

Title: Widening the Gap: A Difference-in-Differences Analysis of Israel's 2010 Capitation Reform and Regional Health Disparities

Extended Abstract:

Health equity has long been a guiding principle of Israel's National Health Insurance system, yet persistent regional disparities in health outcomes remain a central challenge. In response, the Israeli government revised its capitation formula in 2010, introducing additional weighting for peripherality and gender, as well as age-based adjustments. This reform was designed to incentivize Health Plans (HPs) to allocate more resources to underserved populations in peripheral regions, with the explicit aim of reducing health inequalities. Despite these intentions, little is known about whether the reform translated into measurable improvements in population health.

This study evaluates the impact of the 2010 capitation reform on regional health disparities using a difference-in-differences (DiD) approach. We employ panel data covering 15 sub-districts over 21 years (2002–2022), yielding 315 observations, and draw on the Israeli Social Survey, which includes approximately 7,500 respondents annually. Our outcome measure is self-reported health (SRH), a widely used indicator of general health status. The key explanatory variable is the Peripherality Index, used both as a continuous measure and as a binary classification, distinguishing peripheral from non-peripheral regions. Regression models include sub-district and year fixed effects and control for sociodemographic characteristics such as age, education and income.

The findings reveal a counterintuitive outcome: rather than narrowing health gaps, the reform coincided with a widening of disparities. Prior to 2010, peripheral regions were gradually converging with central regions in SRH. However, following the reform, this trend reversed. The DiD estimates confirm a statistically significant widening of the health outcomes gap after the reform's introduction.

These results highlight the limitations of relying on formula-based funding reallocations in the absence of effective implementation mechanisms. While the reform increased resources allocated to peripheral-serving HPs, it failed to ensure that these additional funds were translated into investments in healthcare infrastructure, service delivery, or personnel in underserved areas. In many peripheral regions, HPs faced limited competition, which reduced incentives to improve services despite receiving increased funding. This dynamic illustrates what policy scholars term an "implementation deficit," whereby well-intentioned policies falter not at the design stage but in their execution.

The contribution of this study is threefold. Theoretically, it situates the Israeli experience within broader debates on policy failure and equity in health systems, reinforcing the importance of implementation design. Empirically, it provides the first sub-district-level assessment of the 2010 reform's impact on population health, using two decades of nationally representative data. Methodologically, it demonstrates the utility of difference-in-differences analysis for evaluating natural experiments in health policy.

The policy implications are clear: financial redistribution alone is insufficient to address entrenched disparities. Policymakers must complement funding reforms with accountability structures, monitoring mechanisms, and targeted incentives to ensure resources are effectively deployed where they are most needed .

Israel's 2010 capitation reform offers a cautionary tale of how policy ambitions can diverge from outcomes when implementation is not adequately addressed. For health systems worldwide, the lesson is that equity requires not only equitable allocation but also robust mechanisms to ensure that resources improve care and health outcomes in disadvantaged communities.

Keywords: Health disparities, capitation reform, self-reported health, implementation deficit, regional inequality, Israel