# Health System Performance in a Global Context: Exploring the Political, Social, and Institutional Dimensions

Giulia Fornaro[1,2], MSc

Aleksandra Torbica[1,2], PhD

Marlene Jugl[2], PhD

Kerim Jan Kavakli[2], PhD

[1] Centre for Research on Health and Social Care Management SDA Bocconi School of Management Bocconi University, Milan, Italy

[2] Department of Social and Political Sciences, Bocconi University, Milan, Italy

**PLEASE DO NOT CITE OR CIRCULATE**

## Introduction

Health is the prerequisite for a self-determined and prosperous life. Goal 3 of the United Nations' Sustainable Development Goals (SDG3) is to ensure healthy lives and promote well-being for all at all ages. Health systems are central for achieving this goal, but they vary in how well they perform and achieve this goal and related targets. Health system performance also plays a key role for societal resilience. While previous studies have focused on healthcare budgets as explanation for variation in health system performance, recent publications have called to bring power and politics[1], governance[2], and institutional context[3] in to study health system performance from a systemic perspective.

This study addresses these calls and conceptualizes health systems as embedded in a wider administrative, political, and social context. Our study analyses the effect of institutional and social context factors on the performance of national health systems and addresses two research questions: How does the institutional context, and its administrative, political, and social dimensions, affect the performance of health systems? Is the administrative tradition of a country systematically related to its health system performance?

Based on a panel dataset that encompasses all countries and territories followed from 2000 to 2019 (under the model specification with the broadest sample size), we aim to disentangle the influence of healthcare system structure, administrative traditions, political institutions and preferences, and thereby contribute to a better distinction between these context factors. We also aim to bridge literature branches and insights from different disciplines including comparative health policy analysis, health economics, public administration, and political science. The study has an ambitious global scope that goes beyond the widely studied OECD or EU countries.

Central results suggest that more interventionist administrative traditions, such as the socialist and Napoleonic, are systematically and positively correlated with various measures of health system performance, while results for political factors are mixed. Health system funding including social health insurance and public health expenditure remain largely insignificant.

## Methods

To assess the overall performance of a country's health system, we use a set of indicators aligned with SDG3. Specifically, our outcome variables include: group-specific mortality rates (maternal mortality ratio, neonatal and under-5 [also referred to as "child"] mortality rate), preventable disease incidence (tuberculosis incidence, new HIV infection rate, malaria incidence), vaccination coverage (proportion of the target population who received 3 doses of diphtheria-tetanus-pertussis [DTP3] vaccine, and proportion of the target population who received measles-containing-vaccine second-dose [MCV2]), and country-level self-reported health emergency preparedness based on the United Nations International Health Regulations State Party Annual Reporting mechanism (UN IHR/SPAR)[4]. We selected these indicators, which include both outcome and output variables, because they jointly provide a comprehensive picture of a country's health system performance: how much preventable diseases and mortality are contained, how widely basic healthcare services such as vaccinations are provided, and how prepared a health system is for emergencies. While emergency preparedness is inherently difficult to measure and the SPAR indicator is self-reported, making it an imperfect proxy for health system resilience, and previous studies have shown that formal preparedness explained little of the actual performance and resilience during the COVID-19 pandemic[5,6], yet the indicator still reflects how much health systems value emergency preparedness. The general advantage of these indicators associated with the SDGs is their broad

international acceptance, availability across many countries and years, and suitability for comparing health system performance across diverse national contexts.

Although previous comparative studies have classified healthcare systems into Beveridge, Bismarck, and market-oriented models, such classifications are not consistently available for most non-OECD countries. Instead, to approximate such classification, we rely on available and reliable indicators on health expenditure, namely social health insurance coverage (as the share of current health expenditure in each country), and public health expenditure (as share of current health expenditure)[7,8], plus the number of health workers (including doctors and nurses) per 10,000 individuals[9] to approximate the overall size of the healthcare system. The higher the share of social health insurance coverage the more a system approximates the ideal type of Bismarck-style social health insurance system, whereas a higher share of public health expenditure resembles the Beveridge-type national health system. Due to skewness in their distribution, we log-transform each of the three variables.

There is currently no universally accepted dataset on administrative traditions, and classifications can vary significantly across sources. We address this limitation in two ways. First, we use legal origins as a proxy for administrative traditions. The seminal study by La Porta et al.[10] classified countries based on the origin of their commercial legal code into five categories: French, British, German, Scandinavian, and Socialist. The classification was recently expanded to cover more than 190 present-day countries[11]. As an alternative, we use the classification by Painter and Peters[12]. While they propose ten different administrative traditions (including Islamic and Soviet), they do not actually classify countries or states. Therefore, we follow the classification by Bianculli et al.[13] who grouped countries into seven of the traditions proposed by Painter and Peters: Anglo-American, East Asian (sometimes referred to as Confucian), Germanic, Latin American, Napoleonic, Scandinavian, and Post-colonial. Consistent with the literature, we treat administrative traditions as stable over time.

Data on political systems including degree of electoral democracy and type of political system, distinguishing presidential, parliamentary and assembly-elected president, are taken from the Varieties of Democracy (VDEM) dataset[14]. Data on state capacity is retrieved from Hanson and

Sigman[151]. Finally, we built a new variable to capture governments' left-right orientation following the procedure described in Kavakli 2020[16].

While our analysis is exploratory in nature, it allows for the formulation of plausible hypotheses. Regarding healthcare system structure, we expect systems with a high share of public health expenditures such as Beveridge-type national health systems or high share of social healthcare expenditure such as Bismarck-type social health insurance systems to achieve better universal health results than market-oriented systems that rely heavily on private, out-of-pocket expenditure.

Turning to administrative traditions, these represent a core concept for classifying and describing administrative systems in a comparative perspective[12,17]. Administrative traditions may affect health system performance because they consist of norms about the role of the state vis-à-vis society and about the degree to which civil servants (including healthcare workers) should focus on implementing rules or rather on achieving results. While many, partly overlapping, classifications of administrative traditions exist, the categories typically range from a restricted role of the state and focus on results in the British / Anglo-American tradition to a stronger, interventionist role for the state and a legalistic focus on rules in Continental Europe (Napoleonic and Germanic traditions) and in the East Asian tradition. Administrative traditions have been shown to matter for reactions to the COVID-19 pandemic[11,18]; administrative traditions as well as healthcare system type are also systematically related to the use of economic evaluation in healthcare management[3]. These institutional legacies may, therefore, affect health system performance through both normative expectations and operational practices.

In terms of political context, we distinguish political system and institutions from political preferences and ideology. In a comparative study of health systems as global as ours, the first distinction is between democracies, non-democratic systems, and those in between. While it has been long assumed that democracies have an advantage in providing prosperity and essential goods such as health because of their inbuilt feedback and accountability mechanisms[19], studies about health system resilience in the COVID-19 pandemic have emphasized the ability of non-democratic systems to intervene and suspend social and economic life more rigorously for public health purposes[20]. We also distinguish between parliamentary, assembly-elected presidential and

[1] Notice that this variable is available up to 2015. Consequently, we re-estimate the models excluding it. The main results remain robust. Estimates from these alternative specifications are available upon request.

presidential systems, based on expectations that the former are more consensus-oriented and "gentler"[21] systems that foster more consensus-driven and cooperative policymaking, conditions favorable to advancing broad-based goals like universal health. With respect to political ideology, we expect governments with a left-leaning ideology to be more supportive of universalistic health care goals, including those articulated under SDG3, given their traditional emphasis on equity, redistribution, and social welfare[22].

Finally, when expanding our focus beyond OECD countries to include developing contexts, state capacity becomes relevant. State capacity is widely used in political science to refer to the extent to which a state controls and penetrates all territories under its jurisdiction, whether the state has the extractive, coercive, and administrative capacity to implement its policies[15]. State capacity might be related to but is conceptually distinct from administrative tradition: while state capacity refers to how much the state can penetrate society, administrative tradition refers to *how* it does so. Previous studies have linked state capacity to the achievement of development goals[23].

Our dataset encompasses all countries and territories in the world in the period between 2000 and 2019, limited only by data availability. In the baseline approach, we estimate random effects panel regression models. Although fixed effects estimation is often preferred in this context, it would not allow us to derive estimates for time-invariant variables, such as legal origin and administrative tradition, which are central to our analysis. Random effects models, instead, allow us to retain and estimate the effects of these institutional variables while accounting for unobserved heterogeneity across countries. We estimate robust standard errors clustered at the country level to account for intra-country autocorrelation and heteroskedasticity. To account for potential delayed effects of our explanatory factors on the outcome variables, in our benchmark models we use five-year lags, following similar empirical approaches employed in the literature[24]. Nevertheless, we recognize that, based on evidence from previous studies, relatively long lags can introduce substantial bias and errors of inference[25]. Consequently, we re-estimate our models using shorter lag structures (one-year and two-year) to assess the robustness of our findings. Moreover, all models include year fixed effects to account for common temporal shocks and global trends, such as new discoveries, improvements in medical technologies, or economic cycles, that could simultaneously affect all countries.

As for maternal, neonatal, under-5 mortality rates, and tuberculosis incidence, we use the logarithmic transformation to reduce skewness and improve the distributional properties of these variables for regression analysis. For HIV and malaria incidence, we use population-averaged models estimated via generalized estimating equations (GEE) with a gamma distribution and log link. This specification is appropriate for skewed, strictly positive outcomes such as incidence rates, allowing coefficients to be interpreted as multiplicative effects. For vaccination coverage outcomes (DTP3 and MCV2), which are proportions bounded between 0 and 1, we use GEE models with a binomial family and logit link. In all GEE models, we assume an independent working correlation structure and use robust standard errors to address potential misspecification. The GEE framework yields consistent estimates of average population effects even in the presence of intra-country correlation, making it suitable for analyzing non-linear outcomes across panels. However, GEE does not explicitly model unobserved heterogeneity across countries, and inference relies on the assumption that missingness is either completely at random or at random.

As a robustness check, we implement the Mundlak adjustment by including country-level means of all time-varying covariates[26]. This approach helps address potential bias due to unobserved, time-invariant heterogeneity that may be correlated with the included regressors. By controlling for the within-country average of each time-varying variable, the Mundlak specification approximates a fixed effects model while preserving the ability to estimate the effects of time-invariant predictors, such as legal origin or administrative tradition. While it does not fully eliminate endogeneity concerns, it reduces bias from omitted variable confounding at the country level and provides a more flexible alternative to strict fixed effects models, particularly in the context of non-linear specifications.

## Results

**Table 1** reports the summary statistics of key continuous variables implemented in the models. The comprehensive categorization of countries based on legal origin and administrative tradition is available in the **Appendix**.

**Table 1 Summary statistics.**

| | Obs | Mean | SD | Min | Max |
|---|---|---|---|---|---|

| | | | | | |
|---|---|---|---|---|---|
| Maternal mortality (logged) | 3,864 | 4.16 | 1.61 | 0.73 | 7.43 |
| Neonatal mortality (logged) | 4,209 | 2.47 | 0.87 | 0.59 | 4.15 |
| Under-5 (child) mortality (logged) | 4,209 | 3.14 | 1.07 | 1.06 | 5.44 |
| Tuberculosis incidence (logged) | 3,841 | 4.01 | 1.48 | 0.00 | 7.37 |
| HIV incidence | 2,762 | 0.97 | 2.42 | 0.00 | 20.96 |
| Malaria incidence | 2,247 | 104.88 | 152.39 | 0.00 | 723.29 |
| UN IHR/SPAR score (normalized) | 1,599 | 0.00 | 1.00 | -3.42 | 1.06 |
| DTP3 vaccination coverage (%) | 3,824 | 0.87 | 0.15 | 0.19 | 0.99 |
| MCV2 vaccination coverage (%) | 2,456 | 0.83 | 0.19 | 0.01 | 0.99 |
| Social health insurance (logged, % CHE) | 3,685 | 1.61 | 1.62 | 0.00 | 4.44 |
| Public health expenditure (logged, % CHE) | 3,740 | 3.80 | 0.57 | 0.64 | 4.59 |
| Healthcare workforce density (logged) | 3,680 | 4.38 | 1.01 | 2.11 | 6.55 |
| Electoral democracy index | 3,601 | 0.53 | 0.26 | 0.01 | 0.92 |
| State capacity index | 2,695 | 0.49 | 0.94 | -2.31 | 2.96 |
| GDP per capita (logged, current USD) | 4,346 | 8.38 | 1.53 | 4.71 | 11.80 |

Note: 183 countries followed between 2000 and 2019. Key: CHE = current health expenditure, DTP3 = 3 doses of diphtheria-tetanus-pertussis, GDP = gross domestic product, HIV = human immunodeficiency virus, UN IHR/SPAR = United Nations International Health Regulations State Party Annual Reporting mechanism (self-reported health emergency preparedness), USD = United States Dollars.

The figures featured in this section visualize base case results, i.e., estimates derived from the 5-year lag models where administrative tradition is operationalized through the legal origin categorization in La Porta et al.[102] Results from models based on other lag structures, the alternative operationalization of administrative tradition and the Mundlak-adjusted estimates are available in the **Appendix**.

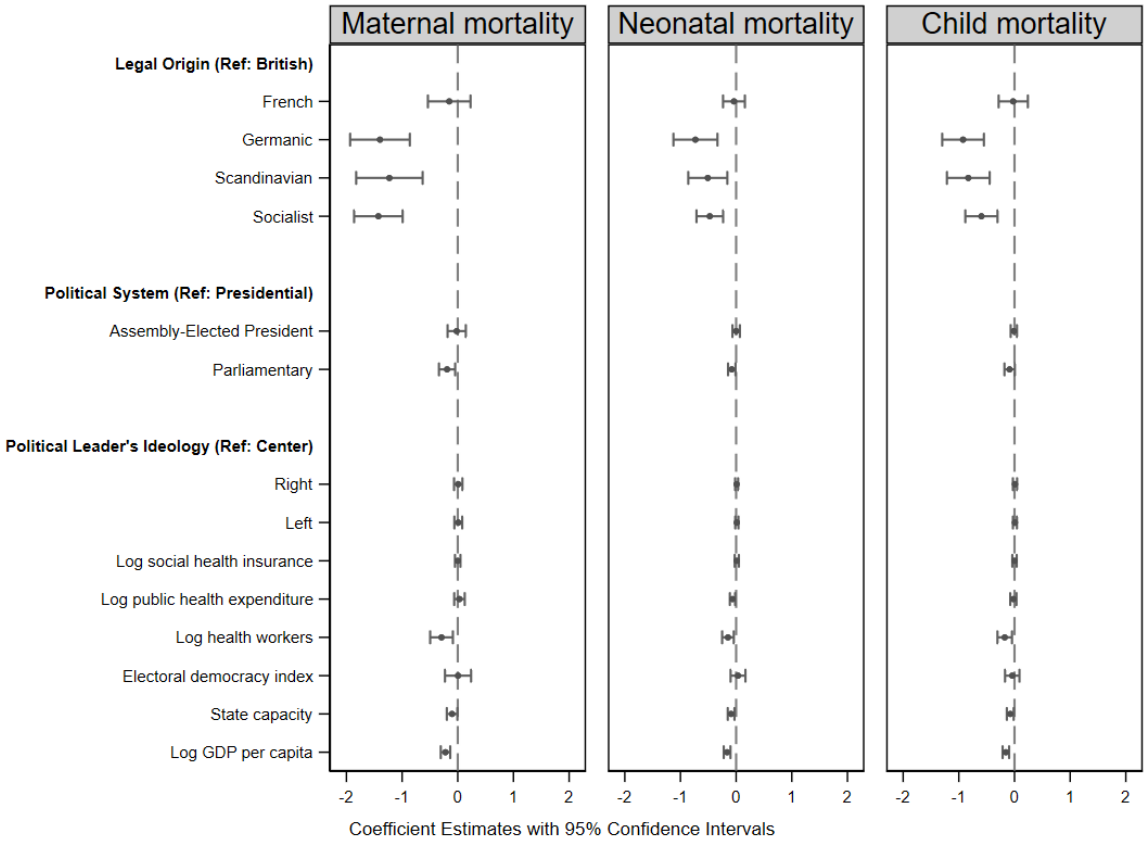
**Figure 1** shows that legal origin exhibits a strong and systematic association with maternal, neonatal, and child mortality. Compared to countries with British legal origin, those with Germanic, Scandinavian, or Socialist legal traditions exhibit significantly lower maternal, neonatal, and child mortality rates across all lag structures ($p < 0.001$). These partial correlations are substantial, with the Germanic origin associated with 1.19 to 1.40 log-point reductions in maternal mortality and similarly large reductions for child and neonatal mortality. French legal origin, in contrast, is not statistically associated with mortality outcomes. Among political systems,

[2] We choose this operationalization for the baseline models because it is the one that ensures the largest sample size.

parliamentary regimes are consistently associated with lower mortality compared to presidential systems. This effect is statistically significant at conventional levels for maternal and neonatal mortality, and marginally significant for child mortality. Assembly-elected presidential systems do not show any meaningful difference relative to presidential regimes. Political ideology of the executive body, whether left- or right-leaning, does not appear to significantly influence mortality outcomes relative to centrist governments in any specification. Regarding health system factors, the density of health workers is consistently and significantly associated with reductions in all three mortality outcomes. A 1-log increase in the number of health workers per 10,000 individuals is associated with approximately 0.3 to 0.4 log-point reductions in maternal mortality, and similarly significant effects for neonatal and child mortality ($p < 0.01$ or lower). Public health expenditure is weakly associated with lower neonatal mortality, while social health insurance coverage shows no consistent association. State capacity and GDP per capita are both robust predictors of improved outcomes. Greater state capacity is associated with significantly lower mortality rates, particularly for neonatal and child mortality. GDP per capita shows a consistently strong negative association with all three mortality indicators across all specifications ($p < 0.001$). The Mundlak-adjusted estimation confirms the overall findings. Nevertheless, it is worth underlining that the previously strong and significant associations between Germanic and Scandinavian legal origins and lower maternal and child mortality are no longer statistically significant in the Mundlak models. This attenuation suggests that part of the original effect may have been confounded by time-invariant country-level factors correlated with legal origin. In contrast, the association for Socialist legal origin remains strongly negative and statistically significant across all mortality outcomes and lag structures. A similar trend is also found for the influence of parliamentary systems, state capacity, and healthcare workforce. The latter attenuation may reflect limited within-country variation over time in workforce levels, which the Mundlak adjustment explicitly controls for. When looking at the administrative traditions classification, compared to countries with an Anglo-American administrative tradition, Scandinavian, Germanic and Napoleonic countries consistently exhibit lower mortality rates across all lag structures ($p < 0.05$ or lower). In contrast, countries with Post-colonial administrative traditions show significantly higher mortality rates, while no significant associations are observed for East Asian or Latin American administrative traditions relative to the Anglo-American baseline. However, when including within-country averages of the time-varying predictors, the association with the

Germanic and Post-Colonial tradition vanishes, the one for the Scandinavian is attenuated, while the negative correlation between Napoleonic administrative tradition and maternal mortality not only persists but slightly strengthens after the Mundlak adjustment. The association remains highly statistically significant across all lagged specifications ($p < 0.001$), and becomes (marginally or conventionally) significantly associated with lower neonatal and child mortality as well.

**Figure 1 Coefficient estimates (with 95% confidence intervals) from random-effects panel models predicting maternal, neonatal, and child mortality.**



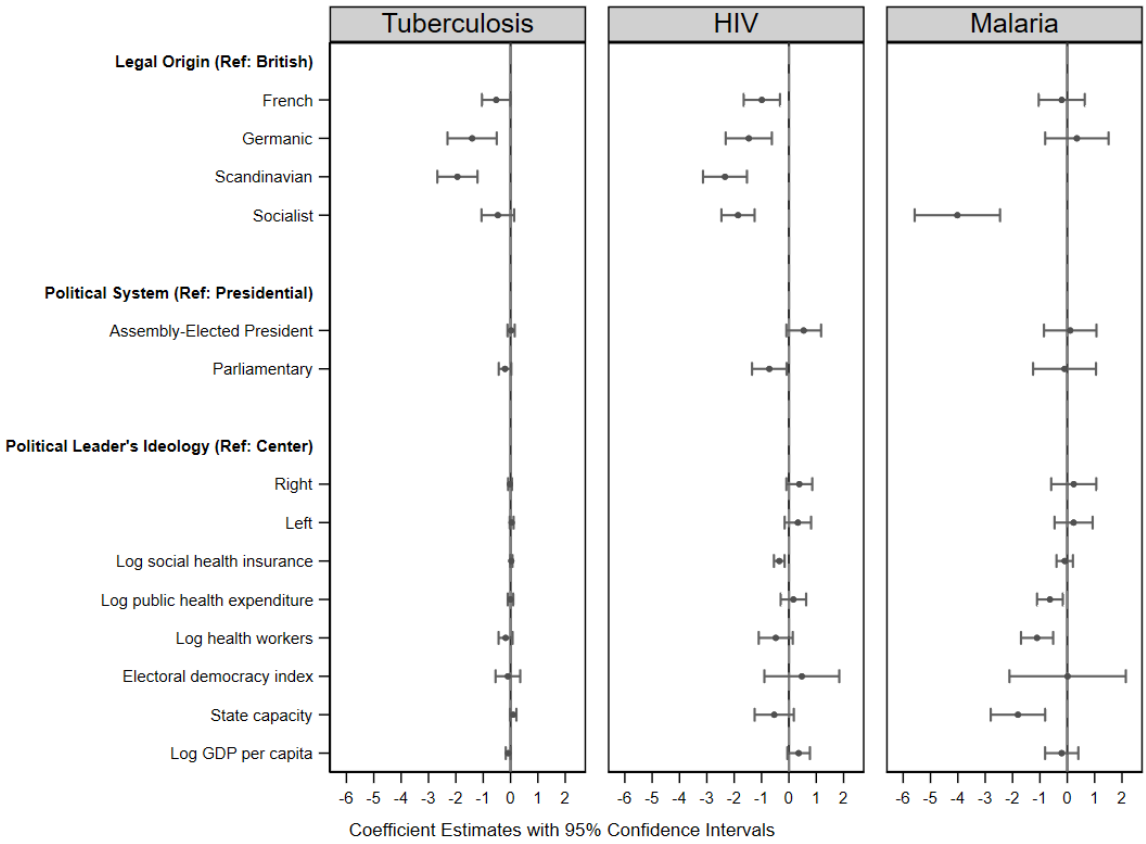

**the main** findings, particularly the negative and highly significant association between Germanic and Scandinavian origin and lower HIV incidence and Socialist origin and lower malaria incidence. On the contrary, regarding health system factors, the previously protective effect of social health insurance coverage on HIV incidence disappears after Mundlak adjustment. Moving to the classification based on administrative tradition, Countries with a Germanic and Napoleonic administrative tradition exhibit more favorable outcomes compared to those with an Anglo-American tradition, with the Germanic tradition associated with lower tuberculosis incidence and

the Napoleonic tradition associated with lower malaria incidence, particularly in models with longer lag structures (five- and two-year leads). Conversely, Post-colonial and East Asian administrative traditions are consistently associated with higher incidence rates of tuberculosis and malaria, indicating a relative disadvantage. These trends remain broadly robust in the Mundlak-adjusted models, which further reveal a negative and statistically significant association between Latin American administrative tradition and tuberculosis incidence, particularly at shorter lag lengths (one- and two-year leads).

**Figure 2** confirms that legal origin is a strong and consistent predictor even in the case of infectious disease incidence. Compared to countries with a British legal origin, those with Germanic and Scandinavian origins exhibit significantly lower tuberculosis and HIV incidence models ($p < 0.001$ or $p < 0.01$). Socialist legal origin is associated with significantly lower HIV and malaria incidence ($p < 0.001$), but not tuberculosis. Parliamentary systems consistently show lower incidence of tuberculosis and HIV, while no consistent effect is observed for malaria. Political ideology does not exhibit consistent effects. As for healthcare system characteristics, social health insurance coverage is significantly associated with lower HIV incidence but has no consistent association with tuberculosis or malaria. Public health expenditure is significantly associated with lower malaria incidence and a similar effect is found for health workforce density. State capacity is significantly associated with a reduction in malaria incidence, while the electoral democracy index does not exhibit any association with the outcomes under scrutiny. The Mundlak-adjusted estimation confirms the main findings, particularly the negative and highly significant association between Germanic and Scandinavian origin and lower HIV incidence and Socialist origin and lower malaria incidence. On the contrary, regarding health system factors, the previously protective effect of social health insurance coverage on HIV incidence disappears after Mundlak adjustment. Moving to the classification based on administrative tradition, Countries with a Germanic and Napoleonic administrative tradition exhibit more favorable outcomes compared to those with an Anglo-American tradition, with the Germanic tradition associated with lower tuberculosis incidence and the Napoleonic tradition associated with lower malaria incidence, particularly in models with longer lag structures (five- and two-year leads). Conversely, Post-colonial and East Asian administrative traditions are consistently associated with higher incidence rates of tuberculosis and malaria, indicating a relative disadvantage. These trends remain broadly

robust in the Mundlak-adjusted models, which further reveal a negative and statistically significant association between Latin American administrative tradition and tuberculosis incidence, particularly at shorter lag lengths (one- and two-year leads).

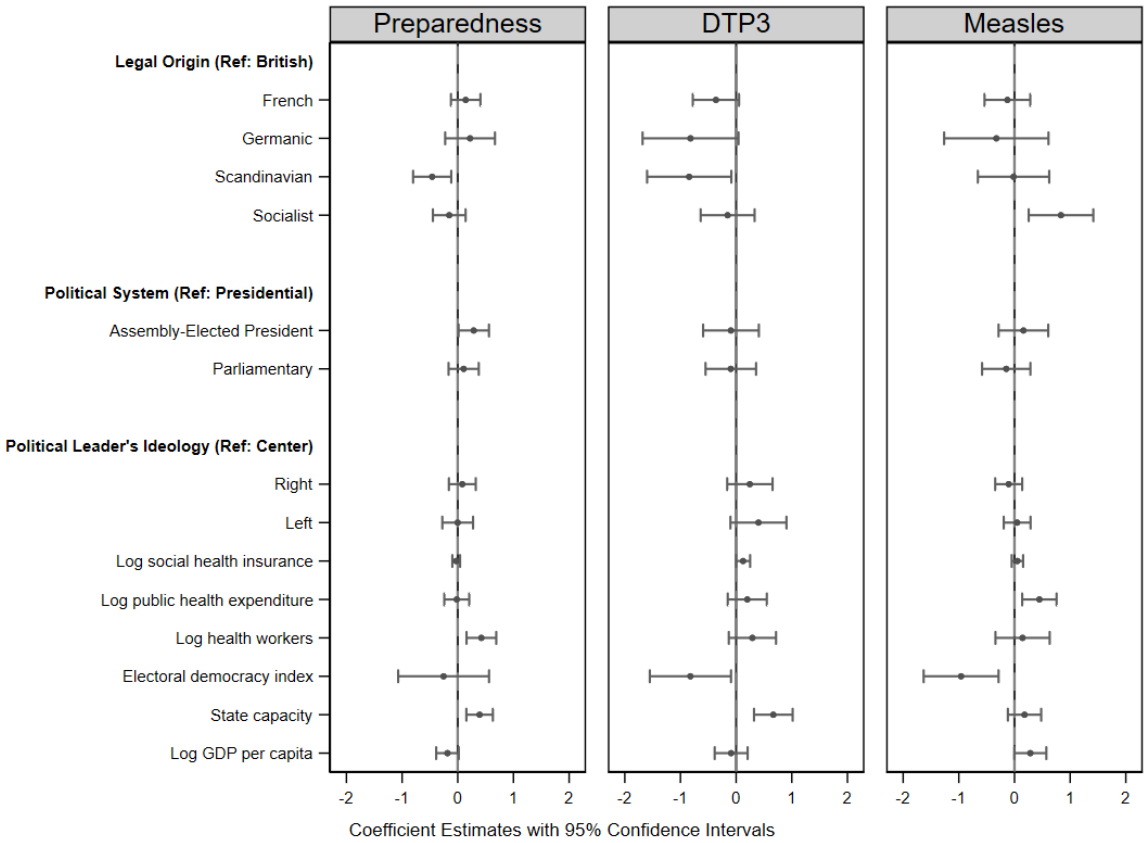
**Figure 2 Coefficient estimates (with 95% confidence intervals) from panel models for tuberculosis, HIV, and malaria incidence.**




Error! Not a valid bookmark self-reference. reports the estimation results for self-reported health emergency preparedness, DTP3, and measles vaccination coverage in the baseline model. Overall, legal origin is significantly associated with vaccination outcomes but less so with preparedness. Compared to countries with a British legal origin, those with Germanic and Scandinavian legal tradition exhibit vaccination coverage rates, though not always statistically significant. French and Socialist origins show no consistent associations with preparedness or DTP3 coverage; however, Socialist origin is strongly associated with higher measles vaccination coverage ($p < 0.01$ or lower), and this finding is reinforced when looking at shorter lags. Countries with assembly-elected

presidents show higher self-reported emergency preparedness scores relative to presidential systems ($p < 0.05$), although the association is not consistent. Political ideology is generally not strongly associated with outcomes. Left-leaning governments show marginally higher DTP3 vaccination rates ($p < 0.10$) in the 2-year and 1-year lag models, but effects on measles coverage are absent. Right-leaning governments show no significant differences from centrist ones. Social health insurance coverage is positively associated with higher DTP3 vaccination rates ($p < 0.05$), while public health expenditure is positively associated with measles vaccination coverage ($p < 0.01$ or lower across all lags). Healthcare workforce density shows a strong positive association with higher self-reported preparedness scores ($p < 0.01$ for 5-year lag), though the association weakens at shorter lags. Associations with DTP3 and measles coverage are generally weaker and less consistent. Higher electoral democracy index values are associated with lower DTP3 and measles vaccination coverage ($p < 0.05$ or lower), while no clear association emerges between democracy and self-reported health emergency preparedness. State capacity is positively and consistently associated with higher preparedness scores ($p < 0.01$ or lower) and, to a lesser extent, with DTP3 and measles coverage, especially at shorter lags. Most of these associations are confirmed and even reinforced when looking at the Mundlak-adjusted robustness checks, except for the partial correlations with public health expenditure, electoral democracy index, and state capacity, whose statistical significance is weakened. When looking at the Bianculli et al.[13] classification of administrative traditions, compared to the Anglo-American one, East Asian, Latin American, Napoleonic, and Post-colonial countries perform better in terms of vaccination coverage, while no clear trend emerges for self-reported health emergency preparedness. The patterns are confirmed in the robustness checks.

**Figure 3 Coefficient estimates (with 95% confidence intervals) from panel models for health emergency preparedness, DTP3 and measles vaccination coverage.**




## Discussion

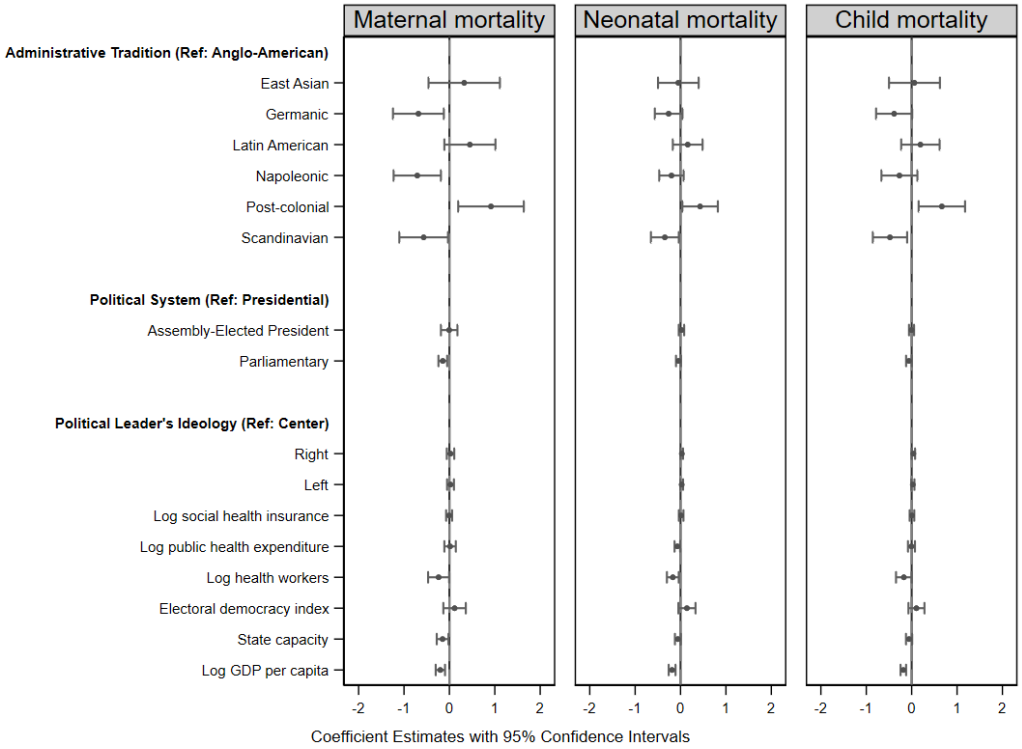
In this article we attempted at disentangling the role of administrative traditions, political institutions and preferences, and healthcare system characteristics of a country on its healthcare system performance. Our main findings point in the direction that administrative traditions are more relevant for health outcomes than political factors, state capacity, and health expenditure. This result suggests that it is less important *how much* a state does for health outcomes and more important *how* a state runs its healthcare system and *how* it delivers healthcare services. Particularly, we find better health performance in countries with more interventionist administrative traditions, i.e., public administration systems that are built on the idea of a stronger state that proactively and legitimately intervenes in social life. In the models with legal origin, especially the Socialist tradition and to a lesser consistent degree also the Germanic, Scandinavian, and French traditions are related to better health performance compared to the British tradition

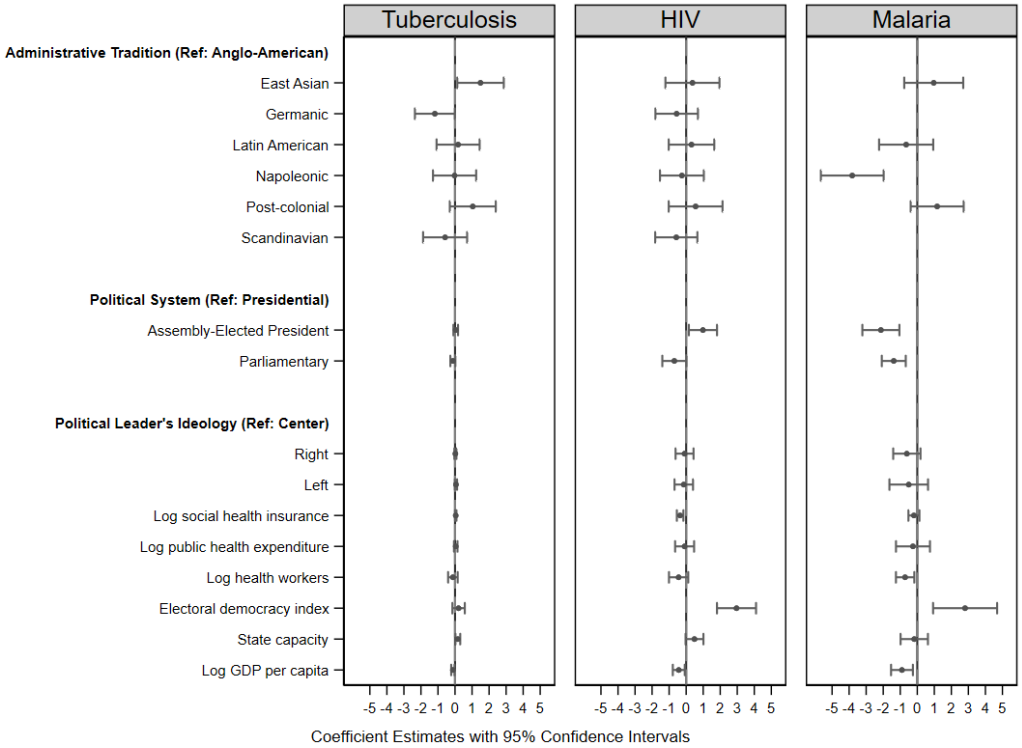
reference group. This is somewhat surprising given that a British legal origin has often been related to better administrative performance[10]. Our possible explanation is that health system performance may require a different approach than administrative performance for other goals such as, for example, the registration of businesses. The models with the seven administrative traditions categories point in a similar direction: most traditions including Napoleonic, Germanic, Scandinavian, and East Asian tend to be related with better health performance than the Anglo-American reference group. Results for the Post-colonial and Latin American traditions are more mixed, but not systematically worse than in the reference group. For example, countries belonging to the Post-colonial administrative tradition exhibit consistent higher DTP3 and measles vaccination rates compared to Anglo-American countries. This surprising finding may reflect a catch-up in immunization coverage programs in post-colonial states, possibly supported by international initiatives. Comprehensively, our results mirror earlier results that in countries with more interventionist traditions governments reacted more swiftly and resolutely to the early COVID-19 pandemic[11]. Our findings do not imply that countries with British or Anglo-American tradition have worse health outcomes in absolute terms, but they perform worse than other traditions controlling for their health system features, their political, democratic, and social characteristics, and especially their GDP.

Findings for political factors are more mixed. Democracy is related to negative health performance in terms of vaccination rates and infectious diseases incidence, and for other performance indicators there is no systematic effect. One reason why democracy is hardly significant could be because we control for GDP per capita that might absorb effects of democracy. Plus, the significance of such correlations is frequently attenuated once we control for country-averages of time-varying predictors, suggesting that part of the original effect may have been confounded by time-invariant country-level factors correlated with the extent of electoral democracy in the country. As for political institutions, parliamentary systems are somewhat related to better performance than presidential systems, but the overall picture is mixed. Our findings are also inconclusive for government ideology. While we expected left-wing governments to achieve better health system performance, our findings do not support this claim. Although some model specifications highlight that right-wing governments underperform in terms of neonatal and child mortality, while left-leaning governments outperform in terms of vaccination coverage, results are inconsistent.

Overall, our contribution aims at emphasizing that institutional, political, administrative, and social context matter for healthcare system performance. Healthcare systems are complex institutional actors that are governed and influenced not just by funding decisions and formal structures but also by norms about state-society relations and the role of state intervention. Further research is necessary to explore the causal mechanism underlying some of the effects that this study has uncovered for the first time. Our global and systemic approach has the potential to advance our theoretical understanding of health systems and can contribute at producing practical recommendations for health care management.

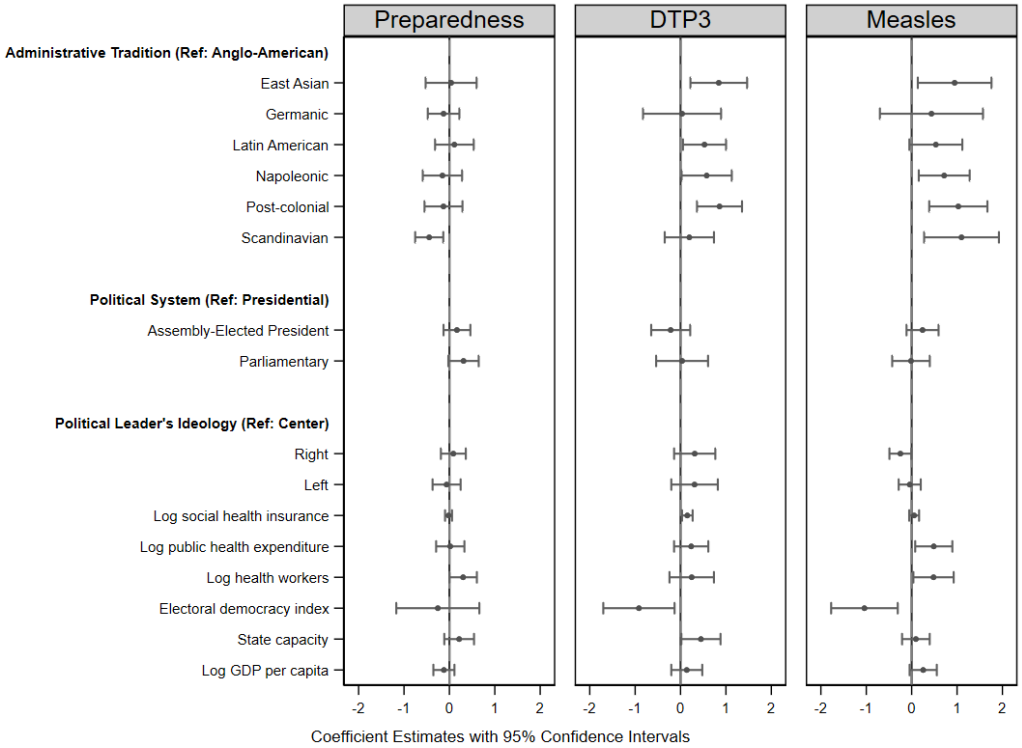
# Appendix


Maternal mortality
Neonatal mortality
Child mortality
Administrative Tradition (Ref: Anglo-American)
East Asian
Germanic
Latin American
Napoleonic
Post-colonial
Scandinavian
Political System (Ref: Presidential)
Assembly-Elected President
Parliamentary
Political Leader's Ideology (Ref: Center)
Right
Left
Log social health insurance
Log public health expenditure
Log health workers
Electoral democracy index
State capacity
Log GDP per capita
-2
-1
0
1
2
Coefficient Estimates with 95% Confidence Intervals


Tuberculosis
HIV
Malaria
Administrative Tradition (Ref: Anglo-American)
East Asian
Germanic
Latin American
Napoleonic
Post-colonial
Scandinavian
Political System (Ref: Presidential)
Assembly-Elected President
Parliamentary
Political Leader's Ideology (Ref: Center)
Right
Left
Log social health insurance
Log public health expenditure
Log health workers
Electoral democracy index
State capacity
Log GDP per capita
-5 -4 -3 -2 -1 0 1 2 3 4 5
Coefficient Estimates with 95% Confidence Intervals

1

2


Preparedness
DTP3
Measles
Administrative Tradition (Ref: Anglo-American)
East Asian
Germanic
Latin American
Napoleonic
Post-colonial
Scandinavian
Political System (Ref: Presidential)
Assembly-Elected President
Parliamentary
Political Leader's Ideology (Ref: Center)
Right
Left
Log social health insurance
Log public health expenditure
Log health workers
Electoral democracy index
State capacity
Log GDP per capita
-2
-1
0
1
2
Coefficient Estimates with 95% Confidence Intervals

1

| Country | Legal Origin | Admin. Tradition | Country | Legal Origin | Admin. Tradition | Country | Legal Origin | Admin. Tradition | Country | Legal Origin | Admin. Tradition |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (North) Macedonia | Socialist | N/A | Democratic Republic of the Congo | French | Post-colonial | Latvia | Socialist | Scandinavian | Saint Lucia | British | N/A |
| Afghanistan | French | Post-colonial | Denmark | Scandinavian | Scandinavian | Lebanon | French | Post-colonial | Saint Vincent and the Grenadines | British | N/A |
| Albania | Socialist | N/A | Djibouti | French | N/A | Lesotho | British | N/A | Samoa | British | N/A |
| Algeria | French | Post-colonial | Dominican Republic | French | Latin American | Liberia | British | N/A | Sao Tome and Principe | French | N/A |
| Angola | French | Post-colonial | Ecuador | French | Latin American | Libya | French | N/A | Saudi Arabia | British | Post-colonial |
| Antigua and Barbuda | British | N/A | Egypt | French | Post-colonial | Lithuania | Socialist | Scandinavian | Senegal | French | Post-colonial |
| Argentina | French | Latin American | El Salvador | French | Latin American | Luxembourg | French | Germanic | Serbia | Socialist | N/A |
| Armenia | Socialist | N/A | Equatorial Guinea | French | N/A | Madagascar | French | Post-colonial | Seychelles | French | N/A |
| Australia | British | Anglo-American | Eritrea | French | N/A | Malawi | British | Post-colonial | Sierra Leone | British | N/A |
| Austria | Germanic | Germanic | Estonia | Socialist | Scandinavian | Malaysia | British | East Asian | Singapore | British | Anglo-American |
| Azerbaijan | Socialist | Napoleonic | Eswatini | British | N/A | Maldives | British | N/A | Slovakia | Socialist | Germanic |
| Bahamas | British | N/A | Ethiopia | French | Post-colonial | Mali | French | Post-colonial | Slovenia | Socialist | Napoleonic |
| Bahrain | British | Post-colonial | Fiji | British | N/A | Malta | French | Anglo-American | Solomon Islands | British | N/A |
| Bangladesh | British | Post-colonial | Finland | Scandinavian | Scandinavian | Mauritania | French | N/A | Somalia | British | Post-colonial |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Barbados | British | N/A | France | French | Napoleonic | Mauritius | French | N/A | South Africa | British | Anglo-American |
| Belarus | Socialist | N/A | Gabon | French | N/A | Mexico | French | Latin American | South Sudan | British | N/A |
| Belgium | French | Napoleonic | Gambia | British | N/A | Micronesia (Federated States of) | British | N/A | Spain | French | Napoleonic |
| Belize | British | N/A | Georgia | Socialist | N/A | Mongolia | Socialist | N/A | Sri Lanka | British | Post-colonial |
| Benin | French | N/A | Germany | Germanic | Germanic | Montenegro | N/A | N/A | Sudan | British | Post-colonial |
| Bhutan | British | N/A | Ghana | British | Post-colonial | Morocco | French | Post-colonial | Suriname | French | N/A |
| Bolivia | French | Latin American | Greece | French | Napoleonic | Mozambique | French | Post-colonial | Sweden | Scandinavian | Scandinavian |
| Bosnia and Herzegovina | Socialist | N/A | Grenada | British | N/A | Myanmar | Socialist | East Asian | Switzerland | Germanic | Germanic |
| Botswana | British | N/A | Guatemala | French | Latin American | Namibia | British | N/A | Syrian Arab Republic | French | Post-colonial |
| Brazil | French | Latin American | Guinea | French | N/A | Nepal | British | Post-colonial | Tajikistan | Socialist | N/A |
| Brunei Darussalam | British | East Asian | Guinea-Bissau | French | N/A | Netherlands (Kingdom of the) | French | Germanic | Thailand | British | East Asian |
| Bulgaria | Socialist | Napoleonic | Guyana | British | N/A | New Zealand | British | Anglo-American | Timor-Leste | French | N/A |
| Burkina Faso | French | Post-colonial | Haiti | French | Latin American | Nicaragua | French | Latin American | Togo | French | N/A |
| Burundi | French | N/A | Honduras | French | Latin American | Niger | French | Post-colonial | Tonga | British | N/A |
| Cambodia | Socialist | East Asian | Hungary | Socialist | Germanic | Nigeria | British | Post-colonial | Trinidad and Tobago | British | N/A |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cameroon | French | Post-colonial | Iceland | Scandinavian | Scandinavian | Norway | Scandinavian | Scandinavian | Tunisia | French | Post-colonial |
| Canada | British | Anglo-American | India | British | Post-colonial | Oman | French | Post-colonial | Turkmenistan | Socialist | N/A |
| Cape Verde | French | N/A | Indonesia | French | East Asian | Pakistan | British | Post-colonial | Türkiye | French | Napoleonic |
| Central African Republic | French | N/A | Iran (Islamic Republic of) | French | Post-colonial | Panama | French | Latin American | Uganda | British | Post-colonial |
| Chad | French | Post-colonial | Iraq | French | Post-colonial | Papua New Guinea | British | N/A | Ukraine | Socialist | Napoleonic |
| Chile | French | Latin American | Ireland | British | Anglo-American | Paraguay | French | Latin American | United Arab Emirates | British | Post-colonial |
| China | Socialist | East Asian | Israel | British | Post-colonial | Peru | French | Latin American | United Kingdom of Great Britain and Northern Ireland | British | Anglo-American |
| Colombia | French | Latin American | Italy | French | Napoleonic | Philippines | French | Anglo-American | United Republic of Tanzania | British | Post-colonial |
| Comoros | French | N/A | Jamaica | British | N/A | Poland | Socialist | Napoleonic | United States of America | British | Anglo-American |
| Congo | French | N/A | Japan | Germanic | East Asian | Portugal | French | Napoleonic | Uruguay | French | Latin American |
| Costa Rica | French | Latin American | Jordan | French | Post-colonial | Puerto Rico | French | N/A | Uzbekistan | Socialist | Napoleonic |
| Cote d'Ivoire | French | Post-colonial | Kazakhstan | Socialist | Napoleonic | Qatar | French | Post-colonial | Vanuatu | British | N/A |
| Croatia | Socialist | N/A | Kenya | British | Post-colonial | Republic of Korea | Germanic | East Asian | Venezuela (Bolivarian Republic of) | French | Latin American |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cuba | Socialist | Latin American | Kiribati | British | N/A | Republic of Moldova | Socialist | Napoleonic | Viet Nam | Socialist | Post-colonial |
| Cyprus | British | Napoleonic | Kuwait | French | Post-colonial | Romania | Socialist | Napoleonic | Yemen | French | Post-colonial |
| Czechia | Socialist | Germanic | Kyrgyzstan | Socialist | N/A | Russian Federation | Socialist | Napoleonic | Zambia | British | Post-colonial |
| Democratic People's Republic of Korea | Socialist | East Asian | Lao People's Democratic Republic | Socialist | East Asian | Rwanda | French | Post-colonial | Zimbabwe | British | Post-colonial |

Table 2 Maternal, neonatal, and child mortality. Baseline model, legal origin.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Maternal Mortality | Neonatal Mortality | Child Mortality | Maternal Mortality | Neonatal Mortality | Child Mortality | Maternal Mortality | Neonatal Mortality | Child Mortality |
| Legal Origin (Ref: British) | | | | | | | | | |
| French | -0.15 | -0.04 | -0.02 | -0.19 | -0.04 | -0.04 | -0.20 | -0.03 | -0.04 |
| | (0.20) | (0.10) | (0.13) | (0.18) | (0.10) | (0.13) | (0.17) | (0.10) | (0.13) |
| Germanic | -1.40**** | -0.73**** | -0.92**** | -1.25**** | -0.74**** | -0.88**** | -1.19**** | -0.73**** | -0.86**** |
| | (0.27) | (0.20) | (0.19) | (0.27) | (0.20) | (0.19) | (0.27) | (0.19) | (0.18) |
| Scandinavian | -1.23**** | -0.51*** | -0.83**** | -1.02**** | -0.51*** | -0.75**** | -0.95**** | -0.51*** | -0.72**** |
| | (0.30) | (0.18) | (0.20) | (0.29) | (0.18) | (0.20) | (0.29) | (0.18) | (0.20) |
| Socialist | -1.43**** | -0.47**** | -0.59**** | -1.31**** | -0.42**** | -0.54**** | -1.27**** | -0.39*** | -0.51**** |
| | (0.22) | (0.12) | (0.15) | (0.21) | (0.12) | (0.14) | (0.21) | (0.13) | (0.14) |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | -0.02 | 0.00 | -0.01 | -0.04 | -0.01 | -0.01 | -0.04 | -0.01 | -0.01 |
| | (0.08) | (0.03) | (0.03) | (0.09) | (0.03) | (0.03) | (0.09) | (0.03) | (0.03) |
| Parliamentary | -0.19*** | -0.08** | -0.09* | -0.21** | -0.11*** | -0.09* | -0.22* | -0.12*** | -0.09* |
| | (0.07) | (0.03) | (0.05) | (0.10) | (0.04) | (0.05) | (0.12) | (0.04) | (0.05) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| | (0.04) | (0.01) | (0.02) | (0.04) | (0.02) | (0.02) | (0.04) | (0.02) | (0.02) |
| Left | 0.01 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 |
| | (0.04) | (0.01) | (0.02) | (0.04) | (0.02) | (0.02) | (0.04) | (0.02) | (0.02) |
| Log Social Health Insurance | -0.00 | 0.01 | 0.00 | -0.00 | 0.01 | 0.00 | -0.00 | 0.01 | -0.00 |
| | (0.03) | (0.02) | (0.02) | (0.03) | (0.02) | (0.02) | (0.03) | (0.02) | (0.02) |
| Log Public Health Expenditure | 0.03 | -0.07*** | -0.02 | 0.02 | -0.06** | -0.01 | 0.02 | -0.05** | -0.01 |
| | (0.05) | (0.02) | (0.03) | (0.04) | (0.02) | (0.03) | (0.04) | (0.02) | (0.03) |
| Log Healthcare Workers | -0.29*** | -0.15*** | -0.17*** | -0.39**** | -0.14** | -0.21*** | -0.42**** | -0.15** | -0.23*** |
| | (0.10) | (0.05) | (0.07) | (0.11) | (0.06) | (0.07) | (0.11) | (0.07) | (0.07) |
| Electoral Democracy Index | 0.00 | 0.03 | -0.04 | 0.09 | 0.07 | -0.02 | 0.10 | 0.07 | -0.03 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | (0.12) | (0.07) | (0.07) | (0.13) | (0.07) | (0.07) | (0.14) | (0.07) | (0.07) |
| State Capacity | -0.10** | -0.09*** | -0.08** | -0.06 | -0.10*** | -0.10*** | -0.06 | -0.10*** | -0.11*** |
| | (0.05) | (0.03) | (0.03) | (0.05) | (0.03) | (0.03) | (0.05) | (0.03) | (0.04) |
| Log GDP per capita (current USD) | -0.22**** | -0.16**** | -0.15**** | -0.26**** | -0.16**** | -0.15**** | -0.27**** | -0.16**** | -0.15**** |
| | (0.04) | (0.03) | (0.03) | (0.05) | (0.03) | (0.03) | (0.05) | (0.03) | (0.03) |
| Constant | 7.62**** | 4.86**** | 5.58**** | 8.39**** | 4.87**** | 5.79**** | 8.60**** | 4.87**** | 5.86**** |
| | (0.48) | (0.29) | (0.31) | (0.47) | (0.29) | (0.32) | (0.46) | (0.29) | (0.32) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 2,191 | 2,191 | 2,191 | 2,191 | 2,191 | 2,191 | 2,191 | 2,191 | 2,191 |
| Countries | 146 | 146 | 146 | 146 | 146 | 146 | 146 | 146 | 146 |
| Within R2 | 0.55 | 0.68 | 0.78 | 0.62 | 0.71 | 0.80 | 0.62 | 0.71 | 0.81 |
| Between R2 | 0.76 | 0.81 | 0.78 | 0.80 | 0.81 | 0.79 | 0.81 | 0.81 | 0.80 |
| Overall R2 | 0.76 | 0.81 | 0.78 | 0.80 | 0.80 | 0.79 | 0.81 | 0.81 | 0.80 |

1 Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

Table 3 Maternal, neonatal, and child mortality. Robustness checks with Mundlak-adjusted random effects model, legal origin.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Maternal Mortality | Neonatal Mortality | Child Mortality | Maternal Mortality | Neonatal Mortality | Child Mortality | Maternal Mortality | Neonatal Mortality | Child Mortality |
| Legal Origin (Ref: British) | | | | | | | | | |
| French | -0.19 | -0.05 | -0.03 | -0.20 | -0.05 | -0.03 | -0.21 | -0.04 | -0.03 |
| | (0.13) | (0.08) | (0.09) | (0.13) | (0.08) | (0.09) | (0.13) | (0.08) | (0.09) |
| Germanic | -0.28 | -0.20 | -0.11 | -0.27 | -0.20 | -0.11 | -0.26 | -0.20 | -0.11 |
| | (0.20) | (0.18) | (0.15) | (0.19) | (0.18) | (0.15) | (0.19) | (0.17) | (0.14) |
| Scandinavian | 0.03 | 0.08 | 0.03 | 0.02 | 0.08 | 0.02 | 0.02 | 0.08 | 0.01 |
| | (0.20) | (0.15) | (0.14) | (0.19) | (0.14) | (0.14) | (0.18) | (0.14) | (0.14) |
| Socialist | -1.19**** | -0.36**** | -0.44**** | -1.14**** | -0.31**** | -0.41**** | -1.12**** | -0.29**** | -0.39**** |
| | (0.19) | (0.09) | (0.10) | (0.19) | (0.09) | (0.10) | (0.18) | (0.09) | (0.10) |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | 0.00 | 0.01 | 0.00 | -0.01 | 0.00 | 0.01 | -0.02 | -0.00 | 0.01 |
| | (0.08) | (0.03) | (0.02) | (0.09) | (0.02) | (0.02) | (0.09) | (0.02) | (0.02) |
| Parliamentary | -0.11*** | -0.04 | -0.03 | -0.13* | -0.07**** | -0.04* | -0.14 | -0.07**** | -0.03 |
| | (0.03) | (0.02) | (0.02) | (0.07) | (0.02) | (0.02) | (0.09) | (0.02) | (0.02) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | -0.00 | 0.00 | 0.00 | -0.00 |
| | (0.04) | (0.01) | (0.02) | (0.04) | (0.02) | (0.02) | (0.04) | (0.02) | (0.02) |
| Left | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.00 | 0.01 | 0.01 | 0.00 |
| | (0.03) | (0.01) | (0.02) | (0.04) | (0.02) | (0.02) | (0.04) | (0.02) | (0.02) |
| Log Social Health Insurance | 0.01 | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 |
| | (0.03) | (0.02) | (0.02) | (0.03) | (0.02) | (0.02) | (0.03) | (0.02) | (0.02) |
| Log Public Health Expenditure | 0.05 | -0.06** | -0.01 | 0.04 | -0.05* | 0.00 | 0.04 | -0.04 | 0.00 |
| | (0.05) | (0.02) | (0.03) | (0.04) | (0.03) | (0.03) | (0.04) | (0.03) | (0.03) |
| Log Healthcare Workers | -0.07 | -0.03 | -0.02 | -0.19 | -0.02 | -0.05 | -0.23* | -0.02 | -0.07 |
| | (0.12) | (0.07) | (0.08) | (0.13) | (0.07) | (0.09) | (0.14) | (0.08) | (0.09) |
| Electoral Democracy Index | 0.08 | 0.08 | 0.02 | 0.16 | 0.13* | 0.04 | 0.17 | 0.13* | 0.03 |
| | (0.13) | (0.07) | (0.07) | (0.15) | (0.07) | (0.08) | (0.16) | (0.07) | (0.08) |
| State Capacity | -0.06 | -0.07** | -0.05 | -0.02 | -0.08** | -0.07** | -0.02 | -0.08** | -0.08** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | (0.05) | (0.03) | (0.03) | (0.05) | (0.03) | (0.03) | (0.05) | (0.04) | (0.04) |
| Log GDP per capita (current USD) | -0.19**** | -0.15**** | -0.14**** | -0.24**** | -0.15**** | -0.13**** | -0.24**** | -0.14**** | -0.13**** |
| | (0.04) | (0.03) | (0.03) | (0.05) | (0.03) | (0.03) | (0.05) | (0.03) | (0.03) |
| Constant | 11.30**** | 6.16**** | 7.91**** | 11.54**** | 6.33**** | 8.23**** | 11.61**** | 6.39**** | 8.35**** |
| | (0.57) | (0.37) | (0.41) | (0.56) | (0.37) | (0.41) | (0.56) | (0.37) | (0.41) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Within-group means | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 2,191 | 2,191 | 2,191 | 2,191 | 2,191 | 2,191 | 2,191 | 2,191 | 2,191 |
| Countries | 146 | 146 | 146 | 146 | 146 | 146 | 146 | 146 | 146 |
| Within R2 | 0.57 | 0.68 | 0.79 | 0.63 | 0.71 | 0.81 | 0.63 | 0.72 | 0.82 |
| Between R2 | 0.87 | 0.86 | 0.87 | 0.87 | 0.87 | 0.88 | 0.87 | 0.87 | 0.88 |
| Overall R2 | 0.86 | 0.86 | 0.87 | 0.87 | 0.86 | 0.88 | 0.87 | 0.86 | 0.88 |

Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

1 Table 4 Maternal, neonatal, and child mortality. Baseline model, administrative tradition.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Maternal Mortality | Neonatal Mortality | Child Mortality | Maternal Mortality | Neonatal Mortality | Child Mortality | Maternal Mortality | Neonatal Mortality | Child Mortality |
| Administrative Tradition (Ref: Anglo-American) | | | | | | | | | |
| East Asian | 0.33 | -0.05 | 0.06 | 0.27 | 0.04 | 0.09 | 0.26 | 0.08 | 0.09 |
| | (0.40) | (0.23) | (0.29) | (0.37) | (0.24) | (0.29) | (0.36) | (0.24) | (0.29) |
| Germanic | -0.68** | -0.26* | -0.39* | -0.66** | -0.26* | -0.38* | -0.64** | -0.26* | -0.36* |
| | (0.29) | (0.16) | (0.20) | (0.27) | (0.15) | (0.20) | (0.26) | (0.15) | (0.20) |
| Latin American | 0.45 | 0.16 | 0.19 | 0.32 | 0.19 | 0.17 | 0.29 | 0.22 | 0.17 |
| | (0.29) | (0.17) | (0.22) | (0.27) | (0.16) | (0.21) | (0.27) | (0.16) | (0.21) |
| Napoleonic | -0.71*** | -0.20 | -0.27 | -0.71*** | -0.13 | -0.23 | -0.70*** | -0.09 | -0.21 |
| | (0.27) | (0.14) | (0.20) | (0.24) | (0.15) | (0.21) | (0.24) | (0.15) | (0.21) |
| Post-colonial | 0.92** | 0.43** | 0.67** | 0.76** | 0.50** | 0.64** | 0.71** | 0.53*** | 0.63** |
| | (0.37) | (0.20) | (0.26) | (0.35) | (0.20) | (0.26) | (0.35) | (0.20) | (0.27) |
| Scandinavian | -0.57** | -0.35** | -0.48** | -0.51** | -0.30** | -0.41** | -0.48** | -0.28* | -0.38** |
| | (0.27) | (0.16) | (0.19) | (0.25) | (0.15) | (0.19) | (0.24) | (0.15) | (0.19) |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | -0.00 | 0.02 | -0.00 | -0.03 | 0.01 | 0.00 | -0.03 | 0.00 | 0.00 |
| | (0.09) | (0.03) | (0.03) | (0.10) | (0.03) | (0.03) | (0.10) | (0.03) | (0.03) |
| Parliamentary | -0.15*** | -0.05 | -0.06* | -0.18** | -0.07** | -0.07* | -0.20* | -0.07** | -0.06* |
| | (0.05) | (0.03) | (0.03) | (0.09) | (0.03) | (0.03) | (0.12) | (0.03) | (0.03) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | 0.02 | 0.03** | 0.04* | 0.02 | 0.01 | 0.02 | 0.01 | 0.01 | 0.02 |
| | (0.04) | (0.01) | (0.02) | (0.05) | (0.02) | (0.02) | (0.05) | (0.02) | (0.02) |
| Left | 0.02 | 0.03* | 0.03 | 0.03 | 0.02 | 0.02 | 0.02 | 0.01 | 0.02 |
| | (0.04) | (0.02) | (0.02) | (0.04) | (0.02) | (0.02) | (0.04) | (0.02) | (0.02) |
| Log Social Health Insurance | -0.01 | 0.01 | 0.01 | -0.00 | 0.02 | 0.01 | -0.00 | 0.02 | 0.00 |
| | (0.03) | (0.03) | (0.03) | (0.04) | (0.02) | (0.02) | (0.03) | (0.02) | (0.02) |
| Log Public Health Expenditure | 0.01 | -0.07** | -0.00 | -0.01 | -0.08** | 0.01 | -0.01 | -0.07** | 0.02 |
| | (0.06) | (0.03) | (0.04) | (0.05) | (0.03) | (0.04) | (0.05) | (0.03) | (0.04) |
| Log Healthcare Workers | -0.24** | -0.17** | -0.17* | -0.33** | -0.18** | -0.22** | -0.36*** | -0.19*** | -0.25*** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | (0.12) | (0.07) | (0.09) | (0.13) | (0.07) | (0.09) | (0.14) | (0.07) | (0.09) |
| Electoral Democracy Index | 0.11 | 0.14 | 0.11 | 0.22 | 0.17** | 0.17** | 0.22 | 0.17** | 0.17** |
| | (0.13) | (0.10) | (0.09) | (0.16) | (0.08) | (0.08) | (0.16) | (0.08) | (0.08) |
| State Capacity | -0.15** | -0.06* | -0.06 | -0.10 | -0.04 | -0.08** | -0.11* | -0.04 | -0.09** |
| | (0.07) | (0.03) | (0.03) | (0.06) | (0.03) | (0.04) | (0.06) | (0.03) | (0.04) |
| Log GDP per capita (current USD) | -0.20**** | -0.19**** | -0.18**** | -0.23**** | -0.18**** | -0.17**** | -0.23**** | -0.17**** | -0.16**** |
| | (0.05) | (0.04) | (0.03) | (0.06) | (0.04) | (0.03) | (0.06) | (0.04) | (0.03) |
| Constant | 6.40**** | 4.70**** | 5.11**** | 7.29**** | 4.71**** | 5.29**** | 7.45**** | 4.66**** | 5.35**** |
| | (0.73) | (0.49) | (0.54) | (0.71) | (0.49) | (0.56) | (0.71) | (0.48) | (0.57) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,618 | 1,618 | 1,618 | 1,618 | 1,618 | 1,618 | 1,618 | 1,618 | 1,618 |
| Countries | 108 | 108 | 108 | 108 | 108 | 108 | 108 | 108 | 108 |
| Within R2 | 0.54 | 0.70 | 0.80 | 0.61 | 0.74 | 0.81 | 0.62 | 0.75 | 0.82 |
| Between R2 | 0.79 | 0.85 | 0.82 | 0.82 | 0.84 | 0.83 | 0.83 | 0.84 | 0.83 |
| Overall R2 | 0.80 | 0.85 | 0.82 | 0.83 | 0.84 | 0.83 | 0.84 | 0.83 | 0.83 |

Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

1 Table 5 Maternal, neonatal, and child mortality. Robustness checks with Mundlak-adjusted random effects model, administrative tradition.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Maternal Mortality | Neonatal Mortality | Child Mortality | Maternal Mortality | Neonatal Mortality | Child Mortality | Maternal Mortality | Neonatal Mortality | Child Mortality |
| Administrative Tradition (Ref: Anglo-American) | | | | | | | | | |
| East Asian | -0.21 | -0.30* | -0.37* | -0.20 | -0.28* | -0.36* | -0.18 | -0.27 | -0.35* |
| | (0.24) | (0.17) | (0.19) | (0.23) | (0.17) | (0.19) | (0.23) | (0.17) | (0.20) |
| Germanic | -0.30 | -0.07 | -0.16 | -0.30 | -0.06 | -0.15 | -0.29 | -0.06 | -0.16 |
| | (0.21) | (0.15) | (0.16) | (0.21) | (0.15) | (0.16) | (0.20) | (0.15) | (0.16) |
| Latin American | 0.06 | 0.03 | -0.10 | 0.03 | 0.03 | -0.10 | 0.02 | 0.03 | -0.10 |
| | (0.23) | (0.15) | (0.18) | (0.23) | (0.16) | (0.18) | (0.23) | (0.16) | (0.19) |
| Napoleonic | -0.74**** | -0.22* | -0.36** | -0.73**** | -0.18 | -0.33** | -0.72**** | -0.17 | -0.32* |
| | (0.22) | (0.13) | (0.16) | (0.21) | (0.14) | (0.17) | (0.20) | (0.14) | (0.17) |
| Post-colonial | -0.15 | -0.01 | -0.07 | -0.16 | -0.03 | -0.09 | -0.15 | -0.04 | -0.09 |
| | (0.25) | (0.15) | (0.20) | (0.25) | (0.15) | (0.20) | (0.24) | (0.15) | (0.20) |
| Scandinavian | -0.34* | -0.25* | -0.35** | -0.32* | -0.20 | -0.29** | -0.30* | -0.18 | -0.28* |
| | (0.20) | (0.14) | (0.16) | (0.19) | (0.13) | (0.15) | (0.18) | (0.13) | (0.15) |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | 0.01 | 0.02 | 0.00 | -0.02 | 0.01 | 0.01 | -0.03 | 0.01 | 0.01 |
| | (0.09) | (0.03) | (0.02) | (0.10) | (0.02) | (0.02) | (0.10) | (0.03) | (0.03) |
| Parliamentary | -0.12*** | -0.03 | -0.04* | -0.15** | -0.05*** | -0.05** | -0.18* | -0.05*** | -0.04* |
| | (0.04) | (0.03) | (0.02) | (0.07) | (0.02) | (0.02) | (0.10) | (0.02) | (0.02) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | 0.02 | 0.03** | 0.04** | 0.02 | 0.02 | 0.02 | 0.01 | 0.01 | 0.02 |
| | (0.04) | (0.01) | (0.02) | (0.04) | (0.02) | (0.02) | (0.04) | (0.02) | (0.02) |
| Left | 0.02 | 0.02 | 0.02 | 0.02 | 0.01 | 0.02 | 0.02 | 0.01 | 0.01 |
| | (0.04) | (0.02) | (0.02) | (0.04) | (0.02) | (0.02) | (0.04) | (0.02) | (0.02) |
| Log Social Health Insurance | 0.00 | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 | 0.01 | 0.02 | 0.01 |
| | (0.04) | (0.03) | (0.03) | (0.04) | (0.02) | (0.02) | (0.04) | (0.02) | (0.02) |
| Log Public Health Expenditure | 0.04 | -0.06* | 0.01 | 0.01 | -0.07** | 0.02 | 0.01 | -0.06* | 0.03 |
| | (0.06) | (0.03) | (0.04) | (0.06) | (0.03) | (0.04) | (0.05) | (0.03) | (0.04) |
| Log Healthcare Workers | -0.07 | -0.10 | -0.07 | -0.19 | -0.10 | -0.12 | -0.22 | -0.11 | -0.15 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | (0.13) | (0.08) | (0.11) | (0.15) | (0.08) | (0.11) | (0.15) | (0.08) | (0.12) |
| Electoral Democracy Index | 0.16 | 0.18* | 0.15 | 0.27 | 0.22** | 0.23*** | 0.27 | 0.22** | 0.22*** |
| | (0.14) | (0.11) | (0.10) | (0.18) | (0.09) | (0.09) | (0.18) | (0.09) | (0.09) |
| State Capacity | -0.11 | -0.04 | -0.03 | -0.06 | -0.02 | -0.05 | -0.07 | -0.01 | -0.06 |
| | (0.07) | (0.04) | (0.04) | (0.06) | (0.03) | (0.04) | (0.06) | (0.03) | (0.04) |
| Log GDP per capita (current USD) | -0.18*** | -0.17**** | -0.17**** | -0.21**** | -0.16**** | -0.16**** | -0.21**** | -0.15**** | -0.14**** |
| | (0.05) | (0.04) | (0.03) | (0.06) | (0.04) | (0.03) | (0.06) | (0.04) | (0.03) |
| Constant | 11.48**** | 6.64**** | 8.20**** | 11.83**** | 6.88**** | 8.56**** | 11.93**** | 6.95**** | 8.68**** |
| | (0.70) | (0.48) | (0.53) | (0.70) | (0.48) | (0.54) | (0.70) | (0.48) | (0.54) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Within-group means | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,618 | 1,618 | 1,618 | 1,618 | 1,618 | 1,618 | 1,618 | 1,618 | 1,618 |
| Countries | 108 | 108 | 108 | 108 | 108 | 108 | 108 | 108 | 108 |
| Within R2 | 0.55 | 0.70 | 0.80 | 0.62 | 0.74 | 0.82 | 0.63 | 0.76 | 0.82 |
| Between R2 | 0.90 | 0.90 | 0.90 | 0.90 | 0.90 | 0.91 | 0.91 | 0.90 | 0.91 |
| Overall R2 | 0.90 | 0.89 | 0.90 | 0.90 | 0.89 | 0.91 | 0.91 | 0.89 | 0.91 |

Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

1 Table 6 Infectious diseases incidence. Baseline model, legal origin.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Tuberculosis | HIV | Malaria | Tuberculosis | HIV | Malaria | Tuberculosis | HIV | Malaria |
| Legal Origin (Ref: British) | | | | | | | | | |
| French | -0.52** | -0.99*** | -0.20 | -0.53* | -1.03*** | -0.26 | -0.53* | -1.04*** | -0.26 |
| | (0.27) | (0.34) | (0.43) | (0.28) | (0.33) | (0.42) | (0.29) | (0.33) | (0.41) |
| Germanic | -1.40*** | -1.47**** | 0.35 | -1.56**** | -1.49**** | 0.09 | -1.65**** | -1.51**** | 0.07 |
| | (0.46) | (0.43) | (0.59) | (0.47) | (0.41) | (0.57) | (0.49) | (0.41) | (0.56) |
| Scandinavian | -1.94**** | -2.34**** | - | -2.18**** | -2.32**** | - | -2.29**** | -2.30**** | - |
| | (0.37) | (0.41) | - | (0.38) | (0.42) | - | (0.38) | (0.42) | - |
| Socialist | -0.46 | -1.86**** | -4.02**** | -0.45 | -2.02**** | -3.72**** | -0.44 | -2.06**** | -3.55**** |
| | (0.30) | (0.31) | (0.80) | (0.32) | (0.31) | (0.69) | (0.33) | (0.31) | (0.65) |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | 0.02 | 0.54* | 0.11 | 0.02 | 0.71** | 0.08 | 0.03 | 0.76** | 0.13 |
| | (0.07) | (0.32) | (0.49) | (0.06) | (0.34) | (0.49) | (0.05) | (0.35) | (0.49) |
| Parliamentary | -0.20* | -0.72** | -0.10 | -0.26** | -0.64* | 0.01 | -0.27*** | -0.62* | 0.02 |
| | (0.12) | (0.32) | (0.59) | (0.10) | (0.33) | (0.52) | (0.09) | (0.33) | (0.50) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | -0.02 | 0.38 | 0.24 | -0.01 | 0.44* | 0.52 | -0.01 | 0.45* | 0.59 |
| | (0.04) | (0.24) | (0.42) | (0.03) | (0.25) | (0.40) | (0.03) | (0.25) | (0.39) |
| Left | 0.04 | 0.33 | 0.23 | 0.04 | 0.34 | 0.48 | 0.03 | 0.33 | 0.47 |
| | (0.04) | (0.25) | (0.36) | (0.03) | (0.25) | (0.35) | (0.03) | (0.25) | (0.35) |
| Log Social Health Insurance | 0.03 | -0.35**** | -0.09 | 0.03 | -0.34**** | -0.10 | 0.03 | -0.34**** | -0.13 |
| | (0.02) | (0.10) | (0.15) | (0.02) | (0.10) | (0.15) | (0.02) | (0.10) | (0.14) |
| Log Public Health Expenditure | -0.00 | 0.17 | -0.63*** | -0.03 | 0.15 | -0.64*** | -0.04 | 0.14 | -0.61*** |
| | (0.05) | (0.24) | (0.24) | (0.05) | (0.23) | (0.22) | (0.05) | (0.23) | (0.22) |
| Log Healthcare Workers | -0.18 | -0.48 | -1.10**** | -0.04 | -0.57* | -0.91*** | -0.00 | -0.61* | -0.86** |
| | (0.13) | (0.32) | (0.30) | (0.12) | (0.32) | (0.32) | (0.12) | (0.32) | (0.33) |
| Electoral Democracy Index | -0.10 | 0.47 | 0.01 | 0.10 | 0.35 | 0.41 | 0.18 | 0.33 | 0.63 |
| | (0.23) | (0.70) | (1.09) | (0.21) | (0.72) | (0.97) | (0.18) | (0.73) | (0.91) |
| State Capacity | 0.10 | -0.54 | -1.80**** | 0.03 | -0.47 | -1.73**** | 0.00 | -0.45 | -1.73**** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | (0.06) | (0.37) | (0.51) | (0.06) | (0.37) | (0.46) | (0.06) | (0.38) | (0.43) |
| Log GDP per capita (current USD) | -0.09* | 0.36* | -0.20 | -0.06 | 0.35 | -0.23 | -0.04 | 0.35 | -0.23 |
| | (0.05) | (0.21) | (0.31) | (0.04) | (0.21) | (0.29) | (0.04) | (0.21) | (0.28) |
| Constant | 6.10**** | -0.75 | 11.89**** | 5.45**** | -0.10 | 11.17**** | 5.14**** | 0.12 | 10.85**** |
| | (0.57) | (1.28) | (2.31) | (0.57) | (1.32) | (2.06) | (0.55) | (1.35) | (1.94) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 2,191 | 1,664 | 1,352 | 2,191 | 1,661 | 1,352 | 2,191 | 1,660 | 1,352 |
| Countries | 146 | 111 | 91 | 146 | 111 | 91 | 146 | 111 | 91 |
| Within R2 | 0.41 | - | - | 0.36 | - | - | 0.35 | - | - |
| Between R2 | 0.40 | - | - | 0.28 | - | - | 0.21 | - | - |
| Overall R2 | 0.39 | - | - | 0.28 | - | - | 0.22 | - | - |
| Deviance | - | 2,187.74 | 3,752.48 | - | 2,273.56 | 3,774.10 | - | 2,293.82 | 3,732.29 |

1 Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

1 Table 7 Infectious diseases incidence. Robustness checks with Mundlak-adjusted random effects model, legal origin.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Tuberculosis | HIV | Malaria | Tuberculosis | HIV | Malaria | Tuberculosis | HIV | Malaria |
| Legal Origin (Ref: British) | | | | | | | | | |
| French | -0.53*** | -1.13**** | -0.20 | -0.55*** | -1.15**** | -0.22 | -0.55*** | -1.16**** | -0.22 |
| | (0.20) | (0.31) | (0.40) | (0.20) | (0.31) | (0.38) | (0.20) | (0.31) | (0.38) |
| Germanic | 0.25 | -1.43**** | 0.48 | 0.28 | -1.46**** | 0.26 | 0.28 | -1.48**** | 0.33 |
| | (0.35) | (0.40) | (0.64) | (0.34) | (0.40) | (0.62) | (0.33) | (0.40) | (0.60) |
| Scandinavian | -0.34 | -2.23**** | - | -0.33 | -2.21**** | - | -0.32 | -2.19**** | - |
| | (0.24) | (0.41) | - | (0.25) | (0.42) | - | (0.25) | (0.42) | - |
| Socialist | -0.23 | -2.04**** | -4.03**** | -0.13 | -2.19**** | -3.76**** | -0.10 | -2.23**** | -3.64**** |
| | (0.22) | (0.29) | (0.76) | (0.22) | (0.30) | (0.67) | (0.22) | (0.30) | (0.65) |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | 0.04 | 0.63** | 0.19 | 0.03 | 0.79** | 0.20 | 0.04 | 0.84** | 0.25 |
| | (0.06) | (0.31) | (0.52) | (0.04) | (0.33) | (0.52) | (0.04) | (0.35) | (0.53) |
| Parliamentary | -0.13 | -0.72** | -0.16 | -0.19*** | -0.64** | -0.01 | -0.20**** | -0.61** | 0.00 |
| | (0.08) | (0.29) | (0.55) | (0.07) | (0.30) | (0.49) | (0.05) | (0.30) | (0.47) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | -0.02 | 0.23 | 0.26 | -0.01 | 0.28 | 0.49 | -0.01 | 0.30 | 0.52 |
| | (0.04) | (0.22) | (0.47) | (0.03) | (0.23) | (0.44) | (0.03) | (0.23) | (0.44) |
| Left | 0.04 | 0.20 | 0.24 | 0.04 | 0.20 | 0.43 | 0.03 | 0.20 | 0.40 |
| | (0.03) | (0.22) | (0.37) | (0.03) | (0.23) | (0.35) | (0.03) | (0.23) | (0.34) |
| Log Social Health Insurance | 0.04* | -0.10 | -0.05 | 0.04* | -0.13 | 0.11 | 0.04* | -0.14 | 0.09 |
| | (0.02) | (0.10) | (0.24) | (0.02) | (0.10) | (0.21) | (0.02) | (0.10) | (0.20) |
| Log Public Health Expenditure | 0.01 | -0.09 | -0.37** | -0.02 | -0.11 | -0.41 | -0.03 | -0.12 | -0.35 |
| | (0.05) | (0.19) | (0.19) | (0.05) | (0.19) | (0.25) | (0.05) | (0.20) | (0.25) |
| Log Healthcare Workers | 0.01 | -0.55 | -1.10 | 0.15 | -0.64 | -1.18 | 0.20 | -0.66 | -1.44 |
| | (0.14) | (0.63) | (1.19) | (0.13) | (0.68) | (1.04) | (0.13) | (0.69) | (0.95) |
| Electoral Democracy Index | -0.02 | -2.64**** | 0.48 | 0.18 | -2.52*** | -0.05 | 0.27 | -2.44*** | -0.11 |
| | (0.24) | (0.77) | (1.13) | (0.22) | (0.77) | (1.03) | (0.18) | (0.78) | (0.99) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| State Capacity | 0.13** | 0.16 | -1.17** | 0.06 | 0.14 | -1.03** | 0.03 | 0.12 | -0.89** |
| | (0.06) | (0.33) | (0.47) | (0.06) | (0.34) | (0.43) | (0.06) | (0.35) | (0.40) |
| Log GDP per capita (current USD) | -0.06 | 0.79*** | -0.04 | -0.04 | 0.77*** | 0.07 | -0.02 | 0.75*** | 0.11 |
| | (0.05) | (0.26) | (0.44) | (0.05) | (0.26) | (0.39) | (0.04) | (0.26) | (0.39) |
| Constant | 9.60**** | -0.72 | 11.68*** | 9.79**** | -0.02 | 11.29*** | 9.89**** | 0.19 | 10.95*** |
| | (0.85) | (1.72) | (3.74) | (0.85) | (1.79) | (3.52) | (0.85) | (1.82) | (3.40) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Within-group means | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 2,191 | 1,664 | 1,352 | 2,191 | 1,661 | 1,352 | 2,191 | 1,660 | 1,352 |
| Countries | 146 | 111 | 91 | 146 | 111 | 91 | 146 | 111 | 91 |
| Within R2 | 0.42 | - | - | 0.37 | - | - | 0.36 | - | - |
| Between R2 | 0.63 | - | - | 0.63 | - | - | 0.63 | - | - |
| Overall R2 | 0.63 | - | - | 0.63 | - | - | 0.63 | - | - |
| Deviance | - | 2,086.58 | 3,706.78 | - | 2,190 | 3,712 | - | 2,219 | 3,662 |

Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

1 Table 8 Infectious diseases incidence. Baseline model, administrative tradition.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Tuberculosis | HIV | Malaria | Tuberculosis | HIV | Malaria | Tuberculosis | HIV | Malaria |
| Administrative Tradition (Ref: Anglo-American) | | | | | | | | | |
| East Asian | 1.50** | 0.37 | 0.97 | 1.64** | 0.46 | 1.42* | 1.71** | 0.49 | 1.64** |
| | (0.70) | (0.81) | (0.88) | (0.73) | (0.85) | (0.85) | (0.74) | (0.86) | (0.83) |
| Germanic | -1.18** | -0.56 | - | -1.10* | -0.63 | - | -1.08* | -0.67 | - |
| | (0.60) | (0.64) | - | (0.61) | (0.69) | - | (0.62) | (0.71) | - |
| Latin American | 0.18 | 0.32 | -0.65 | 0.19 | 0.32 | -0.12 | 0.21 | 0.31 | 0.14 |
| | (0.65) | (0.68) | (0.81) | (0.68) | (0.72) | (0.78) | (0.69) | (0.73) | (0.75) |
| Napoleonic | -0.03 | -0.25 | -3.82**** | 0.05 | -0.28 | -1.90** | 0.07 | -0.30 | -1.39 |
| | (0.65) | (0.66) | (0.94) | (0.67) | (0.68) | (0.92) | (0.68) | (0.69) | (0.90) |
| Post-colonial | 1.04 | 0.56 | 1.17 | 1.22* | 0.70 | 1.80** | 1.31* | 0.73 | 2.06*** |
| | (0.69) | (0.81) | (0.79) | (0.73) | (0.85) | (0.74) | (0.75) | (0.86) | (0.71) |
| Scandinavian | -0.58 | -0.58 | - | -0.52 | -0.59 | - | -0.51 | -0.59 | - |
| | (0.66) | (0.63) | - | (0.68) | (0.65) | - | (0.69) | (0.66) | - |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | 0.04 | 0.99** | -2.14**** | 0.03 | 1.10** | -1.65*** | 0.04 | 1.13** | -1.48*** |
| | (0.07) | (0.42) | (0.56) | (0.06) | (0.44) | (0.54) | (0.06) | (0.45) | (0.54) |
| Parliamentary | -0.13* | -0.69* | -1.38**** | -0.17*** | -0.65* | -0.98*** | -0.19*** | -0.64* | -0.89** |
| | (0.07) | (0.36) | (0.36) | (0.07) | (0.36) | (0.35) | (0.06) | (0.37) | (0.35) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | 0.02 | -0.09 | -0.61 | 0.03 | -0.10 | -0.24 | 0.03 | -0.11 | -0.15 |
| | (0.03) | (0.27) | (0.41) | (0.03) | (0.27) | (0.34) | (0.03) | (0.27) | (0.34) |
| Left | 0.06* | -0.14 | -0.50 | 0.06* | -0.16 | -0.23 | 0.05* | -0.18 | -0.22 |
| | (0.03) | (0.28) | (0.58) | (0.03) | (0.28) | (0.50) | (0.03) | (0.28) | (0.49) |
| Log Social Health Insurance | 0.04* | -0.35**** | -0.20 | 0.05** | -0.35**** | -0.17 | 0.05** | -0.35**** | -0.18 |
| | (0.02) | (0.10) | (0.16) | (0.02) | (0.10) | (0.16) | (0.02) | (0.10) | (0.16) |
| Log Public Health Expenditure | 0.04 | -0.09 | -0.25 | 0.00 | -0.16 | -0.29 | -0.01 | -0.19 | -0.26 |
| | (0.05) | (0.28) | (0.51) | (0.05) | (0.29) | (0.48) | (0.05) | (0.29) | (0.48) |
| Log Healthcare Workers | -0.12 | -0.44 | -0.71*** | -0.03 | -0.47 | -0.80*** | 0.01 | -0.47 | -0.79*** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | (0.14) | (0.29) | (0.27) | (0.14) | (0.30) | (0.29) | (0.14) | (0.30) | (0.29) |
| Electoral Democracy Index | 0.21 | 2.96**** | 2.81*** | 0.37* | 2.89**** | 2.92*** | 0.40** | 2.87**** | 3.01**** |
| | (0.19) | (0.59) | (0.96) | (0.19) | (0.61) | (0.90) | (0.20) | (0.62) | (0.88) |
| State Capacity | 0.16** | 0.49* | -0.18 | 0.08 | 0.54* | -0.18 | 0.05 | 0.55** | -0.24 |
| | (0.07) | (0.27) | (0.41) | (0.06) | (0.28) | (0.38) | (0.06) | (0.28) | (0.36) |
| Log GDP per capita (current USD) | -0.13** | -0.43** | -0.90*** | -0.09* | -0.43** | -0.70** | -0.07 | -0.44** | -0.65** |
| | (0.05) | (0.18) | (0.33) | (0.05) | (0.18) | (0.29) | (0.05) | (0.19) | (0.29) |
| Constant | 4.68**** | 3.04** | 12.70**** | 4.06**** | 3.48** | 10.81**** | 3.77**** | 3.67** | 10.04**** |
| | (0.93) | (1.44) | (2.09) | (1.00) | (1.52) | (1.82) | (1.02) | (1.54) | (1.69) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,618 | 1,180 | 935 | 1,618 | 1,177 | 935 | 1,618 | 1,176 | 935 |
| Countries | 108 | 79 | 63 | 108 | 79 | 63 | 108 | 79 | 63 |
| Within R2 | 0.48 | - | - | 0.43 | - | - | 0.43 | - | - |
| Between R2 | 0.43 | - | - | 0.38 | - | - | 0.35 | - | - |
| Overall R2 | 0.44 | - | - | 0.40 | - | - | 0.37 | - | - |
| Deviance | - | 1,364.62 | 2,003.40 | - | 1,419.15 | 2,057.62 | - | 1,426.90 | 2,031.51 |

Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

Table 9 Infectious diseases incidence. Robustness checks with Mundlak-adjusted random effects model, administrative tradition.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Tuberculosis | HIV | Malaria | Tuberculosis | HIV | Malaria | Tuberculosis | HIV | Malaria |
| Administrative Tradition (Ref: Anglo-American) | | | | | | | | | |
| East Asian | 0.22 | 0.70 | 1.14 | 0.23 | 0.84 | 1.57* | 0.24 | 0.87 | 1.79** |
| | (0.51) | (0.86) | (0.86) | (0.50) | (0.89) | (0.80) | (0.49) | (0.90) | (0.77) |
| Germanic | -0.89** | -0.55 | - | -0.78* | -0.58 | - | -0.74* | -0.61 | - |
| | (0.42) | (0.63) | - | (0.41) | (0.67) | - | (0.41) | (0.68) | - |
| Latin American | -0.94* | 0.62 | -0.20 | -0.99** | 0.69 | 0.26 | -0.99** | 0.70 | 0.51 |
| | (0.50) | (0.70) | (0.82) | (0.49) | (0.73) | (0.77) | (0.49) | (0.74) | (0.73) |
| Napoleonic | -0.60 | -0.12 | -3.94**** | -0.56 | -0.12 | -1.95** | -0.55 | -0.12 | -1.43 |
| | (0.44) | (0.64) | (0.96) | (0.44) | (0.66) | (0.91) | (0.43) | (0.67) | (0.88) |
| Post-colonial | -0.93* | 0.61 | 1.30* | -0.94* | 0.77 | 1.94*** | -0.92* | 0.79 | 2.24**** |
| | (0.55) | (0.85) | (0.78) | (0.54) | (0.89) | (0.71) | (0.54) | (0.90) | (0.66) |
| Scandinavian | -0.42 | -0.38 | - | -0.34 | -0.36 | - | -0.32 | -0.34 | - |
| | (0.40) | (0.63) | - | (0.40) | (0.65) | - | (0.40) | (0.65) | - |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | 0.05 | 0.99** | -2.27**** | 0.04 | 1.12*** | -1.71*** | 0.04 | 1.14*** | -1.50*** |
| | (0.06) | (0.39) | (0.63) | (0.05) | (0.40) | (0.60) | (0.05) | (0.41) | (0.58) |
| Parliamentary | -0.09* | -0.70* | -1.29*** | -0.14**** | -0.67* | -0.77** | -0.16**** | -0.66* | -0.65* |
| | (0.05) | (0.36) | (0.40) | (0.04) | (0.36) | (0.38) | (0.04) | (0.36) | (0.37) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | 0.02 | -0.20 | -0.88** | 0.03 | -0.20 | -0.55 | 0.03 | -0.20 | -0.47 |
| | (0.03) | (0.30) | (0.40) | (0.03) | (0.30) | (0.37) | (0.03) | (0.30) | (0.36) |
| Left | 0.05 | -0.27 | -0.68 | 0.05* | -0.28 | -0.48 | 0.05* | -0.29 | -0.48 |
| | (0.03) | (0.30) | (0.57) | (0.03) | (0.30) | (0.52) | (0.03) | (0.31) | (0.51) |
| Log Social Health Insurance | 0.04* | 0.14 | 0.52** | 0.05** | 0.14 | 0.48** | 0.05*** | 0.14 | 0.42** |
| | (0.03) | (0.12) | (0.23) | (0.02) | (0.12) | (0.21) | (0.02) | (0.12) | (0.21) |
| Log Public Health Expenditure | 0.06 | -0.13 | -0.77* | 0.02 | -0.15 | -0.66 | 0.00 | -0.17 | -0.61 |
| | (0.05) | (0.36) | (0.43) | (0.05) | (0.38) | (0.40) | (0.05) | (0.38) | (0.39) |
| Log Healthcare Workers | 0.01 | -1.63*** | -2.69 | 0.11 | -1.91*** | -2.93 | 0.15 | -1.96*** | -3.10 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | (0.15) | (0.59) | (2.36) | (0.15) | (0.59) | (2.23) | (0.15) | (0.60) | (2.10) |
| Electoral Democracy Index | 0.29 | 2.85* | 5.17** | 0.44** | 3.13** | 4.75** | 0.47** | 3.24** | 4.55** |
| | (0.18) | (1.47) | (2.13) | (0.19) | (1.53) | (2.06) | (0.19) | (1.56) | (2.00) |
| State Capacity | 0.21*** | -0.47 | -0.90* | 0.13** | -0.49 | -0.87* | 0.09 | -0.51 | -0.76 |
| | (0.07) | (0.42) | (0.52) | (0.06) | (0.42) | (0.50) | (0.06) | (0.42) | (0.50) |
| Log GDP per capita (current USD) | -0.10* | 0.24 | -0.44 | -0.06 | 0.20 | -0.01 | -0.05 | 0.16 | 0.15 |
| | (0.05) | (0.21) | (0.48) | (0.05) | (0.21) | (0.43) | (0.05) | (0.21) | (0.41) |
| Constant | 11.18**** | 4.80** | 14.26**** | 11.37**** | 5.43*** | 12.87**** | 11.45**** | 5.68*** | 11.96**** |
| | (1.20) | (1.99) | (3.44) | (1.23) | (2.05) | (2.92) | (1.23) | (2.08) | (2.61) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Within-group means | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,618 | 1,180 | 935 | 1,618 | 1,177 | 935 | 1,618 | 1,176 | 935 |
| Countries | 108 | 79 | 63 | 108 | 79 | 63 | 108 | 79 | 63 |
| Within R2 | 0.49 | - | - | 0.44 | - | - | 0.44 | - | - |
| Between R2 | 0.75 | - | - | 0.75 | - | - | 0.75 | - | - |
| Overall R2 | 0.75 | - | - | 0.74 | - | - | 0.74 | - | - |
| Deviance | - | 1,275.13 | 1,968.93 | - | 1,319.41 | 1,998.53 | - | 1,324.57 | 1,964.09 |

Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

1 Table 10 Self-reported health emergency preparedness and vaccinations. Baseline model, legal origin.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Preparedness | DTP3 | Measles | Preparedness | DTP3 | Measles | Preparedness | DTP3 | Measles |
| Legal Origin (Ref: British) | | | | | | | | | |
| French | 0.14 | -0.36* | -0.13 | 0.19 | -0.28 | -0.19 | 0.20 | -0.27 | -0.23 |
| | (0.13) | (0.21) | (0.21) | (0.17) | (0.21) | (0.24) | (0.17) | (0.21) | (0.24) |
| Germanic | 0.22 | -0.82* | -0.33 | 0.29 | -0.81* | -0.79 | 0.44* | -0.82* | -1.02** |
| | (0.23) | (0.44) | (0.48) | (0.24) | (0.43) | (0.50) | (0.23) | (0.43) | (0.48) |
| Scandinavian | -0.46*** | -0.84** | -0.02 | -0.44* | -0.81* | -0.37 | -0.46* | -0.80* | -0.49 |
| | (0.17) | (0.39) | (0.33) | (0.24) | (0.42) | (0.37) | (0.26) | (0.43) | (0.40) |
| Socialist | -0.15 | -0.15 | 0.84*** | -0.03 | -0.11 | 0.94*** | 0.03 | -0.06 | 1.27**** |
| | (0.15) | (0.25) | (0.30) | (0.18) | (0.24) | (0.33) | (0.19) | (0.24) | (0.27) |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | 0.29** | -0.09 | 0.16 | 0.25 | -0.17 | -0.36 | 0.05 | -0.19 | -0.42* |
| | (0.14) | (0.26) | (0.23) | (0.16) | (0.26) | (0.27) | (0.20) | (0.27) | (0.25) |
| Parliamentary | 0.11 | -0.10 | -0.15 | 0.15 | -0.09 | -0.22 | 0.12 | -0.10 | -0.30 |
| | (0.14) | (0.23) | (0.22) | (0.17) | (0.22) | (0.23) | (0.19) | (0.22) | (0.22) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | 0.08 | 0.25 | -0.10 | 0.01 | 0.28 | -0.09 | -0.16 | 0.26 | -0.14 |
| | (0.12) | (0.21) | (0.12) | (0.13) | (0.19) | (0.16) | (0.13) | (0.19) | (0.21) |
| Left | -0.00 | 0.40 | 0.05 | -0.09 | 0.40* | -0.01 | -0.18 | 0.37* | -0.12 |
| | (0.14) | (0.26) | (0.12) | (0.13) | (0.23) | (0.17) | (0.12) | (0.22) | (0.23) |
| Log Social Health Insurance | -0.03 | 0.13** | 0.05 | -0.05 | 0.14** | 0.06 | -0.07 | 0.14** | 0.03 |
| | (0.04) | (0.06) | (0.05) | (0.04) | (0.06) | (0.05) | (0.04) | (0.06) | (0.07) |
| Log Public Health Expenditure | -0.02 | 0.20 | 0.45*** | -0.06 | 0.30* | 0.44*** | 0.19 | 0.33** | 0.47** |
| | (0.11) | (0.18) | (0.16) | (0.14) | (0.16) | (0.16) | (0.16) | (0.15) | (0.19) |
| Log Healthcare Workers | 0.42*** | 0.29 | 0.14 | 0.27* | 0.38* | -0.06 | 0.25 | 0.40** | -0.33 |
| | (0.14) | (0.22) | (0.25) | (0.16) | (0.20) | (0.29) | (0.18) | (0.20) | (0.31) |
| Electoral Democracy Index | -0.25 | -0.82** | -0.96*** | -0.72*** | -0.71* | -1.33**** | -0.79*** | -0.68* | -1.67**** |
| | (0.42) | (0.37) | (0.34) | (0.27) | (0.39) | (0.37) | (0.29) | (0.39) | (0.40) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| State Capacity | 0.39*** | 0.67**** | 0.18 | 0.50**** | 0.60**** | 0.22 | 0.53**** | 0.59**** | 0.46*** |
| | (0.12) | (0.18) | (0.15) | (0.12) | (0.17) | (0.18) | (0.13) | (0.18) | (0.18) |
| Log GDP per capita (current USD) | -0.18* | -0.09 | 0.28* | -0.13 | -0.11 | 0.54*** | -0.18 | -0.10 | 0.68**** |
| | (0.10) | (0.15) | (0.15) | (0.13) | (0.15) | (0.18) | (0.14) | (0.15) | (0.18) |
| Constant | -0.76 | 0.65 | -2.99**** | -0.11 | -0.34 | -3.72**** | -0.34 | -0.58 | -3.75**** |
| | (0.54) | (0.74) | (0.72) | (0.65) | (0.74) | (0.69) | (0.64) | (0.75) | (0.75) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,218 | 2,191 | 1,555 | 828 | 2,191 | 1,365 | 713 | 2,191 | 1,302 |
| Countries | 145 | 146 | 134 | 142 | 146 | 122 | 142 | 146 | 119 |
| Within R2 | 0.12 | - | - | 0.14 | - | - | 0.16 | - | - |
| Between R2 | 0.44 | - | - | 0.27 | - | - | 0.29 | - | - |
| Overall R2 | 0.29 | - | - | 0.23 | - | - | 0.23 | - | - |
| Deviance | - | 173.06 | 201.84 | - | 181.95 | 166.66 | - | 184.20 | 157.38 |

1 Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

Table 11 Self-reported health emergency preparedness and vaccinations. Robustness checks with Mundlak-adjusted random effects model, legal origin.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Preparedness | DTP3 | Measles | Preparedness | DTP3 | Measles | Preparedness | DTP3 | Measles |
| Legal Origin (Ref: British) | | | | | | | | | |
| French | 0.21 | -0.35 | -0.18 | 0.23 | -0.28 | -0.35 | 0.22 | -0.27 | -0.46* |
| | (0.13) | (0.22) | (0.23) | (0.16) | (0.21) | (0.25) | (0.17) | (0.21) | (0.27) |
| Germanic | 0.22 | -0.76* | -0.80 | 0.41* | -0.78* | -1.06* | 0.49* | -0.79* | -1.35** |
| | (0.22) | (0.44) | (0.51) | (0.23) | (0.44) | (0.55) | (0.25) | (0.44) | (0.55) |
| Scandinavian | -0.61**** | -0.82** | -0.02 | -0.43* | -0.76* | -0.01 | -0.50* | -0.76* | -0.02 |
| | (0.18) | (0.40) | (0.36) | (0.24) | (0.42) | (0.38) | (0.27) | (0.44) | (0.41) |
| Socialist | -0.06 | -0.12 | 0.86*** | -0.18 | -0.07 | 0.92** | -0.16 | -0.03 | 1.25**** |
| | (0.15) | (0.25) | (0.33) | (0.19) | (0.25) | (0.38) | (0.21) | (0.24) | (0.32) |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | 0.17 | -0.18 | -0.02 | 0.23 | -0.26 | -0.46 | 0.06 | -0.28 | -0.53** |
| | (0.13) | (0.26) | (0.23) | (0.15) | (0.27) | (0.30) | (0.21) | (0.27) | (0.27) |
| Parliamentary | 0.07 | -0.11 | -0.15 | 0.20 | -0.13 | -0.22 | 0.19 | -0.13 | -0.31 |
| | (0.13) | (0.23) | (0.22) | (0.16) | (0.23) | (0.25) | (0.18) | (0.23) | (0.24) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | 0.08 | 0.27 | -0.11 | 0.02 | 0.31* | -0.10 | -0.15 | 0.29 | -0.15 |
| | (0.11) | (0.21) | (0.12) | (0.13) | (0.19) | (0.16) | (0.13) | (0.19) | (0.21) |
| Left | 0.01 | 0.44* | 0.06 | -0.09 | 0.44* | 0.01 | -0.20 | 0.42* | -0.11 |
| | (0.12) | (0.26) | (0.12) | (0.13) | (0.23) | (0.17) | (0.12) | (0.22) | (0.22) |
| Log Social Health Insurance | 0.12 | 0.05 | -0.14** | -0.09 | -0.00 | -0.15 | -0.17 | -0.02 | -0.21 |
| | (0.12) | (0.09) | (0.07) | (0.20) | (0.10) | (0.09) | (0.26) | (0.10) | (0.13) |
| Log Public Health Expenditure | -0.22 | -0.23 | 0.45** | -0.17 | -0.04 | 0.26 | 0.51 | 0.02 | 0.36 |
| | (0.20) | (0.16) | (0.22) | (0.27) | (0.15) | (0.23) | (0.35) | (0.15) | (0.26) |
| Log Healthcare Workers | 0.23 | 0.77* | 1.02* | 0.49 | 1.01** | 1.07** | 0.32 | 0.99** | 0.86* |
| | (0.39) | (0.40) | (0.53) | (0.51) | (0.42) | (0.46) | (0.52) | (0.42) | (0.49) |
| Electoral Democracy Index | 0.73 | 0.27 | 0.47 | -0.42 | -0.16 | -0.27 | -0.90 | -0.12 | -0.80 |
| | (0.73) | (0.57) | (0.47) | (0.56) | (0.55) | (0.50) | (0.65) | (0.56) | (0.58) |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| State Capacity | 0.11 | 0.23 | -0.20 | 0.43* | 0.14 | 0.10 | 0.50* | 0.13 | 0.41** |
| | (0.22) | (0.21) | (0.16) | (0.26) | (0.20) | (0.21) | (0.28) | (0.20) | (0.21) |
| Log GDP per capita (current USD) | -0.31* | -0.19 | 0.06 | 0.20 | -0.23 | 0.30 | 0.32 | -0.24 | 0.40* |
| | (0.16) | (0.23) | (0.18) | (0.24) | (0.24) | (0.22) | (0.27) | (0.23) | (0.22) |
| Constant | -0.62 | 0.58 | -1.78* | 0.11 | -0.34 | -3.86**** | 0.48 | -0.61 | -4.16**** |
| | (0.62) | (0.90) | (0.99) | (0.73) | (0.92) | (1.07) | (0.76) | (0.93) | (1.18) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Within-group means | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 1,218 | 2,191 | 1,555 | 828 | 2,191 | 1,365 | 713 | 2,191 | 1,302 |
| Countries | 145 | 146 | 134 | 142 | 146 | 122 | 142 | 146 | 119 |
| Within R2 | 0.14 | - | - | 0.14 | - | - | 0.17 | - | - |
| Between R2 | 0.46 | - | - | 0.30 | - | - | 0.30 | - | - |
| Overall R2 | 0.30 | - | - | 0.25 | - | - | 0.25 | - | - |
| Deviance | - | 167.62 | 193.58 | - | 176.95 | 158.581 | - | 179.13 | 148.47 |

Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

1 Table 12 Self-reported health emergency preparedness and vaccinations. Baseline model, administrative tradition.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Preparedness | DTP3 | Measles | Preparedness | DTP3 | Measles | Preparedness | DTP3 | Measles |
| Administrative Tradition (Ref: Anglo-American) | | | | | | | | | |
| East Asian | 0.04 | 0.84*** | 0.95** | 0.08 | 0.77** | 0.89* | 0.10 | 0.77** | 1.05*** |
| | (0.29) | (0.32) | (0.41) | (0.29) | (0.32) | (0.45) | (0.33) | (0.32) | (0.37) |
| Germanic | -0.13 | 0.03 | 0.44 | 0.25 | 0.05 | 0.19 | 0.39 | 0.09 | 0.26 |
| | (0.18) | (0.44) | (0.58) | (0.21) | (0.46) | (0.69) | (0.24) | (0.47) | (0.69) |
| Latin American | 0.11 | 0.53** | 0.53* | 0.23 | 0.58** | 0.71** | 0.22 | 0.61** | 0.70** |
| | (0.22) | (0.24) | (0.30) | (0.25) | (0.26) | (0.30) | (0.30) | (0.27) | (0.30) |
| Napoleonic | -0.15 | 0.58** | 0.72** | -0.06 | 0.53* | 0.89*** | 0.00 | 0.56** | 0.93*** |
| | (0.22) | (0.28) | (0.29) | (0.26) | (0.29) | (0.33) | (0.32) | (0.29) | (0.32) |
| Post-colonial | -0.13 | 0.86**** | 1.03*** | -0.12 | 0.80*** | 1.15**** | -0.13 | 0.80*** | 0.87** |
| | (0.21) | (0.25) | (0.33) | (0.24) | (0.27) | (0.34) | (0.28) | (0.28) | (0.35) |
| Scandinavian | -0.44*** | 0.19 | 1.10*** | -0.25 | 0.21 | 1.21** | -0.12 | 0.22 | 1.32** |
| | (0.16) | (0.28) | (0.42) | (0.17) | (0.31) | (0.55) | (0.22) | (0.32) | (0.53) |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | 0.17 | -0.22 | 0.24 | 0.10 | -0.39* | -0.21 | -0.17 | -0.41* | -0.27 |
| | (0.15) | (0.22) | (0.18) | (0.15) | (0.23) | (0.23) | (0.25) | (0.23) | (0.22) |
| Parliamentary | 0.31* | 0.03 | -0.01 | 0.31 | -0.12 | -0.20 | 0.23 | -0.16 | -0.26 |
| | (0.17) | (0.29) | (0.21) | (0.20) | (0.28) | (0.23) | (0.22) | (0.28) | (0.23) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | 0.09 | 0.31 | -0.25** | -0.01 | 0.42** | -0.12 | -0.24* | 0.43** | -0.15 |
| | (0.14) | (0.23) | (0.12) | (0.13) | (0.20) | (0.19) | (0.13) | (0.21) | (0.27) |
| Left | -0.06 | 0.31 | -0.04 | -0.15 | 0.44* | -0.01 | -0.25** | 0.43* | -0.12 |
| | (0.16) | (0.26) | (0.12) | (0.14) | (0.23) | (0.22) | (0.12) | (0.23) | (0.30) |
| Log Social Health Insurance | -0.02 | 0.15** | 0.05 | -0.06 | 0.16*** | 0.11** | -0.08 | 0.15** | 0.13*** |
| | (0.04) | (0.06) | (0.06) | (0.05) | (0.06) | (0.05) | (0.05) | (0.06) | (0.05) |
| Log Public Health Expenditure | 0.02 | 0.23 | 0.49** | 0.20 | 0.31 | 0.17 | 0.34* | 0.33* | 0.20 |
| | (0.16) | (0.19) | (0.21) | (0.17) | (0.19) | (0.24) | (0.20) | (0.19) | (0.23) |
| Log Healthcare Workers | 0.30* | 0.25 | 0.48** | 0.04 | 0.36 | 0.50* | 0.04 | 0.40* | 0.37 |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | (0.15) | (0.25) | (0.23) | (0.19) | (0.25) | (0.27) | (0.19) | (0.24) | (0.27) |
| Electoral Democracy Index | -0.26 | -0.92** | -1.04*** | -0.74** | -0.87** | -1.29*** | -0.91*** | -0.89** | -1.83**** |
| | (0.47) | (0.40) | (0.37) | (0.30) | (0.38) | (0.40) | (0.35) | (0.38) | (0.44) |
| State Capacity | 0.22 | 0.45** | 0.09 | 0.36** | 0.43** | 0.27 | 0.40** | 0.44** | 0.37** |
| | (0.17) | (0.22) | (0.16) | (0.14) | (0.22) | (0.19) | (0.16) | (0.21) | (0.17) |
| Log GDP per capita (current USD) | -0.12 | 0.14 | 0.25* | -0.10 | 0.10 | 0.37** | -0.14 | 0.09 | 0.39** |
| | (0.12) | (0.17) | (0.15) | (0.14) | (0.17) | (0.19) | (0.16) | (0.17) | (0.18) |
| Constant | -0.42 | -1.75* | -4.89**** | 0.16 | -2.60*** | -4.76**** | 0.25 | -2.70*** | -4.35**** |
| | (0.74) | (0.92) | (1.00) | (0.81) | (0.90) | (1.12) | (0.85) | (0.90) | (1.18) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 933 | 1,618 | 1,207 | 643 | 1,618 | 1,060 | 556 | 1,618 | 1,009 |
| Countries | 107 | 108 | 102 | 104 | 108 | 96 | 105 | 108 | 94 |
| Within R2 | 0.10 | - | - | 0.10 | - | - | 0.12 | - | - |
| Between R2 | 0.43 | - | - | 0.30 | - | - | 0.28 | - | - |
| Overall R2 | 0.26 | - | - | 0.22 | - | - | 0.21 | - | - |
| Deviance | - | 108.92 | 144.34 | - | 114.26 | 138.78 | - | 115.41 | 133.20 |

1 Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

1 Table 13 Self-reported health emergency preparedness and vaccinations. Robustness checks with Mundlak-adjusted random effects model, administrative tradition.

| | 5-year lag | | | 2-year lag | | | 1-year lag | | |
|---|---|---|---|---|---|---|---|---|---|
| | Preparedness | DTP3 | Measles | Preparedness | DTP3 | Measles | Preparedness | DTP3 | Measles |
| Administrative Tradition (Ref: Anglo-American) | | | | | | | | | |
| East Asian | 0.03 | 0.77** | 0.57 | 0.12 | 0.72** | 0.29 | 0.14 | 0.71** | 0.39 |
| | (0.23) | (0.33) | (0.46) | (0.28) | (0.33) | (0.46) | (0.31) | (0.33) | (0.44) |
| Germanic | 0.11 | 0.12 | 0.27 | 0.28 | 0.11 | -0.14 | 0.40* | 0.16 | -0.06 |
| | (0.16) | (0.43) | (0.62) | (0.19) | (0.45) | (0.71) | (0.23) | (0.47) | (0.72) |
| Latin American | 0.34* | 0.49** | 0.26 | 0.42* | 0.55** | 0.18 | 0.39 | 0.58** | 0.25 |
| | (0.20) | (0.24) | (0.31) | (0.25) | (0.26) | (0.34) | (0.30) | (0.27) | (0.41) |
| Napoleonic | 0.06 | 0.58** | 0.60** | 0.01 | 0.51* | 0.53* | 0.05 | 0.55** | 0.56* |
| | (0.18) | (0.27) | (0.29) | (0.24) | (0.28) | (0.31) | (0.29) | (0.28) | (0.34) |
| Post-colonial | -0.19 | 0.80**** | 0.76** | -0.09 | 0.76*** | 0.68* | -0.07 | 0.75*** | 0.35 |
| | (0.18) | (0.24) | (0.32) | (0.24) | (0.26) | (0.37) | (0.28) | (0.27) | (0.42) |
| Scandinavian | -0.25 | 0.31 | 1.16*** | -0.25 | 0.30 | 1.11** | -0.11 | 0.32 | 1.23*** |
| | (0.16) | (0.28) | (0.38) | (0.18) | (0.32) | (0.45) | (0.23) | (0.33) | (0.46) |
| Political system (Ref: Presidential) | | | | | | | | | |
| Assembly-Elected President | -0.03 | -0.33 | 0.07 | 0.02 | -0.47** | -0.24 | -0.23 | -0.50** | -0.33 |
| | (0.14) | (0.22) | (0.19) | (0.17) | (0.23) | (0.26) | (0.26) | (0.24) | (0.23) |
| Parliamentary | 0.15 | 0.02 | 0.02 | 0.32* | -0.12 | -0.04 | 0.23 | -0.17 | -0.10 |
| | (0.15) | (0.29) | (0.24) | (0.19) | (0.28) | (0.24) | (0.22) | (0.28) | (0.23) |
| Government ideology (Ref: Center) | | | | | | | | | |
| Right | 0.07 | 0.31 | -0.24** | -0.00 | 0.43** | -0.10 | -0.24* | 0.45** | -0.15 |
| | (0.12) | (0.23) | (0.12) | (0.14) | (0.20) | (0.19) | (0.14) | (0.21) | (0.27) |
| Left | -0.06 | 0.32 | -0.02 | -0.13 | 0.46** | 0.03 | -0.27** | 0.46** | -0.10 |
| | (0.14) | (0.26) | (0.12) | (0.14) | (0.23) | (0.21) | (0.13) | (0.23) | (0.29) |
| Log Social Health Insurance | 0.23 | -0.08 | -0.27*** | 0.04 | -0.12 | -0.11 | -0.07 | -0.13 | -0.08 |
| | (0.16) | (0.10) | (0.09) | (0.19) | (0.12) | (0.07) | (0.23) | (0.11) | (0.08) |
| Log Public Health Expenditure | -0.36 | -0.30 | 0.42 | 0.02 | -0.03 | -0.08 | 0.35 | 0.01 | 0.01 |
| | (0.23) | (0.21) | (0.27) | (0.26) | (0.21) | (0.34) | (0.34) | (0.20) | (0.37) |
| Log Healthcare Workers | 0.15 | 0.60 | 1.61*** | -0.58 | 0.74 | 1.54*** | -0.21 | 0.76 | 1.37** |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | (0.50) | (0.52) | (0.61) | (0.59) | (0.54) | (0.55) | (0.66) | (0.56) | (0.58) |
| Electoral Democracy Index | 1.09* | -0.26 | 0.30 | -0.06 | -0.60 | -0.46 | -0.47 | -0.47 | -0.86 |
| | (0.63) | (0.69) | (0.73) | (0.67) | (0.63) | (0.65) | (0.87) | (0.63) | (0.72) |
| State Capacity | -0.34 | -0.00 | -0.15 | 0.15 | -0.01 | 0.33 | 0.09 | 0.04 | 0.44 |
| | (0.28) | (0.30) | (0.24) | (0.25) | (0.29) | (0.31) | (0.32) | (0.28) | (0.29) |
| Log GDP per capita (current USD) | -0.42** | -0.05 | -0.01 | 0.09 | -0.05 | 0.18 | 0.19 | -0.08 | 0.27 |
| | (0.20) | (0.24) | (0.21) | (0.26) | (0.25) | (0.25) | (0.30) | (0.24) | (0.25) |
| Constant | 0.28 | -2.15* | -5.33**** | 0.63 | -2.87** | -6.01**** | 1.03 | -3.00*** | -4.78*** |
| | (0.78) | (1.15) | (1.39) | (0.90) | (1.12) | (1.52) | (0.97) | (1.10) | (1.59) |
| Year F.E. | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Within-group means | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ |
| Observations | 933 | 1,618 | 1,207 | 643 | 1,618 | 1,060 | 556 | 1,618 | 1,009 |
| Countries | 107 | 108 | 102 | 104 | 108 | 96 | 105 | 108 | 94 |
| Within R2 | 0.13 | - | - | 0.11 | - | - | 0.13 | - | - |
| Between R2 | 0.53 | - | - | 0.33 | - | - | 0.32 | - | - |
| Overall R2 | 0.32 | - | - | 0.25 | - | - | 0.24 | - | - |
| Deviance | - | 104.24 | 135.30 | - | 110.38 | 125.63 | - | 111.42 | 124.91 |

Standard errors in parentheses. * p < 0.10, ** p < 0.05, *** p < 0.01, **** p < 0.001

## References


1 Witter S, Thomas S, Topp SM, *et al.* Health system resilience: a critical review and reconceptualisation. *Lancet Glob Health* 2023; **11**: e1454–8.

2 Saulnier DD, Blanchet K, Canila C, *et al.* A health systems resilience research agenda: moving from concept to practice. *BMJ Glob Health* 2021; **6**: e006779.

3 Torbica A, Fornaro G, Tarricone R, Drummond MF. Do social values and institutional context shape the use of economic evaluation in reimbursement decisions? An empirical analysis. *Value Health* 2020; **23**: 17–24.

4 United Nations. Sustainable Development Goals Indicators Database. https://unstats.un.org/sdgs/dataportal (accessed April 23, 2025).

5 Kavanagh MM, Singh R. Democracy, capacity, and coercion in pandemic response: COVID-19 in comparative political perspective. *J Health Polit Policy Law* 2020; **45**: 997–1012.

6 Gostin LO, Katz R. The International Health Regulations: the governing framework for global health security. *Milbank Q* 2016; **94**: 264–313.

7 World Bank Group. DataBank - World Development Indicators. https://databank.worldbank.org/source/world-development-indicators (accessed April 23, 2025).

8 World Health Organization. Global Health Expenditure Database. https://apps.who.int/nha/database/Select/Indicators/en (accessed April 23, 2025).

9 Institute for Health Metrics Evaluation. Global Burden of Disease Study 2019 (GBD 2019) Human Resources for Health 1990-2019. https://ghdx.healthdata.org/record/ihme-data/gbd-2019-human-resources-health-1990-2019 (accessed April 23, 2025).

10 La Porta R, Lopez-de-Silanes F, Shleifer A, Vishny R. The quality of government. *J Law Econ Organ* 1999; **15**: 222–79.

11 Jugl M. Administrative characteristics and timing of governments' crisis responses: A global study of early reactions to COVID-19. *Public Adm* 2023; **101**: 1408–26.

12 Painter M, Peters BG. Tradition and Public Administration. Palgrave Macmillan, 2010.

13 Bianculli AC, Fernández-i-Marin X, Jordana J. The World of Regulatory Agencies: Institutional Varieties and Administrative Traditions. Jerusalem Papers in Regulatory Governance. *Retreived Httpregulation Huji Ac Ilpapersjp* 2013; **2058**.

14 Coppedge M, Gerring J, Knutsen CH, *et al.* V-dem country-year dataset v14. 2024. https://www.v-dem.net/data/dataset-archive/ (accessed April 23, 2025).

15 Hanson JK, Sigman R. Leviathan's latent dimensions: Measuring state capacity for comparative political research. *J Polit* 2021; **83**: 1495–510.

16 Kavakli KC. Did populist leaders respond to the COVID-19 pandemic more slowly? Evidence from a global sample. *Unpubl Manuscr Covid Crisis Lab Bocconi Univ Milano* 2020.

17 Peters BG. Administrative traditions: Understanding the roots of contemporary administrative behavior. Oxford University Press, 2021.

18 Bouckaert G, Galli D, Kuhlmann S, Reiter R, Van Hecke S. European coronationalism? A hot spot governing a pandemic crisis. *Public Adm Rev* 2020; **80**: 765.

19 Halperin MH, Siegle JT, Weinstein MM. The democracy advantage: How democracy promotes prosperity and peace, 2005th edn. Routledge.

20 Sebhatu A, Wennberg K, Arora-Jonsson S, Lindberg SI. Explaining the homogeneous diffusion of COVID-19 nonpharmaceutical interventions across heterogeneous countries. *Proc Natl Acad Sci* 2020; **117**: 21201–8.

21 Lijphart A. Patterns of democracy: Government forms and performance in thirty-six countries. Yale university press, 1999.

22 Greer SL, Méndez CA. Universal health coverage: a political struggle and governance challenge. *Am J Public Health* 2015; **105**: S637–9.

23 Cingolani L, Thomsson K, De Crombrugghe D. Minding Weber more than ever? The impacts of state capacity and bureaucratic autonomy on development goals. *World Dev* 2015; **72**: 191–207.

24 Mechkova V, Edgell AB. Substantive representation, women's health, and regime type. *Comp Polit Stud* 2024; **57**: 2449–81.

25 Vaisey S, Miles A. What you can—and can't—do with three-wave panel data. *Sociol Methods Res* 2017; **46**: 44–67.

26 Mundlak Y. On the pooling of time series and cross section data. *Econom J Econom Soc* 1978; : 69–85.