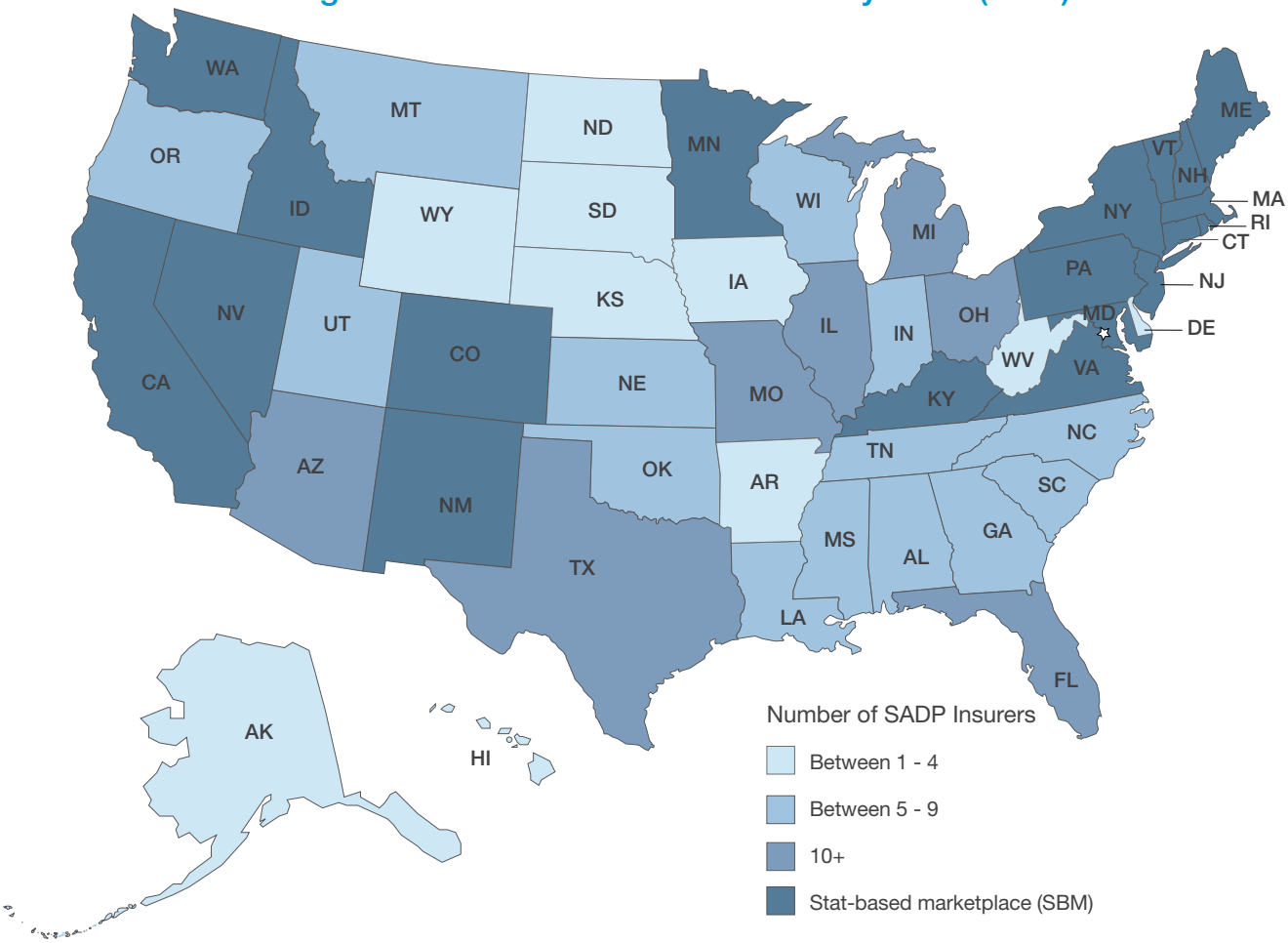
Source: Authors' analysis of CMS data

SADP Insurer Market Participation

The SADP market in FFM states varies in terms of insurer participation. On average, FFM states have six insurers offering SADPs (see Figure 3), though insurer activity may be limited to certain counties within each state. Seven FFM states had more than 10 insurers, with Ohio, Texas, and Illinois leading at 13 insurers each. West Virginia and South Dakota each only had one insurer offering SADPs in the 2024 plan year. Pediatric dental may be embedded in a QHP, offering additional options for marketplace enrollees to obtain coverage. However, research has shown that while 87% of FFM states offer QHPs with embedded pediatric or adult dental coverage, choice is limited, with an average of only two QHP insurers offering these embedded benefits. In states where there are fewer QHPs with embedded dental and fewer SADPs, consumers have less choice in how to obtain their pediatric dental coverage. In addition, where there is limited or no competition among SADP plans, such as in South Dakota and West Virginia, it may lead to higher premiums.

Despite the variation in the number of SADP insurers, every FFM state had at least one nationally active insurer (e.g., an insurer operating across 10 or more states). The market is primarily dominated by BEST Life, which operated in 26 FFM states, and Guardian, which was active in 21. Together, these insurers had a presence in 27 of the 32 FFM states, shaping much of the dental insurance landscape. The five remaining FFM states where neither BEST Life nor Guardian operates still had SADPs available through other national insurers, such as Delta Dental and Anthem Blue Cross Blue Shield.

Figure 3. Number of SADP Insurers by State (2024)



Source: Authors' analysis of CMS data

Premiums

Unlike QHPs, SADPs are not required to meet specific standards in regard to actuarial value, metal levels, and minimum benefit requirements. This leads to significant variation between SADPs regarding covered benefits, cost-sharing structures, networks and, ultimately, premiums. According to CMS data, in FFM states, the average monthly premium for an SADP was $29.92 for children and $25.22 for adults, meaning adults paid about 16% less on average than children. Adult SADP premiums were higher than pediatric premiums in only a few rating areas within 5 states: Arkansas, Delaware, Oregon, Utah, and West Virginia. The difference in premiums between adult and pediatric coverage may be attributed to the fact that pediatric dental is subject to EHB requirements that impose enhanced standards for benefits and cost sharing.

Alaska had the highest average adult SADP premium at $37.07, while Tennessee had the lowest, at $17.66. For children's coverage, North Dakota had the highest average premium at $48.98, whereas West Virginia had the lowest, at $17.33.

These costs appear low compared to the average benchmark QHP premium of $497 in 2024. However, advanced premium tax credits (APTCs) can lower QHP premiums to $0. To the extent there is any unused PTC, it can be applied to the portion of SADP premiums that are associated with pediatric coverage, but adults are left to bear the full cost of their SADP premiums, regardless of income.

Changes in Enrollment, Premiums, and Market Participation Since 2020

CMS data show that enrollment in both SADPs and QHPs has grown significantly since 2020. However, according to the 2024 enrollment data presented in the CMS Public Use Files, QHP enrollment has grown twice as much as SADP enrollment since 2020 (88% to 46%, respectively). The dramatic increase in enrollment occurred at a time when premium subsidies were made more generous under the American Rescue Plan Act (ARPA) in 2021 and extended through 2025 under the Inflation Reduction Act (IRA) in 2022. While income-specific enrollment data for SADPs is unavailable, the enhanced tax credits allowed low-income individuals to enroll in QHPs with $0 premiums while also increasing affordability for most other enrollees, leaving greater financial assistance remaining for the pediatric portion of an SADP.

State-level data highlight differences in SADP enrollment growth. SBM states have seen a 68% increase in SADP enrollment, compared to 32% in FFM states. Notably, five SBM states—New Jersey, Colorado, Minnesota, Connecticut, and Massachusetts—have more than doubled their SADP enrollment since 2020. Interestingly, QHP enrollment in these 5 states grew at a slower pace, with increases up to 60%.

Not all states have experienced growth in SADP enrollment. Maine, Nebraska, Kentucky, and Missouri all reported lower enrollment in 2024 compared to 2020. Notably, Maine, Nebraska, and Missouri expanded Medicaid during or after the pandemic, likely shifting some individuals from Marketplace plans to Medicaid. However, because only Maine offered extensive adult dental benefits through Medicaid, adults in other states might have seen changes in their dental coverage when moving from Marketplace coverage to Medicaid.

In contrast, SADP premiums for adults and children have remained relatively stable since 2020, as did the average number of insurers in FFM states, which increased moderately from five to six.

Looking forward

Despite the significant growth in QHP enrollment, SADP enrollment remains much lower, indicating potential barriers to expanding adult dental coverage. The difference may reflect not only cost concerns, but also limitations in the adequacy of available benefits. This 2024 data snapshot of Marketplace trends provides insights into the current landscape of SADPs, but future enrollment patterns may shift. The lack of subsidies for adult coverage under SADPs may well pose a financial barrier, as adults are required to cover the full SADP premium. Enhanced subsidies have allowed individuals to purchase QHP plans with $0 premiums, making it more affordable to purchase an SADP for children. However, it is unclear if SADP enrollment will continue to grow if enhanced premium subsidies are allowed to lapse at the end of 2025.

While overall enrollment trends highlight broad challenges, changes in state-specific policies may influence SADP enrollment rates. Unlike FFM states that require enrollment in a QHP in order to purchase an SADP, SBM states may opt to allow SADP enrollment without QHP enrollment, a difference that may increase enrollment and provide adults enrolled in Medicaid, Medicare, or employer plans additional dental coverage options. Second, Medicaid expansion may shape enrollment trends. States that expand Medicaid may see individuals shift from Marketplace plans to Medicaid, although whether those individuals gain access to adult dental services will depend on whether the state requires Medicaid coverage of those services.

As states continue to evaluate policies to improve dental coverage, policymakers will need to assess how effectively those policies tackle ongoing affordability and access challenges.

About the Authors and Acknowledgements

Zeynep Celik is a Graduate Research Assistant at the Center on Health Insurance Reforms. Kevin Lucia and JoAnn Volk are Research Professors at CHIR. Liz Bielic and Madeline McBride are Graduate Research Assistants at CHIR.

The authors would like to thank Linda Blumberg, Colin Reusch, and Cynthia Cox for their thoughtful review and comments. Design and layout provided by Nancy Magill.

The authors' time researching and drafting this analysis was supported by the George E. Richmond Foundation.

About Georgetown University Center on Health Insurance Reforms

The Center on Health Insurance Reforms is an independent and trusted policy and research center at Georgetown University's McCourt School of Public Policy. Our team of nationally recognized experts collaborates with policymakers and others who have a stake in health care to make health insurance work for everyone. For more information, visit www.chir.georgetown.edu.

2025 Budget Stakes: Working Families Could Lose Vital Health, Food, and Other Assistance

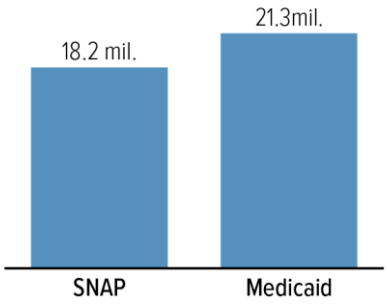
Center on Budget and Policy Priorities

Proposals that Congress could enact this year, including through fast-track "reconciliation" legislation, would take away health coverage and food assistance from working families and individuals, significantly raising their costs for buying groceries and seeing a doctor. This is in addition to those who aren't employed and could lose vital health and food assistance, including when they are in between jobs, have a disability or health condition, or are caring for a sick family member.

Medicaid and SNAP Provide Essential Support to Workers

Some of the most common occupations in the country, including cooks, cashiers, and home health and personal care aides, feature low pay, unpredictable scheduling, and few benefits. Many workers in these jobs, in which Black and Latino workers are overrepresented, use Medicaid or the Affordable Care Act (ACA) marketplace for their health care coverage, the Supplemental Nutrition Assistance Program (SNAP) to help them buy food, and other programs for help with additional critical support, including child care.

Many Millions of Workers Depend on Medicaid and SNAP



SNAP = SNAP figures are for workers in the past year in households that participated in SNAP in the past year.

Medicaid = Medicaid figures are for Medicaid or Children's Health Insurance Program enrollees who worked in the past year.

Source: Based on CBPP estimates using 2023 data from the Census Bureau's American Community Survey

CENTER ON BUDGET AND POLICY PRIORITIES | CBPP.ORG

Roughly 18.2 million people who worked during 2023 lived in households that received SNAP benefits. Approximately 21.3 million Medicaid enrollees worked during 2023 and many millions more workers received enhanced premium tax credits to help pay for ACA marketplace coverage. Taking away these supports would strain their household budgets and could make keeping or getting a job more difficult, such as when someone loses the ability to properly treat a health condition like diabetes or depression.

Workers Could Lose Assistance Through Broad Cuts to Medicaid or SNAP

Significant changes in the funding structures of Medicaid or SNAP, such as reducing or capping the amount of federal Medicaid matching payments provided to states or requiring states to absorb new costs in SNAP, would directly threaten health coverage and food assistance to working families and individuals. Many states would likely respond to large cost shifts by reducing assistance or eliminating coverage for certain groups of people, including low-paid workers and their families. Some states could even decide that with limited resources they need to focus on the lowest-income families, meaning families with earnings losing even more than others.

Many Specific Policies Threaten Assistance for Workers and Their Families

Burdening workers with red tape. Imposing new rigid work requirements for Medicaid or expanding already harsh work requirements for SNAP would threaten to take away health and food assistance not only from those out of work for long periods and from those who are between jobs, but also from those who are working. Low-paid work is often unpredictable, and workers sometimes are not assigned enough hours to consistently meet the minimum required hours under work requirements. Plus, burdensome and confusing work-reporting requirements trip up working people with administrative burden and red tape. That's one of the reasons that studies have generally found that Medicaid and SNAP work requirements don't increase employment but do lead to people losing assistance.

Ending food assistance for working families with limited earnings or savings. A long-time state option known as broad-based categorical eligibility lets states phase out SNAP benefits more gradually as incomes rise so households can take slightly higher-paying jobs and still benefit from SNAP. It also lets states adopt less-restrictive asset tests so families, older adults, and people with a disability can have modest savings without losing SNAP. When President Trump proposed eliminating this option in his first term, his Administration estimated it would terminate SNAP for more than 3 million people, and even more could be impacted now. Even if federal legislation does not end this policy, in the face of large cost shifts to states, many could end the practice, creating new benefit cliffs and harming working families.

Undermining Medicaid expansion. Millions of low-paid workers became eligible for Medicaid through the ACA's expansion of Medicaid to cover more low-income adults. The expansion has increased access to essential health care services for people who previously would have been ineligible for Medicaid and don't have access to job-based insurance. Cutting federal funding for expansion coverage would lead many states to drop or cut back on the expansion, leaving many low-paid workers with higher out-of-pocket costs, fewer choices in doctors, or no access at all to affordable health care coverage.

Raising costs for working people enrolled in marketplace coverage. More than 24 million people, the vast majority of whom have earnings from employment, are paying lower premiums for private health coverage they bought in the ACA marketplaces because of improvements to premium tax credits in place since 2021. If Congress lets these enhanced credits expire at the end of 2025, nearly all marketplace enrollees, in every state, will face significantly higher premium costs. A typical couple making $42,000, for example, will face a $1,550 annual increase. Among those who would be most hurt by this expiration are self-employed workers and small business owners (who made up 28 percent of all marketplace enrollees in 2022), and Black and Latino workers.

Reducing access to child care. Nearly 40,000 children would lose access to child care under proposals to cut the Temporary Assistance for Needy Families program by 10 percent and to completely eliminate the Social Services Block Grant, according to a recent report. While both programs fund various services and assistance for low-income and disadvantaged people, child care represents one of their highest expenditures. The lack of quality, accessible, and affordable child care can be a major barrier to employment, according to numerous studies.

Alternative Path Can Help Workers Succeed

The extreme agenda represented by proposals like these, which would make millions of working people worse off while extending and expanding tax breaks for wealthy households and businesses, is the wrong direction for our nation. A much better path would be to help workers by expanding the Earned Income Tax Credit and the Child Tax Credit, increasing access to child care, and raising the minimum wage.

April 28, 2025

CHCF Fact Sheet

Data Exchange and the Need for Enduring Leadership: Why a strong governing board is needed to ensure all Californians benefit from a connected health system.

Improve Care and Cut Costs Through the Seamless, Statewide Exchange of Health Data

Every Californian should have their complete health information available to their care team when and where it's needed. Seamless data exchange would connect physical health, behavioral health, and social services data to enable whole-person care and save lives.

Empowered with real-time access to data, providers can eliminate redundant tests and appointments for patients, avoid unnecessary hospitalizations and readmissions, and deliver more effective care — improving outcomes and lowering costs while protecting privacy and building trust.

The Data Exchange Framework: A Major Step Forward

The state has made a significant investment in getting where we need to go with the Data Exchange Framework (DxF) — a historic statewide initiative, enacted into law in 2021, to expand the exchange of health and social services information among health care entities, government agencies, and social service organizations. The DxF requires health care organizations to electronically share health and social services information to provide treatment and care coordination and support public health.

As of February 2025, nearly 4,500 health care organizations have signed the state's first-ever statewide Data Sharing Agreement — including more than 400 hospitals and other acute care providers, nearly 2,000 ambulatory care providers, and more than 400 community-based organizations.

The Ongoing Challenges Facing California's Data Exchange Systems

Data exchange is critical to the success of a range of state programs — from improving homelessness interventions to bringing down the cost of care by eliminating repetitive medical tests and patient visits.

Without strong governance, Californians will continue to face the same obstacles they face today when they seek care:

- Siloed information systems that disproportionately harm rural and underserved communities
- Disconnected physical health, behavioral health, and social services data
- Lack of state accountability for health care outcomes
- Duplicative services and tests that drive up health care costs
- Preventable medical errors due to incomplete information

Next Key Step: Enduring Leadership and Accountability

California has an opportunity to establish a strong governance body, embedded in statute, to guide policy decisions and oversee the Data Exchange Framework into the future. An effective decisionmaking and regulatory body is necessary to expand participation, ensure accountability, and drive ongoing progress toward meaningful data exchange in California.

Strong governance has proved critical to successful data exchange in Michigan, Maryland, and New York. These states have created boards of directors to manage statewide data exchanges with credible oversight, accountability, and incentives for providers to participate.

While the California Health and Human Services Agency (CalHHS) Center for Data Insights and Innovation is leading implementation, the state has no mechanism to compel participation, resolve disputes, or approve new data exchange requirements. When organizations fail to comply with the DxF, the state has no clear recourse.

By January 2026, all health care providers will be required to engage in the secure, timely exchange of health care data.

Policy Considerations: Principles for Leadership, Accountability, and Governance

California has a history of establishing governance structures for entities such as the Office of Health Care Affordability and Covered California to drive quality and protect the public's interests. The state needs an effective, statutory governance body for health data exchange that will ensure all Californians benefit from connected health information systems.

These principles should guide the next steps policymakers take on this critical issue:

1. Independent, transparent governance is essential for accountability and affordability.

California needs a governance board, comprised of appointed representatives with clear statutory authority to oversee the state's Data Exchange Framework. This is key to ensuring broad participation, responding to stakeholder and consumer issues, adapting to federal changes, and addressing rising costs. Californians will also benefit from a public, independent oversight body free from conflicts of interest.

2. Multistakeholder participation is vital to promote data exchange that supports whole-person care.

Governance should reflect voices from across health and human services. Safe, secure health information exchange is foundational to supporting individual and population health and well-being. This is especially vital in coordinating care for people transitioning from incarceration and in managing the complex health needs of people experiencing homelessness across housing, physical and mental health, and human services.

3. Enforcement authority is key to ensuring data exchange delivers better health outcomes.

While the state has laid the foundation, California still lacks fully functioning cross-sector data exchange that gives every provider the whole picture of their patients' medical histories. Many providers still have not signed the agreement, and disparities persist in who participates. A governance body must be able to support progress, build trust, and ensure transparency through enforcement tools, participation incentives, and public reporting.

Learn More:

- Data Exchange Framework (CalHHS)
- Executive Summary: California's Health and Human Services Data Exchange Framework (CalHHS)
- Data Exchange Explainer: Governance Structures for Statewide Data Exchange in California (CHCF)
- CalAIM and Data Exchange (CHCF)
- Homelessness and Data Exchange (CHCF)
- Health Care Costs and Data Exchange (CHCF)

About the Foundation

The California Health Care Foundation (CHCF) is an independent, nonprofit philanthropy that works to improve the health care system so that all Californians have the care they need. We focus especially on making sure the system works for Californians with low incomes and for communities who have traditionally faced the greatest barriers to care. We partner with leaders across the health care safety net to ensure they have the data and resources to make care more just and to drive improvement in a complex system.

CHCF informs policymakers and industry leaders, invests in ideas and innovations, and connects with changemakers to create a more responsive, patient-centered health care system.

Report Fraud, Waste, and Abuse

OIG Hotline Operations accepts tips and complaints from all sources about potential fraud, waste, abuse, and mismanagement in HHS programs. Hotline tips are incredibly valuable, and we appreciate your efforts to help us stamp out fraud, waste, and abuse.

TIPS.HHS.GOV

Phone: 1-800-447-8477

TTY: 1-800-377-4950

Who Can Report?

Anyone who suspects fraud, waste, and abuse should report their concerns to the OIG Hotline. OIG addresses complaints about misconduct and mismanagement in HHS programs, fraudulent claims submitted to Federal health care programs such as Medicare, abuse or neglect in nursing homes, and many more. Learn more about complaints OIG investigates.

How Does It Help?

Every complaint helps OIG carry out its mission of overseeing HHS programs and protecting the individuals they serve. By reporting your concerns to the OIG Hotline, you help us safeguard taxpayer dollars and ensure the success of our oversight efforts.

Who Is Protected?

Anyone may request confidentiality. The Privacy Act, the Inspector General Act of 1978, and other applicable laws protect complainants. The Inspector General Act states that the Inspector General shall not disclose the identity of an HHS employee who reports an allegation or provides information without the employee's consent, unless the Inspector General determines that disclosure is unavoidable during the investigation. By law, Federal employees may not take or threaten to take a personnel action because of whistleblowing or the exercise of a lawful appeal, complaint, or grievance right. Non-HHS employees who report allegations may also specifically request confidentiality.

Stay In Touch

Follow HHS-OIG for up to date news and publications.

 OIGatHHS

 HHS Office of Inspector General

Subscribe To Our Newsletter

OIG.HHS.GOV

Contact Us

For specific contact information, please visit us online.

U.S. Department of Health and Human Services
Office of Inspector General
Public Affairs
330 Independence Ave., SW
Washington, DC 20201

Email: Public.Affairs@oig.hhs.gov

Topline

2024 KFF Women's Health Survey

KFF

2024 KFF Women's Health Survey
Methodology and Topline

METHODOLOGY

The 2024 KFF Women's Health Survey was designed and analyzed by women's health researchers at KFF. The survey was conducted from May 13 - June 18, 2024, online and by telephone among a nationally representative sample of 6,246 adults ages 18 to 64, including 3,901 women ages 18 to 49. Women include anyone who selected woman as their gender (n = 3,867) or who said they were non-binary (n = 26), transgender (n = 4), or another gender (n = 3) and chose to answer the female set of questions with regard to sexual and reproductive health. The project includes oversamples of women ages 18 to 49 in Arizona (n = 298) and Florida (n = 512). Sampling, data collection, weighting, tabulation, and IRB approval by the University of Southern Maine's Collaborative Institutional Review Board were managed by SSRS of Glenn Mills, Pennsylvania in collaboration with women's health researchers at KFF.

Throughout the reports of findings, we refer to "women". This includes respondents who said their gender is "woman," plus those who said their gender is "transgender," or "non-binary," or another gender and that they prefer to answer the survey's set of questions for females. We followed this approach to try to include as many people as possible but recognize that some people who need and seek abortion and other reproductive health care services may not be represented in the findings or identify as women.

The national sample as well as the samples in Arizona and Florida were drawn from two nationally representative probability-based panels: the SSRS Opinion Panel and the Ipsos KnowledgePanel. The SSRS Opinion Panel is a nationally representative probability-based panel where panel members are recruited randomly in one of two ways: (a) Through invitations mailed to respondents randomly sampled from an Address-Based Sample (ABS) provided by Marketing Systems Groups (MSG) through the U.S. Postal Service's Computerized Delivery Sequence (CDS); (b) from a dual-frame random digit dial (RDD) sample provided by MSG. For the online panel component, invitations were sent to panel members by email followed by up to five reminder emails. 5,276 panel members completed the survey online and panel members who do not use the internet were reached by phone (175). Another 970 respondents were reached online through the Ipsos Knowledge Panel to help reach adequate sample sizes among subgroups of interest, specifically women ages 18 to 49. This panel is recruited using ABS, based on a stratified sample from the CDS. The questionnaire was translated into Spanish, so respondents were able to complete the survey in English or Spanish.

The national sample was weighted by splitting the sample into three groups: [1] Women 18-49, [2] Women 50-64, and [3] Men 18-64 and each group was separately weighted to match known population parameters (see table below for weighting variables and sources). Weights within the three groups were then trimmed at the 4th and 96th percentiles, to ensure that individual respondents do not have too much influence on survey-derived estimates. After the weights were trimmed, the samples were combined, and the weights adjusted, so that the groups were represented in their proper proportions for a final combined, gender by age-adjusted weight. Lastly, two additional weights for interviews among women 18-49 in Arizona and Florida were calculated for analyses among those specific sub-groups. Each of the state-specific weights were trimmed at the 2nd and 98th percentiles, to ensure that individual respondents do not have too much influence on survey-derived estimates.

Dimensions	Source
Age	CPS 2023 ASEC
Education	
Age by Education	
Age by Gender	
Census Region	
Race/Ethnicity by Nativity	
Home Tenure	
Civic Engagement	CPS 2021 Volunteering & Civic Engagement Supplement
Internet Frequency	SSRS Opinion Panel Database 2024
Population Density	ACS 206-2020 5-year data
NEP Regions	Census Planning Database 2022
Voter Registration	CPS 2022 Voting & Registration Supplement

The margins of sampling error for the national sample of reproductive age women, Arizona reproductive age women, and Florida reproductive age women are plus or minus 2 percentage points, 8 percentage points, and 6 percentage points respectively. Numbers of respondents and margins of sampling error for key subgroups are shown in the table below. For results based on other subgroups, the margin of sampling error may be higher. Sampling error is only one of many potential sources of error and there may be other unmeasured error in this survey.

Group	N (unweighted)	M.O.S.E.
National Women Ages 18-64	5055	± 2 percentage points
White, non-Hispanic	2581	± 2 percentage points
Black, non-Hispanic	798	± 5 percentage points
Hispanic	1107	± 4 percentage points
Asian or Pacific Islander	330	± 7 percentage points
18-25	864	± 4 percentage points
26-35	1533	± 3 percentage points
36-49	1503	± 3 percentage points
50-64	1155	± 4 percentage points
<200% FPL	2034	± 3 percentage points
200%+ FPL	2718	± 2 percentage points
Private	2972	± 2 percentage points
Medicaid	1232	± 4 percentage points
Uninsured	430	± 6 percentage points
Urban/Suburban	4351	± 2 percentage points
Rural	643	± 5 percentage points
LGBT+	767	± 5 percentage points
Non-LGBT+	4190	± 2 percentage points
Identifies as disabled	682	± 5 percentage points
Identifies as having a mental health-related disability	302	± 7 percentage points

Group	N (unweighted)	M.O.S.E.
Identifies as having other disability	380	± 7 percentage points
Does not identify as disabled	4236	± 2 percentage points
Experienced IPV in the last 5 years	1138	± 4 percentage points
Has not experienced IPV in the last 5 years	3910	± 2 percentage points
National Women Ages 18-49	3901	± 2 percentage points
White, non-Hispanic	1856	± 3 percentage points
Black, non-Hispanic	603	± 5 percentage points
Hispanic	963	± 4 percentage points
Asian or Pacific Islander	286	± 7 percentage points
<200% FPL	1667	± 3 percentage points
200%+ FPL	1974	± 3 percentage points
Pro-life	1074	± 4 percentage points
Pro-choice	2815	± 2 percentage points
Republican/Republican-leaning	1076	± 4 percentage points
Democrat/Democrat-leaning	1803	± 3 percentage points
Urban/Suburban	3379	± 2 percentage points
Rural	473	± 6 percentage points
Lives in a state where abortion is banned	857	± 4 percentage points
Lives in a state with gestational limits between 6-12 weeks	819	± 5 percentage points
Lives in a state with gestational limits between 15-22 weeks	594	± 6 percentage points
Lives in a state where gestational limits are 24+ weeks or none	1631	± 3 percentage points
Lesbian or Gay	117	± 11 percentage points
Bisexual	471	± 6 percentage points
Non-LGB	3110	± 2 percentage points
Women who have not needed fertility services	3398	± 2 percentage points
Women who have needed fertility services	502	± 6 percentage points
Women who have needed fertility services <200% FPL	188	± 9 percentage points
Women who have needed fertility services 200%+ FPL	292	± 7 percentage points
Experienced IPV in the last 5 years	997	± 4 percentage points
Has not experienced IPV in the last 5 years	2898	± 2 percentage points
National Women Ages 18-49 with children ages 5 and under living in household	1053	± 4 percentage points
Lives in states where abortion is banned or with a 6-week gestational limit	445	± 6 percentage points
Lives in a state where gestational limits are 24+ weeks or none	390	± 6 percentage points
Arizona Women Ages 18-49	298	± 8 percentage points
<200% FPL	121	± 12 percentage points
200%+ FPL	162	± 10 percentage points
Florida Women Ages 18-49	512	± 6 percentage points
White, non-Hispanic	229	± 9 percentage points
Hispanic	155	± 11 percentage points

Group	N (unweighted)	M.O.S.E.
<200% FPL	182	± 10 percentage points
200%+ FPL	297	± 8 percentage points
Pro-life	143	± 12 percentage points
Pro-choice	366	± 7 percentage points
Republican/Republican-leaning	169	± 11 percentage points
Democrat/Democrat-leaning	231	± 9 percentage points

TOPLINE

***General Notes:**

Percentages may not add to 100%, or to subtotals indicated, due to rounding.

The "No answer" category includes refusals and those who volunteered "don't know" responses. The "Don't know" category is only shown in tables when it was an explicit response option (i.e., shown on web or read via telephone) for survey respondents.

Insufficient sample size for analysis is denoted with "n/a". The sample size itself is shown, but the percentages are not.

Questions are presented in the order asked; question numbers may not be sequential.

Question wording shown is for web mode; for some questions phone wording varied slightly.

AGE. What is your age?

AGE2. PHONE: Could you please tell me if you are (READ LIST)?
WEB: Are you:

Combined AGE and AGE2 variable

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
NET 18-49	**69**	**100**	**0**
18-29	25	37	0
30-39	24	35	0
F 40-44	11	15	0
45-49	9	13	0
50-64	31	0	100

GENDER.

What is your current gender? *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Man	<1	<1	0
Woman	99	99	100
Transgender	<1	<1	0
Non-binary	1	1	<1

Other	<1	<1	0
No answer	0	0	0

(Asked of those who chose Transgender, Non-binary, Other, Don't know, or refused to answer GENDER)
SEX.
Would you prefer to answer the female or male set of questions?

Gender/Sex COMBO TABLE

Based on total

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Male/Male set of questions	0	0	0
Female/Female set of questions	100	100	100

HEALTH.
In general, how would you describe your own health?

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
NET Excellent/very good	39	39	38
Excellent	9	9	7
Very good	30	30	31
Good	42	43	39
NET Fair/poor	20	18	23
Fair	17	16	21
Poor	2	2	2
No answer	0	0	0

Q2.
Do you have a regular doctor or health care provider you usually see when you are sick or need routine care, or not?

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	81	77	92

No	19	23	8
No answer	0	0	0

Q3A.
Today, what kind of place, if any, do you usually call or go to when you are sick or when you need advice about your health? Is it:

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
A private doctor's office or HMO	59	53	72
A neighborhood clinic or health center	25	28	17
A retail clinic at a place like CVS or Walgreens	3	4	2
An emergency room	5	6	2
A student clinic or school health center	1	1	0
Some other type of place[1]	4	4	4
Do not have a place to go	4	5	2
No answer	<1	<1	<1

Q17.
Do you have an ongoing health condition that needs to be monitored regularly or for which you need regular medical care or medication, or not?

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	50	42	66
No	50	58	34
No answer	<1	<1	0

(Asked of those who have an ongoing health condition that needs regular monitoring, medical care, or medication)
Q17a.
Does this condition keep you from participating fully in school, work, housework, or other activities, or not?

[1] Those who gave this response were asked to specify what place they call or go to when they are sick or need medical advice.

	Women 18-64 (n=2,421)	Women 18-49 (n=1,657)	Women 50-64 (n=764)
Yes	34	33	35
No	66	67	65
No answer	0	0	0

Q28.
Do you take any prescription medicines on a regular basis, [IF GENDER = 2 (WOMAN), INSERT: including birth control pills,] or not? This does not include over-the-counter medicines that you can buy without getting a prescription from a doctor.

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	61	56	73
No	39	44	27
No answer	<1	<1	0

Q7.
In the past 2 years, have you seen a doctor or health care provider:

a. For a visit in-person

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	93	92	96
No	7	8	4
No answer	0	0	0

b. Over the phone or virtually via video

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	48	48	48
No	52	52	52
No answer	<1	<1	1

Q7c.
In the past 2 years, have you seen a doctor or health care provider for a general check-up either in-person or virtually?

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	85	83	89
No	15	17	11
No answer	<1	<1	0

Q31.
When was the last time, if ever, you saw a doctor or nurse for a gynecological or OBGYN exam? These are exams that doctors do to check female reproductive organs, such as a Pap smear, breast exam, or pelvic exam.

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Within the past two years	62	64	59
Between two to three years ago	12	12	13
More than three years ago	18	14	28
Have never seen a doctor or nurse for an OBGYN exam	8	11	1
No answer	<1	<1	0

Q10. In the past two years, have you had the following medical tests?

(Asked of those who answered the female set of questions and are age 21 or older)
a. Pap smear or pap test

	Women 18-64 (n=4,855)	Women 18-49 (n=3,701)	Women 50-64 (n=1,154)
Yes	62	65	55
No	36	33	43
Don't know	2	2	1
No answer	<1	<1	0

(Asked of those who are age 45 or older)
b. Colon cancer screening, like a colonoscopy or a blood stool test

	Women 18-64 (n=1,600)	Women 18-49 (n=447)	Women 50-64 (n=1,153)
Yes	47	43	48
No	52	56	52
Don't know	1	1	1

No answer	0	0	0

(Asked of those who answered the female set of questions and are age 40 or older)

c. Mammogram

	Women 18-64 (n=2,140)	Women 18-49 (n=987)	Women 50-64 (n=1,153)
Yes	73	67	76
No	27	33	23
Don't know	<1	1	<1
No answer	<1	0	<1

d. Test for HIV, the virus that causes AIDS

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	29	36	13
No	66	58	82
Don't know	6	6	5
No answer	<1	<1	0

e. Test for any other sexually transmitted infection besides HIV/AIDS, such as Chlamydia or Herpes

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	31	40	12
No	64	54	84
Don't know	5	5	3
No answer	<1	<1	0

ACA.

To the best of your knowledge, are most insurance plans required to pay the full cost of each of the following items, or not?

a. Birth control for women

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	38	43	29
No	28	30	24
Don't know	33	27	48
No answer	0	0	0

b. Vasectomy, which is a sterilization procedure for men

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	15	14	16
No	29	33	21
Don't know	56	53	63
No answer	<1	<1	<1

d. An annual check-up for women

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	71	69	77
No	15	17	12
Don't know	13	14	11
No answer	0	0	0

e. A routine mammogram

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	61	54	76
No	18	20	14
Don't know	21	26	10
No answer	0	0	0

(Asked of those who have seen a health care provider in the past 2 years)

DIS4. Thinking about your health care visits in the past two years, have you felt that a doctor, health care provider, or other staff treated you unfairly or with disrespect because of any of the following?

1. Your age

	Women 18-64 (n=4,814)	Men 18-64 (n=1,075)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes	9	8	10	7
No	91	92	90	93
No answer	<1	0	<1	0

2. Your gender

	Women 18-64 (n=4,814)	Men 18-64 (n=1,075)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes	9	6	10	6
No	91	94	90	94
No answer	<1	0	<1	0

3. Your race

	Women 18-64 (n=4,814)	Men 18-64 (n=1,075)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes	7	7	8	4
No	93	93	92	96
No answer	<1	0	<1	0

4. Your sexual orientation

	Women 18-64 (n=4,814)	Men 18-64 (n=1,075)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes	3	5	3	2
No	97	95	97	98
No answer	<1	0	<1	0

5. Your religion

	Women 18-64 (n=4,814)	Men 18-64 (n=1,075)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes	3	5	3	2
No	97	95	97	98
No answer	<1	0	<1	0

6. Your weight

	Women 18-64 (n=4,814)	Men 18-64 (n=1,075)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes	15	10	17	9
No	85	90	83	91
No answer	<1	<1	<1	0

7. Your accent/ability to speak English

	Women 18-64 (n=4,814)	Men 18-64 (n=1,075)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes	4	6	4	3
No	96	94	96	97
No answer	<1	0	<1	0

8. A disability you may have

	Women 18-64 (n=4,814)	Men 18-64 (n=1,075)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes	6	7	6	5
No	94	93	94	95
No answer	<1	<1	<1	0

Summary Table: Total who experienced at least one from DIS4

	Women 18-64 (n=4,814)	Men 18-64 (n=1,075)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
NET Experienced at least one	**23**	**18**	**27**	**15**
Your age	9	8	10	7
Your gender	9	6	10	6
Your race	7	7	8	4
Your sexual orientation	3	5	3	2
Your religion	3	5	3	2
Your weight	15	10	17	9
Your accent/ability to speak English	4	6	4	3
A disability you may have	6	7	6	5

(Asked of those who saw a healthcare provider in the past 2 years)

DIS1.

Thinking about your health care visits in the past two years, did you experience any of the following, or not?

Your health care provider...

- Didn't believe you were telling the truth

	Women 18-64 (n=4,814)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes, this has happened	17	18	13
No, this has not happened	83	82	87
No answer	<1	<1	0

A. Refused to prescribe pain medication you thought you needed

	Women 18-64 (n=4,814)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes, this has happened	10	10	10
No, this has not happened	90	90	90
No answer	<1	<1	0

B. Suggested you were personally to blame for a health problem you were experiencing

	Women 18-64 (n=4,814)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes, this has happened	13	15	9
No, this has not happened	87	85	91
No answer	<1	<1	0

C. Assumed something about you without asking

	Women 18-64 (n=4,814)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes, this has happened	19	22	15

No, this has not happened	80	78	85
No answer	<1	<1	<1

D. Ignored a direct request you made or a question you asked

	Women 18-64 (n=4,814)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
Yes, this has happened	20	22	16
No, this has not happened	80	78	84
No answer	<1	<1	<1

Summary Table: Total who experienced at least one from DIS1

	Women 18-64 (n=4,814)	Women 18-49 (n=3,701)	Women 50-64 (n=1,113)
NET Experienced at least one	**34**	**37**	**27**
Didn't believe you were telling the truth	17	18	13
Refused to prescribe pain medication you thought you needed	10	10	10
Suggested you were personally to blame	13	15	9
Assumed something about you without asking	19	22	15
Ignored a direct request you made or question you asked	20	22	16

The following questions are about your mental health and experience accessing mental health services.

QMH1.
In general, how would you describe your own mental health or emotional wellbeing?

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)
NET Excellent/very good	37	50
Excellent	12	20
Very good	25	30
Good	35	27
NET Fair/poor	28	23
Fair	22	18

Poor	6	5
No answer	0	0

MHGOT.
In the past 12 months, have you received mental health services from a doctor, counselor, or other mental health professional? This could include an in-person or a telehealth visit.

	Women 18-64 (n=5,055)	**Men 18-64 (n=1,191)**
Yes	29	22
No	71	78
No answer	<1	0

(Asked of those who received mental health services in past 12 months)
MHCARE.
What kind of mental health services did you receive in the past 12 months? *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-64 (n=1,600)	**Men 18-64 (n=290)**
1 on 1 in-person care with a provider (i.e., counselor, social worker, therapist, psychologist, psychiatrist, primary care provider)	60	70
Telehealth care with a provider (i.e., counselor, social worker, therapist, psychologist, psychiatrist, primary care provider)	55	51
A prescription for medication	52	41
Care through a mental health meditation app (e.g., Calm, Headspace)	8	5
Care through a mental health therapy app (e.g., BetterHelp, Talkspace)	7	7
Group therapy	5	10
Counseling with a religious leader	4	6
Inpatient hospitalization or residential treatment	2	6
None of the above	2	1
Other[2]	<1	1
No answer	0	<1

[2] Those who gave this response were asked to specify what kind of mental health services they received.

(Asked of those who received mental health services in the past 12 months)
Q36B.
How was your most recent visit with this mental health provider paid for?

	Women 18-64 (n=1,600)	**Men 18-64 (n=290)**
Insurance covered the full cost	48	40
Insurance covered part of the cost and I paid the rest out-of-pocket	32	29
Insurance did not cover any of the cost and I paid out-of-pocket	6	13
Mental health provider did not accept insurance, so I paid out-of-pocket for the full cost	4	3
Did not have insurance, so I paid out-of-pocket for the full cost	3	2
Went to a free clinic or health center	3	5
Other	4	8
No answer	0	<1

(Asked of those who received mental health services in the past 12 months)
MHGOTBAR.
Thinking about your experience trying to get mental health services in the past 12 months, have you experienced any of the following? *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-64 (n=1,600)	**Men 18-64 (n=290)**
NET Experienced any	**55**	**52**
Some of the providers contacted were not taking new patients	25	21
It was hard to find an appointment in a reasonable amount of time	24	20
Had trouble finding a provider that accepted my insurance	21	18
Could not afford the cost or continue to afford the cost	19	15
Had trouble finding a nearby provider	17	22
Too busy or couldn't get time off work	17	16
Had difficulty finding a provider from a similar racial/ethnic background as myself	5	4
Had difficulty finding a provider who spoke my language	1	<1
Did not experience any of these in the past 12 months	45	48
No answer	<1	0

MHNEED.
Was there a time in the past 12 months when you thought you might need mental health services or medication, **but didn't get them**?

	Women 18-64 (n=5,055)	**Men 18-64 (n=1,191)**
Yes	32	23
No	68	77
No answer	0	0

(Asked of those who needed mental health services but did not get mental healthcare services in the past 12 months)
MHNEEDBAR.
Please indicate the reason(s) you did not get the mental health services you thought you needed. *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-64 (n=1,712)	**Men 18-64 (n=283)**

Felt better/dealt with it myself	37	41
Could not afford the cost	32	34
Afraid, embarrassed, or ashamed to seek care	31	45
Too busy or couldn't get time off work	29	27
Did not think I could get an appointment in a reasonable amount of time	22	18
Did not have insurance or my insurance did not cover mental health services	20	23
Did not know how to find services	18	17
Some other reason[3]	2	1
None of the above	2	2
Difficulty finding a provider/in-network provider (VOL.)[4]	1	1
Don't trust providers/bad past experience (VOL.)[6]	1	1
Doctors/providers were not accepting new patients (VOL.)[6]	1	<1
No transportation (VOL.)[6]	<1	1
No answer	0	0

The next few questions are about sexual and reproductive health and contain some sensitive topics. Please keep in mind that all answers are kept private. Remember, you can skip any question you prefer not to answer.

Q33.
Have you had sexual intercourse in the past 12 months?

	Women 18-64 (n=5,055)	**Men 18-64 (n=1,191)**	**Women 18-49 (n=3,901)**	**Women 50-64 (n=1,154)**
Yes	70	71	78	54
No	30	29	22	46
No answer	<1	0	<1	<1

[3] Those who gave this response were asked to specify why they did not get mental health services they thought they needed.

[4] This option is a code developed based on verbatim responses when respondents chose "some other reason" and specified a reason.

(Asked of those who had sexual intercourse in the past 12 months)
Q33A.
In the past 12 months, have your sexual partners been male, female, or both male and female?

	Women 18-64 (n=3,631)	Men 18-64 (n=839)	Women 18-49 (n=3,026)	Women 50-64 (n=605)
Male only	95	7	94	99
Female only	3	90	3	<1
Both male and female	2	2	2	1
Other[5]	<1	1	<1	<1
No answer	<1	0	<1	0

(Asked of those who answered the female set of questions and are age 40 or older)
M2.
Has a health care provider ever talked to you about what to expect in menopause?

	Women 18-64 (n=2,141)	Women 18-49 (n=987)	Women 50-64 (n=1,154)
Yes	40	28	47
No	60	72	53
Don't know	0	0	0
No answer	0	0	0

(Asked of those who answered the female set of questions)
M1.
With regard to your period, how would you describe your current menstrual status?

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Do not menstruate	17	7	38
Currently not menstruating because I am breastfeeding or on a certain birth control or medication	10	14	1
Have regular periods	41	58	4
Do not have regular periods, but I am not perimenopausal	9	12	1
Going through perimenopause or the menopause transition, and have had changes in my periods, but have not gone 12 months in a row without a period	6	5	9
Post menopause and it has been at least 12 months since my last period	15	1	46

[5] Those who gave this response were asked to specify the gender identity of their sexual partners.

Don’t know	2	2	2
No answer	<1	<1	0

Q39.
Have you had a procedure that resulted in sterilization, such as getting your tubes tied, a hysterectomy, or a vasectomy, or not?

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	25	11	16	45
No	75	89	84	55
No answer	<1	0	<1	0

(Asked of those who had sexual intercourse in the past 12 months)
Q39PM.
Has your most recent sexual partner had a procedure that resulted in sterilization, such as getting your tubes tied, a hysterectomy, or a vasectomy, or not?

	Women 18-64 (n=3,631)	Men 18-64 (n=839)	Women 18-49 (n=3,026)	Women 50-64 (n=605)
Yes	14	19	11	23
No	83	75	86	74
Don’t know	3	6	3	3
No answer	0	0	0	0

(Asked to males with only female or both male and female partners in the past 12 months and most recent sexual partner has not been sterilized or respondent has not been sterilized)
Q40CM.
Do you or your most recent sexual partner have any medical conditions that make it impossible for them to ever get pregnant, or not?

	Men 18-64 (n=537)
Yes	7
No	80
Don’t know	12
No answer	<1

(Asked to non-sterilized non-postmenopause females whose most recent sexual partner has not been sterilized and only male or both male and female sexual partners in the past 12 months)
Q40CW.
Do you or your most recent sexual partner have any medical conditions that make it impossible for you to ever get pregnant, or not?

	Women 18-64 (n=2,391)	Women 18-49 (n=2,249)	Women 50-64 (n=142)
Yes	6	5	15
No	78	79	73
Don't know	11	12	1
No answer	0	0	0
Undesignated[6]	5	4	11

(Asked to females age 18-49, not postmenopause, have not been sterilized and don't have a medical condition that makes it impossible to get pregnant)
Q40W.
Are you currently pregnant or trying to get pregnant?

	Women 18-49 (n=2,140)
Currently pregnant	5
Currently trying to get pregnant	8
Neither	87
Don't know	1
No answer	<1

[6] Respondents in this category should have received this question but did not, due to a programming error that was subsequently fixed.

(Asked to females age 18-49, not postmenopause, have not been sterilized and don't have a medical condition that makes it impossible to get pregnant but are not currently pregnant or trying to get pregnant)

Q40AAW.

How important is it for you to **avoid** becoming pregnant in the next month?

	Women 18-49 (n=1,872)
NET Important	**81**
Very important	68
Somewhat important	13
NET Not important	16
Not very important	8
Not very important at all	9
Don't know	3
No response	0

(Asked to females age 18-49, not postmenopause, have not been sterilized and don't have a medical condition that makes it impossible to get pregnant)

Q40W.

Are you currently pregnant or trying to get pregnant?

	Women 18-49 (n=2,140)
Currently pregnant	5
Currently trying to get pregnant	8
Neither	87
Don't know	1
No answer	<1

FER1.

Have you or your partner ever **needed** medical advice, testing, services or medication to help you become pregnant or prevent a miscarriage?

	Women 18-49 (n=3,901)
Yes	13
No	87
No answer	<1

(Asked of those who needed or partner needed fertility assistance)

FER2.

Were you or your partner able to receive the medical advice, testing, services or medication you needed to help you become pregnant or prevent a miscarriage?

	Women 18-49 (n=502)
Yes	78
No	22
No answer	0

(Asked of those who needed or partner needed fertility assistance and was able to receive or partner was able to receive fertility assistance)
FERSERV.
What kind of fertility assistance services have you or your partner received to help you become pregnant or prevent a miscarriage? *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-49 (n=379)
NET Received any	**93**
Fertility advice	64
Fertility testing (self or partner)	58
Drugs to improve ovulation	49
Artificial insemination, also known as IUI	17
Surgery/drugs for tubes, endometriosis, fibroids	16
In vitro fertilization (IVF)	18
Egg freezing	9
Other medical help[7]	7
None of the above	7
No answer	0

[7] Those who gave this response were asked to specify what kind of fertility assistance services they or their partner were able to receive.

(Asked of those who needed or partner needed fertility assistance and was able to receive or partner was able to receive fertility assistance)

FER3.

When was the last time you or your partner received fertility assistance services to help you become pregnant or prevent a miscarriage?

	Women 18-49 (n=379)
In the last three years	39
4 to 10 years ago	30
More than 10 years ago	31
No answer	0

(Asked of those who needed or partner needed fertility assistance and received or partner has received fertility assistance through artificial insemination in last 3 years)

FER4a.

You said you or your partner received fertility assistance through artificial insemination, also known as IUI. Thinking about the last time you received this assistance, how did you pay for the service?

	Women 18-49 (n=32)
Insurance paid the full cost	n/a
Insurance covered part of the cost	n/a
I paid the full cost out-of-pocket	n/a
Received a donation or a grant to help pay for the cost	n/a
Not sure/don't remember	n/a
Other	n/a
No answer	n/a

(Asked of those who needed or partner needed fertility assistance and has received or partner has received fertility assistance through in vitro fertilization in the last 3 years)

FER4b.

You said you or your partner received fertility assistance through in vitro fertilization (IVF). Thinking about the last time you received this assistance, how did you pay for the service?

	Women 18-49 (n=31)
Insurance paid the full cost	n/a
Insurance covered part of the cost	n/a
I paid the full cost out-of-pocket	n/a
Received a donation or a grant to help pay for the cost	n/a
Not sure/don't remember	n/a
Other	n/a
No answer	n/a

(Asked of those who needed or partner needed fertility assistance and has received or partner has received fertility assistance through egg freezing in last 3 years)

FER4c.

You said you or your partner received fertility assistance through egg freezing. Thinking about the last time you received this assistance, how did you pay for the service?

	Women 18-49 (n=19)
Insurance paid the full cost	n/a
Insurance covered part of the cost	n/a
I paid the full cost out-of-pocket	n/a
Received a donation or a grant to help pay for the cost	n/a
Not sure/don't remember	n/a
Other	n/a
No answer	n/a

(Asked of those who needed or partner needed fertility assistance and was not able to receive or partner was not able to receive fertility assistance)

FER5.

What is the primary reason you or your partner have not received fertility assistance services?

	Women 18-49 (n=123)
I could not find a provider nearby	4
None of the providers I contacted were taking new patients	1
I could not afford the cost	55
I was too busy or couldn't get time off work	4
I could not get an appointment in a reasonable amount of time	6
I was worried it wouldn't work	3
I no longer needed it	5
Some other reason[8]	10
None of the above	13
No answer	0

The following questions ask about contraceptive use and contraceptive services in the past 12 months.

(Asked of those who answered the female set of questions)

Q42B.

People may use many different types of birth control. In the past year, have you used any of the following birth control methods, or not?

1 Birth control pills or oral contraceptives

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	16	22	4
No	84	78	96
No response	<1	<1	<1

[8] Those who gave this response were asked to specify why they or their partner were not able to receive fertility assistance services.

2 Injectable birth control, like Depo Provera

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	3	4	1
No	96	96	98
No response	<1	<1	<1

3 The birth control patch, like Xulane or Zafemy

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	1	2	<1
No	99	98	100
No response	<1	<1	<1

4 Vaginal ring like Nuva-ring or Annovera

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	2	2	1
No	98	98	99
No response	<1	<1	<1

5 An IUD or intrauterine device

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	9	12	3
No	90	87	97
No response	<1	<1	<1

6 Birth control implants, like Nexplanon

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	4	5	1
No	96	95	99
No response	<1	<1	<1

7 Male condoms

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	20	25	9
No	80	75	91
No response	<1	<1	<1

8 Fertility awareness-based methods

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	7	10	2
No	93	90	98
No response	<1	<1	<1

9 Emergency contraception

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	6	9	1
No	94	91	99
No response	<1	<1	<1

10 Withdrawal

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	15	20	5
No	85	80	95
No response	<1	<1	<1

11 Partner’s vasectomy

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	8	8	10
No	92	92	90
No response	<1	<1	<1

12 Another method not listed

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	4	4	3
No	96	96	97
No response	<1	<1	<1

(Based on those who answered the female set of questions)
Summary table: Contraceptive User

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Contraceptive user	54	66	27
Non-Contraceptive user	46	33	73

Q42.
Have you or your sexual partner(s) used birth control or condoms in the past 12 months for any of the following reasons, or not? *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Have not used birth control in the past 12 months	59	65	46	88
Prevent pregnancy	33	25	45	6
Prevent a sexually transmitted infection (STI)	7	8	9	3
Manage a medical condition	5	3	6	1
Some other reason	5	5	6	2
No answer	<1	<1	<1	<1

(Asked of those who answered the female set of questions who have had male only or male and female sexual partners in past 12 months, not sterilized, have not used birth control in past 12 months, not currently pregnant or trying to get pregnant, and able to get pregnant)

Q42A.

There are many reasons that people do not use birth control. Which of these is a reason that you did not use birth control or condoms? *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-49 (n=215)
Didn't want to use birth control	41
Didn't really mind if I got pregnant	38
Did not think I could get pregnant	22
Worried about or disliked the side effects of birth control	19
Did not expect to have sex	7
Couldn't find a birth control method I was satisfied with	6
Religious reasons	4
Couldn't afford birth control	3
Didn't know which birth control I wanted to use	3
Partner or family was opposed to birth control	2
Partner was sterilized or had a vasectomy	2
I or my partner couldn't get an appointment to get birth control	<1
Another reason[9]	1
No answer	3

[9] Those who gave this response were asked to specify why they did not use birth control or condoms.

(Asked of those who received the male set of questions who have had sexual intercourse with female partners in past 12 months; female set of questions who have had sexual intercourse with male partners in past 12 months, not currently pregnant or trying to become pregnant, and used contraception in past 12 months)

Q33C.

The last time you had sexual intercourse with a person of a different sex, did either one of you use condoms or birth control, or not?

	Women 18-64 (n=1,576)	Men 18-64 (n=761)	Women 18-49 (n=1,576)
Yes	68	32	68
No	31	65	31
Don't know	2	3	2
No answer	<1	0	<1

(Asked of those who answered female set of questions under age 50 and able to become pregnant)

EC4.

If you, personally, wanted or needed emergency contraception pills, such as Plan B or the Morning After pill, in the near future, do you know where you could go to get it?

	Women 18-49 (n=2,140)
Yes	79
No	21
No answer	<1

(Asked of those who answered the female set of questions and used emergency contraception in past 12 months)

EC1.

Thinking about the last time you got emergency contraception, did you get it with a prescription from a health care provider, or did you get it without a prescription?

	Women 18-64 (n=362)	Women 18-49 (n=355)	Women 50-64 (n=7)
Got it with a prescription	18	17	46
Got it without a prescription	82	83	54
Don't know	0	0	0
No answer	0	0	0

(Asked of those who answered female set of questions who have used/partner used birth control or condoms in past 12 months and not currently pregnant or trying to become pregnant)

Q42C.

If you could use any type of birth control method available, would you use a different method than the one you're currently using, or not?

	Women 18-49 (n=1,605)
Yes	23
No	77
No answer	<1

(Asked of those who answered female set of questions who have used/partner used birth control or condoms in past 12 months, is not currently pregnant or trying to become pregnant, and would use different birth control method than currently using)

Q42CA.

If you could choose any type of birth control in the future, regardless of cost or other possible barriers, what method would you be most likely to use?

	Women 18-49 (n=382)
Permanent contraception such as sterilization procedure or getting your tubes tied	18
Birth control pills or oral contraceptives	8
Injectable birth control, like Depo Provera	5
The birth control patch, or Ortho Evra	2
Vaginal ring or nuva-ring or Annovera	2
An IUD or intrauterine device	14
Birth control implants, like Implanon or Norplant	7
Male condoms	6
Withdrawal	3
Partner's vasectomy	23
Fertility awareness-based methods	3
Emergency contraception	2
Another method not listed[10]	3
Don't know	6
No answer	0

[10] Those who gave this response were asked to specify what method of birth control they would most likely use in the future, regardless of cost or other possible barriers.

(Asked of those who answered female set of questions who have used/partner used birth control or condoms in past 12 months, is not currently pregnant or trying to become pregnant, and would use different birth control method than currently using)

Q42D.

What is the primary reason you are not using your *preferred* method of birth control?

	Women 18-49 (n=382)
Concerned about side effects or previously experienced side effects	25
Can't afford my preferred method	15
My provider recommended a different method	10
My partner does not want me to use my preferred method	8
Preferred method was not available	6
Have medical conditions that make me ineligible for using my preferred method	6
My partner or I could not get an appointment to get my preferred method	3
Might want kids in the future (VOL.)[11]	2
Waiting/have an appointment scheduled (VOL.)[14]	1
Don't need it/not a priority (VOL.) [14]	1
Other[12]	8
Don't know	14
No answer	1

[11] This option is a code developed based on verbatim responses when respondents chose "other" and specified a reason.

[12] Those who gave this response were asked to specify why they are not using their preferred method of birth control.

(*Asked of those who answered female set of questions, have used birth control in past 12 months and are under age 50)*

Q45.

Where did you have your most recent birth control care visit?

	Women 18-49 (n=2,610)
Doctor's office	61
A Planned Parenthood	5
Another family planning clinic or a community health center	4
A school or school-based clinic or college health center	1
Walk-in clinic, such as an urgent care center or clinic inside a store	1
Pharmacy or drug store	4
Online birth control website or app	3
Some other place[13]	1
Have not had a recent birth control care visit	22
No answer	0

(*Asked of those who answered female set of questions*, have used birth control in past 12 months and are under age 50)

Q45C.

How would you rate the health care provider you saw most recently for your birth control care with respect to the following qualities?

A. Respecting you as a person

	Women 18-49 (n=2,610)
NET Excellent/Very good	72
Excellent	50
Very Good	22
Good	22
NET Fair/Poor	6
Fair	4
Poor	2
No answer	<1

[13] Those who gave this response were asked to specify where they had their most recent birth control care visit.

B. Letting you say what mattered to you about your birth control

	Women 18-49 (n=2,610)
NET Excellent/Very good	71
Excellent	48
Very Good	23
Good	22
NET Fair/Poor	7
Fair	5
Poor	2
No answer	<1

C. Taking your preferences about your birth control seriously

	Women 18-49 (n=2,610)
NET Excellent/Very good	71
Excellent	49
Very Good	22
Good	21
NET Fair/Poor	8
Fair	5
Poor	3
No answer	<1

D. Giving you enough information to make the best decision about your birth control method

	Women 18-49 (n=2,610)
NET Excellent/Very good	69
Excellent	48
Very Good	21
Good	22
NET Fair/Poor	9
Fair	6
Poor	3
No answer	<1

Summary Table: Excellent/Very good rating

	Women 18-49 (n=2,610)
Respecting you as a person	72
Letting you say what mattered to you about your birth control	71
Taking your preferences about your birth control seriously	71
Giving you enough information to make the best decision about your birth control method	69

Summary Table: Fair/Poor rating

	Women 18-49 (n=2,610)
Taking your preferences about your birth control seriously	8
Giving you enough information to make the best decision about your birth control method	9
Letting you say what mattered to you about your birth control	7
Respecting you as a person	6

(*Asked of those who answered female set of questions, have used birth control in past 12 months and are under age 50)*

Q46.

The next few questions are about costs of your birth control method.

How did you pay for your most recent birth control method?

	Women 18-49 (n=2,610)
My insurance or Medicaid covered the full cost	58
My insurance covered part of the cost and I paid the rest out-of-pocket	15
My plan did not cover my birth control and I paid for it myself	8
Did not have any insurance coverage and went to a free or reduced cost clinic	4
Had coverage, but didn't use it, and paid for it myself	6
Other[14]	10
No answer	<1

[14] Those who gave this response were asked to specify how they paid for their most recent birth control method.

(*Asked of those who answered female set of questions*, have used birth control in past 12 months and are under age 50)

Q46D.

In the past 12 months, have you had to stop using a birth control method because you couldn't afford it?

	Women 18-49 (n=2,610)
Yes	5
No	95
No answer	0

OPILL1.

As you may know, last year the Food and Drug Administration (FDA) approved the first-ever daily birth control pill, called Opill, to be available over-the-counter (OTC) without a prescription.

Is this something you have heard of, or not?

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	27	24	26	29
No	62	67	63	60
Not sure	11	9	11	10
No answer	<1	<1	<1	<1

(Asked of those who have heard of Opill)

OPILL2.

Have you ever purchased Opill over-the-counter for yourself or someone else, either in stores or online?

	Women 18-64 (n=1,313)	Men 18-64 (n=309)	Women 18-49 (n=969)	Women 50-64 (n=599)
Yes	3	3	4	1
No	97	97	96	99
No answer	0	0	0	0

(Asked of those who answered female set of questions who have heard of Opill and under age 50)
OPILL3.
Have you ever used over-the-counter Opill?

	Women 18-49 (n=969)
Yes	3
No	95
Not sure	2
No answer	0

MIS1.
In the past 12 months, have you seen or heard anything on social media about birth control?

	Women 18-64 (n=5,055)	**Men 18-64 (n=1,191)**	**Women 18-49 (n=3,901)**	**Women 50-64 (n=1,154)**
Yes	35	33	38	27
No	49	50	46	55
I don't use social media	5	8	5	7
Not sure	11	9	11	12
No answer	<1	0	<1	0

(Asked of those who have heard/not sure if they heard about birth control on social media* or did not answer*)
MIS2.
In the past 12 months, have you talked to any of the following people about what you saw or heard about birth control on social media? *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-64 (n=2,397)	**Men 18-64 (n=510)**	**Women 18-49 (n=1,951)**	**Women 50-64 (n=446)**
Did not talk to anyone	65	66	62	73
Your family or friends	24	17	25	23
Your partner/spouse	16	24	19	7
Your doctor or other healthcare provider	8	5	10	1
Someone else[15]	1	1	1	1
No answer	0	0	0	0

[15] Those who gave this response were asked to specify who they talked to about what they saw or heard about birth control on social media.

(Asked of those who received female set of questions and heard/not sure if they heard about birth control on social media or did not answer)

MIS3.

In the past 12 months, which of the following have you done, at least in part, **because of something you saw or heard on social media**?

	Women 18-64 (n=2,397)	Women 18-49 (n=1,951)	Women 50-64 (n=446)
Made a change to your birth control method, such as starting, stopping, or changing your birth control method	4	5	<1
Thought about starting, stopping, or changing your birth control method, but did not	9	12	1
Neither of these	87	83	99
No answer	<1	<1	0

QDOBBS1.

As you may know, on June 24, 2022, the Supreme Court overturned *Roe v. Wade,* allowing states to ban abortion. As far as you know, what best describes the status of abortion in (STATE1/your state)?

	Women 18-49 (n=3,901)
Available with few or no restrictions	26
Available, but limited to earlier in pregnancy	20
Generally unavailable, with few exceptions	21
Not sure	32
No answer	<1

QDOBBS2.

Do you personally know someone (IF FEMALE SET OF QUESTIONS, including yourself,) who has had difficulty getting an abortion since *Roe v. Wade* was overturned, due to restrictions in their state?

	Women 18-49 (n=3,901)
Yes	8
No	92
No answer	<1

(Asked of those who has had or knows someone who has had difficulty getting an abortion due to state restriction)

QDOBBS2a.

Which of the following, if any, did they (including yourself) experience when trying to get an abortion? *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-49 (n=380)
Experienced any (NET)	**99**
Had to travel out of state	68
Didn't know where to go	40
Personally did not have the money to cover the cost	35
Had to take time off work	29
Had to wait a long time for an appointment	26
Had to find childcare	14
Other[16]	3
Abortions are illegal in my state (VOL.)[17]	<1
No answer	2

QDOBBS3.
How concerned are you, if at all, that you or someone close to you (such as family or a close friend) would not be able to get an abortion if it was needed to preserve their life or health?

	Women 18-49 (n=3,901)
NET Concerned	**63**
Very concerned	37
Somewhat concerned	26
NET Not concerned	**37**
Not too concerned	17
Not concerned at all	20
No answer	<1

[16] Those who gave this response were asked to specify what they experienced when trying to get an abortion.

[17] This option is a code developed based on verbatim responses when respondents chose "other" and specified what their experience was.

QDOBBS5.
How concerned are you, if at all, that abortion bans may affect the safety of a potential future pregnancy for yourself or someone close to you (such as family or a close friend)?

	Women 18-49 (n=3,901)
NET Concerned	**64**
Very concerned	39
Somewhat concerned	25
NET Not concerned	**36**
Not too concerned	17
Not concerned at all	20
No answer	<1

Abortion Ban Concern COMBO TABLE

	Women 18-49 (n=3,901)
Concerned about at least one	69
Not concerned	31

Q48.
Medication abortion, sometimes called the abortion pill, mifepristone, or RU 486, involves taking medications to end a pregnancy. Medication abortion is not Plan B or the Morning After pill.

Have you ever heard of a medication abortion, or not?

	Women 18-49 (n=3,901)
Yes, I have heard of it	67
No, I have not heard of it	33
No answer	<1

(Asked of those who have heard of a medication abortion)
QMEDAB2.
As far as you know, can someone in (STATE1/your state) get medication abortion pills online if they wanted or needed them?

	Women 18-49 (n=2,649)
Yes	28
No	15
Don't know	58
No answer	0

(Asked of those who have heard of a medication abortion)
QMEDAB1.
As far as you know, is medication abortion currently legal or illegal in (STATE1/your state)?

	Women 18-49 (n=2,649)
Legal	41
Illegal	15
Don't know	44
No answer	0

(Asked of those who are under age 50)
QDOBBS4.
As a result of the Supreme Court overturning *Roe v. Wade*, have you or your partner done any of the following? *Please select all that apply.*

Note: Results may not sum to subtotal (NET Done any) because multiple responses were allowed.

	Women 18-49 (n=3,901)
NET Done any	**17**
Started using birth control	6
Gotten emergency contraception to have on hand	5
Had a procedure for permanent birth control	5
Switched to a more effective method of birth control	4
Gotten medication abortion pills to have on hand	1
None of the above	83

No answer	<1

BALLOT1.
Thinking about women's ability to get each of the following in (STATE1/your state) how would you describe it?

a. Abortion services

	Women 18-49 (n=3,901)
NET Easy	**25**
Very easy	7
Somewhat easy	18
NET Difficult	**36**
Somewhat difficult	16
Very difficult	19
Don’t know	40
No answer	<1

b. Contraceptive Care

	Women 18-49 (n=3,901)
NET Easy	**62**
Very easy	27
Somewhat easy	34
NET Difficult	**17**
Somewhat difficult	12
Very difficult	4
Don’t know	22
No answer	<1

c. Maternity Care

	Women 18-49 (n=3,901)
NET Easy	**50**
Very easy	21
Somewhat easy	29
NET Difficult	**26**
Somewhat difficult	17
Very difficult	8
Don't know	24
No answer	<1

d. Infertility services, such as in vitro fertilization (IVF)

	Women 18-49 (n=3,901)
NET Easy	**19**
Very easy	6
Somewhat easy	13
NET Difficult	**32**
Somewhat difficult	19
Very difficult	14
Don't know	48
No answer	<1

e. Mental health services

	Women 18-64 (n=5,055)
NET Easy	**44**
Very easy	15
Somewhat easy	29
NET Difficult	**38**
Somewhat difficult	27
Very difficult	11
Don't know	18
No answer	<1

f. Affordable childcare

	Women 18-49 (n=3,901)
NET Easy	**15**
Very easy	5
Somewhat easy	10
NET Difficult	**64**
Somewhat difficult	26
Very difficult	38
Don't know	21
No answer	<1

g. Medicaid

	Women 18-49 (n=3,901)
NET Easy	**37**
Very easy	13
Somewhat easy	24
NET Difficult	**32**
Somewhat difficult	21
Very difficult	11
Don't know	30
No answer	<1

h. Food stamps

	Women 18-49 (n=3,901)
NET Easy	**35**
Very easy	13
Somewhat easy	22
NET Difficult	**38**
Somewhat difficult	25
Very difficult	14
Don't know	27
No answer	<1

The following questions are about your experience with pregnancy, miscarriage, and abortion and could be sensitive. Your responses will be kept private and you always have the option to skip the question.

(Those who answered female set of questions)
Q41A.
Have you been pregnant in the past 10 years, or not?

	Women 18-49 (n=3,901)
Yes, in the past 5 years	26
Yes, between 6 and 10 years ago	13
Not in the past 10 years	21
Never been pregnant	40
No answer	<1

(Asked of those who answered female set of questions who have ever been pregnant or who are currently pregnant)
Q41D1.
Have you ever wanted or needed an abortion?

	Women 18-49 (n=2,410)
Yes	23
No	75
I'm not sure	2
No answer	<1

(Asked of those who answered female set of questions who have ever been pregnant or who are currently pregnant and ever wanted or needed an abortion)
Q41D2.
Have you ever wanted or needed an abortion that you did not get?

	Women 18-49 (n=672)
Yes	14
No	83
I'm not sure	3
No answer	0

(Asked of those who answered female set of questions, have ever been pregnant or are currently pregnant, and ever wanted or needed an abortion they did not get)
Q41D3.
There are many reasons why someone may not get an abortion. What was the reason(s) you did not get the abortion(s)?[18]

Data available upon request.

(Asked of those who answered female set of questions who have ever been pregnant or who are currently pregnant)
Q41D.
Have you ever had an abortion?

	Women 18-49 (n=2,417)
Yes	24
No	76
No answer	<1

(Asked of those who answered female set of questions who are under age 50 and are able to get pregnant)
Q41E.
If you personally wanted or needed an abortion in the near future, do you know where you could get one?

	Women 18-49 (n=2,140)
Yes	25
No, but I know where I can find the information	49
No, I don't know where I could find the information	26
No answer	<1

[18] The codes for this question were developed based on verbatim responses. Data available upon request.

QAB1.
Do you think abortion should be:

	Women 18-49 (n=3,901)
NET Legal	**74**
Legal in all cases	38
Legal in most cases	37
NET Illegal	**26**
Illegal in most cases	18
Illegal in all cases	8
No answer	<1

QAB2.
To what extent do you (support) or (oppose)…?

a. **a law establishing a nationwide right to abortion**

	Women 18-49 (n=3,901)
NET Support	**69**
Strongly support	50
Somewhat support	20
NET Oppose	**30**
Somewhat oppose	14
Strongly oppose	17
No answer	<1

b. **a law establishing a <u>nationwide ban</u> on abortion at 15 weeks**

	Women 18-49 (n=3,901)
NET Support	**36**
Strongly support	16
Somewhat support	20
NET Oppose	**63**
Somewhat oppose	21
Strongly oppose	42
No answer	<1

c. **leaving it up to the states to decide whether abortion is legal or not in each state**

	Women 18-49 (n=3,901)
NET Support	**26**
Strongly support	8
Somewhat support	19
NET Oppose	**73**
Somewhat oppose	25
Strongly oppose	49
No answer	<1

V1.
<u>In the past five years</u>, have anger or threats from a current or ex-partner made you fear for your safety or for the safety of your family or friends?

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)
Yes	11	13
No	89	87
No answer	<1	<1

V2.
<u>In the past five years</u>, did a current or ex-partner try to control most or all of your daily activities? For example, controlling who you talked to or where you could go?

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)
Yes	11	14
No	88	86
No answer	<1	<1

V3.
In the past five years, did a current or ex-partner push, hit, slap, kick, choke, or physically hurt you in any way?

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)
Yes	9	11
No	91	89
No answer	<1	<1

V4.
In the past five years, did a current or ex-partner force you into any type of unwanted sexual activity after you said or showed that you did not want them to?

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)
Yes	9	11
No	91	89
No answer	<1	<1

(Asked of those who answered female set of questions)
V4a.
Has a current or ex-partner EVER tried to keep you from using your birth control so that you would get pregnant when you didn't want to?

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)
Yes	3	3
No	97	97
No answer	<1	<1

Experienced At Least One Form of Violence COMBO TABLE
Based on those who answered the female set of questions

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)
Experienced at least one	20	23
Did not experience	80	77
No answer	<1	<1

(Asked of those who answered female set of questions, have been pregnant in the past 5 years, and have experienced violence, threats, or controlling behavior from a current or ex-partner)
V5.
Did you experience violence or threats from a current or ex-partner during any of the following time periods related to pregnancy? *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-49 (n=308)
In the 12 months before your most recent pregnancy	22
During your most recent pregnancy	22
In the 12 months after your most recent pregnancy	21
None of the above	60
No answer	0

(Asked of those who answered female set of questions, have been pregnant in the past 5 years, and have experienced violence, threats, or controlling behavior from a current or ex-partner)
V6.
Did you ever experience physical injuries because of what a current or ex-partner did to you?

	Women 18-49 (n=308)
Yes	45
No	55
No answer	0

(Asked of those who answered female set of questions, have been pregnant in the past 5 years, and have experienced violence, threats, or controlling behavior from a current or ex-partner)
V8.
Did you ever need medical or mental health care related to the violence or threats you experienced from your current or ex-partner?

	Women 18-49 (n=308)
Yes	48
No	52
No answer	0

(Asked of those who needed medical or mental health care related to violence or threats from current or ex-partner)

V9.

Were you able to get the medical or mental health care you needed related to the violence or threats you experienced from your current or ex-partner?

	Women 18-64 (n=556)	Women 18-49 (n=472)
Yes	69	68
No	31	32
No answer	0	0

(Asked of those who were not able to receive needed medical or mental health care related to violence or threats from current or ex-partner)

V10.

There are many reasons why people may not be able to get the care they need. Why were you not able to get the medical or mental health care that you needed? *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-64 (n=177)	Women 18-49 (n=157)
I did not want anyone else to find out	57	55
I was scared or intimidated to seek care	48	44
I was afraid my partner would hurt me or other members of my family or friends if they found out	40	41
I could not afford to get care	37	38
I was afraid the police or child protective services would get involved	36	37
I did not know where to go to get care	33	28
My partner stopped me from getting care	23	23
Services were unavailable	13	12

Other[19]	6	7
My family stopped me from getting care	1	<1
No answer	0	0

More questions forthcoming in future reports.

[19] Those who gave this response were asked to specify why they were not able to get the medical or mental health care that they needed.

DEMOGRAPHICS

HH1.
How many adults age 18 and over currently live in your household including you?

Data available upon request.

(Asked of those who have more than one adult age 18 and over in household)]
HH1a.
Besides yourself, how many of these adults age 18 and over are in the following groups?

a. Roommates or housemates

	Women 18-64 (n=3,773)	Men 18-64 (n=862)	Women 18-49 (n=3,006)	Women 50-64 (n=767)
Zero	78	76	79	75
One	6	10	7	5
Two	2	2	2	2
Three or more	<1	1	<1	<1
No answer	13	10	11	17

b. Family members, including spouses or partners

	Women 18-64 (n=3,773)	Men 18-64 (n=862)	Women 18-49 (n=3,006)	Women 50-64 (n=767)
Zero	4	5	4	3
One	59	58	59	58
Two	21	22	20	23
Three or more	16	13	17	15
No answer	1	1	<1	1

HH2.
Do any children under the age of 18 currently live in your household?

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	42	35	54	16
No	58	65	46	84
No answer	<1	0	<1	0

(Asked of those who have children under 18 living in household)

HH3.

How many children under the age of 18 in the following age groups currently live in your household?

a. Zero to five years

	Women 18-64 (n=2,357)	Men 18-64 (n=383)	Women 18-49 (n=2,163)	Women 50-64 (n=194)
Zero	52	57	48	75
One	29	25	31	11
Two	12	13	13	5
Three or more	3	1	4	2
No answer	5	3	4	9

b. Six to eleven years

	Women 18-64 (n=2,357)	Men 18-64 (n=383)	Women 18-49 (n=2,163)	Women 50-64 (n=194)
Zero	51	56	50	60
One	31	32	31	29
Two	11	8	12	4
Three or more	3	1	3	2
No answer	4	3	4	5

c. Twelve to seventeen years

	Women 18-64 (n=2,357)	Men 18-64 (n=383)	Women 18-49 (n=2,163)	Women 50-64 (n=194)
Zero	45	42	47	26
One	36	41	33	55
Two	12	13	12	10
Three or more	2	2	2	5
No answer	4	2	4	4

Summary Table: Family size

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
One	16	20	11	25
Two	30	30	25	39
Three	19	19	19	19
Four	18	18	22	10
Five	9	8	12	4
Six or more	8	5	11	3
No answer	<1	0	0	<1

D1.
Which of the following best describes your current marital status?

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Married	45	44	41	53
Living with a partner, but not married	15	14	19	7
Widowed	2	1	<1	7
Divorced	8	7	5	16
Separated	2	3	2	3
Never married	27	32	33	15
No answer	<1	<1	<1	0

Z8.
What is the highest level of school you have completed or the highest degree you have received?

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
High School or less	**33**	**41**	**32**	**35**
Less than high school (Grades 1-8 or no formal schooling)	2	2	2	2
High school incomplete (Grades 9-11 or Grade 12 with NO diploma)	6	8	6	6
High school graduate (Grade 12 with diploma or GED certificate or vocational, business technical or other training that did not count toward a degree)	25	31	24	27
Some college	**28**	**26**	**28**	**28**
Some college, no degree (includes some community college)	18	18	18	17
Two year associate degree from a college or university	10	7	10	10
College grad or more	**39**	**33**	**40**	**37**
Four year college or university degree/Bachelor's degree (e.g., BS, BA, AB)	21	19	22	18
Some postgraduate or professional schooling, no postgraduate degree	4	3	3	4
Postgraduate or professional degree, including master's, doctorate, medical or law degree	15	11	15	15
No answer	<1	0	<1	0

RELIG
What is your current religion, if any?

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
NET Christian	**33**	**34**	**30**	**42**
Protestant	14	12	11	21
Catholic/Roman Catholic	17	19	16	19
Mormon/Church of Jesus Christ of Latter-Day Saints	2	2	2	1
Orthodox, such as Greek or Russian Orthodox	<1	1	<1	<1
NET Non-Christian	**22**	**19**	**19**	**29**
Jewish	1	2	1	2
Muslim	1	2	1	<1
Buddhist	1	1	1	1
Hindu	1	1	1	<1
NET Unaffiliated	**44**	**47**	**51**	**29**
Atheist	5	10	6	3
Agnostic	6	8	7	3
Nothing in particular	33	29	38	23
Something else	18	13	15	25
No answer	<1	<1	<1	<1

CO1.
Were you born in the United States, on the island of Puerto Rico or another U.S. territory, or in another country?

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
United States	84	82	83	86
Puerto Rico or other U.S. territory	2	2	2	1
Another Country	13	15	14	12
No answer	1	1	1	<1

(Asked of those who where born in another country)
G16.
Are you currently a U.S. citizen, or not?

	Women 18-64 (n=522)	Men 18-64 (n=140)	Women 18-49 (n=421)	Women 50-64 (n=101)
A U.S. citizen	62	52	58	72
Not a U.S. citizen	38	48	42	28
No answer	<1	0	<1	0

INC.
To help us describe the people who took part in our study, it would be helpful to know which category best describes your [personal/family] income last year before taxes. Was your total [personal/family] income in 2023 from all sources, and before taxes…

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Less than 100% FPL	17	18	14
At least 100% FPL but less than 200% FPL	19	20	17
At least 200% FPL but less than 400% FPL	28	27	31
400% FPL or more	30	28	35
Don't know	6	7	3
No answer	<1	<1	<1

ABORTION.
On the issue of abortion, would you say you are more (pro-life) or (pro-choice)?

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Pro-life	29	28	33
Pro-choice	70	72	66
No answer	<1	<1	<1

PARTY.
In politics today, do you consider yourself a: (Republican), (Democrat), an Independent, or something else?
PARTYLEAN.
Do you LEAN more towards the (Republican) Party or the (Democratic) Party?

Party/Party Lean COMBO TABLE

	Women 18-64 (n=5,055)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Republican/lean Republican	30	27	37
Democrat/lean Democrat	46	46	47
Independent/don't lean to either party/other	23	27	17

DISNEW1.
Do you identify as a disabled person or a person with a disability?

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	14	14	10	23
No	83	83	87	75
Prefer not to answer	2	3	3	2
No answer	<1	<1	<1	0

(Asked of those who identify as a disabled person or a person with a disability)
DISNEW2.
How would you describe your disability? *Please select all that apply.*

Note: Results may not sum to 100% because multiple responses were allowed.

	Women 18-64 (n=682)	Men 18-64 (n=206)	Women 18-49 (n=409)	Women 50-64 (n=273)
Mental health condition	43	33	55	31
Health-related disability	41	37	39	43
Mobility-related disability	33	41	23	42
Attention deficit	17	18	23	10
Learning disability	11	10	16	6
Autism	8	12	16	1
Blind or visually impaired	5	5	2	7
Deaf or hard of hearing	5	7	5	4
Speech-related disability	3	3	3	3
Other[20]	15	8	11	18
No answer	<1	<1	0	<1

LGB.
The next question is about sexual orientation. Please keep in mind that all responses are confidential. Which of the following best represents how you think of yourself?

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Lesbian or gay	2	6	3	1
Straight, that is, not lesbian, gay, or bisexual	85	86	81	94
Bisexual	9	6	11	4
Something else	2	2	3	2
Don't know	2	1	3	<1
No answer	<1	<1	<1	<1

[20] Those who gave this response had the option to specify how they describe their disability.

REGVOTE.
Are you registered to vote at your present address, or not?

	Women 18-64 (n=5,055)	Men 18-64 (n=1,191)	Women 18-49 (n=3,901)	Women 50-64 (n=1,154)
Yes	74	71	70	83
No	26	29	30	17
No answer	<1	<1	<1	<1

KFF

Headquarters
185 Berry Street, Suite 2000
San Francisco, CA 94107
650.854.9400

Washington Office &
Barbara Jordan Conference Center
1330 G Street NW
Washington, DC 20005
202.347.5270

This publication is available at kff.org.

The independent source for health policy research, polling, and news.

By Kathryn Garfield, Erika Hanson, Carmel Shachar, Pascale Stain, and Dariush Mozaffarian

DOI: 10.1377/hlthaff.2024.01349
HEALTH AFFAIRS 44,
NO. 4 (2025): 422–428

States' Use Of Medicaid Managed Care 'In Lieu Of Services' Authority To Address Poor Nutrition

Kathryn Garfield (kgarfield@law.harvard.edu), Harvard University, Cambridge, Massachusetts.

Erika Hanson, Harvard University.

Carmel Shachar, Harvard University.

Pascale Stain, Ropes & Gray LLP, Washington, D.C.

Dariush Mozaffarian, Tufts University, Boston, Massachusetts.

ABSTRACT **In response to rising health, economic, and equity burdens of suboptimal nutrition, health care stakeholders are increasingly integrating nutritional supports into health care delivery and financing. In January 2023, federal guidance clarified that states may use "in lieu of services and settings" (ILOS) authority to address health-related social needs, including nutrition, in Medicaid managed care. However, few data are available regarding ILOS implementation. This analysis reviewed ILOS policies based on managed care documents from forty states as of October 1, 2024. Thirty-five states have authorized ILOS to address behavioral health, and fourteen states have authorized ILOS to address general medical needs. Twelve states use ILOS to address health-related social needs; of these, only ten address nutrition. In addition, fewer than half of the forty states provide robust guidance regarding evaluation or establishment of new ILOSs. We examine the policy implications of these findings and provide recommendations to strengthen the role of ILOS in improving nutrition, health care costs, and health equity.**

Health-related social needs, such as lack of access to healthy food and stable housing, are associated with suboptimal outcomes in well-being, health equity, and health care use in the United States.[1] Food insecurity and poor nutrition are dominant drivers of a wide range of costly and preventable conditions such as type 2 diabetes, hypertension, coronary heart disease, and several cancers,[2] resulting in premature death and disability[3] and major health care spending.[4] In 2018, chronic diet-related conditions accounted for almost 1.5 million US deaths and at least $383 billion in health care costs.[4]

Historically, the US health care system has failed to effectively assess or address food insecurity and poor nutrition. However, new policy pathways are emerging to support access to interventions that respond to the connections between nutrition and health,[5–11] often described as "Food Is Medicine"[5,6] services or "nutritional supports."[9] Given elevated rates of diet-related conditions that have been documented among low-income Americans,[12] innovations to support access to such services in the Medicaid program are particularly timely and relevant.

In recent years, the Centers for Medicare and Medicaid Services (CMS) has released guidance regarding several policy pathways to advance Food Is Medicine, most prominently Medicaid Section 1115 demonstration waivers and, separately, "in lieu of services and settings" (ILOS) in Medicaid managed care.[9] Recent research has assessed the national scope of states providing nutritional supports via Section 1115 demonstration waivers, an authority that allows states to enact five-year demonstration projects to better meet the goals of the Medicaid program.[10] However, far less analysis is available regarding the implementation of ILOS.

The ILOS policy pathway allows states to ap-

prove flexible, plan-specific strategies to extend coverage to new services, including nutritional supports, as a substitute for more traditional care. Existing literature on ILOS focuses on specific states,[13] service categories,[14] or overall uptake,[15] with little emphasis on nutrition or Food Is Medicine. To address this knowledge gap, we investigated states' current use of ILOS to address patient nutrition, whether states are supporting expansion of these efforts by establishing processes to approve new ILOSs, and whether states have policies in place to evaluate their impact. Our findings provide valuable new evidence on the implementation of ILOS to inform future policy making in this space.

Study Data And Methods

STATE MEDICAID MANAGED CARE CONTRACTS We reviewed federal regulations and guidance to understand the scope of ILOS authority. We then analyzed publicly available Medicaid managed care contracting materials from thirty-nine states and Washington, D.C. (hereafter "forty states"), that operate some portion of their Medicaid programs via contracts with comprehensive Medicaid managed care plans.[16] Oklahoma and Nevada use Medicaid managed care but were excluded because they did not have contracting materials accessible online; the remaining nine states do not have Medicaid managed care.[16]

Federal regulations require that states identify approved ILOSs in their Medicaid managed care contracts.[17] States generally make contracting materials (for example, model contracts, individual plan contracts, and contract amendments) publicly available on their Medicaid websites. One investigator identified and collected contracting materials for the forty assessed states between September 28 and October 1, 2024. As some states operate multiple managed care programs, we restricted our analysis to contracting materials for one program per state, focusing on programs serving the largest portion of the state's Medicaid population and excluding additional programs serving narrower populations (for example, programs for people eligible for both Medicaid and Medicare, or dual eligibles).

In most cases, states provided a single model contract online, which we reviewed, including all amendments. When a state instead made plan-specific documents available, we reviewed the first two plan contracts listed online to assess potential differences in ILOSs at the plan level. If differences in ILOSs appeared between the two plans, we assessed all plan contracts provided by the state for that managed care program. All assessed materials (that is, contracts and amendments) are summarized, dated, and linked in online appendix exhibit A1.[18]

WEBSITE MATERIALS States also often provide supplemental information regarding Medicaid managed care programs on their state websites. We reviewed and extracted information from each state's Medicaid website to capture additional ILOS guidance. All assessed Medicaid website materials are summarized and linked in appendix exhibit A1.[18]

ANALYSIS One investigator extracted information from the contracting materials through application of search terms relevant to ILOS and its governing regulations ("in lieu," "ILOS," "ILS," "substitute," "438.3(e)(2)," and "438.16"). A narrower set of terms was applied for website review to reduce overbreadth ("in lieu of services," "ILOS," "438.3(e)(2)," and "438.16"). When website searches delivered a large set of hits, the first ten documents or sites identified were reviewed. For each source, data were extracted on the type of document, terminology used, and language regarding ILOS. We assessed this language to identify trends across four topic areas: approved services and settings, use of ILOS to address nutrition, evaluation requirements, and process for approving new ILOSs.

LIMITATIONS Potential limitations to our approach should be acknowledged. First, we focused on publicly available contracting materials, including some model contracts and sample individual plan contracts, which might not have captured the full extent of approved ILOSs. However, we also reviewed state website materials to obtain a more complete picture of approved services, reviewed all individual plan contracts when differences appeared in the initial sample, and excluded states that lacked publicly accessible contracting materials.

Second, given the breadth of state approaches to Medicaid services delivery, some states have numerous managed care programs. For consistency, we focused on the broadest program from each state and excluded contracts limited to narrow populations. In doing so, we may have excluded some ILOS programs designed to provide enhanced supports to specific high-need populations (for example, dual eligibles). Nonetheless, our analysis captured the most generally available ILOSs in each state. Finally, managed care contracts can evolve over time, and our analysis should be considered the most contemporary assessment as of October 1, 2024.

Study Results

FEDERAL REGULATIONS AND GUIDANCE Medicaid, which provides health insurance coverage for nearly seventy-three million low-income peo-

ple,[19] is implemented separately by each US state within a broad federal framework. Managed care is the predominant Medicaid delivery model, serving 74 percent of Medicaid enrollees as of 2021.[16] To facilitate innovation in Medicaid managed care, CMS recently released new guidance[20] and regulations[21] clarifying the scope of ILOS authority.

Codified in 2016 at 42 C.F.R. Section 438.3(e)(2),[22] ILOS is a policy pathway allowing states to authorize Medicaid managed care plans to cover nontraditional services and settings as "medically appropriate and cost effective substitute[s]" for services and settings already covered under the state plan.[23] Plans may then choose whether or not to provide these services.[17] Unlike some other options for expanding coverage, such as value-added services,[24] the costs of ILOS can be taken into account when developing plan payment rates[25] and in meeting requirements regarding plan spending (that is, the medical loss ratio).[26]

CMS's 2023 guidance confirms that states may use ILOS to allow coverage of services that respond to health-related social needs, including food insecurity.[20] The guidance also clarifies that states may approve ILOSs that either directly substitute for or reduce the future need for state plan services.[20] This distinction allows states to leverage evidence that nutrition interventions can reduce the need for future services—such as inpatient stays or emergency department visits[27,28]—to justify coverage.

APPROVED ILOS Of the forty states assessed in this study, thirty-six (90 percent) identified specific approved alternative services or settings. In total, we identified 135 distinct approved ILOSs across three broad categories: services or settings addressing health-related social needs (twelve states, twenty-eight ILOSs), services or settings addressing behavioral health[29] (thirty-five states, thirty-nine ILOSs), and services or settings addressing general medical needs (fourteen states, sixty-eight ILOSs). A full analysis of all three types of coverage is in appendix exhibits A2–A5.[18] Within the health-related social needs category, we focus hereafter on the use of ILOS to address nutrition.

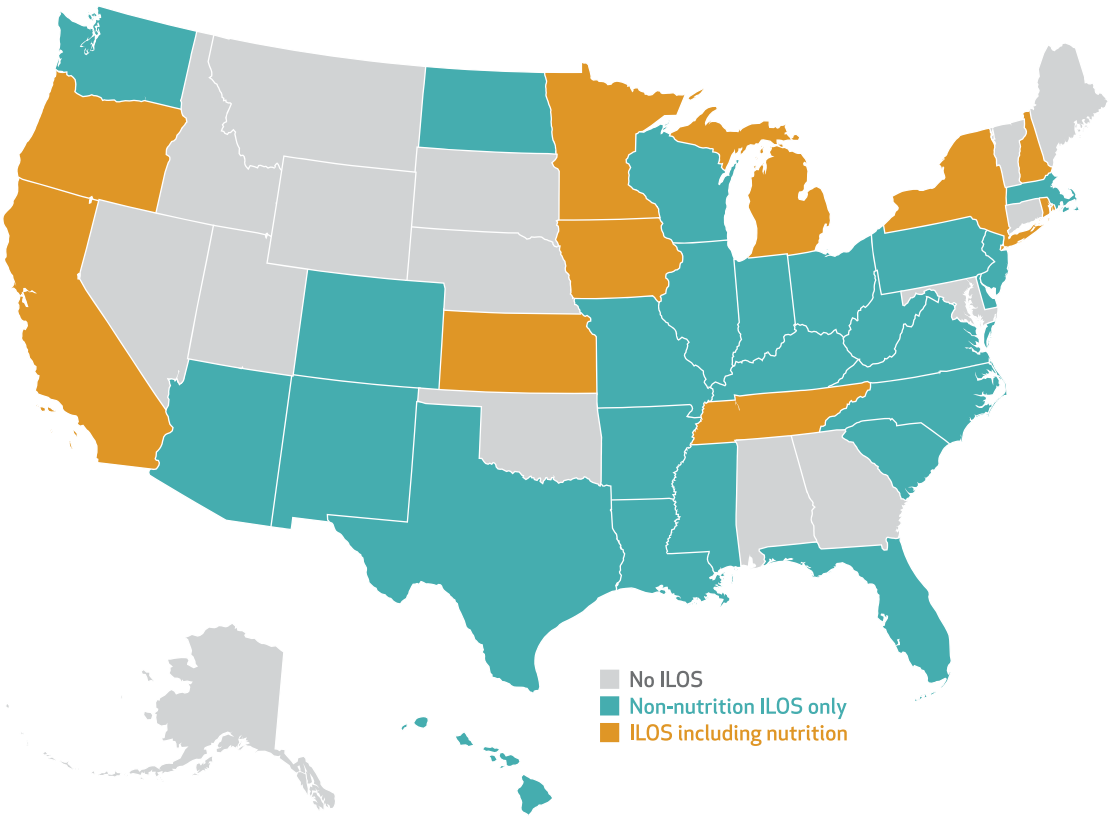
ILOS TO ADDRESS FOOD SECURITY AND NUTRITION Ten states (25 percent) have authorized ILOS to address food security and nutrition (exhibit 1), totaling thirteen distinct services (appendix exhibit A6).[18] Four states (California, Michigan, Iowa, and Minnesota) authorize multiple food-based interventions. California authorizes "medically tailored meals/medically supportive food," a category that includes medically tailored meals, meals delivered to the home, medically tailored groceries, healthy food vouchers, and food pharmacies. Plans may pair these ILOSs with behavioral, cooking, or nutrition education. Eligible people may include those with chronic conditions, being discharged from or at high risk of needing placement at a hospital or nursing facility, or needing extensive care coordination. Michigan similarly authorizes healthy food packs, healthy home-delivered meals, medically tailored home-delivered meals, or produce prescriptions for people meeting clinical (for example, nutrition-sensitive conditions) and social (for example, food insecurity) risk factors. Iowa authorizes medically tailored meals and medically tailored or nutritionally appropriate food prescriptions but limits eligibility to people on the waiting list for Section 1915(c) home and community-based waiver services, who have been recently discharged, have mobility needs and no family support with food access, or are at risk for readmission because of nutritional issues. Minnesota authorizes a single ILOS for each plan, with Medica and UnitedHealthcare authorized to provide home-delivered meals for people postdischarge and PrimeWest Health authorized to provide medically tailored home-delivered meals to people ages 18–64 with type 1 or 2 diabetes who are participating in the plan's Focused Wellness Program. All four states indicate that these services are intended to reduce the need for (that is, substitute for) future acute health care services, such as hospitalizations.

Three states (New York, Kansas, and Rhode Island) offer both a meal benefit and an education and counseling benefit. New York authorizes medically tailored meals and the Brook + Diabetes Prevention Program. Plans may offer medically tailored meals to adults living with severe illness either to prevent the need for hospital inpatient stays or emergency department visits or as a substitute for personal care aide hours. Plans may offer the Brook + Diabetes Prevention Program to adults meeting certain prediabetes criteria. Kansas authorizes medical nutrition therapy (eligibility not defined) and home-delivered meals for people with nutrition needs who lack access to meals or food, to avoid nursing facility placement. Rhode Island authorizes "Meals on Wheels" as a substitute for home care and homemaking services for people in danger of malnutrition and people with limited mobility or access to transportation, and nutrition programs (for example, weight reduction programs for obesity) as a substitute for gastric bypass surgery or weight reduction medications.

New Hampshire and Tennessee each authorize coverage of education and counseling programs and a less defined food-based benefit. New Hampshire authorizes diabetes self-manage-

EXHIBIT 1

States with approved nutrition and non-nutrition in lieu of services and settings (ILOS) in Medicaid managed care programs as of October 1, 2024



SOURCE Information in this exhibit is derived from the authors' collection and analysis of publicly available state Medicaid managed care contracting and website materials for each state's largest Medicaid managed care population between September 28 and October 1, 2024. A full list of reviewed materials is in appendix exhibit A1 (see note 18 in text). **NOTES** The following states do not have Medicaid managed care and therefore have no ILOS: Alabama, Alaska, Connecticut, Idaho, Maine, Montana, South Dakota, Vermont, and Wyoming. In addition, Nevada and Oklahoma were excluded from analysis because their contract materials were inaccessible or unavailable online. The scale of the map precludes showing Washington, D.C., which is in the "non-nutrition ILOS only" category.

ment training,[30] medical nutrition (an undefined term in the document), and partial hospitalization for eating disorders. Tennessee authorizes nutritional programs and supplements (undefined) for people ages twenty-one and older and weight reduction programs for treatment of obesity in people of any age. For both of these states, discussion of eligibility and what these supports substitute for is limited or absent, suggesting that further targeting is based on plan or clinician judgment.

Finally, Oregon authorizes two education programs, each offered in alternative settings or by alternative providers: the National Diabetes Prevention Program, offered by community organizations without standard medical billing infrastructure, for adults with a body mass index of 25 kg/m^2 or higher (23 kg/m^2 or higher for Asian Americans) who have not been previously diagnosed with diabetes and who are not pregnant, and online diabetes self-management programs for people diagnosed with type 1 or 2 diabetes.

ILOS EVALUATION REQUIREMENTS Only nineteen (48 percent) of the forty states include ILOS evaluation requirements in their materials (appendix exhibit A7).[18] The level of detail in these requirements varies widely. Six states require only utilization reporting, whereas thirteen specify more detailed monitoring and evaluation requirements. Washington State provides a particularly robust framework, stating that the plan shall submit an annual "Health-Related Social Need Narrative Report" of each ILOS offered. This report should cover topics such as data for each service (for example, annual cost and utilization), an evaluation of the medical appropriateness of each ILOS, and recommendations to the state.

PROCESS FOR APPROVING ADDITIONAL ILOS Of the forty states, sixteen (40 percent) provide

guidance for Medicaid managed care plans on the process for seeking approval of additional ILOSs (appendix exhibit A7).[18] Eight of these states (Colorado, Kansas, Missouri, New York, North Carolina, North Dakota, Rhode Island, and Tennessee) require managed care plans to submit a specific request form. In contrast, Oregon has established a collaborative process in which stakeholders join discussions with state Medicaid staff to develop new ILOSs.

Discussion

Our national analysis provides an up-to-date assessment of states' use of ILOS in Medicaid managed care plans, including nutrition coverage. We identified several informative trends. First, the vast majority of states with managed care (thirty-six of the forty assessed, or 90 percent) have authorized at least one ILOS. These findings demonstrate that states are widely aware of and using the ILOS pathway to support plan innovation.

We found states most commonly using ILOS authority to address behavioral health needs (thirty-five states). Although states did not detail their policy rationales, these trends are consistent with the history of ILOS and specific attention by policy makers to opioid addiction and mental health. For example, in its 2016 final rule codifying ILOS, CMS acknowledged the role of ILOS in expanding access to behavioral health care and included specific analysis on ILOS coverage of stays in Institutions for Mental Diseases.[22] Federal regulations at 42 C.F.R. Section 438.6(e) provide additional details regarding this application of ILOS authority.[31]

CMS has only more recently acknowledged the potential role of ILOS in addressing a wider range of concerns, including nutrition.[7,9,20] Our analysis provides new evidence on the current applications of ILOS to this pressing health care issue. We found only twelve states using ILOS to expand access to health-related social need–related services, and of these, only ten offer nutrition-focused ILOS.

That a minority of states are leveraging this pathway to address nutrition is consistent with trends under other Medicaid authorities. For example, only sixteen states (California, Colorado, Delaware, Hawaii, Illinois, Massachusetts, Nevada, New Jersey, New Mexico, New York, North Carolina, Pennsylvania, Oregon, Rhode Island, Washington, and Washington, D.C.) have pending or approved Section 1115 demonstration waivers that allow coverage of evidence-based, medically appropriate nutrition supports as part of five-year state pilots.[10,11,32,33] These Section 1115 efforts are distinct from ILOS in several ways. For example, ILOS can only be implemented for managed care populations, whereas Section 1115 demonstrations may be used in both fee-for-service and managed care. However, the trends across these strategies are aligned, and, in fact, some states (for example, California) leverage both authorities simultaneously.[10] In addition, the lack of nutrition-focused ILOS in other states (for example, Massachusetts and North Carolina) may be partly explained by their Section 1115 demonstrations, which are already providing similar supports.[10]

Our findings demonstrate states' interest in using and ability to use ILOS authority to expand access to nutrition services beyond the limited options available under traditional Medicaid benefit categories (for example, through coverage of intravenous feeding support).[5] However, our results also indicate that nutrition offerings within ILOS remain fairly limited. Only ten of the states we examined (25 percent) were identified as having approved nutrition-related ILOS; and of these, three (New Hampshire, Oregon, and Tennessee) appear to limit nutrition interventions to educational services or supplements without provision of medically tailored meals, groceries, or produce. Further, of the seven states with approved food-based supports, only three (California, Iowa, and Michigan) have approved a broad range of therapies beyond meals. Taken together, these findings demonstrate the potential of ILOS as a strategy to support food security and nutrition, but also the opportunity for further state action if this pathway is to become mainstream.

Policy Implications

These findings have implications for both state and national health care policy. Food access, nutrition, and health are deeply connected issues with widespread impacts across US populations, policies, and expenditures.[1–6,8,11,12] A growing body of literature demonstrates the value of integrating nutrition interventions into clinical care.[5,6,11,27,28] However, payers have historically offered few opportunities to support such integration.[28] More recently, federal leaders have publicly acknowledged these gaps[4,8] and taken initial steps to address them through expansion and adaption of existing authorities in Medicare, Medicaid, and other federal health care programs.[8,9,11,20,21,32–35]

Our results suggest that ILOS is one potential pathway to implement and assess the integration of nutrition interventions into Medicaid managed care. States and plan administrators can use the findings from this analysis to assess the potential to add nutrition interventions to their

approved slate of ILOSs. This may be particularly helpful for states that are looking to experiment with coverage of nutrition interventions but are not ready to take more comprehensive action, such as establishing a broader pilot program via a Section 1115 demonstration waiver.[10]

At the same time, our results indicate that although states may use ILOS to address nutrition, relatively few have done so. This suggests that federal and state policy makers may need to examine barriers that could impede uptake. CMS guidance released in January 2023 and December 2024 and regulations finalized in 2024 provided increased clarity[9,20,21] and may encourage state activity. Yet these policies also imposed several new state requirements, such as increased actuarial analysis and attention to oversight and evaluation.[20,21] Future research should therefore continue to monitor the use of ILOS to determine whether innovation to address nutrition increases in the wake of these new policies or whether the new requirements chill uptake. Mixed-methods qualitative interviews or surveys of states, health plans, or enrollees regarding perceptions of benefits and barriers to using ILOS authority to address patients' needs may be especially helpful. Our findings also suggest a need for policy makers to monitor the number and types of ILOSs approved by states to help determine whether new or revised guidance is needed to address potential barriers.

Our results support the need for state Medicaid agencies to assess their own ILOS policies. For example, we identified only sixteen states that provided detailed information in their contract or website materials on how plans could seek approval for new ILOSs. This suggests that many states might not have clear pathways to expand ILOS offerings. In addition, some states provided limited details on ILOS eligibility, creating the potential for disparities across plans or overly restrictive implementation. States should therefore assess their ILOS policies to identify opportunities to streamline and clarify processes.

Finally, we identified only nineteen states as setting clear expectations regarding the evaluation of ILOS. Each new pathway presents an important opportunity to increase understanding of the effect of innovative nutrition interventions on health outcomes, disparities, costs, and patient experience. ILOS programs, especially large-scale efforts such as those under way in California, can allow states and plans to gather and share critical new data on best practices. Our results suggest that states should therefore consider where additional policies and resources could strengthen the evaluation of ILOS efforts without imposing significant new burdens that could deter their uptake by plans.

Conclusion

This analysis provides new detailed evidence on the current approaches of states across the US to ILOS authority. The results can inform federal, state, and plan decision making regarding use of this policy pathway to respond to the complex interplay of nutrition, health-related social needs, and overall health among Medicaid enrollees across the country. ■

This study was supported by the National Heart, Lung, and Blood Institute, National Institutes of Health (Grant No. 5R01HL115189). The funder had no role in the design and conduct of the study; collection, management, analysis, and interpretation of the data; preparation, review, or approval of the manuscript; and decision to submit the manuscript for publication.

NOTES

1 Whitman A, De Lew N, Chappel A, Aysola V, Zuckerman R, Sommers BD. Addressing social determinants of health: examples of successful evidence-based strategies and current federal efforts [Internet]. Washington (DC): Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation; 2022 Apr 1 [cited 2025 Feb 25]. Available from: https://aspe.hhs.gov/sites/default/files/documents/e2b650cd64cf84aae8ff0fae7474af82/SDOH-Evidence-Review.pdf

2 Gregory CA, Coleman-Jensen A. Food insecurity, chronic disease, and health among working-age adults [Internet]. Washington (DC): Department of Agriculture, Economic Research Service; 2017 Jul [cited 2025 Jan 28]. (Report No. ERR-235). Available from: https://ers.usda.gov/sites/default/files/_laserfiche/publications/84467/ERR-235.pdf?v=62273

3 Mokdad AH, Ballestros K, Echko M, Glenn S, Olsen HE, Mullany E, et al. The state of US health, 1990–2016: burden of diseases, injuries, and risk factors among US states. JAMA. 2018;319(14):1444–72.

4 Government Accountability Office. Chronic health conditions: federal strategy needed to coordinate diet-related efforts [Internet]. Washington (DC): GAO; 2021 Aug [cited 2025 Jan 28]. (Publication No. GAO-21-503). Available from: https://www.gao.gov/assets/gao-21-593.pdf

5 Downer S, Berkowitz SA, Harlan TS, Olstad DL, Mozaffarian D. Food Is Medicine: actions to integrate food and nutrition into healthcare. BMJ. 2020;369:m2482.

6 Mozaffarian D, Blanck HM, Garfield KM, Wassung A, Petersen R. A Food Is Medicine approach to achieve nutrition security and improve health. Nat Med. 2022;28(11):

2238–40.
7 Centers for Medicare and Medicaid Services. Opportunities in Medicaid and CHIP to address social determinants of health (SDOH) [Internet]. Baltimore (MD): CMS; 2021 Jan 7 [cited 2025 Jan 28]. Available from: https://www.medicaid.gov/federal-policy-guidance/downloads/sho21001.pdf
8 White House. Biden-Harris administration national strategy on hunger, nutrition, and health [Internet]. Washington (DC): White House; 2022 Sep [cited 2025 Feb 25]. Available from: https://bidenwhitehouse.archives.gov/wp-content/uploads/2022/09/White-House-National-Strategy-on-Hunger-Nutrition-and-Health-FINAL.pdf
9 Centers for Medicare and Medicaid Services. Coverage of services and supports to address health-related social needs in Medicaid and the Children's Health Insurance Program [Internet]. Baltimore (MD): CMS; 2024 Dec 10 [cited 2025 Jan 29]. Available from: https://www.medicaid.gov/federal-policy-guidance/downloads/cib12102024.pdf
10 Hanson E, Albert-Rozenberg D, Garfield KM, Leib EB, Ridberg RA, Hager K, et al. The evolution and scope of Medicaid Section 1115 demonstrations to address nutrition: a US survey. Health Aff Sch. 2024; 2(2):qxae013.
11 Mozaffarian D, Aspry KE, Garfield K, Kris-Etherton P, Seligman H, Velarde GP, et al. "Food Is Medicine" strategies for nutrition security and cardiometabolic health equity: JACC State-of-the-Art Review. J Am Coll Cardiol. 2024;83(8):843–64.
12 Hartline-Grafton H, Dean O. The impact of poverty, food insecurity, and poor nutrition on health and well-being [Internet]. Washington (DC): Food Research and Action Center; 2017 Dec [cited 2025 Jan 29]. Available from: https://frac.org/wp-content/uploads/hunger-health-impact-poverty-food-insecurity-health-well-being.pdf
13 Rosenbaum S, Schmucker S, Rothenberg S, Gunsalus R, Beckerman JZ. Medicaid payment and delivery system reform: early insights from 10 Medicaid expansion states [Internet]. New York (NY): Commonwealth Fund; 2017 Oct [cited 2025 Jan 29]. (Issue Brief). Available from: https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_issue_brief_2017_oct_rosenbaum_insights_10_medicaid_expansion_states_ib.pdf
14 Musumeci M, Chidambaram P, Orgera K. State options for Medicaid coverage of inpatient behavioral health services [Internet]. San Francisco (CA): KFF; 2019 Nov [cited 2025 Jan 29]. Available from: https://files.kff.org/attachment/Report-Brief-State-Options-for-Medicaid-Coverage-of-Inpatient-Behavioral-Health-Services
15 Hinton E, Guth M, Raphael J, Haldar S, Rudowitz R, Gifford K, et al. How the pandemic continues to shape Medicaid priorities: results from an annual Medicaid budget survey for state fiscal years 2022 and 2023 [Internet]. San Francisco (CA): KFF; 2022 Oct [cited 2025 Jan 29]. Available from: https://files.kff.org/attachment/REPORT-How-the-Pandemic-Continues-to-Shape-Medicaid-Priorities-Results-from-an-Annual-Medicaid-Budget-Survey-for-State-Fiscal-Years-2022-and-2023.pdf
16 KFF. Total Medicaid MCO enrollment [Internet]. San Francisco (CA): KFF; [cited 2025 Jan 29]. (Time frame: 2021). Available from: https://www.kff.org/other/state-indicator/total-medicaid-mco-enrollment/
17 Standard contract requirements, 42 C.F.R. Sect. 438.3(e)(2)(iii) (2024).
18 To access the appendix, click on the Details tab of the article online.
19 Centers for Medicare and Medicaid Services. June 2024 Medicaid and CHIP enrollment trends snapshot [Internet]. Baltimore (MD): CMS; 2024 Jun [cited 2025 Jan 29]. Available from: https://www.medicaid.gov/medicaid/national-medicaid-chip-program-information/downloads/june-2024-medicaid-chip-enrollment-trend-snapshot.pdf
20 Centers for Medicare and Medicaid Services. Additional guidance on use of in lieu of services and settings in Medicaid managed care [Internet]. Baltimore (MD): CMS; 2023 Jan 4 [cited 2025 Jan 29]. Available from: https://www.medicaid.gov/federal-policy-guidance/downloads/smd23001.pdf
21 Centers for Medicare and Medicaid Services. Medicaid program; Medicaid and Children's Health Insurance Program (CHIP) managed care access, finance, and quality. Fed Regist. 2024;89(92):41002–285.
22 Centers for Medicare and Medicaid Services (CMS), HHS. Medicaid and Children's Health Insurance Program (CHIP) programs; Medicaid managed care, CHIP delivered in managed care, and revisions related to third party liability. Final rule. Fed Regist. 2016;81(88):27497–901.
23 Standard contract requirements, 42 C.F.R. Sect. 438.3(e)(2)(i) (2024).
24 Standard contract requirements, 42 C.F.R. Sect. 438.3(e)(1)(i) (2024).
25 Standard contract requirements, 42 C.F.R. Sect. 438.3(e)(2)(iv) (2024).
26 Medical loss ratio (MLR) standards, 42 C.F.R. Sect. 438.8(e)(2)(i)(A) (2024).
27 Hager K, Kummer C, Lewin-Zwerdling A, Zhongyu L. Food Is Medicine research action plan [Internet]. Washington (DC): Food and Society at the Aspen Institute; 2024 Apr [cited 2025 Feb 25]. Available from: https://aspenfood.org/wp-content/uploads/2024/04/Food-is-Medicine-Action-Plan-2024-Final.pdf
28 Hager K, Cudhea FP, Wong JB, Berkowitz SA, Downer S, Lauren BN, et al. Association of national expansion of insurance coverage of medically tailored meals with estimated hospitalizations and health care expenditures in the US. JAMA Netw Open. 2022;5(10):e2236898.
29 American Medical Association. What is behavioral health? [Internet]. Chicago (IL): AMA; 2022 Aug 22 [cited 2025 Jan 29]. Available from: https://www.ama-assn.org/delivering-care/public-health/what-behavioral-health
30 Centers for Disease Control and Prevention. About diabetes self-management education and support [Internet]. Atlanta (GA): CDC; 2024 May 15 [cited 2025 Feb 25]. Available from: https://www.cdc.gov/diabetes/education-support-programs/index.html
31 Special contract provisions related to payment, 42 C.F.R. Sect. 438.6(e) (2024).
32 Centers for Medicare and Medicaid Services. Addressing health-related social needs in Section 1115 demonstrations [Internet]. Baltimore (MD): CMS; 2022 Dec 6 [cited 2025 Jan 29]. Available from: https://www.medicaid.gov/medicaid/downloads/addrss-hlth-soc-needs-1115-demo-all-st-call-12062022.pdf
33 Centers for Medicare and Medicaid Services. State waivers list [Internet]. Baltimore (MD): CMS; [cited 2025 Jan 29]. Available from: https://www.medicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/index.html
34 Indian Health Service. Produce prescription programs [Internet]. Rockville (MD): IHS; [cited 2025 Jan 29]. Available from: https://www.ihs.gov/nutrition/produce-prescription-programs/
35 Department of Veterans Affairs, VA Houston Health Care [Internet]. Houston (TX): VA Houston Health Care. Press release, VA and the Rockefeller Foundation join forces to increase healthy food access, improve health outcomes for veterans; 2023 Apr 25 [cited 2025 Feb 25]. Available from: https://www.va.gov/houston-health-care/news-releases/va-and-the-rockefeller-foundation-join-forces-to-increase-healthy-food-access-improve-health-outcomes-for-veterans/