Are Democratic Governments Good for Public Health? The Impact of Political Regime on Disease-Specific Mortality from 1960-2004[1]

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Abstract

The direction of democracy's direct impact on health is still under debate. In theory, democracy can improve health status by reflecting the voice of poor in national level politics. However, there may be a negative impact of democracy on health because the state does not enforce its strong power to limit individual freedom for public health purposes under democracy. The fixed-effect regression analysis uses country level disease-specific mortality data as a proxy for health and a constructed panel data of several countries between 1960 and 2004. The independent variables include the dummy variable of political regime status during the same period from the POLITY IV database as well as socioeconomic variables. The results show democracy's distinct impact on mortality in two classifications of diseases that we describe as environment-oriented diseases where democracy had a negative effect, and behavior-oriented diseases where democracy had a positive effect. This study is distinct from previous studies since the focus is on how much democracy improves health status in countries that suffer from specific diseases rather than how much democracy improves health status for an average country.

Introduction

The current global trend towards democratization and economic development provide an opportunity for health improvement in both developed and developing countries. In his book *Development as Freedom*, Sen seeks to broaden our view of development and declares that development is the process of expanding the freedoms enjoyed by individuals. He demonstrates that such freedoms, including freedom from illness, can be realized, in part, through democratic government and civil liberties.

For public health interventions, however, some of the most important public health victories in history have been achieved through limitations on individual freedom. Police power, which refers to the right of governments to regulate activities of the individual for the benefit of society, is often regarded as the theoretical foundation of public health law (Galva et al. 2005). This is because public health law requires strong regulatory power and often constrains civil liberties of particular individuals or groups.

The regulatory scope of public health interventions has been expanded from environmental to behavioral risk factors over the years. The expansion of regulatory scope is welcomed by many public health activists, but it has also provoked much criticism. The history of 20th century public health presents a complex tension between the rights of society and those of individuals (Colgrove and Bayer 2005). Today, most people would agree that some sacrifice of individual freedom is justified when a risk factor becomes a major threat to the health of others (externality); however, we have less

agreement on the regulation of behavioral risk factors that only cause an individual's adverse health consequence.

In democratic countries, such as the United States, these tensions are sometimes brought into the court. In 1905, the state's police power to require vaccination against smallpox was challenged.[1] Affirming the right of state to enact compulsory vaccination laws, the court upheld the exercise of police power to protect the public health (Gostin 2005). This is an old case, but this precedent is frequently cited in courts even today, because it is a symbolic case where individuals fought the state health authority to defend their individual freedom.

In autocratic countries, these lawsuits are much less common and much stronger health policy is sometimes implemented. In 1985 in the Soviet Union, President Gorbachev undertook alcohol reform in an attempt to recover the moral values that had been lost in Soviet socialism. Under his initiative, the Kremlin fought wide-spread alcoholism in the country by increasing the prices on alcohol, restricting alcohol sales, and prosecuting people who were caught drunk at work or in public (Tarschys 1993). In 2004, Bhutan became the first nation to ban the sale and smoking of tobacco in public entirely (Ahmad 2005). The authoritarian government in such countries has a strong motivation to enforce public health laws toward the betterment of society in the midst of national moral crisis.

Although authoritarian governments are generally considered to violate individual freedom, we hypothesize that they are better forms of governance for providing health

1 *Jacobson v. Massachusetts* 197 U.S. 11 (1905)

policy when it comes to regulating behavioral health risks. In this paper, we explore this hypothesis further by considering the impact of political regimes on disease-specific mortality using national-level panel data between 1960 and 2004. The paper is constructed as follows. In Section 2, we briefly review the previous literature on the impact of democracy on health. Section 3 introduces the data, methodology, and variables that we use for empirical analysis. Section 4 presents the empirical results and concludes the paper, and Section 5 provides insight on possible limitations and alternative hypotheses.

Previous studies

While there is popular belief that democratic regimes have a positive impact on development, the empirical examination of the impact of democracy on a variety of development indicators is still under debate. Among them, the impact of political regime on economic growth has been widely studied by a number of economists such as Przeworski and Limongi (1993), and Barro (1994). The literature, however, seem to face empirical problems. Przeworski and Limongi reported that the correlation is weak and not robust between democracy and economic growth. Barro also reported a nonlinear relationship between democracy and economic growth.

Fewer numbers of studies that examine the relationship between democracy and health outcome (life expectancy) are found in the literature. The oldest study encountered is Govindaraj and Rannan-Eliya (1994) that found that democratic regimes are positively associated with health status, given the same level of income. Another study that

employs more control variables is Franco et al. (2004) that report democracy showing an independent positive association with health, which remains after adjustment for a country's wealth, its level of inequality, and the size of its public sector. More recently, Besley and Kudamatsu (2006) used panel data by employing a fixed effect model showing that life expectancy at birth is higher in democracies than in autocracies, though democratization in a country may or may not increase life expectancy at birth.

These previous studies mainly focused on the relationship between overall health and democracy. However, no researcher has looked at the impact of democracy on mortality for each specific disease. There are some reasons to believe that authoritarian governments do a better job than democratic governments for particular causes of death. For example, people can enjoy a tremendous amount of freedom under democratic regimes. They can eat, drink, and drive whatever, whenever they want. These freedoms sometimes conflict with the interest of public health especially when these freedoms are related to risk factors such as obesity and hypertension. On the other hand, we believe that democratic governments do a better job than autocratic governments in the area that is related to the distribution of income or poverty because democratic governments have an incentive to combat poverty by income redistribution.

The motivation of using disease-specific mortality rather than all cause of death data is the fact that democracy may, for example, reduce the number of HIV-infected patients (relatively no political opposition to reduce HIV infection) but not cardiovascular disease patients (fast food companies are likely to oppose legislation to reduce obesity by taxing

fast food and so on). It may also be possible to observe the different degree of impact in pre- and post-epidemiologic transition countries, because of the heterogeneity of cause of death across different countries. The interest in this paper is to assess the magnitude of the comparative advantage of democratic regimes on different causes of mortality.

Methodology

We included all available vital registration data from 1960 to 2004 for 164 countries from the World Health Organization (WHO) Mortality Database (2009). Annual age-specific death rates were calculated for each of ten diseases or conditions that rank highest for mortality burden according to the Global Burden of Disease (GBD) 2000 study (Murray et al. 2001): ischemic heart disease (IHD), cerebrovascular disease (CBVD), lower respiratory infections (LRI), chronic obstructive pulmonary disease (COPD), perinatal conditions, HIV/AIDS, diarrheal diseases, tuberculosis (TB), trachea, bronchus, lung cancers, and road traffic accidents (RTA). For disease coding, we used the International Classification of Diseases from the New Global Burden of Disease Study Classification system for diseases and injuries revised in 2002 (Murray et al. 1996). Table 1 ranks each cause of death and shows the percentage of total deaths; the sum of the top ten leading causes of death are over 52% of all total causes of death.

Cause- and age-specific death rates were age-standardized by directly applying weights from an average world population age-structure or *standard* population that was constructed for the period 2000-2025 (Ahmad et al. 2000). This process avoids misleading comparisons of crude age-specific rates over time and between populations if there are different underlying age compositions in the populations being compared.

Symbolically, the directly standardized mortality rate M is given by the following equation:

$$M = \sum r_i \left(\frac{n_{is}}{\sum n_{is}} \right)$$

where n_{is} is the mid-year population in the ith age group of the standard population s and r_i is the death rate in age group i in the national population.

For the political form variable, we use data from the Polity IV dataset (Marshall et al. 2004). In the original dataset, there is a 0-10 measure of DEMOCRACY and a 0-10 measure of AUTOCRACY. The POLITY variable combines these two measures by subtracting autocracy from democracy variables. This variable assumes that autocracy is in the opposite direction of democracy. For example, Singapore in 2004 has DEMOCRACY=2 and AUTOCRACY=4. Therefore, the POLITY variable for Singapore is -2. Note that this variable does not indicate the existence of democracy. This variable indicates rather the degree of inclination of the political regime towards democracy. We define a dummy variable DEM=1 if variable POLITY is more than zero, otherwise DEM=0. The POLITY variable is missing if a country is not independent or occupied by foreign forces. Table 2 shows the political classification of countries in 2000 from the Polity IV dataset.

For the control variables, we use income, population age distribution, and year- and country-specific dummy variables in our analysis. Income is defined as real GDP per capita and comes from the Penn World Table 6.2 (Heston et al. 2006). The proportions

of population in age groups 0-14, 15-64, and 65 and over are also used as controls. Table 3 and 4 show the descriptive statistics of dependent and independent variables used in the study.

In this paper, we employ the OLS model with an estimate equation of the following form:

$$M_{ct} = \alpha_0 + \beta_1 DEMOCRACY_{ct} + \beta_2 LOGINCOME_{ct} + \beta_3 AGE014_{ct} + \beta_4 AGE65P_{ct} + \lambda_k (X_k) + \varepsilon_{ct}$$

where M_{ct} is the disease-specific mortality rate M standardized by age in country c in year t. *DEMOCRACY* is the dummy variable for democracy, *LOGINCOME* is log GDP per capita, *AGE014* is the proportion of population ages 0-14, *AGE65P* is the proportion of population ages 65 and over, and vector X_k includes yearly and country dummies. The results for this model are shown in Table 5.

A second regression model demonstrates the combined differential effect of income and political regime by including the interaction terms of *DEMOCRACY* and income quartiles for 2000 ranging from very low, low, middle, and high. These results are shown in Table 6.

Results

The impact of democracy on disease-specific mortality

The main innovative finding of this paper focuses on the magnitude of democracy's effect on disease-specific mortality. As demonstrated in Table 5, we have sorted this effect in ascending order to observe democracy's distinct effect on two classifications of diseases: environment- and behavior-oriented diseases. The former has been classically

defined by the GBD as communicable diseases, whereas the latter is known as non-communicable diseases. We observe democracy to have a negative effect on the group of environment-oriented diseases, namely lower respiratory infection (LRI), diarrhea, chronic obstructive pulmonary disease (COPD), and tuberculosis (TB). On the opposite end of the table, democracy has a positive effect on the group of behavior-oriented diseases, such as ischemic heart disease (IHD), cerebrovascular disease (CBVD), HIV/AIDS, and road traffic accidents (RTA). We also note that in the middle, perinatal conditions and lung cancers are not affected much by democracy.

More specifically, of the significant effects at the 0.05-level, democracy is negative for diarrhea (-0.065) and COPD (-0.051) since democracy has been a highly-influential governance intervention in tackling environment-related diseases as well as indoor air pollution, chemical fumes, and dust (more so than cigarette smoking) in newly-found democratic states. Also strong but not significant effects are observed for TB (-0.032) and lower respiratory infection (-0.073). In democracies, we posit that the societies are better able to demand for public goods, in this case public service utilities, such as clean water for diarrhoeal diseases and clean air for air-borne diseases. It is interesting to note that these three diseases (LRI, diarrhea, and TB) are caused by infectious agents. These diseases have no boundaries in whom it afflicts; therefore, there is more motivation by the population to demand government to have the disease controlled for the universal benefit of the entire population.

Unlike the previous results, we observe strong positive effects of democracy on HIV/AIDS (0.103) and RTA (0.050). These effects can be indicative of a progressive social environment encouraging behaviors such as risky sex leading to higher rates of HIV and injurious handling of motor vehicles, respectively. Supply of cars in wealthier (and most democratic) countries is also higher, which also further promotes higher motor vehicle deaths. We observe per-head income to be positive (0.036) for RTA. The effect of democracy is largest, although not significant for ischemic heart disease (IHD) (0.134), which may be explained by the dietary habits of people in democratic societies who are likely to consume foods high in calorie and fat content given the limitless freedom to choose.

We note that lung cancers rates, a large fraction of which are due to cigarette smoking, are higher where per-head income is high (0.046). Interestingly, per-head income is also positive for AIDS mortality (0.032), demonstrating that while wealthy nations are better able to control AIDS through expensive medical technology and pharmaceuticals, the level of democracy or population-level behavior still dominates. It may also be the case that autocratic countries and its citizens afflicted with AIDS are less reluctant to provide information so that results are mostly of democratic countries.

The effects of age demonstrate consistent results. The proportion of population ages 0-14 has negative effects notably in the behavior-oriented diseases. For example, IHD (-3.701) and CBVD (-2.29) are degenerative diseases that take time to manifest; and from the stance of RTA, the young population would not have reached the driving age (-0.448).

Similarly, we observe for the same age group a positive effect in environment-oriented disease such as diarrhea (1.462). For the old, the proportion of population ages 64 and over also shows a positive effect for diarrhea (1.646). For behavior-oriented diseases, the effect of older age is also consistently negative.

Cutler and Glaeser (2005) have tried to suggest that neighborhoods might matter for health behaviors because of peer effects or correlated shocks such as high or low tax rates on cigarettes, but the relatively modest explanatory power of area effects suggests that the gross measures of situation are not where the bulk of the situational variation results from. We argue that influences on poor health outcomes can be found in the level of liberty or democracy, such as in public smoking laws, seatbelt laws, mandatory flu shots, all of which affect behavior-specific situations.

In Table 6, which demonstrates democracy's combined effect with income quartiles, we observe consistent results of negative effects on environment-oriented diseases and positive effects on behavior-oriented diseases. Democratic countries across all income quartiles are best able to tackle LRI, diarrheal, COPD, and TB diseases. On the contrary, these countries have high RTA and AIDS mortality. High income democratic countries are best able to address CBVD and IHD, which predominantly affects low income countries.

We have also used different model specifications including education data from Barro and Lee (2000) and the magnitude and order of democracy's effect for the disease classifications are consistent.

Overall, democracy is favorable for increasing six out of the top ten causes of deaths. This observation does not bode well for the health and well-being of populations in democratic regimes since the presence of democracy elevates behavioral health risk factors such as obesity and smoking, and propels many of these deaths. More importantly, most of these deaths are avoidable. If the population of a nation state is unable to control their own health, the state may have to intervene with strict legislation to protect its people (Trans fat bans, public smoking legislations, road safety laws, etc.).

Further Research

We observe different degrees of impact in pre- and post-epidemiologic transition countries because of the heterogeneity of cause of death across different countries. Therefore we should include disease-specific risk factor variables which control for cross-country variation by cause of death. These risk factors may include levels and patterns of the following: tobacco use for lung cancer and COPD; alcohol consumption for road traffic accidents; BMI and caloric intake for IHD and cerebrovascular disease; and indoor air pollution for lower-respiratory infections. However, we may also report democracy's effect on overall mortality rate. If there is no significant relationship between democracy and overall mortality, then our story of disparate effects on behavior- and environment-oriented disease groups is even more compelling.

It seems that there is a power-altruism trade-off between democratic and autocratic regimes. For example, health policies are not necessarily successful because authoritarian governments do not particularly model what citizens really want for pubic health. On the other hand, too many liberties and lack of health policies allow individuals to engage in risky health behaviors. Moreover, the line between autocratic and democratic regime as defined in this paper can be re-parameterized. By combining some feature of democracy with an authoritarian regime, semi-authoritarian governments behave as if they consider the social welfare of the country while keeping strong regulatory power to enforce health care law. For this reason, we hypothesize that the combination of characteristics of both democratic *and* authoritarian governments—so called "semi-authoritarian governments"—are perhaps better forms of governance for providing health policy.

The completeness of death registration may also be less than 100% for a specified registration population. Even when vital registration data may be 100% complete for the population covered, it may not include full coverage of deaths in the country. It may be necessary to maintain comparability and consistency particularly when comparing across countries so we can improve the model by adjusting on coverage estimates or limiting our data to high-quality vital registration data.

Data on HIV/AIDS on mortality did not get coded until its discovery in the early 1980s. Germany (Former Federal Republic) and Netherlands were the first two countries to code the disease in 1983. Although mortality data are not available for the period before then,

since we are dealing with cause-specific mortality comparisons this should not alter results except that we have a smaller sample size.

We may also want to use a more efficient estimation method. OLS estimators are generally fine because they are unbiased and consistent, but in terms of efficiency, seemingly unrelated regression seems to be better. Moreover, we are thoroughly aware of the non-linear impact of democracy on disease-specific mortality. In the future, we may want to take the degree of democracy or autocracy into account because a country may be more democratic than another even though they may both be democratic countries. We may want to employ a semi-parametric model to take this into consideration. There are also several other potential problems in the current model such as potential omitted variable bias (social capital for instance), self-selection (ecological fallacy), and heterogeneous impact of democracy which can be addressed using instrumental variable techniques.

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Table 1. Top ten leading causes of death in the world (Source: Global Burden of Disease 2000).

Rank	Cause of death	Number of deaths	% of all causes of death
1	Ischaemic heart disease	6,958,424	12.55%
2	Cerebrovascular disease	5,285,521	9.53%
3	Lower respiratory infections	3,738,205	6.74%
4	Chronic obstructive pulmonary disease	2,607,346	4.70%
5	Perinatal conditions	2,573,947	4.64%
6	HIV/AIDS	2,330,261	4.20%
7	Diarrhoeal diseases	1,797,973	3.24%
8	Tuberculosis	1,604,576	2.89%
9	Trachea, bronchus, lung cancers	1,214,856	2.19%
10	Road traffic accidents	1,187,026	2.14%
Sum of top ten causes of death		29,298,132	52.84%

Table 2. Political classification of countries in 2000 (Source: Polity IV Database).

Democracy			Autocracy	
Albania	Germany (Germany, Former Federal Rep. -1990)	Nicaragua	Afghanistan	Sudan
Argentina	Ghana	Niger	Algeria	Swaziland
Armenia (USSR -1990)	Greece	Nigeria	Angola	Tajikistan (USSR -1990)
Australia	Guatemala	Norway	Azerbaijan (USSR -1990)	Togo
Austria	Guinea-Bissau	Panama	Bahrain	Tunisia
Bahamas, The	Guyana	Papua New Guinea	Belarus (USSR -1990)	Turkmenistan (USSR -1990)
Bangladesh	Honduras	Paraguay	Bhutan	Uganda
Barbados	Hungary	Peru	Burkina Faso	United Arab Emirates
Belgium	Iceland	Philippines	Burundi	Uzbekistan (USSR -1990)
Belize	India	Poland	Cameroon	Zimbabwe
Benin	Indonesia	Portugal	Chad	
Bolivia	Iran, Islamic Rep.	Romania	China	
Bosnia and Herzegovina (Yugoslavia, Former -1991)	Ireland	Russian Federation (USSR -1990)	Comoros	
Botswana	Israel	Samoa	Cuba	
Brazil	Italy	Sao Tome and Principe	Egypt, Arab Rep.	
Brunei Darussalam	Jamaica	Senegal	Equatorial Guinea	
Bulgaria	Japan	Slovak Republic (Czechoslovakia, Former -1993)	Eritrea	
Cambodia	Korea, Rep.	Slovenia (Yugoslavia, Former- 1990)	Gabon	
Canada	Latvia (USSR -1990)	South Africa	Guinea	
Cape Verde	Lebanon	Spain	Haiti	
Central African Republic	Lesotho	Sri Lanka	Iraq	
Chile	Lithuania (USSR -1990)	St. Lucia	Jordan	
Colombia	Luxembourg	St. Vincent and the Grenadines	Kazakhstan (USSR -1990)	
Costa Rica	Macedonia (Yugoslavia, Former- 1990)	Suriname	Kenya	
Cote d'Ivoire	Madagascar	Sweden	Kyrgyzstan (USSR -1990)	
Croatia (Yugoslavia, Former- 1990)	Malawi	Switzerland	Kuwait	
Cyprus	Malaysia	Thailand	Liberia	
Czech Republic (Czechoslovakia, Former -1993)	Maldives	Tonga	Mauritania	
Denmark	Mali	Trinidad and Tobago	Morocco	
Djibouti	Malta	Turkey	Oman	
Dominican Republic	Mauritius	Ukraine (USSR -1990)	Pakistan	
Ecuador	Mexico	United Kingdom	Qatar	
El Salvador	Moldova (USSR -1990)	United States	Rwanda	
Estonia (USSR -1990)	Mongolia	Uruguay	Saudi Arabia	
Ethiopia	Mozambique	Vanuatu	Sian Arab Republic	
Fiji	Namibia	Venezuela, RB	Sierra Leone	
Finland	Nepal	Zambia	Singapore	
France	Netherlands		Solomon Islands	
Georgia (USSR -1990)	New Zealand		Somalia	

Table 3. Descriptive statistics of outcome variables (deaths per 1,000 population).

	Democratic		Autocratic	
Outcome Variable	**Mean**	**S.D.**	**Mean**	**S.D.**
IHD	1.15	0.74	0.96	0.88
CBVD	0.82	0.43	0.69	0.48
LRI	0.30	0.27	0.47	0.42
COPD	0.17	0.12	0.22	0.17
Perinatal	0.16	0.13	0.22	0.18
HIV/AIDS	0.04	0.11	0.00	0.01
Diarrhea	0.09	0.23	0.28	0.46
TB	0.08	0.16	0.17	0.18
Lung Cancer	0.22	0.13	0.14	0.12
RTA	0.15	0.08	0.12	0.08

Table 4. Descriptive statistics of independent variables.

Independent Variables	Mean	S.D.	Min	Max
Democracy	0.58	0.49	0.00	1.00
Income (1,000)	7.36	8.29	0.17	84.41
Proportion of population age 0-14	0.37	0.10	0.14	0.50
Proportion of population age 15-64	0.57	0.07	0.44	0.73
Proportion of population age 65 and over	0.06	0.04	0.01	0.19

Table 5. Multivariate analysis of age-standardized mortality rates for the top ten causes of death.

	LRI	Diarrhea	COPD	TB	Lung CA	Perinatal	RTA	HIV/AIDS	CBVD	IHD
DEMOCRACY	-0.073	-0.065**	-0.051**	-0.032	0.007	0.013	0.05***	0.103**	0.121	0.134
	[0.047]	[0.029]	[0.023]	[0.023]	[0.014]	[0.019]	[0.015]	[0.045]	[0.079]	[0.152]
LOGINCOME	0.048	0.007	-0.019	-0.043	0.046**	-0.03	0.036*	0.032**	-0.043	0.093
	[0.056]	[0.026]	[0.026]	[0.031]	[0.020]	[0.020]	[0.018]	[0.016]	[0.131]	[0.165]
AGE014	0.49	1.462***	-0.59**	0.241	-0.825***	0.14	-0.448**	-0.138	-2.29**	-3.701***
	[0.589]	[0.341]	[0.276]	[0.297]	[0.147]	[0.198]	[0.175]	[0.353]	[1.146]	[1.176]
AGE65P	-0.633	1.646***	-0.416	-1.06	-0.413	-0.101	-1.371***	-1.23**	-2.825	-2.657
	[1.280]	[0.595]	[0.528]	[0.737]	[0.481]	[0.369]	[0.399]	[0.614]	[1.858]	[2.314]
COUNTRY DUMMIES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
YEARLY DUMMIES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	2,764	2,749	2,762	2,766	2,708	2,773	2,669	798	2,772	2,772
R-squared	0.65	0.67	0.53	0.36	0.78	0.61	0.51	0.77	0.48	0.63

Notes: Robust standard errors clustered at the country level are reported in brackets. *** indicates 1% significance, **5%, and * 10%.

Table 6. Multivariate analysis of age-standardized mortality rates for the top ten causes of death by income quartiles.

	LRI	Diarrhea	COPD	TB	Lung CA	Perinatal	RTA	HIV/AIDS	CBVD	IHD
VERYLOWINCOME*DEMOCRACY	-0.023	-0.047	-0.034	-0.02	0.002	0.013	0.015	0.021	0.061	-0.046
	[0.048]	[0.043]	[0.027]	[0.032]	[0.013]	[0.024]	[0.016]	[0.043]	[0.087]	[0.176]
LOWINCOME*DEMOCRACY	-0.104*	-0.069**	-0.049**	-0.04	0.017	0.033	0.075***	0.084***	0.227**	0.259
	[0.059]	[0.030]	[0.024]	[0.033]	[0.017]	[0.021]	[0.019]	[0.032]	[0.090]	[0.159]
MIDDLEINCOME*DEMOCRACY	-0.153**	-0.065	-0.095***	-0.034	-0.005	-0.029	0.071***	0.109**	-0.117	0.121
	[0.067]	[0.040]	[0.034]	[0.034]	[0.027]	[0.029]	[0.020]	[0.050]	[0.121]	[0.184]
HIGHINCOME*DEMOCRACY	-0.163*	0.003	-0.082**	-0.008	-0.013	-0.026	0.026	0.091*	-0.453**	-0.325
	[0.091]	[0.063]	[0.040]	[0.054]	[0.036]	[0.042]	[0.027]	[0.050]	[0.182]	[0.285]
LOGINCOME	0.088	-0.002	-0.003	-0.044	0.05***	-0.017	0.03*	0.013	0.08	0.132
	[0.067]	[0.034]	[0.027]	[0.035]	[0.017]	[0.028]	[0.018]	[0.016]	[0.121]	[0.150]
AGE014	0.483	1.291***	-0.592**	0.166	-0.777***	0.203	-0.283*	0.062	-1.161	-2.396**
	[0.589]	[0.375]	[0.286]	[0.267]	[0.145]	[0.202]	[0.160]	[0.349]	[1.141]	[1.175]
AGE65P	-0.351	1.329**	-0.218	-1.204	-0.255	0.24	-1.126***	-1.053	0.527	0.057
	[1.174]	[0.665]	[0.543]	[0.734]	[0.518]	[0.426]	[0.308]	[0.658]	[2.241]	[2.872]
COUNTRY DUMMIES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
YEARLY DUMMIES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Observations	2,764	2,749	2,762	2,766	2,708	2,773	2,669	798	2,772	2,772
R-squared	0.65	0.67	0.54	0.36	0.78	0.62	0.56	0.78	0.53	0.66

Notes: Robust standard errors clustered at the country level are reported in brackets. VERYLOWINCOME is a dummy variable for countries where per capita GDP is in the poorest quartile in 2000; LOWINCOME for the second-poorest quartile; MIDDLEINCOME for the third-poorest quartile; and HIGHINCOME for the least-poorest quartile. *** indicates 1% significance, **5%, and * 10%.