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## Public health and the economy could be served by reallocating medical expenditures to social programs



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#### ABSTRACT

As much as 30% of US health care spending in the United States does not improve individual or population health. To a large extent this excess spending results from prices that are too high and from administrative waste. In the public sector, and particularly at the state level, where budget constraints are severe and reluctance to raise taxes high, this spending crowds out social, educational, and public-health investments. Over time, as spending on medical care increases, spending on improvements to the social determinants of health are starved. In California the fraction of General Fund expenditures spent on public health and social programs fell from 34.8% in fiscal year 1990 to 21.4% in fiscal year 2014, while health care increased from 14.1% to 21.3%. In spending more on healthcare and less on other efforts to improve health and health determinants, the state is missing important opportunities for health-promoting interventions with a strong financial return. Reallocating ineffective medical expenditures to proven and cost-effective public health and social programs would not be easy, but recognizing its potential for improving the public's health while saving taxpayers billions of dollars might provide political cover to those willing to engage in genuine reform. National estimates of the percent of medical spending that does not improve health suggest that approximately \$5 billion of California's public budget for medical spending has no positive effect on health. Up to 10.500 premature deaths could be prevented annually by reallocating this portion of medical spending to public health. Alternatively, the same expenditure could help an additional 418,000 high school students to graduate.

#### 1. Introduction

The United States spent \$3.2 trillion or \$9990 per person on healthcare in 2015 (Centers for Medicare and Medicaid Services, 2015b) and ranks first in the world for per-capita healthcare spending, which is more than double the average within the Organization for Economic Cooperation and Development (OECD) (Organisation for Economic Co-operation and Development, 2015).

Despite this elevated level of healthcare spending, Americans have both shorter life expectancy and poorer health than residents in most other OECD countries (Avendano & Kawachi, 2014; Bezruchka, 2012; National Research Council and Institute of Medicine, 2013). This US health disadvantage has been attributed to a number of cross-country differences, but differences in prices and administrative inefficiencies are major drivers of the excess costs in the US system that are also under policy control. A recent report in *The New York Times* (Rosenthal, Lu, & Cram, 2013) took note of sharply discordant prices for standard healthcare services in the US compared to other countries. An MRI scan whose cost averages \$319 in the Netherlands costs three

times that amount in the US; a hip replacement that averages \$8000 in Spain costs quintuple that amount in the US; and a dose of Lipitor that averages \$6 in New Zealand costs 12 times as much in the US. These examples may be extreme, but they are hardly unique or marginal. The US pays a much higher cost per service delivered than any other developed country (Squires, 2012). In a *New England Journal of Medicine* commentary, two well-known health economists have pointed out that simply standardizing insurance products could reduce administrative hassles, resulting in savings of \$200 billion annually (Fuchs & Milstein, 2011). A report from the Institute of Medicine (Young & Olsen, 2010) estimated \$425 billion a year in excessive costs-per-service delivered, including \$130 billion in inefficiently delivered services, \$190 billion in excessive administrative costs, and \$105 billion in prices that are too high (2009 dollars).

Urgent and well-argued calls have been issues for the public health community to engage in a more informed debate about how best to allocate resources to achieve health for all (McDonough, 2016). Important observations are that a much higher fraction of public spending is on healthcare in the US than in peer countries, that a much

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smaller fraction is on public health and social spending, and that the US lies beyond what economists call "the flat of the curve," the area at which additional spending on healthcare has little value, and may actually be harmful. Why do these problems persist when they seem so clearly harmful?

There is, in American medicine, a misleading narrative about hard tradeoffs: that reducing spending requires depriving people of coverage, that expanding coverage to new populations requires reducing the benefits of those with existing coverage; that enhancing the benefits will bankrupt the system; and that reducing prices will cost lives. In fact, none of these suggested tradeoffs is confirmed by empirical evidence. The purpose of the analysis here is not to make any firm claims about the impact of reallocating expenditures, but rather to show where the real tradeoffs lie.

There is at least an implicit, and possibly quite real, tradeoff between US public spending for medical care versus other social services—for which US spending is a much smaller portion of GDP than in other OECD nations (Avendano and Kawachi, 2014; Stuckler, Basu, & McKee, 2010). This difference raises the question of whether foregone investment in non-medical social services contributes to poorer health outcomes.

Cross-national studies have observed positive associations between non-medical social spending and population health: on average, countries with greater levels of social spending have longer average life expectancies, lower infant mortality rates, and fewer potential years of life lost (Bradley et al., 2016; Bradley, Elkins, Herrin, & Elbel, 2011; Kangas, 2010). An analysis of 15 European Union countries estimated that a \$100 increase in non-medical social-welfare spending was significantly associated with a 0.99% drop in all-cause mortality and a 2.8% decrease in alcohol-related mortality (Stuckler et al., 2010). Within the United States, states with higher per capita non-medical social welfare and education spending had lower rates of suicides and teenage births (Zimmerman, 1987). And states with higher non-health social-to-healthcare spending ratios had significantly better state-level health outcomes for asthma, lung cancer mortality, and limitation in daily activities (Bradley et al., 2015).

Moreover, interventions in public health, education, early child-hood development, housing, and transportation have been shown to generate financial returns. For example, these program types generate increased tax revenue from higher earnings and reduced expenditures in law enforcement—that outweigh the cost of the programs (Carlson, Haveman, Kaplan, & Wolfe, 2011; Gallivan, Ang-Olson, Liban, & Kusumoto, 2011; Reynolds, Magnuson, & Ou, 2010; Tsemberis, 2010).

But while current evidence indicates that non-medical social spending improves population health at the margin, the same cannot be said for healthcare spending. Several studies have shown that higher per capita spending does not translate to better quality of care or health outcomes (Fisher et al., 2003a,b; Rothberg, Cohen, Lindenauer, Maselli, & Aaurbach, 2010), and faster medical spending growth in the US (1970–2002) than in other OECD countries has not resulted in more rapid improvements in health or longevity (White, 2007). Indeed, Institute of Medicine roundtable panelists have estimated that between 20% and 30% of health care spending could be saved without compromising health care quality and health outcomes (Institute of Medicine Roundtable on Evidence-Based Medicine, 2010; Wennberg, Fisher, & Skinner, 2002), a staggering \$750-\$765 billion in excess health care in 2009, approximately \$830-\$846 billion in 2015 dollars (Institute of Medicine Roundtable on Evidence-Based Medicine, 2010).

Uncontrolled increases in healthcare spending reduce federal and state budgets for spending on other social programs. For example, rising Medicaid costs have been linked to decreases in higher-education appropriations across states (Fossett & Burke, 2004; Kane & Orszag, 2003), and some US senators have expressed concerns that healthcare expenditures crowded out their states' abilities to spend on other priorities (The White House, 2009). Furthermore, mid-year state

budget adjustments show that states expand health care budgets, often at the expense of other social programs. Of the 16 states that increased their budgets at mid-year in fiscal year (FY) 2015, ten states (63%) increased their Medicaid budget, of which five reduced budget allocations in education, public assistance, or transportation (National Association of State Budget Officers, 2015).

This study uses recent experience in California to examine whether rising medical expenditures are plausibly crowding out other social spending, and if so, what the social opportunity cost of that crowd-out might be.

#### 2. Methods

This analysis uses 25 years of fiscal data from the state of California to assess the crowding-out of non-medical social spending by rapidly increasing health care costs. California was chosen because state Proposition 13 and several state laws make raising taxes difficult, thereby creating a firm budget cap. Moreover, California leans heavily Democratic and has become more so over the study period, suggesting that any reduction in non-medical social spending observed during the 25 years studied cannot be attributed to ideological preferences against such spending.

In California the vast majority of K-12 education resources comes from the state, not local districts, and funding for K-12 education is determined by formulas passed by Propositions 98 (1988) and 111 (1990). An approximate result of this very complex statute is that 40% of the general fund must be spent on K-12 education and community colleges. As a result, one would expect that K-12 education spending as a percentage of annual General-Fund expenditures would remain relatively constant throughout the study period.

As medical spending increases nationally, including in California, the state's effective budget cap implies that less must be spent on the other functions of government, particular on those public health and social expenditures outside of K-12 education.

To test these hypotheses, 25 years of California expenditure data — from FY1990 through FY2014 — were reviewed. Data for this analysis were gathered from Schedule 9: Comparative Statement of Expenditures forms, provided by the California Department of Finance. The General Fund is the principal fund for financing state programs. The primary sources of the General Fund are sales and use taxes, income tax, and corporation taxes (State of California). The General Fund does not include Special Funds and Selected Bond Funds that are restricted for specific government functions or activities. The analyses were focused on General Fund expenditures because spending from this source is determined by the Governor and Legislature and is therefore a modifiable policy outcome from one year to the next. All expenditures were adjusted to 2015 dollars.

General-Fund expenditures were categorized into four main categories:

- healthcare (e.g., healthcare services, state hospitals, rehabilitation, etc.)
- K-12 education
- public health and other social spending; and
- all other expenditures, including corrections and rehabilitation (excluding prison healthcare)

Other social spending included higher-education expenditures, spending on social services, child support services, housing and community development, and so on.

#### 3. Results

Consistent with expectations, public spending in California was relatively flat during this period. From 1990 to 2014, real per-capita spending rose modestly from \$2340 to \$2880, which represented a

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