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The Right to Health: Institutional Effects of Constitutional Provisions on Health Outcomes

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Abstract The "right to health" is increasingly enshrined in national constitutions around the world—present today in a slight majority of written constitutions. Whether this trend is good, bad, or meaningless is considerably debated. Contrary to skeptics' worries, this study finds empirical evidence of a positive role of the right to health in the production of population health. Estimating the most widely promulgated theories of the economic and social determinants of health, and the role of electoral democracy, provides a foundation from which to evaluate the effect of the right to health. This study assembles and analyzes data for 144 countries between 1970 and 2010 and finds that, controlling for these factors, a constitutional right to health contributes significantly to wellbeing. Assembled quantitative and case-study evidence both support the idea that institutional environments shaped by a right to health encourage more and better delivery of health services, which in part account for positive impact on health outcomes. These results suggest that focusing research on political institutions primarily on democratic participation rights ignores important impacts of "entitlement" rights on norms and actors in health policy-making. Overall, the right to health is both an important contextual factor for health research and meaningful institutional innovation.

Keywords Health · Development · Constitution · Law · Rights

Introduction

A person born in one of the countries with the world's worst health outcomes is 50 times less likely to make it to their fifth birthday than someone born in the best-performing countries.

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Overall, they are likely to live at least 30 fewer years than their counterparts. Identifying ways to eliminate these disparities is a central task in public health and development. In recent years, one intriguing avenue has presented itself as governments around the world have taken steps to institutionalize health as a right. Today, just over half of written constitutions include a "right to health" in ostensibly enforceable language. Whether this is a good, bad, or inconsequential development for the health of populations, however, is not clear.

The drivers of cross-national variation in wellbeing are hotly debated, with the dominant explanations focused on the demographic, economic and social determinants of health. Others have suggested that democracy can drive better health. Yet even taken together, these theories do not fully explain the health differences between similar countries.

In 2009, for example, Colombia and the Dominican Republic were fairly similar on many measures—with Colombia trailing the Dominican Republic (DR) on several factors that should matter for health. Colombia had a lower gross domestic product (GDP) per capita (and had for over a decade) as well as higher income inequality, greater ethnic divisions, and lower literacy rates among women (World Bank 2013). Colombia's democracy was considered less stable, its state significantly less capable—and Colombia was still involved in a low-intensity civil war. The economic and social determinants of health should leave Dominicans better off than Colombians—yet Colombians were living longer and experiencing a 40 % lower child mortality rate (Rajaratnam et al. 2010). The drivers of this difference are surely complex, but differences in the political institutions of the country likely hold some explanatory power. Specifically, might part of the reason be that Colombia had institutionalized a right to health in its constitutional regime while the DR had not? As explored in the "Examples: Evidence from Colombia, South Africa, and Beyond" section below, this right has provided the basis in Colombia for a significant shift in health politics and policy-making. In 2010, the Dominican Republic adopted a new Constitution enshrining the right to health—is there any reason to believe this might actually improve the wellbeing of Dominicans?

This article suggests there is—that even controlling for the dominant theories used in the social science to explain cross-national variation in mortality, the right to health has significant explanatory power. This challenges much of the health and development literature focused only on biological, demographic, or economic accounts—often implying a narrow neoliberal focus for policy-makers seeking to improve health—as well as alternative research on the social determinants of health. In each, political institutions receive insufficient attention.

To the degree that non-economic institutions are explored, the inquiry has been largely focused on democracy (Przeworski et al. 2000; Ross 2006; Gerring et al. 2012). Despite significant attention, however, there is still much debate over whether and how democracy operates directly on health. This exclusive focus ignores Sen's important insight that institutions that effectively foster development include components addressing *both* process (democracy) and entitlement (rights) (Sen 2001). The lack of conclusive evidence of a direct relationship between democracy and better health begs for broader explanations about the institutions that foster wellbeing (Hall and Lamont 2009).

In this context, I suggest that the right to health is itself an important and under-appreciated institution for development of healthy nations, which shifts the actors, discourse, and actions of health policy-making. While theorists and constitution drafters suggest a right to health will have positive impact (Ruger 2010; Sen 2008), some worry that putting health into a rights-based framework will actually undermine health outcomes by skewing priorities toward individual benefits, fragmenting health

policy-making, and undercutting broad public health efforts (Ferraz 2009; Kersh and Morone 2005; Sunstein 1993). This article seeks to test the question empirically.

Analsyis of a data panel on the constitutional right to health and mortality outcomes globally over 40 years shows that a right to health does indeed have a beneficial effect on population health. This relationship holds even controlling for the dominant explanations of health. I will show that the impact of a right to health is at least, if not more, important than that of relative democracy by itself. This shift in institutional environment creates mechanisms to improve health that are visible in many countries that have adopted a right to health, explored briefly in exemplar cases below.

This article proceeds as follows: The first section outlines the debate and my core hypothesis. "The Right to Health: Theory and Practice" describes the variation in constitutional rights to health in the world today. I then present my strategy for estimating the dominant theories of economic drivers, social determinants of health, and democratic governance before detailing the findings of a significant impact of a constitutional right to health on mortality. A fourth section explores statistical evidence on mechanisms by exploring the interaction of the right to health and democracy and the increased provision of health services in countries with the right. A section of brief case studies from several countries follows in the "Examples: Evidence from Colombia, South Africa, and Beyond" section, further examining potential underlying mechanism for the impact of constitutional rights through new discourse and players that encourage pro-health policies. Finally, I conclude with a summary of my core argument that the right to health is a pro-health institution that deserves attention from students and practitioners of politics, development, and public health.

The Right to Health (RtH): Theory and Practice

The constitution of the World Health Organization, the Universal Declaration of Human Rights and, most prominently, the International Covenant on Economic, Social and Cultural Rights in 1966, set out an international move toward using the language of rights in the realm of health. Theoretically, a right to health provides, as other socioeconomic rights do, both a normative framework for political commitment and a lens through which to make decisions that necessarily balance competing interests (Ruger 2006; Sen 2008).

At the national level, as shown below, recent decades have seen an explosion in constitutional guarantees on health. Departing from previous practice, constitutions increasingly include not only a passing reference to good health as an important national issue or goal but an explicit, potentially enforceable, right. A clear example can be seen in the difference in two African constitutions adopted in the late 1990s:

Nigeria (1999) Article 17	South Africa (1996) Section 27
(1) The State social order is founded on ideals of Freedom, Equality and Justice (…) (3) The State shall direct its policy toward ensuring that— (c) The health, safety and welfare of all persons in employment are safeguarded and not endangered or abused;	1. Everyone has the right to have access to a. Health care services, including reproductive health care; b. Sufficient food and water; and c. Social security, including, if they are unable to support themselves and their dependants, appropriate social assistance.

Nigeria (1999) Article 17	South Africa (1996) Section 27
(d) There are adequate medical and health facilities for all persons.	2. The state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights.

The important difference here is the inclusion of rights language, which is on its face enforceable. Does this matter?

Prominent ethicists and theorists of law, human rights, and public health suggest that an RtH should improve both health and health policy (Farmer 2005; Mann et al. 1999; Ruger 2010; Sen 2004, 2008). A wide variety of analysis has explored its philosophical grounding, legal status, imperatives for medical practice, and the obligations of states under international standards (Beyrer et al. 2007; Chapman 1997; Daniels 2001; Gruskin 2004; Meier et al. 2012; Wolff 2012). Recognizing health as a right is theorized to improve equity, quality, and quantity of health-related policy while also affecting the political norms and coalitions that govern health (Backman et al. 2008; Ruger 2007).

However, many leading explanations of cross-national health variation in economics and public health focus only on national wealth, modernization, and demographic factors (Biggs et al. 2010; Cutler et al. 2006; Filmer and Pritchett 1999; Semyonov et al. 2013; Summers and Pritchett 1996). Studies of the social determinants of health have challenged this focus, showing how economic and social status structure a clear gradient of health (Braveman et al. 2011; Marmot et al. 2008). Explanations range from the psychosocial impact of life in unequal societies to unhealthy living conditions due to urbanization, and material deprivations from class and gender inequality (Krieger 2001; Shen and Williamson 1999; Solar and Irwin 2010). Neither of these literatures suggests constitutional rights hold much import as explanatory or causal factors.[1]

Meanwhile, many of the broad findings in law and social science cast doubt on whether a constitutional RtH could ever have a meaningful, let alone beneficial, effect (Dahl 1957; Hirschl 2004; Hirschl and Rosevear 2011). Others imply legalization, if it does matter, is likely to be *harmful* for public health—injecting actors into health policy who are inexpert, anti-poor, poorly structured for polycentric tradeoffs, while lacking enforcement and bureaucratic power and disempowering those most in need (Ferraz 2009; Horowitz 1977; Landau 2012; Michelman 2008; Sunstein 1993).

There is a small but growing literature exploring political institutions' effect on health, but it has been largely limited to concepts and measures of democracy (Gerring et al. 2012; McGuire 2010; Przeworski et al. 2000; Besley and Kudamatsu 2006). Democracy is hypothesized to improve health by affecting the accountability and responsiveness of governments on essential health issues and improving availability of health information (Ruger 2005). Yet, studies conflict over whether relative democracy is a significant factor in mortality variation across countries and reveal that the relationship is, at best, not direct (Powell-Jackson et al. 2011; Ross 2006). Some

[1] The Commission on Social Determinants of Health perhaps best embodies these conflicting notions as it nods to the use of a rights-based framework for health equity, yet does not consider the effect of constitutions or formalizing those rights on health equity and does not include instantiating rights among its 60 formal recommendations.

analyses of the welfare state that touch upon health explore political parties and power structures more broadly, and also do not deal with rights institutions beyond democracy (Haggard et al. 2008; Huber and Stephens 2012; Navarro et al. 2006).

Are both the ethicists and constitution writers mistaken? Courts, legislative bodies, and civil society in a significant number of countries *are* engaging with the RtH in complex ways (Brinks and Gauri 2014; Maldonado et al. 2013; Maleche and Day 2014; Yamin et al. 2011). Is it simply a façade with little real impact? Worse yet, could well-intentioned rights implementation undermine wellbeing by distorting health policy and shifting power away from the poor?

Political economy work on institutions *does* find a broad and important role for "constitutionalized" rights for national development (North and Weingast 1989). Institutions in this framework are "rules of the game"—both formal and informal—"embedded in the organizational structure of the polity or political economy" that structure human interaction (Hall and Taylor 1996, p. 938; March and Olsen 2008; North 1990). Arising out of political bargains, political institutions set "appropriate behavior" for actors and situations and, in so doing, create winners and losers. Over time, institutions become locked in as they provide increasing returns for compliance and inspire strong defense from those who benefit. Organizations rise and evolve to take advantage of the institutional environment. Institutions come to shape and condition the interests of both individuals and groups as they play an actively "constitutive role" in shaping social values (Chang and Evans 2005). In this context, we can understand law and constitutions not simply as instrumental rhetoric for the interests of political actors but as asserting an ongoing structural influence that constrains some actors, empowers others, and privileges a certain range of policy options (Burgess 1993; Smith 1988).

The most prominent examples of this work in development focus on the relative instiutionalization of rights to private property, contracts, market access, and "rule of law" as drivers of economic growth (Acemoglu et al. 2005; Brunetti et al. 1997; Kaufmann et al. 2004; North 1990; De Soto 2000).

New work, however, increasingly suggests that a far wider range of institutions can foster national wellbeing (Chang 2011; Rodrik 2008). Peter Evans, in a recent volume on health and institutions, pushes further and argues for identifying what he terms "successful societies institutionalism," to help explain why democratic governance seems to be important but insufficient to generate large improvements in population health (Evans 2009).

I hypothesize that a constitutionalized right to health can operate as an institution in this way—that it both constrains and structures interactions within governments and between state, business, and private actors. Like other rights, a RtH is interpreted, enforced, legislated, and claimed by a wide variety of actors across the social and political landscape and forms an increasingly prominent part of the institutional environment of nations (Young 2012).

If a right to health matters, it is likely to function on a variety of levels—empowering an expanded set of actors to engage in health-related policy including courts, the broader legal complex, and civil society/social movements including poor and marginalized communities (Epp 1998, 2010; Gloppen et al. 2010). It should increase "voice" of those in need of improved health and "accountability" opportunities in health governance (CSDH 2008). It may also raise the political power of health actors within the state and provide an alternative source of legitimacy for state action on health vis-à-vis national or international economic pressures, including those pushing neoliberal

policy measures that can undermine health (Evans et al. 2013; Scheppele 2005; Stuckler et al. 2010).

In this way, a RtH may actually interact with the effects of democracy on health—shifting power relations in pro-health ways that are not necessarily dependant on multi-party elections. In some settings, in fact, it may prove more important than the opportunities created by electoral democracy. The incentives of rights structures are different from the those built into electoral politics—with claims made to enduring political agreements that are not subject to short-term electoral majorities, often through structures like courts and quasi-judicial spaces. It is often those who are most under-represented in electoral politics, or whose interests are undercut by countervailing political forces, who are the sickest and thus contribute most to national mortality figures. In this context, there is a reason to believe that rights enforcement works independently from electoral democracy—and in some cases, for some groups, more effectively (Scheppele 2004). Rights claims and legal process can shift the status quo assumptions and practices of bureaucracies as expected by institutionalist theory—incentivizing compliance and shifting the incentives and practices of everyday governance (Ignatieff 2011; Koh 1997).

A handful of studies of the move toward legal enforcement of health rights support these suggestions. This "legalization" or "judicialization" is just one aspect of the right to health in countries, but has proved to be among the most empirically visible avenues for institutionalization of the right (Meier and Yamin 2011). A variety of recent case studies suggest that the right to health is growing in prominence and acting in at least two major ways on public health—transforming individuals in need of healthcare into rights holders and providing new obligations on the state enforced by courts (de Barcellos 2014; Brinks and Gauri 2014; Cepeda-Espinosa 2004; Maldonado et al. 2013; Yamin and Gloppen 2011). Various models of legal enforcement of health rights have emerged. These include case-by-case judicial enforcement, as in the case of Brazil and other Latin American countries, where tens of thousands of people bring successful suit each year to compel state and private health authorities to provide them medical treatment and care (Biehl et al. 2009; Godoy 2013). Examples from India, Colombia, and South Africa show more structural judicial intervention as courts have intervened to order significant, sometimes sweeping, changes to national health policy through landmark cases brought by affected and interested citizens (Berger 2008; Muralidhar 2008; Shankar et al. 2008; Yamin and Parra-Vera 2010). A wide variety of other countries have seen a mix of approaches, while others lack meaningful enforcement despite court involvement.

This legalization is just one facet of instantiating a right to health, but these studies provide some important evidence that the right to health is increasingly becoming institutionalized in countries throughout the world. It also suggests that there are clear cases in which health policy is *different* in countries with a right to health than it might otherwise be—a question explored further in the "Examples: Evidence from Colombia, South Africa, and Beyond" section below.

The question remains whether constitutionalizing a right to health is empirically important—and if so whether it is beneficial. Given the dominant narratives, we might expect that constitutional rights would have an insignificant effect on overall wellbeing in the face of the economic, demographic, and social determinants of health. Alternatively, we might imagine that it is not guarantees and health rights, per se, but democracy that really matters for health. Guaranteeing health as a right may be a nice gesture but, given these other realities, might not seem like a particularly important question for health policy. Even

worse, it might prove damaging—distracting attention from real policy questions while shifting resources in response to private demands instead of into broad public goods.

If instead the right to health operates as theorized, we should expect to see a significant positive effect on health outcomes, even controlling for measures of the dominant theories discussed above. The intuition here is that the changes described above should result in policy that improves access to healthcare and health-supporting resources, including for the poor and marginalized. The argument is not that these other factors are *not* important or that a right to health is *more* important, per se—and as such, after controlling for these other explanations with overlapping effect it is likely that the effect size will be small. None of these other explanations, however, account for the kind of shifts a right to health makes in the political economy of health and so the effect of having a constitutional right should be visible. It is also not argued that a right to health will improve the health of all people on an individual level. Increased demands on the health system from below, for example, could pose some costs to those upper-class members of society who previously benefited. Such shifts in policy, however, are likely to improve overall public health measures since it is the poor whose morbidity and mortality drive down overall measures of wellbeing.

The data presented below supports this view of a right to health and contributes evidence toward three key findings:

- First, the RtH is good for the overall health of people.
- Second, the RtH is important even in the context of dominant theories that explain national health and is at least as important as electoral democracy.
- Third, the RtH likely works by ensuring more and better health services, especially access to medicine.

In this context, I argue that it matters a great deal for health policy—that the right to health is a positive, pro-health institution and that its instantiation and functioning deserve significantly greater attention in the study and practice of development.

Estimating the Effects of the Right to Health

The Right to Health in National Constitutions: Distinct Institution

A right to health takes a variety of forms—from international treaties conferring state obligation to ideational tools of social movements to culturally constructed expectations of private actors. To explore the empirical impact, however, this study uses one subset—an explicitly articulated right to health in a written constitution. This clearly under-identifies the right to health. India, for example, lacks a constitutional provision yet has among the most active right to health jurisprudences in the world. India is, however, relatively unique and, much as private property laws under-represent the institution of private property, I suggest constitutional provisions can serve as a valid if incomplete indicator for empirical evidence of a broader institution.

For the "constitutional right to health" variable, this study makes use of a dataset compiled by the Comparative Constitutions Project—a systematic catalog of formal characteristics of written constitutions, both current and historical, for most

independent states since 1789 (Ginsburg et al. 2012). The dataset provides panel data for country years with over 13,000 country-year observations. This project uses a subset of this data that codes a categorical variable based on whether the constitution includes an explicit reference to a right to health. Based on data reliability on other variables, observations are included from 1970 to 2010. Given the expanding number of independent states with written constitutions, this provides annual observations for between 118 countries in 1970 and 188 in 2010 (see Fig. 1).

Health rights in the constitutions of the world show great variation across time and space. As Fig. 1 shows, in 1970, only 17 % of written constitutions had an explicit right to health, while by 2010 that number grew to 51 %. Norms around new constitutional construction clearly changed over the recent decades—in the 1970s, only 35 % of the over three hundred new constitutions written included a right to health but of those written in the 90s and in the 2000s 64 % included a right to health. Clearly, though, there is still substantial variation—even in the most recent decade many constitution writers chose *not* to include a right to health. Given this clear trend, all analyses below include controls for year effects and, in a robustness check, the impact of including the age and year of the constitutional system are tested, with models proving robust.

There is also relative diversity in adoption of a right to health geographically and economically. In 2010, just over half of all countries had a right to health, which included countries from every region of the world. As shown in Table 1, between 40 and 60 % of countries in most regions had a right to health, though Oceana and Western Europe showed lower coverage, while nearly all constitutions in Eastern Europe had a right to health. This supports the idea of diffusion effect between countries, though it is clearly incomplete (O'Connell 2010). Countries at all income levels had adopted a constitutional right to health in 2010—60 % of low-income, 58 % of lower-middle-, 62 % of upper-middle-, and 29 % of high-income countries.

Legal tradition is associated with the likelihood of adopting a right to health—68 % of civil law countries compared with 26 % of mixed and 15 % of common law

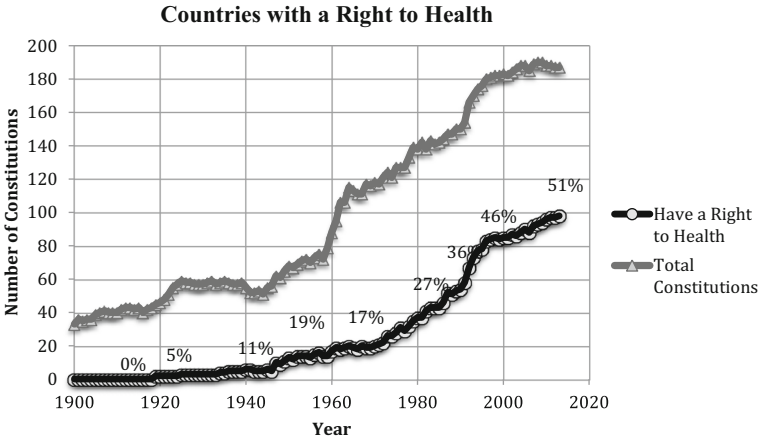


Fig. 1 Countries with a right to health

Table 1 Countries with a right to health

Latin America	61 %
W. Europe/USA/Canada	20 %
E. Europe	92 %
Sub-Saharan Africa	43 %
Middle East/N. Africa	56 %
South Asia	43 %
East Asia	59 %
Oceania	15 %

countries had a right to health.[2] This is, however, not found to be an important confounding variable in regression analyses.

The data shows countries across the democracy spectrum have largely split in adopting a right to health. Democratic countries, strongly democratic countries (customarily defined as those with a Polity-IV score at least 6), and autocratic countries each split nearly evenly between those which do and do not have a constitutional right to health. Interestingly, strongly autocratic countries have slightly more often adopted a right to heath—65 % had done so in 2010.

In sum, while some categories of countries are somewhat more likely to have a right to health, there is substantial variation across all types of countries. Table 2 shows the correlation matrix between the right to health and these variables, illustrating low correlations. The right to health is not unduly tied to major political economy classes.

This suggests that the right to health is, as theorized, a distinct institution and that a cross-national statistical analysis is appropriate to evaluate the degree to which this institution matters.

Estimating Dominant Theories of Health: Wealth, Social Determinants, and Democracy

To begin, this article first builds a model of the dominant theories of what matters for health and then tests whether, within that context, a right to health provides any analytic leverage.

The models here use under-5 mortality rates, the probability of death between birth and 5 years/1000 live births, as the major outcome measure of interest to represent health, following Caldwell (1990). Under-5 mortality is widely recognized as the most appropriate indicator of the cumulative exposure to the risk of death during early years of life (Ahmad et al. 2000). Using under-5 mortality also provides us with two important theoretical advantages. First, it is a measure of health likely to be affected by health systems more directly than some others given its limited timeframe. Unlike infant mortality measures, however, under-5 mortality captures the effect of multiple years of potential intervention in the health of a person. If institutions matter for health, then they should act through provision of medicines when people are sick, doctors to care for them, healthier living conditions, etc., which are likely well-captured in the first 5 years of life. Mindful of Ross's findings

[2] Legal system classification coded Muslim, civil law, common law, or civil/common law mixed based on University of Ottawa JuriGlobe (University of Ottawa).

Table 2 Polychoric correlations, 2010

	Right to health
Income category	−0.16*
Democracy	−0.05*
Legal system	0.33*

*0.05, significance in basic correlation

that missing national health data are not random and have a considerable biasing effect on cross-national research (Ross 2006), imputed child mortality estimates developed in Rajaratnam et al. (2010) are used to provide wide geographic and time cover for the 1970–2010 period.

A series of models are assembled here with log under-5 mortality as the dependant variable to estimate the impact of having a constitutional right to health. There are strong patterns of modernization in the global dataset, which is addressed in two ways: by including the year as a control variable in the dataset (as a variable rather than a fixed effect, though both are tested) and by checking the robustness of the results with an auto-distributive lag model to account for these effects. As detailed, the right to health is shown as a significant factor in all of the estimations.

Models 1 and 2: Wealthier Is Healthier and Rights

Perhaps the most consistent finding in cross-national studies of mortality is the curvilinear relationship between higher national income and lower mortality—illustrated by the classic Preston (1975) curve. This influential theory *cum* stylized fact that "wealthier is healthier" suggests that national income is the most important explanatory variable in understanding mortality (Pritchett et al. 2010; Summers and Pritchett 1996). It explains not only outcomes but also state capacity, expenditure, and inputs (Gerdtham and Jönsson 2000; Hitiris and Posnett 1992). As such, I make use of an IHME dataset with among the widest available GDP estimates in dollars running from 1970 to 2010 (James et al. 2012). Model 1 estimates the basic theory that GDP (logged) explains health outcomes.

Figure 2 shows the clear trend in both 1970 and 2010 that, indeed, wealthier is healthier. The labeled countries are those with a right to health. We can see, beyond the clear expansion of countries with the right to health, that while healthier is wealthier many countries fall well above or below the line and thus under- or over-perform the expectations of the reduced form model. While the graphs do not tell a clear story of significance, it does seem that there are more over-performers among those with the right to health than there are underperformers—providing some initial support to the theory. This also shows up in model 2 reported below, which adds health rights to the equation showing the impact of health rights in the context of the restricted "wealthier is healthier" hypothesis.

Model 3: Economic and Social Determinants of Health

If growth in GDP were the only reason for improved health, countries would move along a fixed curve without substantial change to that curve over time. But we see

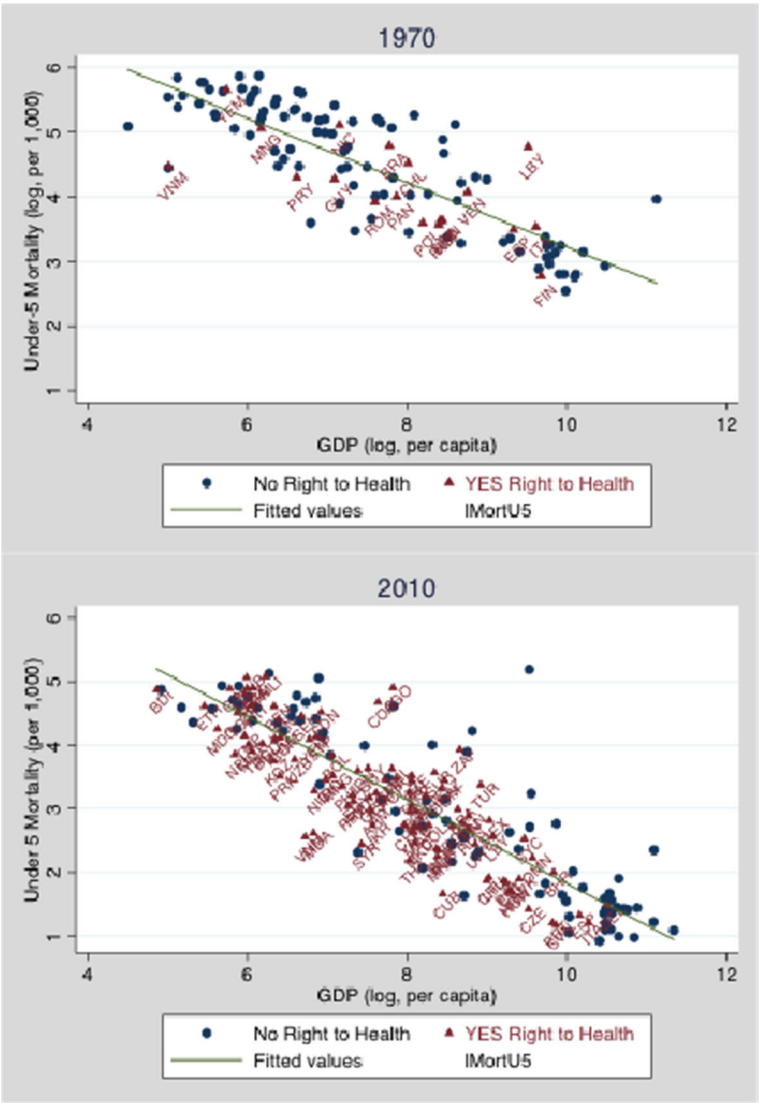


Fig. 2 Health vs. wealth

that over time people live substantially longer at a given level of income—China's income rise has not been nearly as large as what would have been needed several hundred years ago to reach the life expectancy it has today (Cutler et al. 2006). Preston himself noted that income growth explained only a comparatively small part of the life expectancy differences through space and time (Preston 1975).

A large literature has attempted to establish the set of other national assets that affect mortality cross-nationally that can better reflect the demographic and social determinants of health. Several core variables including women's education and ethnic fractionalization have consistently been shown to be associated with mortality, while others such as inequality have been debated. While the boundaries between

theories are not always clear, much of the literature conforms to the expanded theory that these social and demographic factors differ between countries and cause a between country gradient of health (CSDH 2008). Indeed, Filmer and Pritchett argue that they can explain nearly all variation in child mortality with just six economic and social factors (Filmer and Pritchett 1999).

While no consensus exists about the "right" set of variables that explain health, a set of often-discussed factors can be used to represent the social and demographic determinants of health. Theoretical explanations for including each variable are below along with basic measurement specifications. See Appendix 3 for full sourcing and scaling.

Female education is among the variables most widely found to be associated with lower child mortality (Caldwell 1986; Cleland and Van Ginneken 1988; Gakidou et al. 2010). As a variable, it has been found to be encompassing—capturing a variety of individual and social determinants of health including fertility level, women's empowerment, economic resources available to households, and general knowledge and beliefs about disease and prevention (Caldwell 1990; Cleland and Van Ginneken 1988; Hatt and Waters 2008; Sen 2001). It is also likely a good representation of important aspects of state capacity (Shen and Williamson 1997). Here, estimates of the age-standardized mean years of education for men and women developed in Gakidou et al. (2010) are used, which provide wide cross-national coverage between 1970 and 2010 for the mean years of education of women of reproductive age 15–44.

Ethnic fractionalization has been linked directly and indirectly to poorer mortality. The literature broadly suggests that ethnic fractionalization leads to an inability to coordinate policy toward pro-health outcomes and reduces incentives for public goods creation (Alesina et al. 1999; Easterly 2001). La Porta suggests that ethnic diversity leads to corruption and low government performance (La Porta et al. 1999). Lieberman shows that, in societies with strong ethnic boundaries, political resistance develops to addressing intra-group stigmatized health conditions like HIV/AIDS and reduces effective response to epidemics (Lieberman 2009). This paper makes use of the widely used measure of ethnolinguistic fractionalization, based on the 1985 measure as calculated in Montalvo and Reynal-Querol (2005), which represents the probability that two randomly selected individuals in a country belong to different ethnolinguistic groups.

Inequality and its impact on mortality are hotly debated in the literature. Seminal studies have found a strong relationship between inequality and poor health outcomes on a variety of measures (Rodgers 1979; Wilkinson 1992). Wilkinson and Pickett (2007) reviewed evidence showing that inequality was associated with low social capital and social mobility and more racism, along with higher rates of obesity, teenage birth, mental illness, and homicide. Others, however, have failed to find a direct relationship between inequality and health in a variety of measures and have suggested that other correlated factors are actually doing the work (Deaton 2003; Judge et al. 1998). Biggs et al. found a complex and contingent effect of poverty and inequality on health depending on the prevailing economic situation and that inequality and poverty exert independent, substantial effects on the relationship between national income level and health (Biggs et al. 2010). The debate will not be settled here, thus inequality is included in the regression analysis. A robustness check of the regression without the measure shows it does not impact the analysis.

One of the standard measures of gini coefficient is used here—the degree of inequality in national distribution of income among individuals or households, as calculated by World Income Inequality Database, which provides wide but imperfect coverage (UNU-WIDER 2010).

Urbanization and population density both reflect geographic and societal factors that are linked to health and mortality in a variety of relatively intuitive ways, such as disease transmission and density of health services, which are unlikely to be reflected in any of the other control variables (Cutler et al. 2006; Galea 2002). Since, while similar, they are not likely to impact mortality identically (e.g., denser but less-urbanized population might have better reach of health services while avoiding negative disease-transmission effects of mega-cities) both are likely important. As such, following standard practice, measures of both are included as control variables (Filmer and Pritchett 1999; McGuire 2010).

Conflict/political violence is clearly a direct cause of excess mortality and a significant public health threat (De Jong 2010). A magnitude score of episodes of civil and ethnic violence and warfare developed in Maleche and Day (2014) was included in the original model. However, it fails to reach significance in any of the specifications and neither changes the model fit nor effect size of variables of interest substantially. As such, it is dropped from the base model. This comes as little surprise since other factors above including ethnic fractionalization and women's education likely soak up the direct effect given the complex nature of political violence (Pedersen 2002).

Region and year are both also included in all the regressions, as is customary. Controls for time encompass a variety of factors including technological progress and scientific knowledge (Deaton 2013). Regional dummies help control for the affects of colonial history and region-specific differences in political stability (Alesina et al. 1996; Englebert 2000).

Model 4: Institutions Matter—Democracy

Amartya Sen puts it clearly: "Individuals live and operate in world of institutions. Our opportunities and prospects depend crucially on what institutions exist and how they function" (Sen 2001). He suggests that examining both political and socioeconomic freedoms are critical. Yet while the connection between democracy and health is significantly studied, the conception of a right to health as a critical institution shaping socioeconomic freedoms has been insufficiently examined. Both of these intuitions likely operate indirectly, likely through the provision of services and orientation of the state to health efforts.

Democracy has been shown by several authors to reduce child mortality and improve life expectancy (Besley and Kudamatsu 2006; Lena and London 1993; Moon et al. 1985; Przeworski et al. 2000). As an institution, Sen proposes that democracy has both an instrumental and a constructive role in health and development—proving a "hearing" for a population's needs and allowing them to be understood in societal context (Sen 2001). Building on this, some suggest that democracies' responsiveness to public opinion and openness to social movements concerned with health lead to improved outcomes (Shandra et al. 2010). Acemoglu and Robinson (2005) argue that the biggest change in democracy is who controls political power—the masses or the rich elite—and democracy will favor the interests

of citizens in addressing public health rather than private wellbeing. Bueno de Mesquita et al.'s work (2002) suggests that democracies encourage public health provision because, as opposed to small-selectorate autocracies, leaders in democracy are held accountable by a large electorate, from which they must form a winning coalition that likely benefits from public health improvements.

However, other research has shown it to be much less clear whether democracy has a direct affect on health (McGuire 2010; Nelson 2007; Weede 1993). Ross (2006) finds, in filling in often-dropped but important countries, no direct affect of democracy on infant or child mortality and suggests this is due to a failure of benefits and spending to pass to the poorest sectors of society.

Given the theory, Polity-IV is used here as a measure of democracy, which provides an 21-point scale from −10 (autocracy) to +10 (democracy) measuring executive recruitment, constraints on executive authority, and political competition. Of the available measures, it is most likely to capture the kind of democratic environment theorized in the literature to improve mortality.

Model 5: Constitutional Right to Health

Democratic governance, however, represents only half of the rights paradigm—liberty and participation rights. The core research question is whether socioeconomic rights, in this case the right to health, have an equally important role in shaping the institutional milieu that affects health. Do constitutional health rights matter for people's health, even controlling for wealth, social and demographic determinants, *and* democracy? Therefore, the ultimate model includes the constitutional right to health variable alongside the variables for the three other explanations.

Estimation Strategy

The following model is estimated as the core "right to health" model:

$$y_{it} = \beta_0 + \beta_1 \text{right to heath}_{i,t-1} + \beta_2 \text{democracy}_{i,t-1} + \beta_3 \text{GDP per cap}_{i,t-1} + \gamma Z_{it-1} + \alpha_i + \varepsilon_{it}$$

Here, α_i represents time stable "unobserved heterogeneity" between countries not otherwise accounted for and ε is the error term. y represents health outcomes, in this case log under-5 mortality, while Z represents a matrix of additional controls for the expanded social determinants model.

Specifically:

$$Z_{i,t} = \beta_4 \text{female education}_{i,t-1} + \beta_5 \text{ethnic fractionalization}_{i,t-1} + \beta_6 \text{inequality}_{i,t-1} + \beta_7 \text{urbanization}_{i,t-1} + \beta_8 \text{population Density}_{i,t-1} + \text{year} + \varepsilon$$

A wide variety of estimation strategies are available for time series, cross-sectional panel data—none of which are perfect, which suggests the use of several alternative estimators. Variations on ordinary least squares are among the most widely used because of its ease of interpretation and strong efficiency. This article employs OLS for the core model conducted using Stata with standard errors reported (Table 3), with

lagged independent variables. Conscious of the complex error structures that characterize panel data, however, a series of additional regressions using different estimators were also conducted to check that the findings hold. As Reed and Ye find "estimators that perform well on efficiency grounds may perform poorly when estimating confidence intervals, and vice versa" (Reed and Ye 2011). The core model is therefore fit with three additional estimators, each of which has its limitations but strengthens our findings: feasible generalized least squares (FGLS), panel corrected standard errors (PCSE), and an autoregressive distributed lag (ADL) model. Parks' (1967) FGLS estimator is a common alternative to OLS but is known to underestimate error terms in comparatively small and finite samples like those used in cross-national research. Beck and Katz (1995) suggest a version of OLS with PCSE though this too has been criticized as inefficient in "practical research situations"(Reed and Webb 2010). Variations on ADL models can also help account for a variety of weaknesses in standard OLS (De Boef and Keele 2008). ADL models, however, shift the analysis away from long-term process effects on levels to one of short-term change and, in models like ours, are likely to substantially underestimate the effects of all IVs while increasing the risk of falsely significant and insignificant coefficients due to measurement error (Achen 2000; Huber and Stephens 2001). Focus on levels over annual change better fits this paper's theory and also has the advantage of making the quantitative analysis comparable with previous studies that estimate the dominant theories used as a basis for this analysis (e.g., Filmer and Pritchett 1999; Przeworski et al. 2000). The core model for this article uses a random effects model at the country level with time (year) as a continuous IV and fixed effects at the region level. Beck and Katz (1995) and others have argued for the use of country fixed effects specifications in order to deal with omitted variable bias, but since the theoretical function of a right to health is as much about between country effects as within-county effects, this is not ideal. A right to health is still significant in fixed effects specification but, for these reasons, it is not used here for the core estimation. Perhaps even more importantly the inclusion of unit dummies severely biases the estimates of the true effect of time invariant or slowly changing dependant variables such as ours. "In these cases, allowing for a mild bias resulting from omitted variables is less harmful than running a fixed effects specification." (Plümper et al. 2005). To better check the effects of regional effects, a fully multilevel model is also fit in which countries are nested within regions. The results for all of these estimation strategies are included in Appendix 1—each supporting the core finding that the right to health has significant independent effect on health outcomes.

Results

Table 3 shows the main regression results. Each model includes both the coefficients of the regression results and a column in which all of the independent variables are transformed into standard deviation equivalents for easier comparability.

As expected, in the sample, higher log GDP per capita was strongly associated with lower mortality rates. A first check in model 2 confirms that having a right to health in the constitution has a significant beneficial effect on mortality, even when considering wealth.

The variables in model 3, reflecting the fuller social and demographic determinants of health, show strong predictive value—together they provide a good model for under-

Table 3 Under-5 mortality and the right to health (DV: log under-5 mortality (per 1000 live births), 1970–2010)

	(1) Model 1	(2)	(3) Model 2	(4)	(5) Model 3	(6)	(7) Model 4	(8)	(9) Model 5	(10)
	Wealthier is healthier	Standard deviation	Wealth and rights	Standard deviation	Social and economic determination	Standard deviation	Democracy	Standard deviation	Right to health	Standard deviation
Health right			−0.036** (0.009)	−0.036** (0.009)					−0.082** (0.011)	−0.082** (0.011)
Democracy							−0.002** (0.001)	−0.017** (0.005)	−0.002** (0.001)	−0.017** (0.005)
Log GDP (pc)	−0.218** (0.008)	−0.349** (0.013)	−0.242** (0.008)	−0.387** (0.013)	−0.277** (0.011)	−0.443** (0.018)	−0.292** (0.012)	−0.467** (0.019)	−0.301** (0.012)	−0.482** (0.019)
Women's education (years)					−0.075** (0.006)	−0.280** (0.023)	−0.079** (0.006)	−0.297** (0.023)	−0.081** (0.006)	−0.305** (0.023)
Ethnolinguistic fractionalization					0.340** (0.130)	0.093** (0.036)	0.374** (0.121)	0.102** (0.033)	0.348** (0.121)	0.095** (0.033)
Inequality					0.002** (0.001)	0.026** (0.006)	0.003** (0.001)	0.026** (0.006)	0.003** (0.001)	0.027** (0.006)
Urbanization					0.004** (0.001)	0.107** (0.018)	0.005** (0.001)	0.120** (0.018)	0.006** (0.001)	0.144** (0.018)
Population density					−0.000** (0.000)	−0.117** (0.022)	−0.000** (0.000)	−0.116** (0.022)	−0.000** (0.000)	−0.110** (0.022)
Year control	Yes		Yes		Yes		Yes		Yes	
Regional fixed effects	Yes		Yes		Yes		Yes		Yes	
Observations	7213		6833		3723		3610		3584	
Number of countries	184		184		148		144		144	
R^2	0.814		0.832		0.881		0.896		0.892	

All independent variables are lagged 1 year. Standard errors are listed in parentheses. Constants not reported. Absolute coefficients are reported in first model column. Second model column contains the standardized variables such that it has a mean of zero and standard deviation (SD)=1, and therefore, relative values are comparable (SD change in DepV associated with a 1 SD change

*p<0.05; **p<0.01

5 mortality, with each of the values showing significance with the anticipated sign. As expected, income and women's education have an effect that is both significant and large, with a clear but more moderate effect of ethnic fractionalization. In line with some of the debates in the literature, however, inequality is significant but has a much weaker affect, when controlling for the other variables in the model.

Columns 7 and 8 show that, in the sample, even after controlling for the broad determinants of health, democracy has a statistically significant beneficial impact on under-5 mortality. As we might expect from the literature, however, that impact is somewhat muted. A 1 standard deviation change in democracy score provides less than 5 % of the impact that a standard deviation change in per capital GDP has in the model. Given the indirect nature of the theorized effect, and the inclusion of other factors that soak up much of the variation, this should not surprise us.

Columns 9 and 10 of the table show us that having a constitutional right to health is associated with a decrease in under-5 mortality, significant at the 1 % level, even after controlling for the most common explanatory variables. Not surprisingly, the effect is small compared with, for example, income or women's education that together account for much of the state and societal capacity to address health. But it is notable that the effect is the equivalent of a major change in polity score—as large as going, in 2010, from a country like Iran, Belarus or Libya (under Gaddafi) to one like Switzerland or Costa Rica. It has a similar effect as going from the ethnic diversity of Malawi or Colombia to that of the Netherlands. This suggests an important institutional effect, bolstering the theory that having a right to health is beneficial.

Additional Robustness

With the use of a variety of additional estimators described above (and in Appendix 1), these findings appear quite robust. In the full models (model 5), the data covers 144 countries through the use of imputed and estimated data on most variables. While not every country is covered and not for every year, the added coverage addresses Ross's chief concerns of biased results by providing estimates for non-reporting countries across the democratic and economic spectrum. This 40-year dataset includes results for three times as many observations (3584) as Ross (2006) reports in his 30-year panel and more than twice as many as Przeworski et al. (2000) in their 40-year dataset. Inequality data is the most incomplete data, a challenge this article shares with many studies and which is problematic to address through imputation beyond what is included here (Jenkins 2014), so as a robustness check, regressions were re-run without the gini measure and also without the measure of democracy. This raised the number of countries observed to 161 and the observations to 6013 but did not substantively change any of the findings.

To check the robustness of the findings, the regressions were also repeated under a series of different conditions that might theoretically change the findings. None did. Because the majority of Eastern European countries have a right to health and comparatively few countries in the USA/Canada/W. Europe group do, I re-ran the core mortality regression without each region and see no change in the effects. Clearly, there is also a trend toward including a right to health in constitutions. To test whether there is some omitted effect of having recently written a constitution or simply of the era of the constitution in force, both the age of the constitution and the year in which it was written were tested in the regression. Neither was significant and

RtH remained significant. To test whether the right to health is simply standing in for the legal system, both a dichotomous civil/common law variable and a five-level variable for legal system as outlined above were included as IV. Neither is significant or affects the results.

Democracy and Health Services: Evidence on the Functioning of a Right to Health

The central claim of this article is that a right to health is a broadly beneficial institution for population health. If this claim is true, we should be able to see its affects in the politics and policy of countries. Given the theory of the right to health relies on courts, social movements, and bureaucracies we might also expect to see that the right operates differently in more democratic environments. Evidence of both is presented below—quantitatively in this section and further developed qualitatively in the "Examples: Evidence from Colombia, South Africa, and Beyond."

Democracy

Much existing literature has investigated whether democracy improves health, with mixed results as described above. In this context one might assume that constitutional rights and the attending institutional environment is not likely to matter nearly as much as the simple ability of populations to demand health and mobilize through the electoral process to demand government changes. The evidence in Table 3, however, undermines this presumption. The broader institutional environment—including the protection of health as a right—may actually help explain why democracy by itself seems insufficient to promote large changes in health.

Constitutional rights can operate in contexts of weak electoral democracy and autocracy—especially in contexts where courts and/or bureaucracies are powerful and at least quasi-independent (Ginsburg and Moustafa 2008; Peerenboom and Ginsburg 2013; Solomon 2007). Nonetheless, the operating of the right to health, as hypothesized above, is likely most effective where democracy is stronger. If it *does* represent a political institution that give rises to organizations and claims, those organizations and claims surely operate more effectively where political protest and electoral pressures can be used to articulate and enforce them. This would be what we might expect from Sen's point that entitlements and political process are distinct but interdependent phenomena. Conversely, however, it might be that the right to health is simply a bi-product of democracy—simply reflecting the will of a pro-health governing coalition. To test this question, the main estimation is replicated with an interaction effect between democracy and a right to health included. The results in Table 4 show that with this interaction, the RtH remains significant, as does the interaction term, but democracy loses significance. This provides strong support to the contention that a right to health has an independent power, which is made significantly stronger in a context of democratic governance. This power does not seem to be simply a byproduct of democracy—and indeed we cannot reject the null hypothesis that democracy has no effect that is not accounted for by other parts of the political institutional environment. This is explored further in the brief case studies below.

Table 4 Right to health and democracy interaction (DV: log under-5 mortality (per 1000 live births), 1970–2010)

	(1) Model 6 (interaction model)
Health right	−0.075** (0.011)
Health right×democracy	−0.006** (0.001)
Democracy	0.002 (0.001)
Log GDP (pc)	−0.299** (0.012)
Women's education (years)	−0.082** (0.006)
Ethnolinguistic fractionalization	0.344** (0.121)
Inequality	−0.002** (0.001)
Urbanization	0.006** (0.001)
Population density	−0.000** (0.000)
Year control	Yes
Regional fixed effects	Yes
Observations	3584
Number of countries	144
Regional dummies	Yes
R^2	0.894

All independent variables are lagged 1 year. Standard errors are listed in parentheses. Constants not reported. Absolute coefficients are reported in first model column. Second model column contains the standardized variables such that it has a mean of zero and standard deviaiotn (SD)=1, and therefore, relative values are comparable (SD change in DepV associated with a 1 SD change. Note: health right is not transformed, coefficient reflects 0/1 change

*p<0.05; **p<0.01

Health Spending and Service Delivery

In thinking about a right to health, none would suggest that it operates directly—courts cannot order that people become healthy any more than legislators can craft laws that do so. Specifying in detail the exact mechanisms through which a right to health operates will require further research beyond the scope of claims that can fully be made by this article. However, there is significant qualitative and quantitative evidence that supports the mechanisms theorized above. This section presents data showing that countries with a constitutional right to health deliver more and better health services to their populations—just one part of improving health, but an important one.

The wealthier is healthier paradigm suggests a neoliberal policy agenda with very little priority for the project of public health and provision of health services—one that assumes health will inexorably follow improvements in economic situation. Many have challenged this paradigm, arguing that, regardless of income level, health spending, provision of health services, and prioritization decisions are essential for health outcomes (Kim et al. 2013; Sachs and McArthur 2005). McGuire (2010) shows this empirically—demonstrating, for example, that to achieve a decline of 5 points in infant mortality, a country might have to decide between a goal of increasing GDP per capita by $391, reducing inequality by 9.4 gini points, or increasing the share of births attended by a skilled attendant by 13 %.

If the right to health operates as hypothesized, health service provision should be a critical part of the story and we would expect a clear direct effect of having a right to health on service delivery. To explore this, the right to health is tested on a series of spending and health service delivery measures. Several of the key variables from the previous regressions that are suggested in political science and economics literature to affect policy-making are also included as control variables. Specifically, spending, policy coordination, and expanded health service delivery have been linked to national wealth, ethnic boundaries, inequality, and democratic governance (Alesina et al. 1999; Besley and Kudamatsu 2006; Gerdtham and Jönsson 2000; Lieberman 2007). State capacity is also clearly related to service delivery, which GDP significantly accounts for. The other measure that also partially accounts for state capacity in the dataset, women's education, is problematic to use here since it is itself a service delivery measure—and, in fact, inclusion does not dramatically change the results and actually lowers the fit in several models and so it is not included here.

Table 5 shows the outcomes of the spending and service delivery regressions. Having a constitutional right to health is associated with higher public spending on health as a percent of GDP, but the finding does not reach statistical significance. However, there is a significant relationship with higher public spending as a portion of total health spending. We cannot be sure that governments spend more overall, but they do clearly pick up a larger portion of the overall health tab in countries with a right to health—leaving people themselves less to spend. This is seen again in the lower percentage of health expenditures coming "out of pocket" for patients. Health spending is not an uncontroversial measure since the direct effect of spending on health outcomes is debated (Filmer and Pritchett 1999; Sachs 2001). Nonetheless, the finding that, controlling for other variables, people have to spend less on health in countries with a right to health could help explain the observed mortality differences. Especially among the poor, lower spending by patients is likely to increase use of preventive and curative health services.

There is also a significant effect of having a right to health on two commonly used measures of health services—the percent of births attended by a skilled health worker and the rate of DTP3 immunization of 1-year olds. Both show a clear and significant positive relationship: 7.6 % more children's immunization and 3.8 % more skilled birth attendance is associated with countries having a right to health, even controlling for wealth and democracy.

The final measure is the median availability of common generic medicines (%) in the public sector, using data from the World Health Organization. This variable is included because of the strong case-study data explored below that the right to health may be seen most visibly in provision of medicine to people through court cases and government policy-making. The measure is only limitedly available and should be taken with a note of caution (the regression includes 2004 data, which has the widest country coverage at 16 countries). The relationship, however, is notable: 30 % more medicines are available in the countries with a right to health and the finding is significant.

These data suggest that the right to health is strongly related to pro-health spending patterns and service delivery, with the medicine data suggesting that the pathway seen in case-study evidence may be widespread and significant.

Finally, the main regression comparing under-5 mortality is replicated with the right to health while controlling for measures of spending and service outcomes. The results are included in Appendix 2 and, as expected, the right to health still appears to decrease

Table 5 Health right effect on spending and service delivery, 1970–2010 (except medicines availability, 2004)

DVs	(1) Public health expenditures (% GDP)	(2) Public health expenditures (% total health expenditures)	(3) Out-of-pocket expenditures (% total health expenditures)	(4) Skilled birth (% attended)	(5) Immunization (% 1-year DTP3)	(6) Availability of medicines in the public sector (2004)
Health right	0.087 (0.103)	2.573** (0.963)	−1.713^{+} (0.921)	3.780** (1.212)	7.657** (0.992)	29.775* (11.559)
Democracy	0.449** (0.073)	3.783** (0.733)	−3.578** (0.809)	7.444** (0.928)	2.740** (0.665)	−13.736* (5.073)
Log GDP (pc)	0.017* (0.008)	0.162* (0.072)	−0.109 (0.071)	0.173* (0.082)	0.099 (0.061)	2.703** (0.773)
Ethnolinguistic fractionalization	−1.130* (0.471)	−6.741 (4.856)	2.796 (5.708)	−20.361** (6.663)	−16.426** (4.433)	−91.192** (20.477)
Inequality	−0.016** (0.006)	−0.256** (0.052)	0.068 (0.049)	0.042 (0.060)	−0.228** (0.055)	2.004 (1.293)
Year control	Yes	Yes	Yes	Yes	Yes	Yes
Observations	1309	1756	1323	607	2857	15
Number of countries	111	143	113	124	144	15
R^2	0.577	0.393	0.352	0.526	0.377	0.821.

All independent variables are lagged one year. Standard errors are listed in parentheses. Constants not reported

$^{+}p<0.1$; *$p<0.05$; **$p<0.01$

mortality, but the findings are not significant in four of five formulations and the magnitude of the coefficient is substantially reduced. This follows findings by Rajkumar and Swaroop (2008) that governance institutions are often the bridge between public health spending and health outcomes. While this cannot confirm causality, the suggestive finding further supports the hypothesis that the right to health shifts the institutional environment to favor pro-health governance.

Examples: Evidence from Colombia, South Africa, and Beyond

Is there evidence that the right to health is actually operating in the way hypothesized? Some may suggest that the right to health in this context is not a substantive institution that matters but simply a mark of a society that already values health. As such, a small set of case studies are briefly explored in which the right to health can be seen quite clearly to operate both formally and informally in exactly the ways we would expect. While study of the right to health has been both limited and recent, important insights from social scientists and legal practitioners have begun to sketch the contours of the right to health in ways that strongly support my contention. Study has largely focused on a particular pattern of the broader instantiation of the right to health: judicial enforcement of constitutional rights. While an incomplete picture of the institution, it provides strong evidence. Below examples of the operationalization of the right to health from Colombia and South Africa are included, with augmented examples from Brazil, Kenya, and Thailand as well. Further study is needed, but this initial sketch improves confidence in the findings of the regression analysis above.

South Africa

South Africa is perhaps the most studied example of enforceable socioeconomic rights among legal scholars and social scientists (Tushnet 2009; Young 2012). Contentious political fights over health have been a central feature of the development of South Africa's institutional framework of these rights.

In understanding the public health sector in South Africa, it is important to also remember that South Africa is just 20 years from the end of Apartheid—and continuing to suffer from its devastating legacies. The health infrastructure inherited by the ANC government in 1994 was one geared toward the health of the white and wealthy portion of the population—with more than half of the financial and human resources allocated to the private sector (Coovadia et al. 2009). As of 2002, infant mortality rates among whites stood at 7 per 1000, but 67 per 1000 in the black population; life expectancy for white women was 50 % longer than it was for black women (Bradshaw and Nanna 2004).

In this context, the enshrinement of a right to health in Section 27 of the 1994 Constitution was a watershed moment. It specifies that "the state must take reasonable legislative and other measures, within its available resources, to achieve the progressive realization of each of these rights." It was not clear what form this would take, apart from rhetoric, in the new South Africa. Indeed, the first case in the Constitutional Court raised questions about whether this right would ever matter as the court rejected an appeal for dialysis for a dying man—ruling that the public health system's guidelines were applied "fairly and rationally." Mr. Soobramoney was dead within a week.

The Mbeki administration's response to HIV/AIDS, however, was a much more critical test of the right to health in South Africa. In 2005, democratic South Africa's African National Congress—the party of liberation and avowed social democracy—was presiding over strong economic growth and diminishing racial hierarchies. Theories in public health and social science suggest it should have been a time of improving health and health policy.

Yet, the country's second president and his Minister of Health, Manto Tshabalala-Msimang, led a policy response to the growing AIDS epidemic that questioned the link between HIV and AIDS, and favored various sham treatments to anti-retroviral therapy. The Mbeki government's repeated refusal to roll out anti-retroviral drugs amidst the worst HIV epidemic in the world eventually cost 3.8 million "person-years" by one estimate (Chigwedere et al. 2008).While the country was recognized as a strong electoral democracy, the ANC held a large majority in parliament and electoral incentives repeatedly failed to propel change in the governments disastrous policy choices—especially for poor people living with HIV and dying without access to medicine.

The Treatment Action Campaign (TAC), a social movement group of people living with HIV, engaged in a major public campaign to change government policy and their involvement changed both the visibility and the power of the right to health in South Africa. Their tactics included massive street mobilization, international shaming, and a court case to demand the roll out of AIDS drugs for pregnant women (Heywood 2009). The case, *Minister of Health v. TAC* (Constitutional Court of South Africa 2002) arrived at the Constitutional Court at the height of the conflict. With the help of non-governmental organizations (NGOs) like Medicins Sans Frontiers and the AIDS Law Project, activists effectively illustrated how "unreasonable" government policy was in limiting access to drugs that could prevent HIV transmission from mother to child. The Constitutional Court agreed, finding the government had failed to devise a "comprehensive and coordinated program to realize progressively the rights of pregnant women and their newborn children" (Constitutional Court of South Africa 2002). From there, a series of political and legal efforts followed as TAC and other groups continued the campaign, and the threat of litigation, to compel government procurement of ARVs. When ARV treatment finally began to roll out widely to all people in 2004, it was the result of an 11th-hour deal between lawyers, activists, and the government (Berger 2008).

While the most high profile, the *TAC* Constitutional Court case was just one example of how the right to health has been mobilized in South Africa. The foundations of the AIDS and health rights link in South Africa actually occurred much earlier, when the international pharmaceutical industry challenged South Africa over its plans to import and produce generic versions of much-needed medicines. The pharmaceutical industry sued the Mandela government, arguing it was violating intellectual property rules and both the government and, as amicus curiae, the Treatment Action Campaign responded by invoking the constitutional right to health (High Court of South Africa 1999). TAC also mobilized an international solidarity response framed around the right to health that resulted in worldwide protests, which helped ensure the case was withdrawn 6 weeks after it came before the High Court (Smith and Siplon 2006).

As the struggle for affordable medicines continued, health activists and lawyers increasingly sought venues in which the right to health could be an effective tool. Among the most interesting examples involved was not the formal judiciary but the Competition Commission of South Africa—an independent statutory body charged with preventing monopolies

and abuse of dominant business power. In *Hazel Tau v. Glaxo Smith Kline*, organized groups of people living with HIV complained to the Commission that major drug companies were violating competition laws by charging high prices for AIDS drugs. The result, they said, was injuring the right to health of people living with HIV. They assembled testimony from health workers, people living with HIV, leading clinicians and economists, and others to show that the high prices were neither justified nor just. When the competition commission agreed and issued an initial decision to proceed, the drug companies quickly agreed to a settlement that allowed generic companies to produce each of the drugs in question at much lower prices (Competition Commission of South Africa 2003). When prices rose again, TAC repeated the tactic with the same outcome (Competition Commission of South Africa 2007).

TAC later sued and won an order to shut down the notorious purveyor of vitamins and other "remedies" to treat HIV, Metthias Rath, who was closely allied with the previous Minister of Health (Geffen 2010). Most recently, health activists and NGOs turned again to litigation as the culmination of a campaign against the South African prison system for providing inadequate health to prisoners and the Constitutional Court held the government liable for causing tuberculosis among inmates. The case was a watershed in establishing state responsibility for failing to take public health measures to protect prisoners as well as a critical win in forcing government to take steps to address a major driver of the tuberculosis epidemic in South Africa (Stephens 2013).

Colombia

In Colombia, the 1991 constitution reflected a major rewriting of the social contract as a part of a post-conflict Constituent Assembly involving parties from across the political spectrum, including previously armed groups. The result was a document meant to "alter imbalances of power in the Colombian social, political, and economic spheres" (Cepeda-Espinosa 2004). Article 49 guarantees the right to health: "Public health and environmental protection are public services for which the state is responsible. All individuals are guaranteed access to services that promote, protect, and rehabilitate public health." The constitution also created the *accion de tutela* which provides for "immediate protection" of fundamental constitutional rights through a judicial order that can be sought by any person or someone acting in their name with very few procedural hurdles. The case must be decided within 10 days and can be requested to compel or halt action by state and non-state actors.

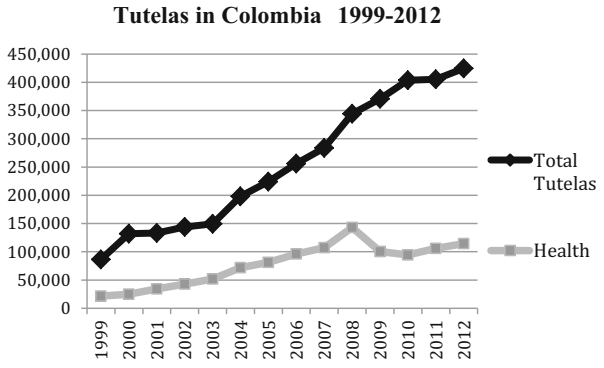
The *tutela* has been widely used by Colombians in the last two decades to enforce the right to health as individuals have sought relief in the courts when denied access to medicines, medical procedures, and other health services. While often individual, group claims have also often been made. In one landmark case, 418 parents from the Puenta Aranda neighborhood in Bogota filed a *tutela* against the health authorities for failure to provide vaccination against meningitis to their children (Constitutional Court of Colombia 1998). The poor and informally employed plaintiffs could not afford the cost of the vaccination but, living in overcrowded conditions, argued their children were at risk of death and that government promises of a vaccination campaign had not materialized. The Constitutional Court ordered the state to do so, finding that there was a "vital minimum" of health services that the state was required to ensure and that especially vulnerable people (in this case children) required special protection by the state.

The courts, led by the Constitutional Court, have gone on to issue hundreds of thousands of individual and group orders, compelling the state and private insurance companies to provide medicines and healthcare where failing to do so would violate a Colombian's right to heath. *Tutelas* grew quickly in the last decade—reaching a high point of 142,000 in 2008. Figure 3 shows this massive growth over the last 13 years (Defensoría del Pueblo 2013, p. 136).

Whether this is a good thing for public health can only be understood in the context of the political and policy decisions around health insurance in Colombia. The new, progressive Constitution was promulgated just as the health system took a neoliberal turn. Colombia's Law 100 from 1993 established a two-tiered national managed care insurance system based on private companies offering a set package of services, with the scope of services set by a government commission (Escobar et al. 2010). The system included a contributory regime for those formally employed and earning above a set wage and free "subsidized" regime for the poor and indigent who do not pay. Individuals in both regimes choose their insurance provider and receive a benefits package purchased by that provider from public and private facilities.

It is in that system that the courts have become increasingly involved. Despite the law's intensions, many have remained outside the new insurance system. Meanwhile, government regulation has often failed to effectively control the sprawling privatized system. Of the thousands of *tutelas* filed, the overwhelming majority of medicines and procedures ordered by courts were *already legally included in the government required list* (Yamin et al. 2011, p. 113). As such, much of the work of the courts has not been creating new entitlements but simply providing recourse for people denied health services to which they were entitled. In other cases, the Court found itself in the position of ordering treatments not included on the insurance list but without which patients would die—such as anti-retroviral AIDS drugs (Constitutional Court of Colombia 1997, 2001). A state fund was required to be created to cover these expenses and now spends millions each year on essential procedures and medicines. In essence, the courts have become a reliable way to get care when it is denied by the public and private health system due to incompetence, lack of capacity, or simple avarice.

The conservative Uribe government, shortly after taking office in 2002, sought to rein in the expansion in both access to the courts and expansion of state responsibility



Source: Defensoria del Pueblo. 2013. *La tutela y el derecho a la salud.*

Fig. 3 Tutelas in Colombia 1999–2012

for healthcare by trying to limit the courts' ability to respond of *tutelas* (Landau 2012, p. 34). But by then, hundreds of thousands had already benefited; many had come to see the *tutela* as the only recourse within dysfunction, and public outcry undercut the political will for any change.

It was clear that the individualized nature of *tutelas* and the lack of coordination across the courts was not an ideal public health approach and many worried about its effects (Landau 2012). Others, however, noted the existing system was no better. By 2008, it was clear that the tidal wave of *tutelas* on health were in response to a fundamentally broken health system that was failing Colombians, especially the poor. Yet, there was little political will in the neo-liberally oriented government to address the issue. Political activists, NGOs, and the legal community had become increasingly engaged in coordinating civil society responses and strategizing to increase the impact of the health *tutelas* (Revelo-Rebolledo 2013). After significant work, NGOs convinced Colombia's Attorney General to join in a report with the NGO De Justicia that identified both the crisis in the health system and resulting problems in the judiciary. It joined a call from civil society groups on the judiciary to declare an "unconstitutional state of affairs"—a finding that the situation was far beyond individual problems expressed in individual *tutelas* that required substantial state policy change.

The Constitutional Court stopped just short of this declaration but issued a sweeping judgment in case T-760/08. The Court joined 22 tutelas and found widespread regulatory failures that violated the state's constitutional obligation. It cited not only the Constitution but also Colombia's international legal obligations under the ICESCR to respect, protect, and fulfill the right to health. The court further found that obligations of "programmatic character" are violated when insurance companies and the state fail to provide a plan to progressively realize the right to health and effectively engage the needs of the population, especially marginalized people (Constitutional Court of Colombia 2008) On equity grounds, the court ordered an expansion of the subsidized regime so that it was equal to that of the contributory regime—a concept that had been promised by 2001 in Law 100 but never implemented. It also ordered the state to rationalize payments for drugs and procedures not included in the insurance scheme, update it annually, and expand access to the system overall to ensure universal coverage.

Importantly, though, the Court sought to maintain the balance between state actors and recognize its own limitations vis-a-vis the bureaucracy and executive. It did it require state action that would, as some politicians claimed, bankrupt the system. Instead, the court wrote, "[I]t is not for the Constitutional Court to establish the manner in which the system must overcome the flaws that prevent the public administration from having the institutional capacity that would enable it to take appropriate and necessary measures to guarantee the population a higher level of health, given the available resources" (Constitutional Court of Colombia 2008). Instead, it required government to create a plan, established deadlines and reporting mechanisms, and required engagement with affected communities.

Implementation has, unquestionably, been a problem as the Uribe and Santos governments resisted implementation (Rodríguez-Garavito 2010). Meanwhile, the executive was successful in pushing through a "fiscal sustainability" act in 2010 that may limit the impact of some future court rulings in direct retribution for T-760/08. Nonetheless, the government has passed a series of reforms—updating the insurance schemes and extending access to care to many more people, starting with children.

Brazil, Kenya, and Thailand

Brazil is another of the more extensively studied cases of the instantiation of the right to health. Even more than in Colombia, the right has been interpreted and enforced individually—by one study's count in just one state, Rio Grande do Sul, the annual number of health-related lawsuits under the right to health increased from 1126 in 2002 to 17,025 in 2009 (Biehl et al. 2012). There has been substantial worry that this "judicialization" of health is simply shifting limited resources to those with the most access to the courts rather than to the best public health interventions and, as such, the right to health will prove bad for overall health outcomes in Brazil (Ferraz 2009; Hoffmann et al. 2008). But in a thoughtful mixed-method study of a database of cases and extensive in-depth interviews, Biehl et al. (2012) find the opposite. They found that most litigants were low income and either retired or unemployed; they depended on the public system for both their healthcare and their legal representation. Rather than an end-run around public health policy-making by the middle class, they find that the core phenomenon is poor patients refusing to wait for important medical technologies to "trickle down" from the wealthier sectors. "They are leveraging public legal assistance and a receptive judiciary to gain full access to all medicines now" (Biehl et al. 2012, 48).

An even further reaching example of the right to health in action was recently shown when Kenyan civil society groups mobilized against the 2008 Anti-Counterfeit act, introduced in order to implement an international treaty but which groups feared would bar generic drugs and thus undermine affordability of medicines (Baker 2010). In addition to media and protests, the groups challenged the act in court. The High Court agreed with the petitioners and struck down the law as a violation of the right to health, newly enshrined in the constitution.

In Thailand as well, the constitutional protection of the right to health provided the grounds for the Minister of Health's decision to allow low-cost generic production of patented AIDS, cancer, and heart disease medicines through a compulsory license, despite intense international pressure not to take action that would hurt multinational corporations (Forman 2012; Krikorian 2009). The Thai case, as well as South Africa's *Hazel Tau* case, shows the right to health having impact not only on state action, but on private actors such as pharmaceutical companies and private service providers.

Evidence of Institutional Impact

These cases show clear support for the contention that countries with a right to health spend more on health and provide more/better health services—linking these directly to the institutionalization of a right to health. The right to health mobilizes actors and ideas and shapes the "rules of the game" of both the health and governance systems in both large and small ways. The right to health, in even these brief examples, empowers and constrains actors and changes the shape of what constitutes "appropriate" behavior as March and Olsen (2008) describe.

Running throughout all these examples is exactly the kind of interaction between social mobilization, institutions, and "social imaginaries" Peter Evans suggests this can have a critical impact on health outcomes (Evans 2009, p. 124). Social mobilization is central to activating the institutional impact for the right to health—individual litigants by the hundreds of thousands in Brazil and Colombia or members of social movement

organizations in even larger numbers in South Africa are all engaged. Their mobilization for health, though, was critically aided, channeled, and in some cases even fostered by the opportunity created by the institutional right to health.

Meanwhile, the right to health also brought forward new actors into contentious health politics—most prominently courts and lawyers. Indeed, in the two most thorough published examinations of cases of judicial enforcement of the right to health (and education), Gauri and Brinks and Yamin and Gloppen, both argue that courts bring something different and important to health policy-making. Noting that good health is desired by all polities, Gauri and Brinks suggest that when courts are empowered as actors in health and education, they are at times able to break through three key obstacles to improve health: political blockages that prevent states from enacting good policies, monitoring deficits where good policies are hindered by poor implementation, and incomplete commitments where political legitimacy is derived from the promise of health rather than in the delivery, especially to the poor (Gauri and Brinks 2008). This comes through clearly in Colombia, where the government was compelled to follow through on promises to rectify the unequal health system, and in South Africa, where the Mbeki government was forced by court order to follow medical science and roll out AIDS treatment, and in Kenya where court provided an entry for Kenyans to challenge implementation of a treaty negotiated far outside the country. While courts are the most prominent actors, the Thai example is just one of many in which government officials themselves are compelled to act, without court involvement. While deliberation and democracy were important, they were insufficient to guarantee positive health outcomes and needed

Finally, it seems that simply the idea of a "right" is important—mobilized by TAC in South Africa, for example, to win international support or by poor Brazilians to demand access to important new medical technologies instead of waiting for them to make their way into the limited health system they had access to.

While this is only a brief snapshot, and further research is needed to delve deeply into the mechanisms at work here, these case studies provide evidence that something different is happening in the politics and policy of countries with a right to health. That difference helps explain and confirm the observation of both better health service delivery and health outcomes where a constitutional right is present.

Conclusions

This study supports the contention that the right to health is good for people's health. Two generations ago, a constitutional right to health was a relatively rare phenomenon. In recent decades, it has become much more widespread—with a slight majority of today's countries having adopted a right to health. A cross-national empirical study of 144 countries between 1970 and 2010 finds this is a good thing for people's health. Estimating the most widely promulgated theories of the economic and social determinants of health and the connection between health and democracy provide a basis from which to empirically evaluate the effect of the right to health. While it may be broadly true that wealthier, more equal, homogonous, and democratic countries are healthier, this article shows that even taking that into consideration, a constitutional right to health is a significant and beneficial institutional factor. More children survive until their 5th birthday

in countries with a right to health, at least in part because the institutional environment shaped by a right to health encourages more and better delivery of health services.

Clearly, the right to health is not a normally distributed variable and separating a causal path will require further study. Indeed, this article suggests that much greater attention to socioeconomic rights over all by social scientists is warranted. This analysis also cannot capture the full conception of a right to health—it exists not only in constitutions but also in international agreements, extra-constitutional action by legislatures and judges, and in ideational regimes that vary cross-nationally.

It is clear, however, that the case-study evidence suggesting rights can be an important institution for promoting health has support in cross-national empirics. Suggestions that a right to health might actually undermine health outcomes are not supported by the data from a recent forty year period. Instead, the evidence suggests that health actors would be well advised to attend to constitutional drafting processes as they seek to improve the health of nations.

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Appendix 1

Table 6 Alternative estimators (DV: log under-5 mortality (per 1000 live births), 1970–2010)

Variables	(1) FGLS	(2) PCSE	(3) ML	(8) ADL model with EC
Health right	−0.017* (0.008)	−0.019^{+} (0.011)	−0.086** (0.011)	−0.012** (0.004)
Democracy	−0.008** (0.001)	−0.010** (0.001)	−0.002** (0.001)	0.000 (0.000)
Log GDP (pc)	−0.343** (0.006)	−0.356** (0.011)	−0.295** (0.012)	−0.056** (0.017)
Women's education (years)	−0.084** (0.002)	−0.080** (0.004)	−0.083** (0.006)	−0.027** (0.009)
Ethnolinguistic fractionalization	0.311** (0.014)	0.266** (0.016)	0.316* (0.151)	0.017** (0.003)
Inequality	0.007** (0.000)	0.010** (0.001)	0.003** (0.001)	0.001^{+} (0.000)
Urbanization	−0.002** (0.000)	−0.001* (0.000)	0.007** (0.001)	0.003 (0.002)
Population density	−0.0001 (0.000)	−0.0001 (0.000)	−0.0001 (0.000)	−0.0001 (0.000)
Year control	Yes	Yes	Yes	Yes
Regional fixed effects	Yes	Yes	Countries nested in regions	No
Observations	3584	3584	3584	3420
Number of countries	144	144		140
R^2		0.927		

All independent variables are lagged 1 year. ADL based on 0 and 1 year lag. Standard errors are listed in parentheses. Constants not reported

$^{+}p<0.1$; *$p<0.05$; **$p<0.01$

Appendix 2

Table 7 Health rights and under-5 mortality+spending and services variables (DV: log under-5 mortality (per 1000 live births), 1970–2010)

	(1) Model A (public health expenditures (% GDP))	(2) Model B (public health expenditures (% total))	(3) Model C (out of pocket)	(4) Model D (birth attendance)	(5) Model E (immunization)
Health right	−0.009 (0.017)	−0.006 (0.014)	−0.010 (0.017)	−0.002 (0.024)	−0.039** (0.012)
Democracy	0.002 (0.001)	0.002 (0.001)	0.002 (0.001)	−0.000 (0.002)	0.001 (0.001)
Log GDP (pc)	−0.337** (0.021)	−0.299** (0.017)	−0.330** (0.021)	−0.353** (0.024)	−0.253** (0.014)
Women's education (years)	−0.024* (0.012)	−0.037** (0.010)	−0.024* (0.012)	−0.044** (0.015)	−0.058** (0.007)
Ethnolinguistic fractionalization	0.476** (0.147)	0.499** (0.132)	0.494** (0.149)	0.396** (0.145)	0.445** (0.119)
Inequality	−0.004** (0.001)	−0.004** (0.001)	−0.004** (0.001)	−0.002 (0.001)	−0.003** (0.001)
Urbanization	−0.001 (0.002)	−0.001 (0.001)	−0.001 (0.001)	0.005** (0.002)	0.005** (0.001)
Population density	−0.000** (0.000)	−0.000* (0.000)	−0.000** (0.000)	−0.000* (0.000)	−0.000** (0.000)
Public health expenditures (% GDP)	−0.004 (0.004)				
Public health expenditures (% total health expenditures)		0.000 (0.000)			
Out-of-pocket expenditures (% total health expenditures)			0.000 (0.000)		
Skilled birth (% attended)				−0.001 (0.001)	
Immunization (% 1-year DTP3)					−0.001** (0.000)
Year control	Yes	Yes	Yes	Yes	Yes
Regional fixed effects	Yes	Yes	Yes	Yes	Yes
Observations	1294	1741	1308	606	2805
Number of countries	110	142	112	124	143
R^2	0.917	0.903	0.917	0.861	0.870

All independent variables are lagged 1 year. Standard errors are listed in parentheses. Constants not reported

*p<0.05; **p<0.01

Appendix 3

Table 8 Variables

Variable	Description/transformation	Source
Right to health	Text of constitutions in answer to the question, "Does the constitution mention the right to health care?" Transformed to 0/1 and all "other" or "unable to determine" cases identified in original dataset were examined and recoded by the author.	Ginsburg (2011)
Under-5 mortality	The probability of death between birth and age 5 years, expressed per 1000 live births, using logged data for estimation.	Institute for Health Metrics and Evaluation Estimates published in Rajaratnam et al. (2010)
GDP per capita (log)	Published GDP estimates in dollar conversions, using logged data for estimation.	Institute for Health Metrics and Evaluation Estimates published in James et al. (2012)
Democracy	Polity-IV score ranging from −10 to 10, with 0 being transition from non-democracy to democracy.	Marshall (2013)
Women's education	A-standardized mean years of education for men and women aged 25 years or older.	Institute for Health Metrics and Evaluation Estimates published in Gakidou et al. (2010)
Inequality (gini)	The gini coefficient represents how far countries deviate from a perfectly equitable distribution of income among individuals or households, ranging from 0 (perfect equality) to 100 (perfect inequality).	UNU-WIDER (2010)
Ethnolinguistic fractionalization	Probability that 2 randomly selected individuals in a country belong to different ethnolinguistic groups, based on the 1985 measure as recalculated 2005.	Montalvo and Reynal-Querol (2005) supplemented by Alesina et al. (2003)
Urbanization	People living in urban areas as defined by national statistical offices. It is calculated using World Bank population estimates and urban ratios from the United Nations World Urbanization Prospects.	World Bank (2013)
Population density	Midyear population divided by land area in square kilometers.	World Bank (2013)
Conflict	Magnitude score of episode(s) of civil and ethnic violence and warfare in a state	Marshall (2014)
Legal tradition	Categorization based on 7 options: Muslim, Common, Civil, Customary, Mixed Common, Mixed Civil, or Mixed Common/Civil. Collapsed mixed categories into the civil or common category.	University of Ottawa
Government expenditure	General government expenditure on health as % of GDP.	World Health Organization (2015a)
Out-of-pocket expenses	Out of pocket expenditure as % of total health expenses.	World Health Organization (2015a)
Skilled birth attendance	Births attended by skilled health personnel (%).	World Bank (2013)
Immunization	Diphtheria-tetanus-pertussis (DTP3) immunization coverage among 1-year olds (%).	World Health Organization (2015b)
Availability of medicines-pub sector	Median availability of selected generic medicines (%) in the public sector.	World Health Organization (2015b)

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