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The Effect of a Constitutional Right to Health on Population Health in 157 Countries, 1970–2007: the Role of Democratic Governance

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The Effect of a Constitutional Right to Health on Population Health in 157 Countries, 1970–2007: the Role of Democratic Governance

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Abstract

Background: A number of studies have evaluated the effect of a right to health as a mechanism for achieving desirable health outcomes, yet no study has sought institutional conditions that make this mechanism more effective at population level.I hypothesise whether a right to health is only an effective instrument for improving health in countries that demonstrate good governance in which effective mechanisms for enforcing the right to health, as well as controlling government behaviour, exist.

Method: Annual data from 1970 to 2007 was obtained for a panel of 157 countries, to study the effects of introducing into national constitutions an explicit, enforceable, right to health and democratic governance on infant and under-five mortality rates.

Results: The introduction of a right to health in a national constitution was significantly associated with reductions in both mean infant and under-five mortality rates. The effect was large in countries with high scores for democratic governance, whereas in countries with low scores for democratic governance, approximately half of the effect of introducing a constitutional right to health was present.

Interpretation: The results suggest that introducing a constitutional right to health is likely to be an effective mechanism for improving health in countries that have a high level of democratic governance. However, whereas a right to health is likely to be less effective in countries with low scores for democratic governance in the short run, there can be a longer term health benefits if governance subsequently improves, the right to health remains in the constitution.

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1 Introduction

In 1948, the United Nations adopted the Universal Declaration of Human Rights, which provided an international foundation for the right to health.[1] Today, almost all countries have ratified at least one human rights treaty that includes a provision for a right to health.[2] More than a third of all countries have introduced a right to health in their national constitutions.[3] One way of conceptualising the right to health is considering this right as the statement of an aspiration, or goal, towards which countries should work. However, an alternative way of thinking is to view the right to health as a legal instrument that can be used to achieve improvements in health objectives.[4] Considering the right to health as a statement of a desirable goal is an ethical issue. However, if we think of the right to health as a mechanism for achieving desirable health outcomes, I have formulated an empirical issue that can be addressed with data; that is, does the introduction of a constitutional right to health improve population health outcomes?

Historically, the judicial enforcement of rights to health has played a limited role in enabling patients' access to health care.[5] In the last twenty years, however, the courts have started assuming more active roles in redressing the failures of government health policy.[6] Such successful cases were mainly linked to constitutional provisions of this right, which were supported by international treaties. Whereas judicial enforcement is one ultimate redress mechanism for guaranteeing people's rights to health, the realisation of the constitutional promise may occur without explicit court rulings; governments may implement the right to health to avoid court cases.

I focus on the role of an explicit enforceable right to health in national constitutions in influencing health outcomes, rather than the effects of the ratification of international treaties that include a right to health. I view an enforceable constitutional right to health as more likely to be effective than a treaty ratification that may be formally legally binding yet have no potential enforcement mechanisms for individuals within a country. Supporting this view, Ben-Bassat and Dahan[7] identify a positive effect of a constitutional right to health on subsequent health outcomes, whereas Palmer et al.[2] find no systematic effects of the number of ratified treaties that specify a right to health.

Whereas Ben-Bassat and Dahan[7] find a positive effect of a constitutional right to health on health outcomes on average, I focus on the question of whether the effectiveness of a right to health varies with the level of democratic governance in a country. For example, the USSR Constitutions of 1936 and 1977 provided a guarantee of access to health care[8], but no effective mechanism for enforcement actually existed.[9] The lack of independent judicial review and democratic control processes allowed the government to exercise unlimited powers, even if its actions violated an individual's explicit constitutional rights.[10, 11] I hypothesised that the right to health will be more effective in terms of producing positive health outcomes in countries that have democratic

governance that also provides effective mechanisms for the enforcement of constitutional rights. It has been argued that democratic governance can, in itself, directly improve population health by forcing the government to reflect the interests of the population.[12, 13] Although I allow for this direct effect of democratic governance on health, I am primarily interested in how democratic governance influences the effectiveness of a constitutional right to health.

As in Palmer et al.,[2] I evaluated longitudinal panel data from a diverse set of countries to assess the extent to which the introduction of a right to health affects health outcomes. This approach improves upon the strategy of Ben-Bassat and Dahan,[7] who relied on cross-sectional data. Outcomes with long and consistent time series were used, including infant and under-five mortality rates. Specifically, I used panel data for 157 countries for the period of 1970–2007. At the beginning of my study period, 21 countries had a constitutional right to health, whereas 44 countries had introduced or removed a right to health from their constitutions up to 2007. These changes in constitutional provisions allow us to estimate their effects on population health.

2 Methods

I employed difference-in-difference methods to estimate the relation between child mortality, the introduction of a right to health into national constitutions, and democratic governance over time, at the country level. The dependent variables included the log infant mortality rates and log under-five mortality rates, which are indicators of Goal 4, on child health, from the Millennium Development Goals. My main explanatory variables were the presence of a constitutional right to health and the level of democratic governance, as well as the interaction between these two factors. As a control, I also added variables reflecting the level of real income per capita and the education levels of women of reproductive age, both of which may affect child survival. My panel data model also included country and year fixed effects, as well as country-specific linear and quadratic trends. These captured unobserved variables that are fixed for each country over time, as well as world-wide changes that concurrently affect all countries and each country's declining trends of child mortality. Reported standard errors of the estimates were clustered at the country level to control for autocorrelations in health outcomes over time.[14]

3 Data

I constructed a database of the constitutional right to health for 157 countries. The right to health or health care must be explicitly stated in the constitution and theoretically enforceable. There were a number of difficult cases wherein the interpretation of a constitution is a matter of judgment, and such cases are discussed in the appendix. The data regarding the constitutional right to health were constructed to be consistent with Backman et al.[3] Taking this as my basis, for each country I determined the date when the right to health was explicitly recognised as a constitutional right. A dummy variable of constitutional health right was defined as 1 if there were constitutional

health rights in country *i* at time *t*; otherwise, the value was set to 0. For the former USSR countries, I assigned the value 1 after the Constitution of 1936 was adopted. Although many of the former USSR countries inherited the Soviet tradition of constitutional right to health upon the dissolution of the USSR, Armenia, Lithuania, Republic of Moldova, Ukraine, and Uzbekistan removed this constitutional right, according to the classifications of Backman et al.[3] Thus, I code that the constitutional right to health in these countries as disappearing after the breakup of the USSR. For former Yugoslavia and Czechoslovakia, I assigned the values 0 and 1 prior to and following their independence, respectively. Table 1 lists all countries with constitutional rights to health and indicates the years for which the right to health was first introduced into the respective national constitutions.

All data, except for categorisations regarding a constitutional right to health, are taken from published sources. Data for the democratic variables are from the POLITY IV database.[15] The democracy score (POLITY score) reflects an aggregate of six component measures that record key qualities of governance, including the presence of mechanisms for citizens to express their political preferences, constraints on the exercise of power by the executive branch, and the guarantee of civil liberty. This democracy measure is based on high scores for these qualities, whereas autocracy is associated with low scores, with a total range of -10 to 10. Other aspects of plural democracy, such as the rule of law, systems of checks and balances, and freedom of the press are manifestations of these qualities. It is important to recognise that the POLITY measure is not just a measure of elections and majority control, but rather it explicitly takes into account the controls on government and the rule of law. As such, I expect that countries scoring high on the POLITY measure will also have effective means of implementing an explicit constitutional right to health.

Following the procedure of Besley and Kudamatsu,[13] I constructed a dummy variable for democratic governance, with 1 signifying that the POLITY variable is greater than 0; otherwise, the value is set to 0. To investigate the effects of constitutional right to health under the different levels of democratic governance, I split the democracy variable into two categories based on POLITY score. The high democratic governance variable was set equal to 1 if the POLITY variable was greater than 7; otherwise, it was set to 0. According to this classification, most OECD countries are classified as countries with high levels of democracy as of 2007.

Finally, the data on child mortality, mean years of education for women of reproductive age (15–44 years old), and income are from the IHME data.[16,17] The selection of countries for analysis was guided by the availability of data for the variables used in the regressions. There were 157 countries with data for all dependent and independent variables.

Figure 1 shows that there has been substantial progress in the democratisation and introduction of the right to health into national constitutions between 1970 and 2007. The increase of the number of countries with democratic governance was most rapid immediately after the fall of the Berlin Wall in 1989 and the dissolution of the USSR in 1991. Figure 1 also shows the correlation between democratic governance and the constitutional health right over time during the same period. Before 1990, countries with a constitutional right to health were likely to be classified as not having democratic governance, whereas after 1990, the constitutional right to health is positively related to democratic governance.

A constitutional right to health does not randomly appear in countries. Table 2 summarises the proportion of countries with a constitutional right to health and democratic governance, as of 2007, based on five different legal origin classifications, following La Porta and others.[18] Strikingly, the existence of a constitutional right to health varies across countries with different legal origins. With the exception of South Africa, only French commercial law- and Soviet socialist law-origin countries give citizens a constitutional right to health. The English, German and Scandinavian legal origin countries were highly unlikely to have recognised a constitutional right to health. Table 3 shows the means and standard deviations of each dependent and independent variable in natural units (non-log form).

4 Results

Table 4 presents the results of the regression equations for countries over the period of 1970-2007. In the first four columns, the dependent variable is the log under-five mortality rate. In column 1 of Table 4, explanatory variables included the presence of a constitutional right to health, the mean years of education of women aged 15-44, and the log of the real GDP per capita. All three explanatory variables have statistically significant effects on mortality rates in children under-five years of age. The coefficient of -0·0495 on the constitutional right to health indicates that the introduction of a constitutional right to health reduces the under-five mortality rate by 5·0% of its initial level. The standard error, given in parentheses under the estimate, indicates that the result is statistically significant, even at the 1% significance level.

In column 2 of Table 4, I added a dummy for democratic governance (POLITY score > 0) to the regression. It appears that the provision of a right to health, rather than democratic governance, matters for health outcomes. In column 3, I allow for an interaction effect between a constitutional right to health and democratic governance. Even with this specification, the right to health on its own is still statistically significant. This result indicates that the right to health confers health benefits across countries, even without democratic governance. The interaction coefficient was not significant, suggesting that this effect does not significantly differ between democratic and non-democratic countries.

In column 4 of Table 2, an interactive effect between a constitutional right to health and a high (POLITY score > 7) or low (7 ≥ POLITY score > 0) level of democratic governance are examined. A large and statistically significant effect of the constitutional right to health in countries with high levels of democratic governance was found. In counties with a high level of democratic governance, it is estimated that a right to health reduces the under-five mortality rate by 8·7% (considering the direct and interactive effects). The introduction of a right to health in countries with autocratic or low levels of democratic governance decreased the under-five mortality rate by 4·0% and 4·7%, respectively, which provide about a half the beneficial effect of that seen in highly democratic countries.

The final four columns of Table 4 replicate the results of the first four columns based on the log infant mortality rate as the dependent variable. The estimates in these columns provide highly similar results to those found for the under-five mortality rate. Robustness checks, using alternative classifications of the constitutional right to health and democratic governance, alternative specifications for the regression, and evaluations of short-term effects, are reported in the Appendix. These deal with potential disagreement in procedure among different human rights scholars and economists.

5 Discussion and Limitations

These findings suggest a robust effect of the introduction of the right to health on subsequent health outcomes in countries with a high level of democratic governance with effective means of translating this right into policy. The introduction of rights to health in such countries is therefore likely to have a highly meaningful impact on health policy. However, the interaction effects imply that there are also cases in which the right to health became effective as governance become more democratic. Autocratic countries may have a constitutional right to health that merely plays a symbolic role and does not in fact influence or constrain governmental actions. However, if such countries were to move to more democratic forms of governance, the enshrined right to health may have real effects.

The mechanisms through which the right to health works to affect population health are not addressed by this investigation. An increase in government health expenditure is one mechanistic pathway that could partially explain the reduction in infant mortality rates. However, the existing health expenditure data, at country level, does not predate 1995. I hypothesise that a right to health or health care can lead to policy changes and greater resources for the health system or to a more equitable and efficient distribution of resources across groups. Future research must address the consequences for policy change and distribution of resources.

There are several issues that must be considered in interpreting the effects of a constitutional right to health. First, without truly exogenous variation in a constitutional right to health, the concern that this represents omitted political and social variables still remains. Second, most countries with constitutional health rights share either French or Soviet Socialist legal origins. One exception is offered by South Africa as a country of British legal origin that has introduced a right to health; however, other reviewed cases descended from Soviet or French origin countries. There may be difficulty in generalising the finding of a significant impact of the right to health in countries with higher levels of democratic governance to countries with different legal traditions that introduce rights to health into their constitutions, given that most of the countries with this right have shared French or Soviet Socialist legal origins. Furthermore, these analyses relied on an explicit right to health or health care stated in constitutions, yet courts may find an implicit right to health derived from other constitutional rights. For instance, the Indian Supreme Court expanded the scope of article 21 of the Indian constitution (e.g., the right to life) and ruled that the "right to health" is integral to the right to life.[19] I again leave to future work the issues of judicial interpretation of the constitution and the emergence of constitutional rights through case law.

This paper emphasises the interaction between a constitutional right to health and democratic governance. Democratic governance in this paper is not merely a system of voting with which to elect a government, but rather it represents a system of checks and balances that constrains what an elected government can do, as well as a process of collective reasoning to inject more information, perspectives, and voices into debate.[20-22] These functions of democracy are effective means of translating the right to health into public policy and improving population health outcomes in the 21st century.

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Tables and Figures

Country	Year	Country	Year
Albania	1998	Libya*	1969
Algeria	1989	Lithuania	1936
Argentina	1994	Madagascar	1992
Armenia	1936	Mali	1992
Azerbaijan	1936	Mexico	1983
Belarus	1936	Moldova	1936
Belgium	1994	Mongolia	1960
Bolivia	1967	Montenegro	2007
Brazil	1988	Nicaragua	1987
Burkina Faso	1991	Niger	1992
Burundi	1992	Paraguay	1967
Cameroon	1972	Peru	1993
Colombia	1991	Philippines	1987
Croatia	1990	Poland	1997
Cuba	1976	Portugal	1976
Czech Republic	1960 (1993)	Romania	1991
Ecuador	1998	Russian Federation	1936
Estonia	1936	Rwanda	2003
Georgia	1936	Serbia	2006
Guatemala	1986	Slovakia	1960
Guinea	1990	Slovenia	1991
Guinea-Bissau	1991	South Africa	1997
Haiti	1989	Spain	1978
Honduras	1982	TFYR Macedonia	1991
Hungary	1989	Tajikistan	1936
Iraq	2005	Togo	1992
Italy	1948	Turkmenistan	1936
Kazakhstan	1936	Ukraine	1936
Kyrgyzstan	1936	Uzbekistan	1936
Latvia	1936	Venezuela	1999
		Viet Nam	1980

*The right to health is no longer a constitutional right in Armenia, Lithuania, Republic of Moldova, Ukraine, and Uzbekistan after the breakup of the Soviet Union and in Slovakia after the breakup of Czechoslovakia. On the other hand, Czech Republic continued to be classified as a country with the constitutional right to health due to its referential statement to international treaties in its 1993 constitution. Libya was dropped from the sample because no income data were available for this country. Data source: Backman et.al. (2008) and Constitutional Finder, Polity IV Database, and Comparative Constitution Database

Table 1 Countries with constitutional rights to health and years of introduction

Legal Origin	Countries with Constitutional Health Rights		Countries with Democracy		Total Number of Countries
	n	%	n	%	n
English Common Law	1	2·27%	30	68·18%	44
French Commercial	31	44·29%	44	62·86%	70
Socialist Law	23 (29)	67·65%	23	67·65%	34
German Commercial Law	0	0·00%	5	100·00%	5
Scandinavian Commercial Law	0	0·00%	4	100·00%	4

Table 2 Countries with constitutional rights to health and democratic governance in 2007

Variable	Mean (SD)
Infant Mortality Rate	54·95
	(42·57)
Under-Five Mortality Rate	81·44
	(74·50)
Constitutional Right to Health	0·22
	(0·41)
Democracy	0·46
	(0·50)
Low Level of Democracy	0·16
	(0·37)
High Level of Democracy	0·30
	(0·46)
Gross Domestic Product per person	7779·79
	(9032·16)
Mean Years of Education in Women of Reproductive Age	6·27
	(3·75)
Observations	5966

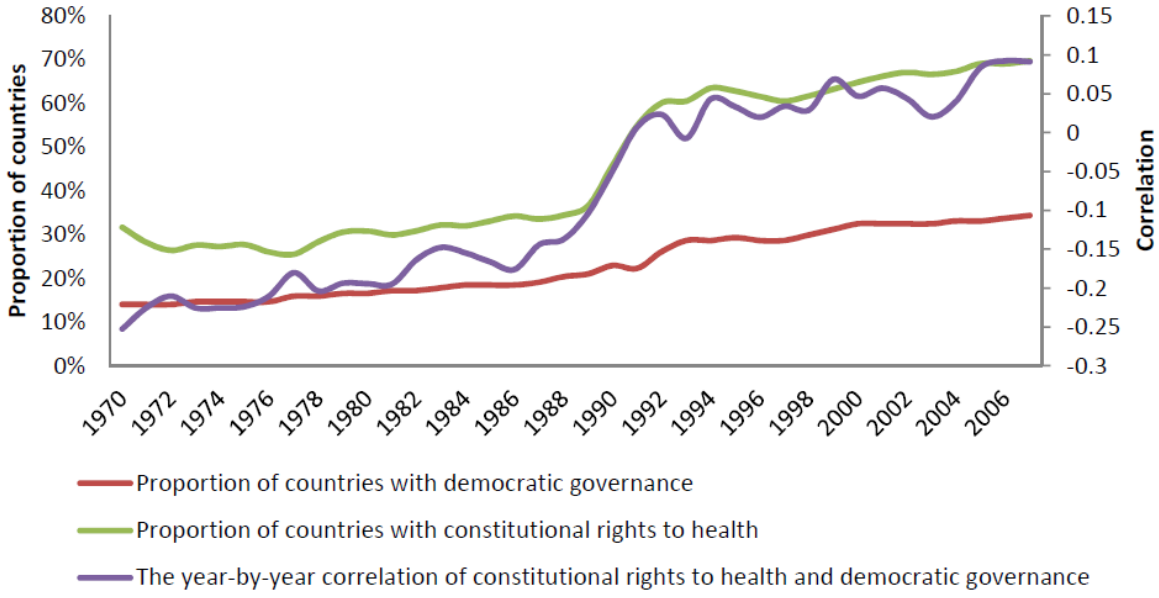
Table 3 Means (standard deviations) of variables

Dependent Variables	Logged Under-Five Mortality Rate				Logged Infant Mortality Rate			
Constitutional Rights to Health	-0·0495***	-0·0549***	-0·0448**	-0·0398**	-0·0476***	-0·0534***	-0·0446**	-0·0396**
	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)
Democracy		0·00229	0·00628			0·00392	0·0074	
		(0·01)	(0·01)			(0·01)	(0·01)	
Constitutional Rights to Health * Democracy			-0·0186				-0·0162	
			(0·01)				(0·01)	
Constitutional Rights to Health * High Level of Democracy				-0·0474**				-0·0447**
				(0·02)				(0·02)
Constitutional Rights to Health * Low Level of Democracy				-0·00723				-0·00501
				(0·02)				(0·02)
High Level of Democracy				0·0185				0·0194
				(0·01)				(0·01)
Low Level of Democracy				0·00108				0·00227
				(0·01)				(0·01)
Mean Years of Education in Women ages 15-44	-0·0126	-0·0181	-0·0207	-0·0184	-0·017	-0·0226	-0·0249	-0·0227
	(0·04)	(0·04)	(0·04)	(0·03)	(0·03)	(0·03)	(0·03)	(0·03)
Logged Gross Domestic Product per capita	-0·0474**	-0·0452*	-0·0471*	-0·0469*	-0·0460**	-0·0438*	-0·0454*	-0·0452*
	(0·02)	(0·02)	(0·03)	(0·02)	(0·02)	(0·02)	(0·03)	(0·02)
The Effect of Introducing Constitutional Rights to Health in Democratic Countries			-0·0634***				-0·0608***	
The Effect of Introducing Constitutional Rights to Health in High Level Democratic Countries				-0·0872***				-0·0843***
Observations	5,000	4,690	4,690	4,690	5,000	4,690	4,690	4,690
No· of Countries	157	157	157	157	157	157	157	157
R-squared	0·998	0·999	0·999	0·999	0·998	0·998	0·998	0·998

*Clustered standard errors in brackets· * significant at 10%; ** significant at 5%; *** significant at 1%· All regression equations included both country and year fixed effects, as well as country-specific linear and quadratic trends·

Table 4 Multiple regression equations with constitutional health rights and democratic governance as independent variables

Figure 1. Countries with Constitutional Rights to Health and Democratic Governance over Time.



Appendix to The Effect of a Constitutional Right to Health on Population Health in 157 countries, 1970–2007: the Role of Democratic Governance

This appendix discusses the robustness of the main empirical result of this paper based on different specifications and classifications of the constitutional right to health and democracy variables. This appendix is organised as follows: Section I discusses the sample countries and the way in which the dummy variable for the constitutional right to health was constructed. Section II is devoted to the definition of the constitutional right to health used in this paper by considering different descriptions of the right to health provisions in historical constitutions. Section III applies this definition and discusses the construction of the constitutional right to health variable in each country, based on the following five legal systems: British Common Law, French Civil Law, Soviet Socialist Law, German Civil Law, and Scandinavian Commercial Law. Section IV evaluates the robustness of the empirical result in Table 4. The results are determined to be robust against the (1) alternative classification of the constitutional right to health variable, (2) exclusion of 15 former-Soviet Union and 6 former-Yugoslavian countries from the sample, (3) different thresholds for the levels of democracy, (4) inclusion of country-specific cubic time trends in the original specification, and (5) evaluation of short-term effects using a window of five years before and after the introduction of a right to health in a national constitution. These deal with potential disagreement in procedure and help to build a wider consensus on my results among different human rights scholars and economists.

I. Dummy Variable of the Constitutional Right to Health

Table 5 lists 157 independent states included in the analysis of "The Role of Constitutional Right to Health and Democratic Governance in Population Health 1970-2007". Countries with populations less than 500,000 were excluded. Among these 157 countries, the identification of 60 countries with constitutions recognising individual rights to health or health care was based on Beckman et al.[23] The original question asked in Beckman's paper was, "Does the state's constitution, bill of rights, or other statute recognise the right to health?" In each of these countries, a reference is made to the year that the constitutional right to health was first introduced according to several different legal databases, including Constitutional Finder, FindLaw database, and Simons et al.[24] [2] A dummy variable for constitutional right is coded as 1 if a country has a constitutional protection of a right to health in year *t*; otherwise, the value is set to 0. The dummy variable for the constitutional health right is 1 if a constitutional health right exists in country *i* at time *t*; otherwise, a score of 0 is set. This variable is missing if a country is not independent or is occupied by foreign forces. Such cases are treated as colonies and are excluded from the sample.

Several countries that no longer exist today are included in the panel data. The values assigned to these countries follow the procedure that Besley and Kudamatsu[13] constructed for their democracy data. The values of the Soviet Union are set equal to 1 before the independence of the former-Soviet Union countries in the early 1990s, the value of Czechoslovakia is equal to 1 before the independence of the Czech and Slovak Republics, and the values of Yugoslavia are equal to 0 before the independence of former-Yugoslavian countries in the early 1990s. I also assign the values of Pakistan before the independence of Bangladesh in 1972, as well as the values of Ethiopia before the independence of Eretria in 1993. For the countries in which international human rights treaties acquired constitutional status, 1 is assigned after 1998 for Argentina, after 1993 for Czech Republic, and after 1972 for Cameroon. The classification of constitutional rights to health in these countries will be discussed further in the next section.

[2] Unless it is noted, Web appendix of Beckman et al. (2006) is the primary source of English translation of constitutional provision in each country. The author also checked each constitutional text in the original language.

Afghanistan	Dominican Republic	**Latvia**	Saudi Arabia
Albania	**Ecuador**	Lebanon	Senegal
Algeria	Egypt	Lesotho	Serbia
Angola	El Salvador	Liberia	Sierra Leone
Argentina	Equatorial Guinea	**Libya**	Singapore
Armenia	Eritrea	**Lithuania**	Slovakia
Australia	**Estonia**	Macedonia, the Former Yugoslav Republic of	**Slovenia**
Austria	Ethiopia	Madagascar	Solomon Islands
Azerbaijan	Fiji	Malawi	Somalia
Bahrain	Finland	Malaysia	**South Africa**
Bangladesh	France	Mali	**Spain**
Belarus	Gabon	Mauritania	Sri Lanka
Belgium	Gambia	Mauritius	Sudan
Benin	**Georgia**	**Mexico**	Swaziland
Bolivia	Germany	**Moldova**	Sweden
Bosnia and Herzegovina	Ghana	**Mongolia**	Switzerland
Botswana	Greece	**Montenegro**	Syrian Arab Republic
Brazil	Guatemala	Morocco	**Tajikistan**
Bulgaria	Guinea	Mozambique	Tanzania, United Republic of
Burkina Faso	Guinea-Bissau	Namibia	Thailand
Burundi	Guyana	Nepal	Togo
Côte d'Ivoire	**Haiti**	Netherlands	Trinidad and Tobago
Cambodia	**Honduras**	New Zealand	Tunisia
Cameroon	**Hungary**	Nicaragua	Turkey
Canada	India	Niger	**Turkmenistan**
Central African Republic	Indonesia	Nigeria	Uganda
Chad	Iran, Islamic Republic of	Norway	**Ukraine**
Chile	**Iraq**	Oman	United Arab Emirates
China	Ireland	Pakistan	United Kingdom
Colombia	Israel	Panama	United States
Comoros	**Italy**	Papua New Guinea	Uruguay
Congo	Jamaica	Paraguay	**Uzbekistan**
Congo, the Democratic Republic of the	Japan	**Peru**	**Venezuela**
Costa Rica	Jordan	**Philippines**	**Viet Nam**
Croatia	**Kazakhstan**	**Poland**	Yemen
Cuba	Kenya	**Portugal**	Zambia
Cyprus	Korea, Republic of	Qatar	Zimbabwe
Czech Republic	Kuwait	**Romania**	
Denmark	**Kyrgyzstan**	**Russian Federation**	
Djibouti	Lao People's Democratic Republic	Rwanda	

Table 5 **List of countries in the sample**

II. Why and How Should Health Be A Constitutional Right?: A Historical Perspective

Definition of the Constitutional Right to Health

The focus of this paper is exclusively on the provision of the right to health in national constitutions, rather than according to national legislations or international treaties. To date, there is no generally accepted terminology that expresses the linkage

between health and constitutional rights in the literature. There are, however, three criteria in the definition of a constitutional right to health used in this paper.

The first criterion is the scope of this right. In my definition, the right to health must contain the guarantee of the right to access health care rather than the right to a healthy environment or health insurance for all citizens of the country.

Second, such a right must be an individual right enforceable through the independent judicial review or specific complaint process if no judicial review process is available for a country. This criterion reflects one of the important characteristics of constitutional right: it is not up to the government but rather to the individual to exercise this right against the government. By definition, the exercise of such a constitutional right by the individual shall bind and restrain the action of government. In this sense, a constitutional right is distinct from other statutory rights that guarantee rights to access health care.

Third, such a right is explicitly written in one or more provision(s) of a country's constitution. In some countries, such as India, Costa Rica, and El Salvador, constitutional courts have created the right to health from other constitutional rights (e.g., the right to life), as well as signed international treaties. In this analysis, these countries were not categorised as meeting this criterion for the constitutional right to health. In analytical terms, these countries' within-country variations were not used to identify the relationship between the constitutional right to health and child mortality in Table 4.

The idea that states should manage of the health of their civilians dates back to at least the 18th century.
As discussed in the text, the history of the constitutional right to health, however, is relatively new. Article 120 of the 1936 Constitution of the Soviet Union, which guaranteed "the right to maintenance in old age and also in case of sickness or loss of capacity to work," was the first national constitution to satisfy all three conditions listed above.[25]

The Right to Health in Early History

Long before the Soviet Union adopted this constitutional right, a notion had persisted that the sick and injured are incapable of being productive members of society and that they are dependent upon the charity of others.[26] During the eighteenth century, the Catholic tradition had developed a position that health care should be provided as an act of charity.[27] The famous Hotel-Deiu Hospital in Paris was established on these ideas. The early legislative effort to support such indigents' access to health care can be traced back to the Elizabethan Poor Law in the United Kingdom in the seventeenth century.[26] Over the course of the nineteenth century, the health of the population became recognised as a basic human right rather than a function of charity.[26] In the United Kingdom, the government aimed to improve population health by passing a number of laws to combat filthy living and occupational conditions from the beginning of nineteenth century.[3] In the late nineteenth century, Chancellor Bismarck famously introduced a series of social insurance programs in Germany, including insurance against illness (1883) and insurance against work-related accidents (1884), as well as old age and disability insurance (1889). However, these nineteenth century social innovations remained at the legislative level and were not regarded as rights granted to individuals.[28]

Attempts had been made, however, to integrate health into the constitutional rights as legally enforceable entitlements before the twentieth century. In France, the right to health was one of the "rights of man" claimed by working people during the French Revolution.[29] The events of the summer of 1789 transferred a discussion of human rights from the salons, academics, and societies of the Enlightenment to the floor of the National Assembly. Significant groups of French revolutionary physicians and reformers interpreted equality to include every citizen's right to health care, but these reformers soon faced political, religious, and professional opposition.[30] The term "health" was eventually excluded from the Declaration of the Rights of Man and of the Citizen in 1789, as well as in the French Constitution of 1791, 1793, and 1795.

At the national level,[4] while the 1843 Mexican Constitution had already included references to the state's role for preserving public health, it was not until the beginning of the twentieth century that social and economic rights, including the right to health, were included in a national constitution. Such social and economic rights were introduced in the early twentieth century constitutions, including the Constitution of the United Mexican States of 1917, the Weimar Constitution of 1919, the Chilean Constitution of 1925, and the U.S.S.R. Constitution of 1936.

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3 For example, Moral Apprentices Act (1802) and Public Health Act (1848) were passed in response to the poor living and working environment in the United Kingdom.

4 At the state level in the United States, Indiana's constitution of 1851 recognized state duty to provide treatment for the "insane" population. The State of Mississippi further recognized state responsibility to provide health care to the indigent in its constitution in 1869. In 1890, Wyoming's constitution recognized the duty of the legislature to protect the health and morality of the people. See

After the revolution in Mexico, the Mexican Constitution of 1917 first incorporated guarantees for a wide variety of social and economic rights, although no specific mention was made of the right to health until 1983. [5,31] Article 161 of the Weimar Constitution of 1919 contained a provision regarding access to pensions and health insurance, rather than health care. These rights in the Weimar Constitution were also considered to be programmatic rather than individually enforceable constitutional rights.[32]

After a period of political instability and military coup d'etats, the new constitution of Chile was adopted in 1925. Some scholars, for example Byrne (2009), claimed that this constitution was the first constitution recognising the right to health at the national level.[33] However, Article 10 of the 1925 Chilean Constitution merely stated that it is the duty of the state to oversee the public health, hygiene and well-being of the country.[34] This statement should be regarded as the right to a healthy environment rather than to health and health care. The article continued that "it should assign each year a sufficient quantity of money for the maintenance of a national service of health", which was considered to be programmatic rather than a statement of an individually enforceable constitutional right.

Based on the definitions adopted in this paper, Article 120 of the 1936 Constitution, which guaranteed "the right to maintenance in old age and also in case of sickness or loss of capacity to work", was the first national constitution to satisfy the three requirements of the constitutional right to health, listed above. This right was "ensured by the extensive development of social insurance of workers and employees at state expense, free medical service for the working people, and the provision of a wide network of health resorts for the use of the working people".[24] Soviet citizens also had a statutory right to complain to almost every public entity, including officials, state bodies, and public bodies. This right was reaffirmed in the 1977 Constitution.

The concept of a constitutional right to health was unique to the U.S.S.R Constitution until the end of the Second World War. This concept has become widespread, migrating from the constitutions of socialist countries to the constitutions of democratic countries in the post-World War period. The Constitution of the Italian Republic, enacted in December 1947, became the first democratic nation's constitution that recognised a right to health at the national level.[6] In December 1948, the Universal Declaration of Human Rights (UDHR) was adopted by the 56 members of the United Nations[7]. Furthermore, the International Covenant on Economic, Social and Cultural Rights (ICESCR) was adopted as a legally binding treaty on December 16th 1966 and enacted on January 3rd 1976.[8] After the introduction of ICESCR, several other European countries, such as Portugal (1976), Spain (1978), Belgium (1994), and Poland (1997), introduced the right to health into their national constitutions, and this right began to be recognised in the constitutions of democratic countries. The constitutional right to health has spread to Latin American and African countries in the last thirty years, and today Latin America is one of the regions in which human rights litigations are particularly active. At the time of the breakup of the Soviet Union in 1991, many former Soviet countries inherited this right with their new democratic regimes. As a result, the constitutional right to health became a democratic phenomenon for the first time in history. The constitutional right to health has also spread to a number of African countries since 1990.

Some constitutions show an even stronger commitment to human rights and directly reference international human rights laws in their national constitutions. In the constitutions of Argentina (1998), the Czech Republic (1993[9]), and Cameroon (1972[10]), human rights treaties acquire constitutional status. These three countries also ratified ICESCR in 1986, 1993, and 1984, respectively.[11] The Czech Republic showed its good faith for respecting international human rights treaties and decisions of treaty bodies in its constitution in 1993. According to the constitution, the Constitutional Court is obligated to rule on "measures essential for the implementation of ruling by an international court".

III. Review and Classification of the 'Constitutional Right to Health' Variable in Different Legal Origin Countries

British Common Law Origin

5 Article 123 outlined a comprehensive system of social security, including public health and welfare programs, but not health care.
6 Effective on January 1948
7 UN. Universal Declaration of Human Rights. G. A. Res. 217A (III), UN GAOR, Res. 71, UN Doc. A/810. New York: United Nations, 1948
8 UN. International Covenant on Economic, Social and Cultural Rights (ICESCR). New York: United Nations, 1966.
9 Ratified in December 1992, but effective in January 1993.
10 In Cameroon, approved and ratified international treaties as well as agreements override national laws (Article 45). This includes Universal Declaration of Human Rights.
11 Status of Ratification: International Covenant on Economic, Social and Cultural Rights (http://www2.ohchr.org/english/law/cescr-ratify.htm)

With the exception of the South African Constitution in 1996, none of the sampled countries with legal systems based on British common law can be classified as countries with a constitutional right to health (note that the Cape Verde and Marshall Islands' Constitutions were dropped from the sample). Many countries in this category also have no health-related statements in their constitutions.

In the United Kingdom, a nation without a written constitution, the right to health was first codified under the Human Rights Act of 1998 (effective in 2000).[35] There is no formal distinction between constitutional law and ordinary law in the United Kingdom, owing to the fact that it is not the people but rather the parliament that is the sovereign power.[36, 37]

In some developed countries with no constitutional reference to health or health care at all, such as Cyprus, Singapore, and the United States, private sources can be seen to constitute a high proportion of total health expenditure.[38] On average, a country with British legal origin is less likely to rely on public sources of funding, in comparison with countries with other types of legal origins.

In the former British colonies, especially those that declared their independence after the Second World War, national constitutions tend to contain some form of health provision. However, none of these countries are classified as having a constitutional right to health. Some countries' constitutions include only a programmatic statement that specifies approaches for the financing, delivery, or regulation of health care (e.g., Malaysia, Nigeria). Other countries recognise the importance of a right to health and include population health as one of the national goals without specifying any obligations of the national government (e.g., Malawi, Papua New Guinea).

Other countries have derived or at least attempted to derive constitutional rights to health from other non-health constitutional right provisions. In India, the right to health has been indirectly protected by the judiciary branch by interpreting the constitutional right to life as one that includes the provision of emergency health care.[39] In the United States, the Bill of Rights contains no provisions regarding health or access to health care. However, legal scholars have attempted to reach a legal right to health and health care under the due process clause in the past[40] ; however, after a series of US Supreme Court decisions, this is no longer a possibility.[12]

After years of struggle under Apartheid, the 1997 South African constitution became the first constitution among British legal origin countries that acknowledged a citizen's legal right to health care access.[41] Protecting this new right, the Constitutional Court of South Africa maintains the power to review the constitutionality of any health legislation devised by the legislature.[42] The first successful case claiming the right to health through the Constitutional Court was in 2002.[13] The Court ruled that the government's restriction of the use of nevirapine to prevent HIV transmission from mother to infant violated the health care rights of women and newborns under the South African constitution.[42]

French Civil Law Origin

Countries with their legal systems rooted in the French legal tradition comprise the second-largest group of nations granting a constitutional right of health care to their citizens.

It must be noted that the constitutions of nations rooted in French civil law are relatively young and have generally been adopted only after the Second World War, given that the former French colonies only recently gained independence. Generally speaking, countries with young constitutions tend to fill these documents with provisions pertaining to social and economic rights. This is especially true in the case of the right to health. The inclusion of these provisions reflects the fact that the right to health has not been recognised and popularised in the international community until recently. In Europe, the current Italian Constitution (1948) explicitly grants a legal right to health to its citizens, as does Spain's (1978), Portugal's (1976), and Belgium's (1994) constitutions. Other constitutions (such as those of Holland and Greece) recognise health merely as an important value of the country. The Dutch Constitution simply states that "the authorities shall take steps to promote the health of the population". The Greek constitution asserts that the state shall be concerned with the health of the citizens and shall take special measures for the protection of special populations (i.e., children, elderly, etc.).

France is the only exception among Western European countries in this category. Its constitution contains no statements pertaining to health or rights to health, with the exception of the preamble to its constitution. The majority of past French

12 Maher v. Roe, 432 U.S. 464 (1977) ; Webster v. Reproductive Health Servs., 492 U.S. 490, 507 (1989)
13 Treatment Action Campaign & Others (No 2) 2002 (5) SA 721 (CC) (S. Afr.)

constitutions also included full fledged bills of rights in their preambles (1791, 1793, 1795, 1848, and 1946).[43] This positioning traditionally indicated that these Declarations of Rights were intended to have purely symbolic value. However, since the landmark *freedom of association* decision in 1971,[14] the Constitutional Council has derived numerous rights from the current and past preambles. The Constitutional Council addressed the right to health in its famous Abortion decision in 1975,[15] but it has never exercised this right to create access to health care.

Outside of Western Europe, the former French, Spanish, and Portuguese colonies tended to adopt a legal right to health in their constitutions. It should be noted that a particularly high proportion of Latin American countries have also adopted constitutions containing a right to health (e.g., Bolivia [1967], Brazil [1988], Colombia [1991], Ecuador [1998[16]], Guatemala [1986], Haiti [1989[17]], Honduras [1982], Mexico [1983], Nicaragua [1987], Paraguay [1967], Peru [1993], and Venezuela [1999]).[44, 45] Appropriately, human rights litigation has been particularly active in Latin American countries such as Argentina, Colombia, Costa Rica, Ecuador, El Salvador, and Venezuela in the last ten years.[6] Courts, frequently responding to "*amparo*" actions, have handed down landmark decisions guaranteeing access to medicine or medical treatment, thereby affecting thousands of victims and requiring states to take concrete and immediate actions rather than adopting a progressive realisation approach in these countries.[6]

Like the example of India as a British common law country, some Latin American countries have derived the constitutional right to health by combining other constitutional provisions and international treaties. In Costa Rica, the right to health has been indirectly protected by the judiciary branch by interpreting the right to life in Article 21 of its constitution and other international treaties[18]. In El Salvador, the Supreme Court issued a ruling in favour of a plaintiff's claim, ordering the Social Security Institute to provide him with needed antiretroviral treatment based on Article 65 of the Constitution and international treaties ratified by El Salvador in 2001.[19]

The Republic of the Philippines is the only French legal origin country with the constitutional right to health in Asia. Unlike the 1973 Constitution, Article II, Section 15 of the 1987 Philippine Constitution explicitly refers to the right to health.[46] The Supreme Court has not spoken directly as to whether this right is an actionable right. However, its holding in Oposa v. Factoran (1993), stating that the constitutional right to "a balanced and healthful ecology or environment" is enforceable, is a relevant precedent.[47]

Most of the African constitutions that were adopted before 1990 did not guarantee economic, social and cultural rights, including the right to health.[48] They either had no bills of rights at all or they entrenched civil and political rights with not more than three guarantees of social and economic rights. In contrast, most African constitutions adopted since 1990 have directly integrated economic, social and cultural rights alongside civil and political rights. A number of African countries have also included the right to health in their constitutions, including the following: Algeria (1989), Burkina Faso (1991), Burundi (1992), Guinea (1990), Guinea-Bissau (1991), Madagascar (1992), Mali (1992), Niger (1992), Rwanda (2003), and Togo (1992).

In comparison with British common law countries, the judicial branches of countries rooted in French civil law are far less able to review the constitutionality of any particular legislation. In countries such as Indonesia, Libya, and the Netherlands, courts typically have no power to review the constitutionality of legislation.[49] The Constitutional Council of France does have this power, but these courts are closely supervised by the executive branch of the government.[50] Although citizens of countries governed by French civil law tend to be granted an enforceable legal right to health by their constitutions, the courts in these legal systems tend to have far weaker powers of judicial review, on average, when compared to those exercised by nations rooted in British common law.

Latin American countries are the exception of this tendency. Most Latin American countries are classified as countries in which the judiciary has unchallenged power to review the constitutionality of legislation.[49] This is also the reason why human rights litigations are particularly active in these countries.[6]

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14 Decision No 71-44-DC Freedom of Association of 16 July 1971
15 Decision No 74-54 DC Abortion of 15 January 1975
16 Adopted on June 1998 and in force since August 1998
17 Approved in March 1987, but suspended in June 1988 with most articles reinstated in March 1989
18 Hogerzeil. H, Melanie Samson and Jaume Vidal Casanova. Ruling for access:
Leading court cases in developing countries on access to essential medicines as part of the fulfillment of the right to health. Geneva: World Health Organization Department of Essential Drugs and Medicines Policy, 2004
19 Jorge Odir Miranda Cortez et al v. El Salvador, Caso 12.249, Informe No. 29/01, OEA/Ser.L/V/II.111 Doc. 20 rev. en 284 (2000).

Soviet Socialist Law Origin

The Constitution of USSR in 1936 was radically different from other existing constitutions at that time. It first guaranteed citizens the right to maintenance in case of sickness by ensuring access to free medical care. The ability to provide free medical care had to do with the communist economical system, which kept salaries of doctors low, set fixed prices for infrastructure services rendered to health care facilities, and restricted services to include only low-priced domestic pharmaceutical and medical equipment.[51]

In contrast, the inclusion of social and economic rights in the post-socialist constitutions has not been easy in any Eastern European country. The newly adopted constitutions of the Eastern European democracies after the breakup of USSR have maintained a strong human rights-based approach to health issues. However, some countries' constitutions carefully grant power to the legislative branch to determine the extent of the right to health, and they limit individual enforcement of such a right. The judicial interpretation of the extent of such restricted constitutional right makes it difficult to accurately classify each country's constitutional rights to health. However, the result of Table 4 was robust across different country classifications of constitutional rights to health status.

Soviet Union

Article 120 of the USSR Constitution of 1936 stated that "the Soviet state acknowledges the right of every citizen of the USSR to obtain not only full medical attention, but also medical assistance during illness, in old age or in invalidism at the expense of the state".[25] In the revised constitution of 1977, the provision of free medical service had been taken from Article 120 of the 1936 constitution and became a new article granting the right to health protection in Article 42.[24] The appeal of the right is further enhanced by the provision of "free, qualified medical care", "measures to improve the environment", and "research to prevent and reduce the incidence of disease and ensure citizens a long and active life".[52] Article 42 is also complemented by Article 43, which entitles all citizens to material security in old age, in case of illness and in the event of complete or partial disability or the loss of a breadwinner.[53]

Ironically, health was touted as one of the fundamental individual rights for all citizens, and citizens have the right to lodge a complaint against the actions of officials, state bodies, and public bodies based on Article 58 of the 1977 Constitution.[20] No independent judicial review was permitted to check the constitutionality of later health legislation in the Soviet Union until the very end of the socialist regime. On December 23rd 1988, the USSR Supreme Court issued a guiding explanation instructing lower courts on how to handle complaints of illegal actions by officials. It suggested that a refusal by state health institutions to provide medical assistance could be attacked as a denial of the right to health care provided by Article 42 of the USSR Constitution.[54]

According to the classification of Beckman et al., after the breakup of the Soviet Union, ten former-USSR countries maintained their constitutional rights to health (e.g., Belarus, Latvia Russia, Tajikistan, and others), whereas another five countries gave up the individual enforceability of the rights (e.g., Armenia, Lithuania, Moldova, Ukraine, and Uzbekistan); however, the latter countries still provide free access to health care or social rights to health care.

Further attention is paid to the classifications of the Armenian, Lithuanian, Moldovan, Ukrainian, and Uzbekistan Constitutions because these five countries provide within-country variations on which the identified association between constitutional right to health and child mortality has been identified. Notably, these results were robust even when these five countries were classified to maintain their constitutional status of the right to health.

In the new constitutions of Armenia, Moldova, and Ukraine,[21] the right to health in the national constitution is restricted by the constitutional language that delegates the legislature to determine the extent of the right guaranteed by the constitutional provision. In these countries, the right to health was granted to the citizens in the form of a right to the "preservation of health" (Armenia, Article 34), "health security" (Moldova, Article 36), and "health protection" (Ukraine, Article 49). However, such ambitious legal rights are only conditionally entitled. In Armenia, the provision of medical care and services "shall be prescribed by law". In Moldova, it is organic laws that establish "the structure of the national health security system and the means necessary for protecting individuals". In Ukraine, it is the state that can "create the condition for effective medical

20 At least since 1936, Soviet citizens have had a statutory right to complain to almost every governmental representative for almost any grievance, and criticisms were welcomed as long as they did not interfere with state interest; Gellhorn, W Review of Administrative Acts in the Soviet Union, 66 Colum. L. Rev. 1051 (1966).

21 Beckman et al. (2006) referenced Article 3 of the Ukrainian Constitution, but Article 49 is the correct provision of the right to health in this country.

service accessible to all citizens". This constitutional language indicates that it is not up to the individual but to the government to determine the extent of these rights. Although laws are inductive in terms of the rights to health and provisions of health care services, in reality, the access to health care services is limited, unaffordable, discriminatory, and unequal with regard to poor and wealthy populations.[55-57] Lithuania's Constitution is more explicit about this point. Although Article 53 of the Lithuanian Constitution states that the "state shall take care of people's health and shall guarantee medical aid and services in the event of sickness", the article is included in the chapter of social rights -- not individual rights.

One of the major constitutional challenges that need to be addressed in the health sector of Ukraine is the very restrictive clause of Article 49, which requires public health facilities to provide care for free, and it states that the existing network of facilities may not be reduced.[58] There is an increasing concern that this article constrains the effective allocation of health resource and health care delivery. Whereas the latter restriction is specific to Ukraine's constitution, the first constitutional restriction can be a problem for all former USSR countries whose constitutions guarantee free medical care to their citizens. On the other hand, Kazakhstan, Tajikistan, and Turkestan explicitly permit paid medical services based on the procedures established by law in their constitutions.

Article 40 of Uzbekistan's new constitution is unique in that it limits the scope of the right to health under the Soviet Constitution and only acknowledges the right to receive "skilled medical care".[59] Other than exempted groups or services, health care requires out-of-pocket payments in this country.[60]

The greatest problem among the former-USSR countries today is a lack of financial resources for health care. Although health care in most former-USSR countries is free by law, health care facilities often lack the most basic equipment, and health care providers are forced to charge patients for care in order to keep their facilities open. For such reasons, corruption and bribery are endemic through these countries' health care systems. The transition period after the breakup of the Soviet Union was marked by a widespread decline in health due to stress, uncertainty, and poor diet. Increased demands for health care remain unmet today

Socialist Federal Republic of Yugoslavia

Before 1991, Serbia, Slovenia, Croatia, Macedonia, Montenegro, as well as Bosnia and Herzegovina were one nation, the Socialist Federal Republic of Yugoslavia. Article 56 of the Constitution of the Socialist Federal Republic of Yugoslavia in 1963 had already recognised that "every citizen shall be entitled to the protection of his health", but it also delegated to the legislature the task of determining who will obtain free health care by stating that the social community shall provide conditions for the founding of health institutions and promotion of the health protection of its citizens.[22] This article was inherited in Article 186 of its 1974 Constitution.[61] Following the breakup of the Socialist Federal Republic of Yugoslavia, Croatia, Slovenia, and Bosnia and Herzegovina became independent states, whereas Serbia and Montenegro formed the Federal Republic of Yugoslavia. Article 60 of the Federal Republic of Yugoslavia's constitution inherited the provision and recognised that "everyone shall be entitled to health care, in accordance with the law". The state union effectively came to an end after the independence of Montenegro and Serbia in June 2006. Article 68 of the Serbian constitution and Article 69 of the Montenegrin constitution acknowledged the right to health without condition by statutory law, similar to Article 39 of the Macedonian constitution of 1992. On the other hand, Bosnia and Herzegovina does not have a right to health stated in its constitution following its independence from Yugoslavia.

Following socialist Yugoslavian constitutional tradition, the Croatian (Article 58) and Slovenian (Article 51) constitutions continued to recognise the right to health care under conditions specified by statutory law. The constitution leaves the legislators a wide field of discretion in enacting health law legislation and consequently limits the scope of the constitutional review .[61, 62] However, it is also true that, in several cases, the court declared some parts of health legislation unconstitutional and instructed the legislature to remedy the inconsistency within a certain period of time. According to the classification of Beckman et al. (2008), these two countries are classified as countries with constitutional rights to health. The results were also robust against the different categorisations of constitutional rights to health in relation to these two countries.

Czechoslovakia

Before 1992, the Czech Republic and Slovakia were one nation called Czechoslovakia. In 1960, Article 23 of Czechoslovakia's Constitution had already recognised the right to the protection of health and medical care, as well as right to "material security in old age and in case of disability". In 1991, Czechoslovakia enacted the "Charter of Fundamental Rights and Basic Freedoms". Article 31 of this charter recognised the right to protection of health, free medical care, and

22 Constitution of the Socialist Federal Republic of Yugoslavia (www.worldstatesmen.org/Yugoslavia_1963.doc)

medical aid, but it also stated that the conditions of this right were determined by legislation rather than by the individual. After independence, this charter remained a part of the constitutional system in both countries.[23] The ruling of Slovak Constitutional Court No. 13/1994 affirmed this lack of enforceability, and it added that the "application of constitutional right to free health care includes conditions, extent, and manner in its provision".[63] Therefore, Slovakia is no longer classified as a country with the constitutional right to health after 1991 because health care is no longer considered an individually enforceable legal right. On the other hand, the Czech Republic continues to be classified as a country with the constitutional right to health because of its referential statement to international treaties in its current constitution. The results in Table 4 were also found to be robust even if Czechoslovakia was classified as a country with the constitutional right to health before 1992.

Other Soviet Socialist Law Origin Countries

Outside of the former-USSR, former-Yugoslavian, and former-Czechoslovakian countries, the Albanian (1998), Cuban (1976), Hungarian (1989), Mongolian (1960, 1992), Polish (1997), Romanian (1991), and Vietnamese (1980, 1992) constitutions grant the right to health provisions. On the other hand, Bulgaria's constitution (1991) does not include the right to health. It merely recognises the right to health insurance rather than explicitly supporting rights to health or health care.

Article 47 of the Albanian Constitution of 1974 had already stated that the state guarantees to citizens the necessary medical services, as well as medical treatment, in the health centres of the country, free of charge.[24] By 1980, there were about 800 medical institutions across the country.[64] However, it was Article 55 of the Constitution of 1998 that recognised the citizen's right to health care for people who cannot access to health centres, as well as a right to health insurance for private care.

Article 57(1) of the Hungarian Constitution in 1949 declared that citizens have "the right to the protection of life, physical safety and health", but this right was said to be only implemented "through organising labour safety, health institutions, and medical care as well as protecting the human environment".[24] The Hungarian Constitution was continuously amended throughout 1989 and 1990 until approximately 95 percent of the clauses had been rewritten.[65] Article 70/D (1) of the 1989 Constitution declared health to be a fundamental right for which the state was held responsible.

The Constitution of the Mongolian People's Republic in 1960 had already recognised the Soviet-type right to material assistance in old-age, in the event of a loss of capacity to work, illness, or loss of a household breadwinner (Article 79).[24] In 1992, Mongolia adopted a new democratic constitution, and Article 16 provides the entitlement of a right to health protection and medical care. The procedures and conditions of free medical aid shall be defined by law (Article 16-6), but this restrictive provision does not seem to be applicable to the other dimensions of health care services (cf. private care, non-free medical care), thereby making other dimensions of constitutional right to health legally enforceable. Social health insurance was introduced as an alternative to the free public medical care in 1993, and private practice was rapidly developed in Mongolia in the last twenty years.[66]

Article 70 of Poland's constitution in 1950 (amended in 1976) had already recognised the right to health protection, but with no or very weak enforcement measures, by stating that this right was implemented to an increasing degree by the development of social insurance, hospitals, and other public service by the government. [24, 67] In contrast, the 1997 Constitution clearly divided social rights into two categories: five judicially enforceable rights and other non-enforceable rights.[68] Article 68 of the 1997 Constitution recognised an individually enforceable constitutional right to health.

Article 20 of Romania's Constitution in 1965 had already declared "the right to be insured for old age, illness, or disability",[24] but it was only after 1991 that Article 34 of this constitution recognised that the right to protection of health is individually enforceable by further explicitly stating that "the state shall be bound to take measures to ensure public hygiene and health".[69]

Today, China, Cuba, and Vietnam maintain socialist regimes, but only Cuba and Vietnam guarantee a constitutional right to health (note that The Democratic People's Republic of Korea and Lao People's Democratic Republic were dropped from the sample).

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23 After the independence, Article 40 of Slovak Constitution recognized the right to free health care and to medical supplies under conditions defined by law. In the Czech Republic, this charter was kept as a separate document from the constitution, but it has a same legal standing as constitution.

Article 50 of the Cuban Constitution adopted in 1976, which was approved by 97% of the country's eligible voters at the time, mandated that all Cubans are entitled to receive free medical, hospital and dental care, including prophylactic services.[70]

In Vietnam, Article 60 of the Constitution in 1980 included the right to health care, and the state provided free medical examinations and treatment.[71] When the country faced economic difficulties in 1992, this right was deleted, and a narrower right was provided, stating that "the citizen is entitled to a regime of health population".[72]

The Chinese Constitution is unique among socialist constitutions because it does not recognise the right to health of its citizens. Both current and past constitutions merely recognised the state intention to develop social insurance and medical services in order to meet the rights to material assistance when citizens are sick, ill, and disabled.[73] In 2004, a new provision that guarantees “human rights” was added to Article 33 of the constitution.

German Legal Origin

There are five countries that follow a German legal tradition, including Germany, Austria, Switzerland, Korea, and Japan. Currently, the German and Austrian constitutions do not include any health-related statements, but the Swiss, Japanese, and Korean constitutions do include such provisions. The origins of these constitutions are typically rooted in the Weimar constitution of 1919.

In 1948, against the background of the appalling human rights violations of the previous regime, the framers of the Basic Law in Germany found it necessary to declare the inviolability of human dignity and to understand rights not as entitlements accorded by the state but as inherent to human nature; therefore, such rights constitute limits on the state itself.[74]

Unlike the Weimar constitution of 1919, the German Basic Law of 1949 does not include any social and economic rights provisions. Instead, two articles are closely related to the rights to health of German citizens. Article 1 of German Basic Law aims to protect broad aspects of human rights and states that “the dignity of man is inviolable. To respect and protect it is the duty of all state authority”. In addition, Article 20 declared that Germany is a “democratic and social federal state”. The “social state principle” described in this article demands that government implement public policy to improve the social welfare of its citizens.[75] Based on these two articles, the Federal Constitutional Court has decided that the state is obligated to provide health care that, providing that it is not totally insufficient or inappropriate, but the constitution also does not allow claims to be made by a citizen against the statutory health insurance system for the provision and the grantee for a specific health service.[75]

The Austrian constitution does not refer to any fundamental social and economic rights. A debate on whether fundamental social and economic rights should be enshrined in the constitution has been in progress since the 1980s.[37] However, no fundamental social and economic rights have yet to be integrated into the constitution, and the provision of the right to health is not an exception.

Article 41 of the Swiss Constitution consists of a list of social goals, including “every person, for his or her health, receives the necessary care”. The goals are of a programmatic nature and are declared as not directly enforceable through court.[76] In addition, Article 12 states that “whoever is in distress without the ability to take care of himself or herself has the right to help and assistance and to the means indispensable for a life led in human dignity”. However, this article does not define the specific health services or health benefits to be allocated in order to ensure this right. Thus, Switzerland is classified as a country with no constitutional right to health.

Article 25 of the Japanese constitution includes a provision regarding “right to life”. This provision is currently understood to be a programmatic declaration that merely directs the legislature to pass certain programs and contains no mechanism for citizens to seek judicial relief if the government fails to provide or enforce the right.[77] This interpretation has been recently challenged by the legal community as promoting the “negative concrete right” interpretation of Article 25. [77] However, regardless of the position, a legal right to health is not currently granted by the Japanese Constitution and its court interpretation.

Article 36 (3) of the South Korean Constitution mentions that the “health of all citizens is protected by the State”. However, this right remained declaratory in nature and lacked enforceable mechanisms until quite recently.[78] Since the 1990s, the Korean Constitutional Court has explicitly recognised a few social rights as working norms, and it mandated the state to provide necessary facilities and resources to realise those rights.[79] However, the court also expressed the view that such

complaints could be sustained only when the state fails to legislate any course of action to protect the concerned social rights, or when the state does legislate but abuses its discretion (CC 1997.5.29, 94Hun-Ma33).[80]

Scandinavian Legal Origin

Denmark, Finland, Norway, and Sweden are classified as nations operating under Scandinavian commercial law (note that the Icelandic Constitution was dropped from the sample). The Scandinavian countries have a legal tradition of judicial restraint and courts respect the will of the democratically elected Parliament.[81] All four countries' health systems are largely financed through taxation, with most hospitals being publicly owned and managed.[82] Despite their generous social services, the right to health is not binding in these countries. The objective of the Scandinavian health care system is considered to improve the health of the entire population rather than to consider each individual's situation.[83]

The individual governments are obligated to provide high quality services for all, but a scarcity of resources may constrain the available health care and may not fit each individual's needs and conditions. Sweden's Health and Medical Services Act of 1982 affirmed this point, stating that the goal of the Swedish health system was "good health and care on the same conditions for the entire population".[84]

In response to a lack of financial resources, various forms of health care rationing are present in all four Scandinavian countries. Every resident of Denmark must now be registered with a general practitioner and maintain contact with the health system through this general practitioner.[83] A similar system was introduced in Norway in 2000.[83] In Sweden, a voluntary type of general practitioner system was introduced in 1994.[83]

In Denmark and Norway, there are no provisions on the right to health in the Constitution. In these countries, the right to health is only constructed in the national legislation and the international human rights treaties. In Sweden, the right to health is only mentioned as a goal for the promotion of health in Chapter 1 Article 2(2) of the Instrument of Government. Over the last two decades, there has been a debate over the legal right to health in the Swedish medical system.[84] However, the majority of Swedes still feel that there is no need for a legal right to health care access.[84] This reflects citizens' general satisfaction with the current health care system in these countries. In Finland, Section 19 of the constitution provides the right to social security. Health care is also mentioned in the same section. Urgent health care is a subjective right to everyone in Finland according to section 19(1) of the constitution, but non-urgent health care in section 19(3) is not secured as a subjective right.[85]

IV. Robustness of the Empirical Result in Table 4

This section evaluates the robustness of the empirical results in Table 4 with respect to various potential issues, including the following: (1) alternative classifications of the constitutional right to health variable, (2) alternative sample with the exclusion of 15 former-Soviet Union and 6 former-Yugoslavian countries, (3) different thresholds of the level of democracy, (4) inclusion of country-specific cubic time trends in the original specification, and (5) evaluation of short-term effects using a window of five years before and after the introduction of a right to health in a national constitution.

(1) Alternative Classifications of the Constitutional Right to Health and Democratic Governance Variable

Alternative Classifications of the Constitutional Right to Health Variable

Table 6 replicates Table 4 based on the alternative classification of the constitutional right to health variable. A value of 1 was assigned to the constitutional right to health in Armenia, Lithuania, Moldova, Ukraine, and Uzbekistan after the breakup of the Soviet Union, and 0 was assigned to the constitutional right to health in Serbia, Slovenia, Croatia, Macedonia, Montenegro, and Bosnia and Herzegovina after the breakup of Yugoslavia. By doing so, the estimate does not rely on the within-country variation of former Soviet Union and Yugoslavian countries to assess the association between the introduction of constitutional right and child mortality.

Dependent Variables	**Logged Under-Five Mortality Rate**				**Logged Infant Mortality Rate**			
Constitutional Rights to Health	-0·0531***	-0·0594***	-0·0496**	-0·0442**	-0·0510***	-0·0576***	-0·0491**	-0·0437**
	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)
Democracy		0·002	0·00594			0·00364	0·00709	
		(0·01)	(0·01)			(0·01)	(0·01)	
Constitutional Rights to Health * Democracy			-0·018				-0·0157	
			(0·01)				(0·01)	
Constitutional Rights to Health * High Level of Democracy				-0·0457**				-0·0432**
				(0·02)				(0·02)
Constitutional Rights to Health * Low Level of Democracy				-0·00718				-0·0051
				(0·02)				(0·02)
High Level of Democracy				0·0178				0·0188
				(0·01)				(0·01)
Low Level of Democracy				0·000955				0·00217
				(0·01)				(0·01)
Mean Years of Education in Women ages 15-44	-0·0472**	-0·0450*	-0·0468*	-0·0467*	-0·0458**	-0·0437*	-0·0452*	-0·0451*
	(0·02)	(0·02)	(0·03)	(0·02)	(0·02)	(0·02)	(0·03)	(0·02)
Logged Gross Domestic Product per capita	-0·0121	-0·0178	-0·0204	-0·0182	-0·0165	-0·0223	-0·0246	-0·0225
	(0·04)	(0·04)	(0·04)	(0·03)	(0·03)	(0·03)	(0·03)	(0·03)
The Effect of Introducing Constitutional Rights to Health in Democratic Countries			-0·0676***				-0·0648***	
The Effect of Introducing Constitutional Rights to Health in High Level of Democratic Countries				-0·0899***				-0·0869***
Observations	5,000	4,690	4,690	4,690	5,000	4,690	4,690	4,690
No· of Countries	157	157	157	157	157	157	157	157
R-squared	0·998	0·999	0·999	0·999	0·998	0·998	0·998	0·998

*Clustered standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%. All regression equations included both country and year fixed effects, as well as country-specific linear and quadratic trends.

Table 6 **Multiple regression equations in Table 4 with alternative classifications of constitutional right to health variable**

Excluding 15 Former-Soviet Union and 6 Former-Yugoslavian Countries

Table 7 excludes 15 former-Soviet Union countries and 6 former-Yugoslavian countries from the analysis rather than using different classifications. As expected, the results do not change appreciably.

Dependent Variables	**Logged Under-Five Mortality Rate**				**Logged Infant Mortality Rate**			
Constitutional Rights to Health	-0·0352**	-0·0380**	-0·0156	-0·0136	-0·0322**	-0·0354**	-0·0147	-0·0128
	(0·02)	(0·02)	(0·01)	(0·01)	(0·01)	(0·02)	(0·01)	(0·01)
Democracy		-0·00403	0·00265			-0·00251	0·00366	
		(0·01)	(0·01)			(0·01)	(0·01)	
Constitutional Rights to Health * Democracy			-0·0401**				-0·0370**	
			(0·02)				(0·01)	
Constitutional Rights to Health * High Level of Democracy				-0·0572***				-0·0535***
				(0·02)				(0·02)
Constitutional Rights to Health * Low Level of Democracy				-0·0323*				-0·0295*
				(0·02)				(0·02)
High Level of Democracy				0·00943				0·0101
				(0·01)				(0·01)
Low Level of Democracy				-8·55E-05				0·00107
				(0·01)				(0·01)
Mean Years of Education in Women ages 15-44	-0·0196	-0·00619	-0·00758	-0·00844	-0·017	-0·00364	-0·00493	-0·00576
	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)
Logged Gross Domestic Product per capita	0·00112	-0·00366	-0·00891	-0·00847	-0·00266	-0·00774	-0·0126	-0·0122
	(0·03)	(0·04)	(0·04)	(0·03)	(0·03)	(0·03)	(0·03)	(0·03)
The Effect of Introducing Constitutional Rights to Health in Democratic Countries			-0·0557**				-0·0517***	
The Effect of Introducing Constitutional Rights to Health in High Level of Democratic Countries				-0·0708***				-0·0663***
Observations	4,611	4,318	4,318	4,318	4,611	4,318	4,318	4,318
No· of Countries	157	157	157	157	157	157	157	157
R-squared	0·998	0·999	0·999	0·999	0·998	0·998	0·998	0·998

*Clustered standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%. All regression equations included both country and year fixed effects, as well as country-specific linear and quadratic trends.

Table 7 **Multiple regression equations in Table 4 using the sample excluding 15 former-Soviet Union and 6 former-Yugoslavian countries**

Different Thresholds of the Level of Democracy Variable

In Table 4, I defined the high democracy variable as equal to 1 if the POLITY variable was greater than 7. Table 8 evaluates the robustness of this result with respect to different thresholds for the level of democracy variable.

Dependent Variables	**Logged Under-Five Mortality Rate**				**Logged Infant Mortality Rate**			
High level of democracy was defined by Polity2	>7	>6	>5	>4	>7	>6	>5	>4
Constitutional Rights to Health	-0·0398**	-0·0402**	-0·0422**	-0·0449**	-0·0396**	-0·0399**	-0·0419**	-0·0444**
	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)
Constitutional Rights to Health * High Level of Democracy	-0·0474**	-0·0384**	-0·0295*	-0·0185	-0·0447**	-0·0360**	-0·0271*	-0·0168
	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·01)	(0·01)
Constitutional Rights to Health * Low Level of Democracy	-0·00723	-0·00283	-0·00077	-0·021	-0·00501	-0·000649	0·00138	-0·017
	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)
High Level of Democracy	0·0185	0·0141	0·00976	0·0037	0·0194	0·0152	0·0107	0·00514
	(0·01)	(0·01)	(0·01)	(0·01)	(0·01)	(0·01)	(0·01)	(0·01)
Low Level of Democracy	0·00108	0·000845	0·000457	0·0144	0·00227	0·00198	0·00184	0·0146
	(0·01)	(0·01)	(0·01)	(0·02)	(0·01)	(0·01)	(0·01)	(0·02)
Mean Years of Education in Women ages 15-44	-0·0184	-0·0457*	-0·0462*	-0·0465*	-0·0227	-0·0441*	-0·0446*	-0·0449*
	(0·03)	(0·02)	(0·02)	(0·03)	(0·03)	(0·02)	(0·02)	(0·03)
Logged Gross Domestic Product per capita	-0·0469*	-0·018	-0·0191	-0·022	-0·0452*	-0·0223	-0·0234	-0·0262
	(0·02)	(0·03)	(0·03)	(0·04)	(0·02)	(0·03)	(0·03)	(0·03)
The Effect of Introducing Constitutional Rights to Health in High Level of Democratic Countries	-0·0872***	-0·0566***	-0·0526***	-0·0456**	-0·0843***	-0·0530***	-0·0492**	-0·0426**
Observations	4,690	4,690	4,690	4,690	4,690	4,690	4,690	4,690
No· of Countries	157	157	157	157	157	157	157	157
R-squared	0·98	0·98	0·98	0·98	0·97	0·97	0·97	0·97

*Clustered standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%. All regression equations included both country and year fixed effects, as well as country-specific linear and quadratic trends.

Table 8 **Multiple regression equations with different threshold points signifying high levels of democratic governance**

(2) Adding Country-Specific Cubic Time Trends in the Regression

A further check for robustness is achieved by adding a cubic time trend to the regression. Table 9 shows the results of this robustness check. The magnitude of the effect in countries with high levels of democratic governance diminishes from 8·7% and 8·4% to 7·1% and 6·8% with the inclusion of cubic trends, respectively. The coefficients of Constitutional Right to Health * High Level of Democracy are significant in all specifications. However, the coefficients of the Constitutional Right to Health are no longer significant.

Dependent Variables	**Logged Under-Five Mortality Rate**				**Logged Infant Mortality Rate**			
Constitutional Rights to Health	-0·0370**	-0·0412**	-0·0322	-0·0265	-0·0354**	-0·0399**	-0·0319	-0·0264
	[0·0179]	[0·0194]	[0·0200]	[0·0179]	[0·0178]	[0·0192]	[0·0198]	[0·0177]
Democracy		0·00393	0·00714			0·00451	0·00738	
		[0·00552]	[0·00607]			[0·00542]	[0·00592]	
Constitutional Rights to Health * Democracy			-0·0151				-0·0134	
			[0·0140]				[0·0133]	
Constitutional Rights to Health * High Level of Democracy				-0·0487**				-0·0457**
				[0·0221]				[0·0212]
Constitutional Rights to Health * Low Level of Democracy				-0·00026				0·00086
				[0·0139]				[0·0135]
High Level of Democracy				0·0294***				0·0289***
				[0·00990]				[0·00994]
Low Level of Democracy				-0·00303				-0·00247
				[0·00550]				[0·00523]
Mean Years of Education in Women ages 15-44	-0·0106	-0·0131	-0·0144	-0·0152	-0·0108	-0·0116	-0·0128	-0·0136
	[0·0262]	[0·0260]	[0·0261]	[0·0258]	[0·0253]	[0·0256]	[0·0256]	[0·0254]
Logged Gross Domestic Product per capita	-0·0185	-0·0197	-0·0203	-0·0202	-0·0187	-0·02	-0·0206	-0·0205
	[0·0158]	[0·0201]	[0·0203]	[0·0198]	[0·0157]	[0·0202]	[0·0203]	[0·0198]
The Effect of Introducing Constitutional Rights to Health in Democratic Countries			-0·0405**				-0·0382**	
The Effect of Introducing Constitutional Rights to Health in High Level of Democratic Countries				-0·0713**				-0·0679***
Observations	5,000	4,690	4,690	4,690	5,000	4,690	4,690	4,690
No· of Countries	157	157	157	157	157	157	157	157
R-squared	0·999	0·999	0·999	0·999	0·999	0·999	0·999	0·999

*Clustered standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%. All regression equations included both country and year fixed effects, as well as country-specific linear, quadratic, and cubic trends.

Table 9 **Multiple regression equations in Table 4 incorporating cubic country-specific trends**

(3) Clustering at the Global Burden of Disease (GBD) Regional Level

Table 10 replicates Table 4. Standard errors are now clustered at the GBD regional level (instead of country level). The Global Burden of Disease study divides the world into the following 21 regions: 1. Asia Pacific, High Income; 2. Asia, Central; 3. Asia, East; 4. Asia, South; 5. Asia, Southeast; 6. Australasia; 7. Caribbean; 8. Europe, Central; 9. Europe, Eastern; 10. Europe, Western; 11. Latin America, Andean; 12. Latin America, Central; 13. Latin America, Southern; 14. Latin America, Tropical; 15. North Africa / Middle East; 16. North America, High Income; 17. Oceania; 18. Sub-Saharan Africa, Central; 19. Sub-Saharan Africa, East; 20. Sub-Saharan Africa, Southern; and 21. Sub-Saharan Africa, West. The coefficients of *Constitutional Right to Health * High Level of Democracy* remained significant at the 5% level.

Dependent Variables	**Logged Under-Five Mortality Rate**				**Logged Infant Mortality Rate**			
Constitutional Rights to Health	-0·0495**	-0·0549**	-0·0448*	-0·0398*	-0·0476**	-0·0534**	-0·0446*	-0·0396*
	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·02)	(0·03)	(0·02)
Democracy		0·00229	0·00628			0·00392	0·0074	
		(0·01)	(0·01)			(0·01)	(0·01)	
Constitutional Rights to Health * Democracy			-0·0186				-0·0162	
			(0·01)				(0·01)	
Constitutional Rights to Health * High Level of Democracy				-0·0474***				-0·0447***
				(0·02)				(0·01)
Constitutional Rights to Health * Low Level of Democracy				-0·00723				-0·00501
				(0·02)				(0·02)
High Level of Democracy				0·0185				0·0194
				(0·01)				(0·01)
Low Level of Democracy				0·00108				0·00227
				(0·01)				(0·01)
Mean Years of Education in Women ages 15-44	-0·0474*	-0·0452	-0·0471	-0·0469	-0·0460*	-0·0438	-0·0454	-0·0452
	(0·02)	(0·03)	(0·03)	(0·03)	(0·02)	(0·03)	(0·03)	(0·03)
Logged Gross Domestic Product per capita	-0·0126	-0·0181	-0·0207	-0·0184	-0·017	-0·0226	-0·0249	-0·0227
	(0·04)	(0·04)	(0·04)	(0·04)	(0·04)	(0·04)	(0·04)	(0·04)
The Effect of Introducing Constitutional Rights to Health in Democratic Countries			-0·0634**				-0·0608**	
The Effect of Introducing Constitutional Rights to Health in High Level of Democratic Countries				-0·0872***				-0·0843***
Observations	5,000	4,690	4,690	4,690	5,000	4,690	4,690	4,690
No· of Countries	157	157	157	157	157	157	157	157
R-squared	0·998	0·999	0·999	0·999	0·998	0·998	0·998	0·998

*Clustered standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%. All regression equations included both country and year fixed effects, as well as country-specific linear and quadratic trends.

Table 10 **Multiple regression equations in Table 4 with regional (GBD) level clusters**

(4) The Short-term Effects of the Constitutional Right to Health

Table 11 estimates the same regressions depicted in Table 4, using the subsample of 5 years before and after the year of adoption of the constitutional right. Large and statistically significant effects of a constitutional right to health in countries with high levels of democratic governance were still identified.

The Sample Including Five Years before and after the Year of Adoption of the Constitutional Right

Dependent Variables	**Logged Under-Five Mortality Rate**				**Logged Infant Mortality Rate**			
Constitutional Rights to Health	-0·0111	-0·00966	0·00328	0·00487	-0·0108	-0·00963	0·00219	0·00368
	(0·01)	(0·01)	(0·02)	(0·02)	(0·01)	(0·01)	(0·02)	(0·02)
Democracy		-0·00288	0·00604			-0·00255	0·0056	
		(0·01)	(0·01)			(0·01)	(0·01)	
Constitutional Rights to Health * Democracy			-0·0188				-0·0172	
			(0·02)				(0·02)	
Constitutional Rights to Health * High Level of Democracy				-0·0451*				-0·0433*
				(0·02)				(0·02)
Constitutional Rights to Health * Low Level of Democracy				-0·00312				-0·00158
				(0·02)				(0·02)
High Level of Democracy				0·0205*				0·0192*
				-0·01				-0·01
Low Level of Democracy				-0·00364				-0·00369
				(0·01)				(0·01)
Mean Years of Education Women ages 15-44	0·0351	0·0345	0·0364	0·0291	0·0304	0·0314	0·0331	0·0262
	-0·04	-0·04	-0·04	-0·04	-0·04	-0·04	-0·04	-0·04
Logged Gross Domestic Product per capita	-0·0882	-0·0964	-0·1	-0·0871	-0·0798	-0·0872	-0·0908	-0·0772
	(0·05)	(0·06)	(0·06)	(0·05)	(0·05)	(0·06)	(0·06)	(0·05)
The Effect of Introducing Constitutional Right to Health in Democratic Countries			-0·0155				-0·0149	
The Effect of Introducing Constitutional Rights to Health in High Level of Democratic Countries				-0·0402*				-0·0396*
Observations	404	376	376	376	404	376	376	376
No· of Countries	45	45	45	45	45	45	45	45
R-squared	1·00	1·00	1·00	1·00	1·00	1·00	1·00	1·00

*Clustered standard errors in brackets. * significant at 10%; ** significant at 5%; *** significant at 1%. All regression equations included both country and year fixed effects.

Table 11 **Multiple regression equations using the sample of 5 years before and after the introduction of a right to health in national constitutions**

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