Understanding Health Insurance in America:

Coverage Trends and Spending Inequities

Ming Wang(mwang583@wisc.edu)

Department of Economics, University of Wisconsin-Madison

Professor Ashley Swanson

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Abstract

Over the past decade, the United States has experienced significant shifts in health insurance coverage, yet disparities remain across states. This study aims to explore health insurance coverage and spending trends in the United States from 2013 to 2023, focusing on insured versus uninsured, state-level disparities, and the relationship between healthcare spending and coverage outcomes. Utilizing datasets from the Kaiser Family Foundation (KFF) and the U.S. Census Bureau, our analysis combines time series and geospatial methods to reveal and visualize patterns and inequities. Our findings reveal a significant decline in uninsured rates, primarily driven by expanding public insurance through Medicaid. However, Medicaid coverage gaps in non-expansion states worsen disparities in southeastern and southwestern regions. States that adopted Medicaid expansion and those with higher healthcare spending consistently achieved better coverage outcomes. These results emphasize the importance of targeted policy interventions to close coverage gaps and ensure equitable access to health insurance nationwide.

Analysis

Introduction

The past decade has brought significant changes to health insurance in the United States. The Affordable Care Act (ACA) and subsequent Medicaid expansions have transformed access to healthcare, yet substantial inequalities still exist across state lines. This analysis seeks to answer three key questions: How has the distribution of insured versus uninsured populations changed from 2013 to 2023? What are the differences in health insurance coverage rates between individual states and the national average? How does state-level healthcare spending correlate with coverage outcomes? By addressing these questions, the study strives to uncover systemic disparities and identify opportunities for meaningful policy improvements.

Data Sources

Our study relies on nationally recognized datasets from the Kaiser Family Foundation and the U.S. Census Bureau, both widely regarded as dependable sources for health insurance data. These sources provide detailed information on public and private insurance rates, uninsured trends, and state-level healthcare expenditures. While these datasets provide the flexibility to analyze demographic subgroups, such as age and gender, our study focuses on the entire population to uncover trends that affect the overall U.S. healthcare system. Additional geospatial data from the Census Bureau allowed for visualizing regional differences in insurance coverage.

To ensure compatibility across years, the data was carefully processed and standardized. Insurance categories, such as employer-sponsored and Medicaid were consistently aligned across datasets. Healthcare spending data is normalized to allow comparisons between states.

Methods

      This analysis combined various statistical and visualization techniques to examine trends

and distinctions in health insurance coverage and spending from 2013 to 2023. Our approach

focused on capturing national patterns, summarizing distribution changes, and identifying

state-level differences.

      A time series analysis evaluated national uninsured and insured rate shifts over the

decade. **Figure 1** illustrates a sharp decline in uninsured rates following 2014, aligning with the

implementation of Medicaid expansion and other provisions of the ACA.

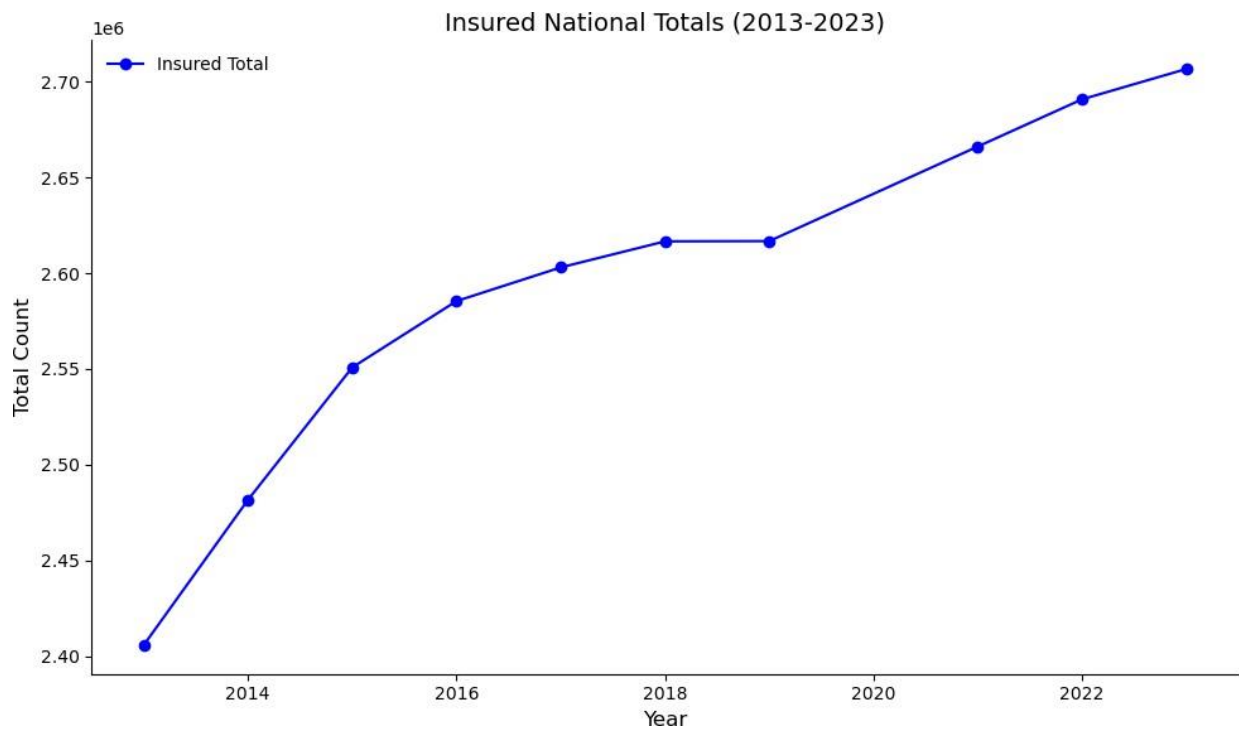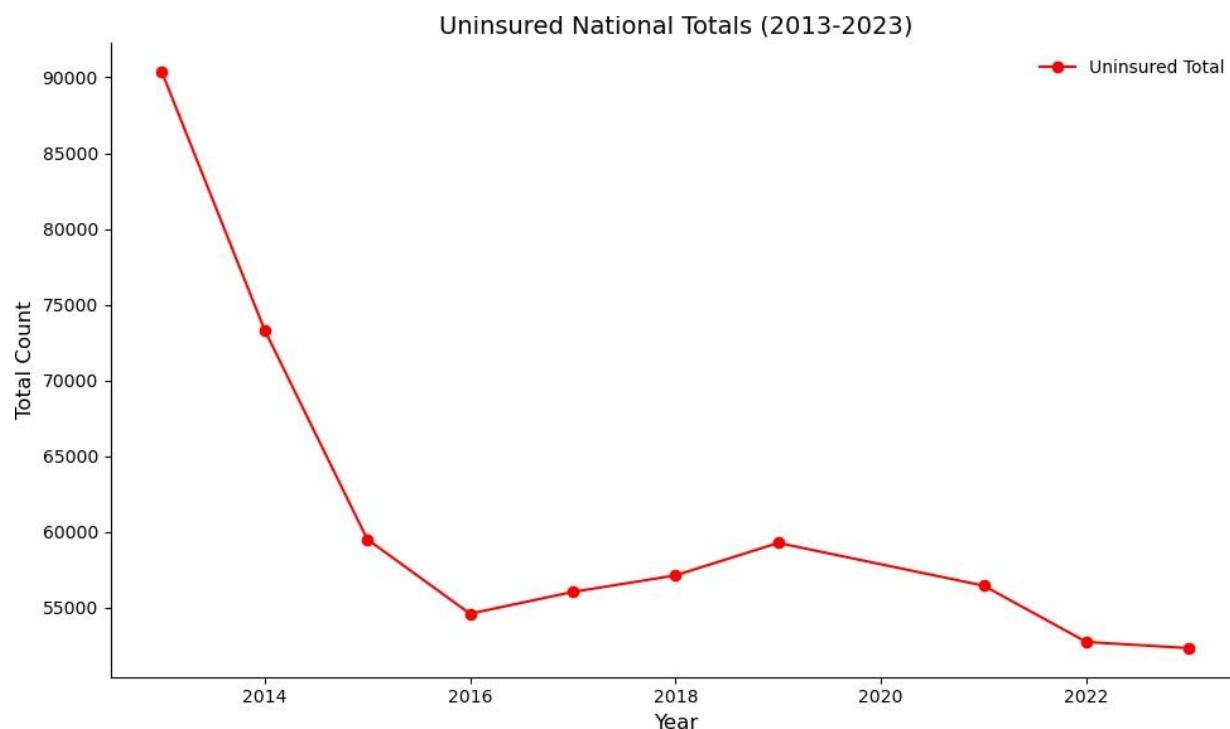**Figure 1**

Trends in Insured Rates (2013-2023)

Figure 2

Trends in Uninsured (2013-2023)

Note. The time series graphs illustrate the steady decline in uninsured rates over the decade, with a sharp reduction following the expansion of Medicaid and ACA provisions. Data sourced from the U.S. Census Bureau.

State-level insurance coverage, including employer-sponsored insurance and Medicaid, was visualized with a choropleth map. The maps for 2013 and 2023 demonstrate changes in coverage composition across states, with a singular focus on Medicaid expansion's impact. In addition, a choropleth map was used to illustrate state-level healthcare spending per capita in 2020. These methods provide a view of national and state-level trends, establishing the framework for findings detailed in the **Results** section.

Results

Our analysis extends beyond general trends in uninsured rates to examine state-level disparities in total health expenditures and the evolution of insurance coverage categories over the 2013-2023 timespan. Total health expenditures cover all personal healthcare services (e.g.,

hospital care, physician services, nursing homes, prescriptions) funded by private and public sources (KFF, 2022). For context, total healthcare expenditures in the United States increased from $1.4 trillion in 2000 to $4.5 trillion in 2022 (McGough, Winger, Rakshit, & Amin, 2023).

The Medicaid expansion under the ACA, intended to provide coverage for nearly all adults with incomes up to 138% (KFF, 2022) of the federal poverty level, was left to the discretion of individual states following a 2012 Supreme Court ruling. As of December 2023, 41 states (including D.C.) had adopted Medicaid expansion, resulting in significant declines in uninsured rates in those states. However, in the nine non-expansion states,[1] low-income adults with incomes above traditional Medicaid eligibility thresholds but below the federal poverty line often fall into a "coverage gap" (KFF). These individuals earn too much to qualify for Medicaid but too little to access Marketplace premium tax credits. This gap worsens already high uninsured rates in these states and contributes to persistent geographic disparities in health insurance coverage (Drake, Tolbert, Rudowitz, & Damico, 2024).

The choropleth in **Figure 3** compares healthcare spending per capita across states in 2020, with a legend indicating the national average of $10,477 (KFF, 2020). This visualization highlights significant variations in spending. States like Massachusetts ($13,319) and New York ($14,007) exceed the national average, while states such as Texas ($8,406) and Utah ($7,522) fall significantly below it. While higher-spending states generally achieve better health insurance coverage rates, this correlation does not imply causation. For example, Alaska ranks third in per capita healthcare spending at $13,642 but remains an outlier with 11.4% of its population uninsured in 2021, the seventh-highest uninsured rate in the nation (United States Census Bureau, 2023). Such inefficiencies in spending highlight the complexity of the relationship between expenditures and coverage outcomes.

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[1] Wisconsin covers adults up to 100% FPL in Medicaid under a waiver but did not adopt the ACA expansion.

Figure 3

Healthcare Spending per Capita Across States and D.C. (2020)

Health Spending per Capita by State (2020)
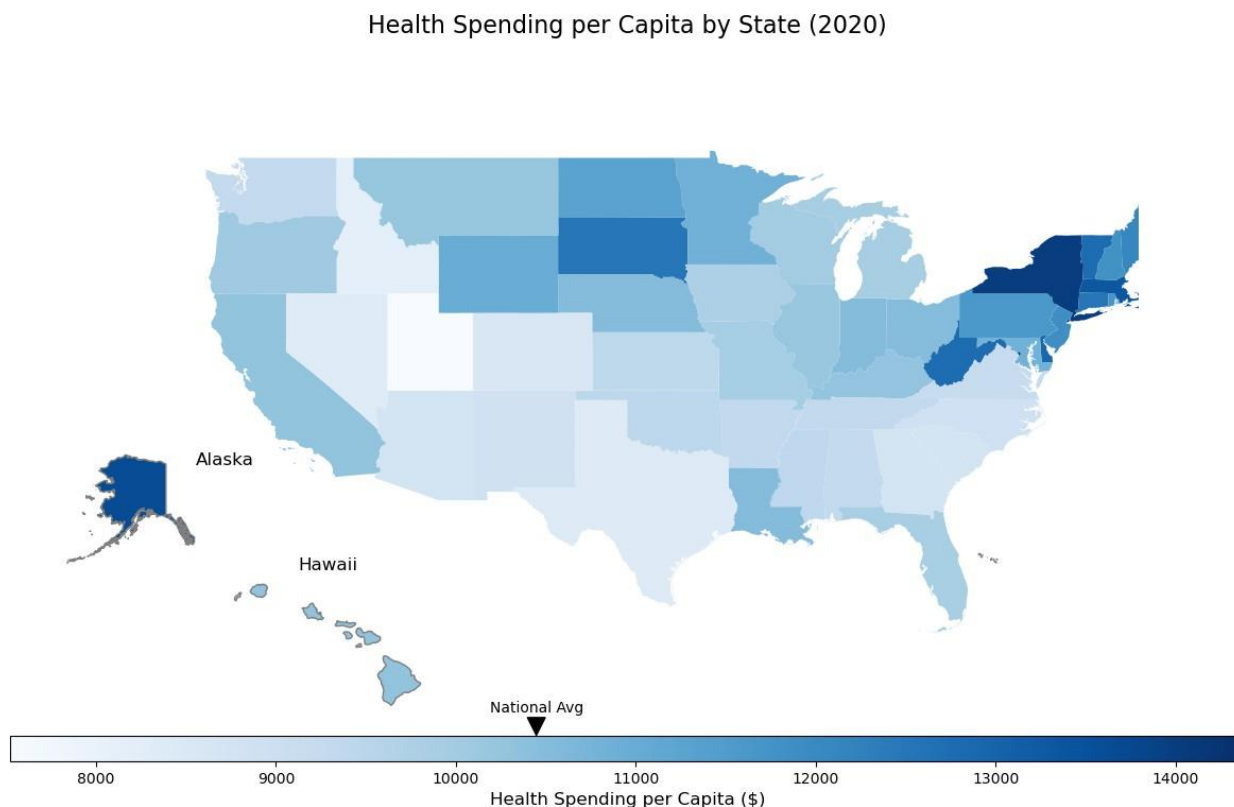
Note. The choropleth map visualizes disparities in health spending across all 50 U.S. states and Washington D.C., In the legend, a national average (10477 $) was added for emphasis. Data sourced from KFF.

While **Figure 3** emphasizes the disparities in healthcare spending and their relationship to insurance coverage, **Figure 4** focuses on the composition of health insurance types across states and Washington D.C. This bar plot compares the makeup of employer-sponsored coverage, non-group plans, Medicaid, Medicare, military, and the uninsured population in 2013 versus 2023, highlighting changes in coverage trends over the past decade.

Figure 4

Different Types of Coverage Across States and D.C.
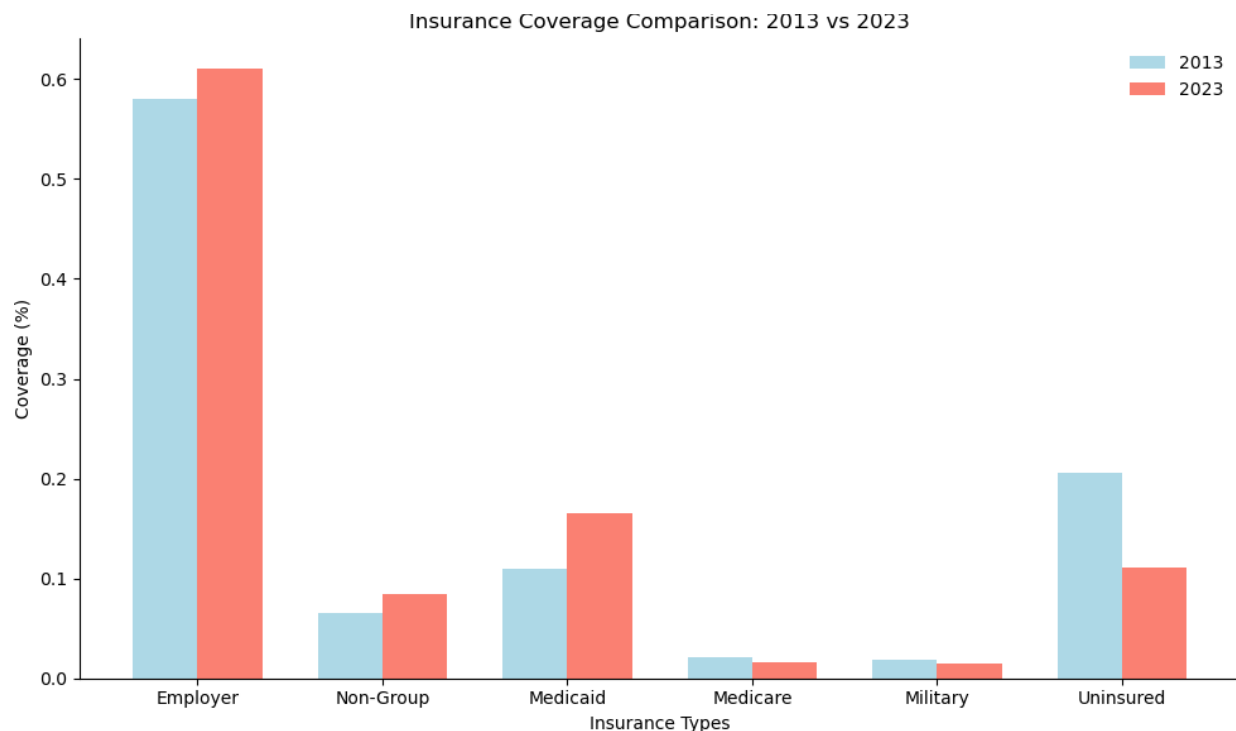
The choropleth map in **Figure 5 and bar plot in Figure 6** provide a comparative view of Medicaid coverage category by state in 2013 and 2023. In 2013 (**Figure 5**), employer-sponsored insurance was the predominant type of coverage nationwide, representing over half of the American population (Healthinsurance.org, 2023). At that time, Medicaid accounted for a smaller share of coverage (11.0%), reflecting a more limited adoption of Medicaid expansion (KFF, 2013). By 2023 (**Figure 7**), Medicaid's share had grown significantly to 16.5%, resulting from the adoption of Medicaid expansion in 41 U.S. states and D.C., with notable increases in states like New York (+7.5%) and California (+10.5%) (Harker & Sharer, 2024). **Figures 5 and 6** illustrate this growth in Medicaid coverage while also showing that employer-sponsored insurance, though slightly declining, continues to play a central role in American healthcare coverage.
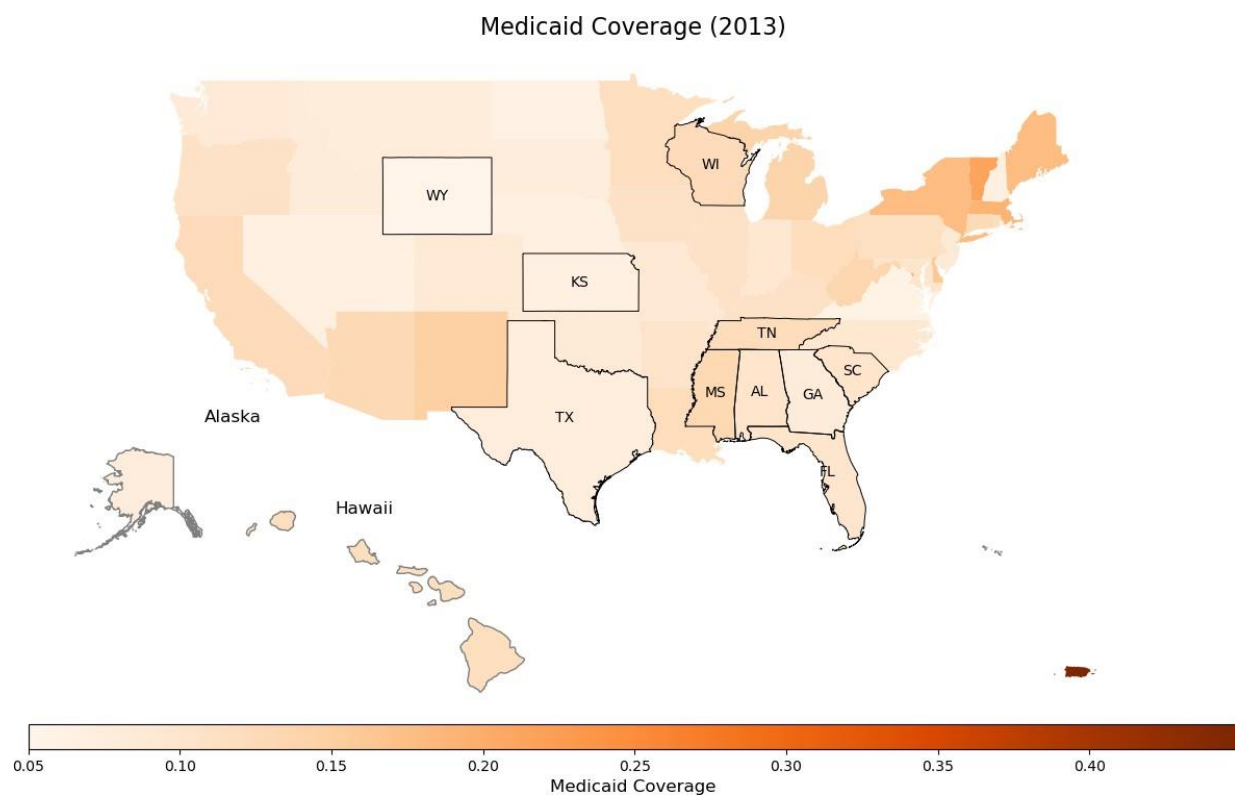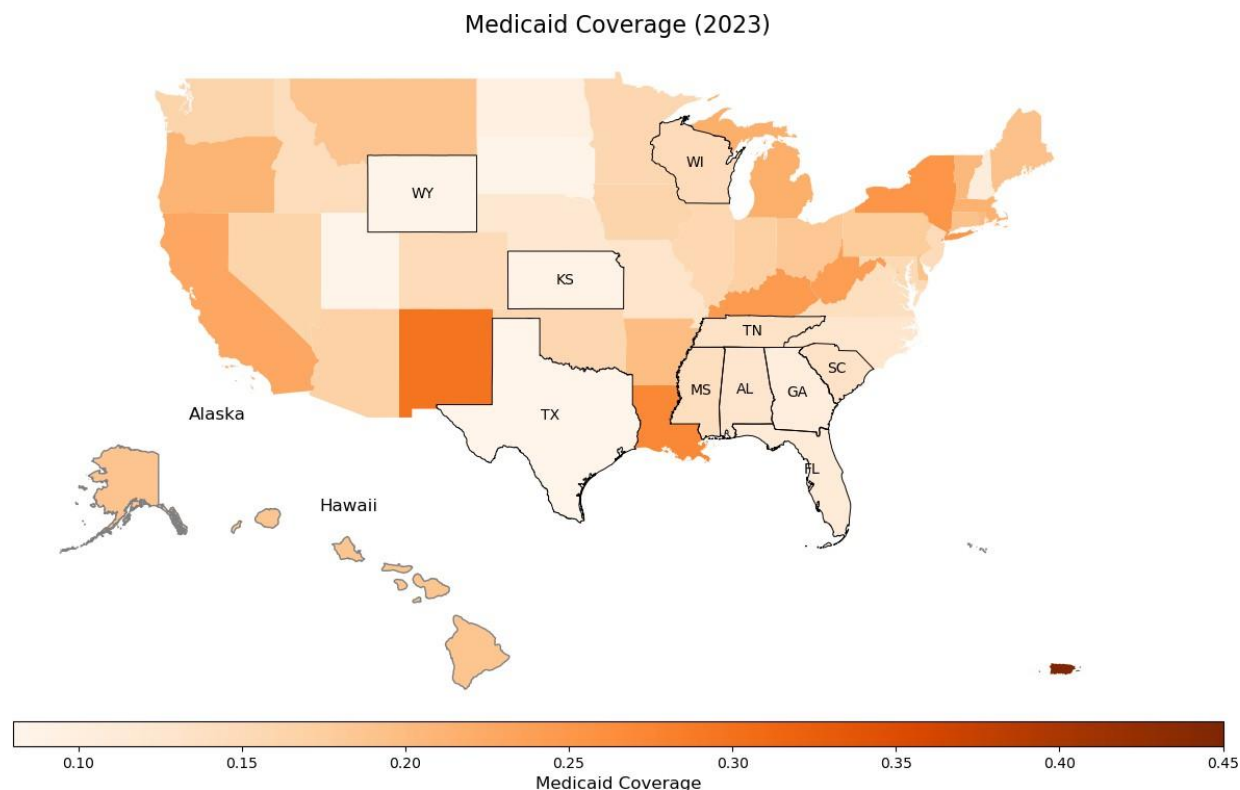
Figure 5

Medicaid Coverage by Category by State (2013)


Medicaid Coverage (2013)

Figure 6

Medicaid Coverage by Category by State (2023)

Note. These two choropleths show the percentage of Medicaid coverage in each state over the last ten years. States that have not adopted Medicaid expansion are outlined. Data sourced from KFF.

These findings highlight the critical role of public insurance programs, particularly Medicaid, in reducing uninsured rates across the United States. However, geographic disparities persist, especially in the 10 states that have yet to adopt Medicaid expansion. **Figure 7** examines this relationship, comparing Medicaid coverage rates with uninsured rates. This gap stresses the importance of federal policies like the 2021 American Rescue Plan, which offers financial incentives to encourage Medicaid expansion. Under this policy, states that expand Medicaid after March 2021 are eligible for a two-year, five-percentage-point increase in the federal matching

rate for their existing Medicaid enrollees (Harker & Sharer). This provision aims to address

inequities in healthcare access by reducing financial barriers for states and improving coverage

for underserved populations. By prioritizing expansion, these policies have the potential to

narrow the differences in health insurance coverage nationwide.

Figure 7
Medicaid Coverage vs Uninsured Coverage (2023)
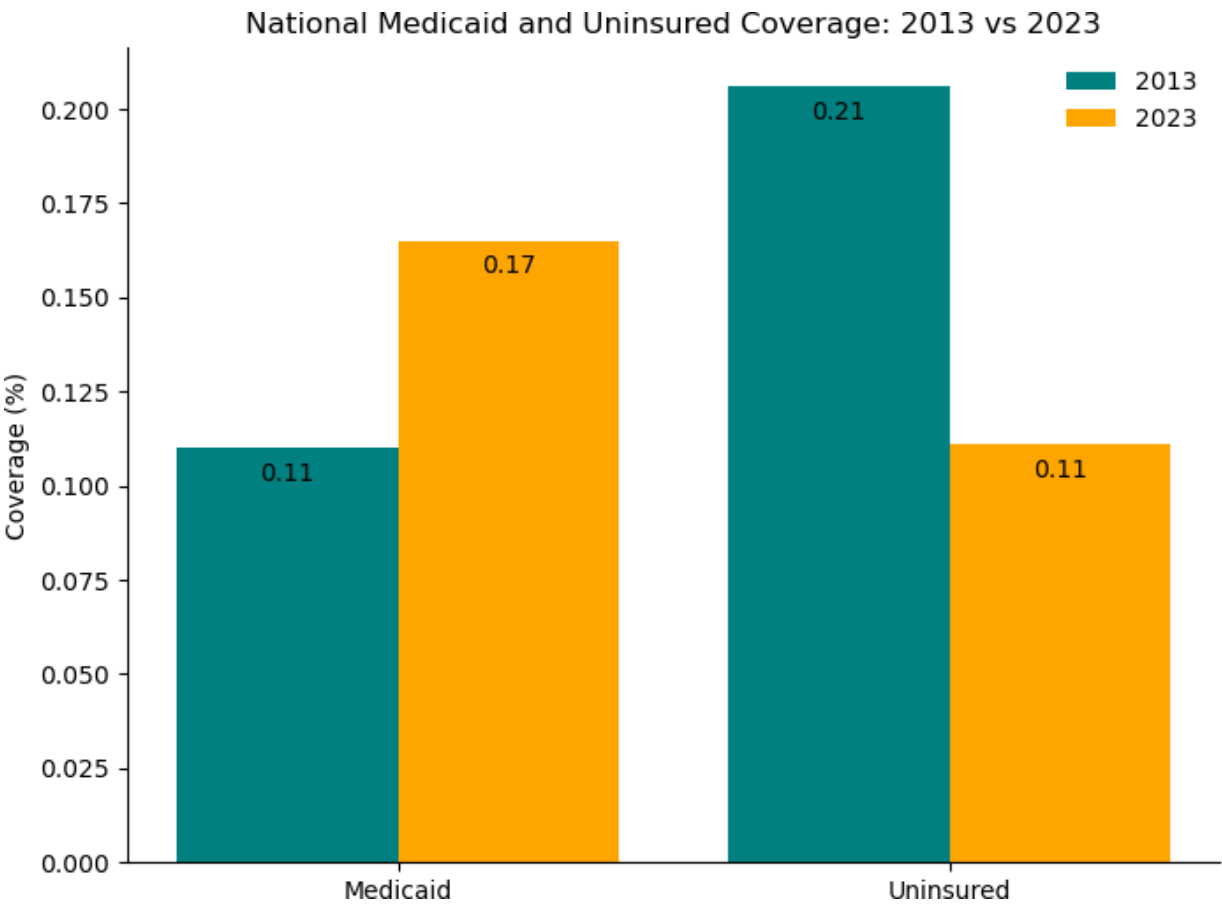
Conclusions and Directions for Future Research

This study explored how the distribution of insured versus uninsured populations

changed from 2013 to 2023, the disparities in health insurance coverage rates across states, and

the relationship between state-level healthcare spending and uninsured rates. Our findings offer

clear insights into each of these areas.

Uninsured rates declined significantly over the decade, with the sharpest reductions occurring after the Affordable Care Act in 2014. This trend was driven by Medicaid expansion and other public insurance programs. However, significant geographic disparities persist, particularly in non-expansion states where coverage gaps deepen already high uninsured rates. These findings emphasize the need for targeted policy interventions to expand Medicaid and address healthcare access and spending inequities.

The relationship between healthcare spending and coverage outcomes is significant but complex. Higher spending states generally achieve better coverage outcomes, but inefficiencies in allocation, as seen in states like Alaska, demonstrate that spending alone is insufficient to guarantee success. Future research should examine the long-term impacts of Medicaid expansion on state-level healthcare spending and population health. Studies could also explore demographic factors like income and age to uncover deeper systemic inequities and compare state-level policies to identify best practices for expanding access and reducing uninsured rates.

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Table HHI-04. Health Insurance Coverage Status and Type of Coverage by Nativity: 2017 to 2023.

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