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The health financing transition: A conceptual framework and empirical evidence

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ABSTRACT

Almost every country exhibits two important health financing trends: health spending per person rises and the share of out-of-pocket spending on health services declines. We describe these trends as a "health financing transition" to provide a conceptual framework for understanding health markets and public policy. Using data over 1995–2009 from 126 countries, we examine the various explanations for changes in health spending and its composition with regressions in levels and first differences. We estimate that the income elasticity of health spending is about 0.7, consistent with recent comparable studies. Our analysis also shows a significant trend in health spending – rising about 1 per cent annually – which is associated with a combination of changing technology and medical practices, cost pressures and institutions that finance and manage healthcare. The out-of-pocket share of total health spending is not related to income, but is influenced by a country's capacity to raise general revenues. These results support the existence of a health financing transition and characterize how public policy influences these trends.

Introduction

Most countries seem to manifest two basic health spending trends over time: health spending per person increases and the share of health spending that is paid out-of-pocket declines. An extensive literature examines the determinants of the first trend – growing health expenditures – and finds that the major factors are rising income; changes in medical technology and practices; population aging; higher prices; and changes in the financing and management of healthcare. In contrast, very little attention has been paid to macro-level explanations for the second trend – the declining share of out-of-pocket health expenditures – though political scientists and historians have written extensively on the factors behind public policies that contribute to this pattern.

This paper proposes that these trends should be considered together as a "health financing transition" (de Ferranti, 2007; Savedoff et al., 2012), analogous to the demographic and epidemiologic transitions (see Chesnais (1993), Omran (1971), and Savedoff et al. (2012)). As with the demographic and epidemiologic transitions, the health financing transition is neither inevitable nor universal but it is widespread. Like the other two transitions, countries begin the health financing transition at different times, move through it at different paces, and sometimes may even undergo reversals. Economic, political and technological factors move countries through this transition, with public policies that expand pooled funding (through subsidised provision or mandatory insurance) playing a particularly important role.

The health financing transition has significant implications for public health, equity, and growth. Increasing real resources and buying more health care for more people have contributed to better population health including in developing countries (Bokhari, Gai, & Gottret, 2007; Moreno-Serra & Smith, 2012). But it is the composition of spending and how it is spent that affects its efficiency and equity. Institutions which pool funding from large groups of people and manage health care spending on their behalf are not necessarily efficient, but they do appear to be a necessary condition for both improving the efficiency and equity of health care coverage. At a minimum, people living in countries with institutions for pooling health spending and limiting out-of-pocket health expenditures are less likely to be impoverished by health care costs particularly in certain Latin American countries and countries in transition (Xu et al., 2007).

This paper begins by describing the health financing transition and identifying some common patterns. Second, it reviews the literature on the determinants of total health spending and out-of-pocket health spending. Third, using data for 126 countries from 1995 to 2009, the paper analyses the determinants of health spending and its composition, testing whether the health financing transition is observed on average in this relatively short time period.

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The health financing transition: a conceptual framework

What is the health financing transition?

The health financing transition describes the major shift that most countries experience from an early period in which health spending is low and primarily out-of-pocket to a later period in which health spending is high and primarily pooled. Before the 19th century, health financing mostly involved individuals compensating healers, midwives and doctors out-of-pocket. Financial innovations emerged later, such as communities experimenting with paying caregivers on retainer and guilds pooling members' contributions to create insurance funds (Savedoff & Smith, 2011). Broader social and political change has led most countries to adopt prominent roles for government in promoting the expansion of non-governmental insurance institutions, establishing government-run insurance funds, or creating publicly-financed healthcare services.

These institutional changes in health financing are also related to economic and technological changes. Rising productivity has increased incomes, allowing households to spend more on healthcare services and providing a larger tax base for government programs. Technological change also drives increased health spending, creating new services that help maintain or improve health. The decline in the out-of-pocket share, however, is driven primarily by the process of incorporating more people into pooled health financing arrangements, whether as insurance enrollees or as citizens eligible for publicly-provided care.

The health financing transition can be illustrated as a rise in total health spending per person, accompanied by a less than proportional increase in out-of-pocket health spending. As an example of this transition, we use data for four countries (Australia, Finland, France, and the United States) with readily available historical data. In these countries, nominal per capita health spending rose by more than 8 per cent per year between 1960 and 2010 (approximately 4.5 per cent after adjusting for inflation) (see Fig. 1) which is comparable to the average increase in nominal and real health spending per capita for the 13 OECD countries which report historical data on health spending back to 1960 (see Appendix Table 1). Over the same time period, out-of-pocket spending also rose but at a slower rate such that the out-of-pocket share of total health spending fell from 35.8 to 19.3 per cent in Australia; 43.6 to 19.2 per cent in Finland; 30.3 to 7.4 per cent in France; and 48.9 to 11.7 per cent in the United States. These are the only four countries for which we found OECD data on out-of-pocket health spending in the 1960s so we cannot assess how generalizable this pattern may be without additional information.

In shorter time frames, the health financing transition can also be observed. In a sample of 126 countries (data described later), the out-of-pocket share of health expenditures declined on average by 0.2 percentage points annually between 1995 and 2009 after controlling for income and other factors. This shift is most apparent among the 46 low-income countries in which pooled health expenditures – i.e. health expenditures not funded out-of-pocket but rather through government or other insurance mechanisms – rose from an average of 47 per cent to 53 per cent. By contrast, the pooled share among 23 high-income countries was unchanged at 82 per cent.

In most countries, out-of-pocket spending increases in absolute terms but its *share* of total health spending declines because pooled expenditures grow faster (Fig. 2). Three important patterns for the health financing transition emerge when comparing the rate at which out-of-pocket and pooled spending change:

1. When pooled health expenditures rise and out-of-pocket spending declines or stays the same, countries move rapidly through the health financing transition (countries in the lower-right quadrant of Fig. 2 such as Thailand).
2. When pooled health spending rises faster than the pace at which out-of-pocket spending rises, countries progress through the health financing transition more slowly (countries in the lower triangle within the top-right quadrant of Fig. 2 such as Brazil).

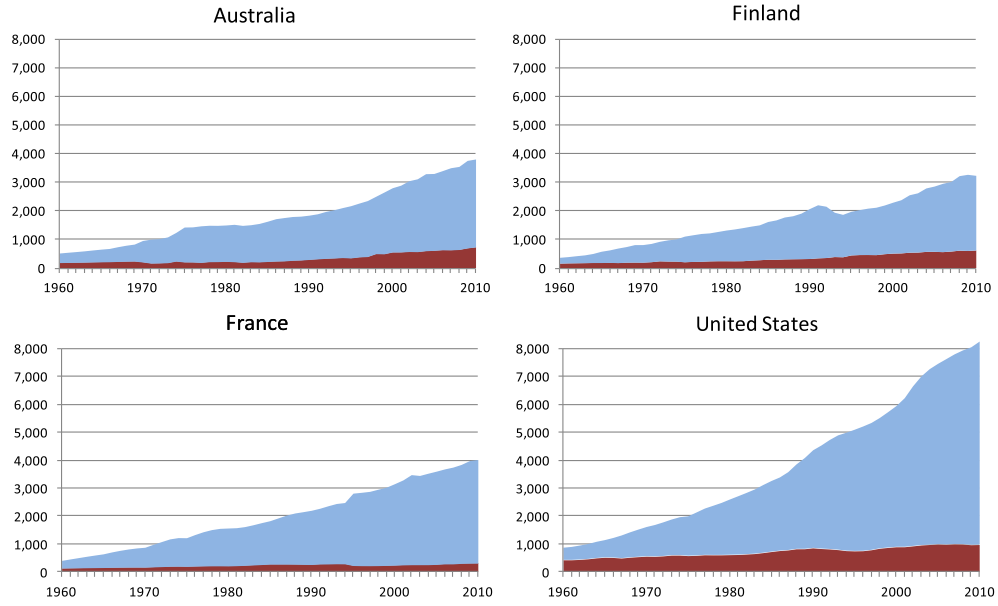

Fig. 1. Rising health expenditures and pooled shares in four countries, 1960–2010 (2010 US purchasing power parity dollars).
Source: Authors' calculations from OECD Health Data 2013, accessed Sept. 20, 2013. *Notes*: The OECD has health expenditure data back to 1960 for 13 countries but only has out-of-pocket spending data in the 1960s for the four countries displayed here. The OECD reports data in current US purchasing power parity dollars. To indicate real trends in spending, the authors have corrected the series with the US GDP deflator as reported by the US Federal Reserve Bank of St. Louis (http://research.stlouisfed.org/fred2). As a result, the figures are only an approximation of real spending trends.