Medicaid Expansion and Cardiovascular Equity: Progress, Gaps, and Persistent Disparities

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ABSTRACT:

Background
Cardiovascular disease (CVD) is the leading cause of death in the U.S., with low-income and minority populations experiencing disproportionate barriers to care. Medicaid expansion was designed to improve access to healthcare, but its impact on treatment and outcomes of cardiovascular disease remains unclear.

Methods
This literature review searched PubMed to find original research published between 2014 and 2024. Studies were selected based on their assessment of the impact of Medicaid expansion on cardiovascular disease outcomes among adult populations. Literature reviews were excluded.

Results
Medicaid expansion was associated with improved cardiovascular care. Patients were more likely to receive routine health examinations and had increased coverage for percutaneous coronary intervention. In-hospital mortality and readmission rates decreased significantly, but no significant differences were observed in hypertension and cholesterol treatment compared to non-expansion states. Racial and ethnic disparities persisted in procedural interventions and outcomes.

Conclusion
Medicaid expansion has made impactful progress in improving access to cardiovascular disease healthcare among low-income populations. However there are persistent racial and ethnic disparities that still remain. Further work should be done to investigate policies that target these vulnerable populations to improve their access to healthcare and health insurance.

INTRODUCTION:

Cardiovascular disease is the major cause of death in the United States, responsible for nearly 1 in 5 deaths yearly [1]. While some medical advances have improved treatment options, disparities in outcomes often persist, especially among low-income adults and racial minorities [2]. These populations often face barriers such as limited access to preventive care, delayed diagnosis and reduced access to life saving procedures. In 2014 the Affordable Care Act expanded Medicaid to allow states to provide coverage to additional low-income families. This

was done to make healthcare more available and lessen health inequalities. However some states did not adopt Medicaid and it is uncertain whether increased coverage has translated into more equitable cardiovascular outcomes.

Previous studies have demonstrated that Medicaid expansion enhances primary care access and decreases financial barriers, particularly its effect on cardiovascular-specific outcomes, including hospital readmissions, access to procedures, and mortality.

This review seeks to answer the following question: How has Medicaid expansion affected disparities on cardiovascular disease outcomes?

METHODS:

PubMed and Google Scholar were searched to identify original research published between 2014 to 2024 that focus on adult populations. Studies were selected based on their assessment of the impact of Medicaid expansion on cardiovascular disease outcomes. Literature reviews were excluded.

RESULTS:

Oseran et al. performed a cross-sectional study based on national survey data in the US and concluded that 83.7% of low-income adults in expansion states had a usual source of care which means having access to better health outcomes compared to 73.2% in non-expansion states [1]. Also, 78.7% in expansion states had routine exams compared to 67.5% in non-expansion states [1]. Treatment rates for hypertension and cholesterol were, however, the same in both groups and were not statistically significant [1].

Brown-Podgorski et al. employed a quasi-experimental design to evaluate racial differences in cardiovascular mortality [2]. They identified that Medicaid expansion was linked to a 3.8% decrease in cardiovascular mortality among Black adults, which closed the Black-White mortality gap by 1.4 percentage points, although disparities remained in numerous areas in the United States [2].

Valdovinos et al. looked at access to hospitals with percutaneous coronary intervention (PCI) capability and determined that expansion raised access by 6.4% and lowered in-hospital mortality for acute myocardial infarction (AMI) patients by 1.8 percentage points [3]. While these gains were made, racial and ethnic disparities in treatment rates persisted, with White patients undergoing PCI at rates 12–15% greater than Black and Hispanic patients [3].

Hsia et al. examined racial and ethnic disparities in AMI care and discovered that Medicaid expansion lowered 30-day readmission by 2.1% overall [4]. Still, procedural disparities remained, with minority patients undergoing PCI 10.3% less frequently compared to White patients, even after the expansion [4]. Hsia et al. investigated ischemic stroke readmission rates and discovered that Medicaid expansion closed racial gaps in follow-up care [4]. Follow-up

appointment rates rose by 7.5% for Black patients in expansion states, for instance, but disparities in outcomes like functional recovery and long-term disability persisted [5].

DISCUSSION:

This review indicates that Medicaid has a significant impact on increasing access to cardiovascular care, with a particular benefit for low-income and minority communities. Individuals in expansion states had a better likelihood for receiving health routine checks, having access to PCI, having capable hospitals, and receiving life saving intentions. But these measures of access did not necessarily correlate with improved outcomes, however racial differences in mortality and readmissions remained suggesting that insurance coverage is not enough to eradicate disparities in health.

Osren et al. stated that medicaid expansion helped more adults get regular care [1] 83.7% of the low income adults in expansion states had a usual source of care vs 73.2 % in nonexpansion states, however treatments for hypertension and cholesterol didn't have a significant improvement even with higher improvement [1]. Brown-Podgorski et al. identified that Medicaid expansion reduced the gap of heart-related deaths between Black and white adults [2]. A 3.8 decrease in mortality among Black adults closed the Black-White mortality gap by 1.4 percentage points, but disparities throughout the nation still remain [2].This informs us that Medicaid expansion increased access to care, but didn't fully resolve all disparities; racial health gaps are still a problem.

Valvidinos et al. informs us that expansion raised access by 6.4% in-hospital deaths dropped by 1.8% but white people still got percutaneous coronary intervention 12-15% more times than Blacks or Hispanics [3]. This indicates that expansion saved lives but treatment wasn’t equal across racial groups. Hsia et al. explain that Medicaid expansion reduced hospital readmissions after heart attacks; 30 days readmissions dropped by 2.1% however there were still some patients that had less procedures for disease treatments like (PCI) 10.3% less than white patients [4]. Medicaid expansion has made meaningful progress in improving access to care, especially for underserved populations. However, persistent racial and ethnic disparities highlight the need for broader reforms that go beyond coverage—targeting systemic barriers in healthcare delivery to achieve true equity in cardiovascular outcomes.

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