

# Corruption Kills Some People Faster than Others

## Abstract

A large literature links corruption to reduced investment in health infrastructure, inefficiencies and distortions in health systems, and poor health outcomes. The literature thus tells us that “corruption kills” but a gap exists in terms of our understanding of the effect of corruption on health inequality. Drawing on public choice theory, we argue that corruption drives health inequality through several pathways, including skewing healthcare budgets away from essential primary care, raising access costs through bribery and bureaucratic inefficiency, and eroding public trust in health institutions. Using country-level panel data on inequality in the length of life from Jorda, Niño-Zarazúa, and Tejería-Martínez (2024) and the V-DEM indicator of political corruption, we show that an increase in corruption leads to an increase in health inequality within a country. All components of the overall V-DEM political corruption index are harmful in terms of generating health inequality when entered in the model individually, with corruption in the legal and public sectors emerging as significant when all are included. Our finding that corruption leads to increased health inequality is robust to using GMM methods to allow for endogeneity. Health inequality for men and women is increased by corruption.

**Keywords:** Corruption; Inequality; Health; Health Inequality

## Introduction

A common conclusion in the corruption literature is that *“corruption kills.”* Indeed, many papers have used this phrase, or a variant on it, as their title. For example, Black (2007) discusses four cases in which corruption led to deaths. These were instances of bribery of mine inspectors in China, building inspectors in Turkey, security services in Russia, and driving license officials in the United States. Strong links between corruption and deaths from natural disasters can be understood through mechanisms such as those discussed by Black in the context of Turkey. For example, Ambraseys and Bilham (2011) argue that 83% of deaths from earthquake induced building collapse happen in very corrupt countries. Cevik and Jalles (2023) present similar results for a wider range of natural disasters. In the US, corruption also predicts an increased risk for black citizens of being killed by the police (Dincer and Johnston, 2023).

Rational corrupt decision-making also kills by distorting the allocation of resources in healthcare systems. In this way, corrupt rent-seeking behavior can lead to worse aggregate health outcomes. Gupta et al. (2001) demonstrate a strong association using country level data between corruption and fundamental outcomes such as child and infant mortality, the percent of births that are attended by health staff, the percent of low-birthweight babies and immunization rates for babies. Holmberg and Rothstein (2011) also provide cross-country evidence that lower levels of corruption predict improvements in life expectancy, infant mortality, and subjective health assessments. Dincer and Teoman (2019) provide causal evidence for the case of Turkey that increases in corruption lead to increased infant mortality.

Corruption has also been shown to increase income inequality (Dincer and Gunalp, 2012), which may also lead to increased health inequality. Evidence from the Philippines points to corruption as reducing immunization rates, discouraging the use of public health clinics and increasing wait times, and reducing satisfaction with public health services, with the strongest effects in poorer municipalities (Azfar and Gurgur, 2008). In addition, poor quality buildings arising from corruption in the construction sector are a particular risk for the poor when a natural disaster occurs. While this literature would lead one to expect that corruption will widen health inequalities within a country through a variety of mechanisms, to our knowledge there is no evidence to support or refute this hypothesis.

Drawing from public choice theory, this study frames corruption as the rational pursuit of private gain by public officials. This behavior worsens health inequalities through several key pathways. First, corrupt incentives skew healthcare budgets and infrastructure investments, favoring high-tech projects with greater rent-seeking potential over essential primary care, disproportionately harming the poor who depend on public services. Second, bureaucratic inefficiencies and excessive regulations create opportunities for bribery, raising the cost of healthcare access and exacerbating inequalities - particularly for vulnerable groups. Third, corruption erodes trust in public institutions, reducing compliance with health policies and less voter support for health-focused taxation. Finally, poor-quality construction and environmental neglect, driven by corrupt practices, increase disaster risks and pollution exposure, further widening health disparities. This paper leverages these mechanisms to explore how corruption affects health inequality within countries

In this paper we close this gap by examining the link between corruption and health inequality using country level panel data. Using the VDEM metric of political corruption and data on inequality in the length of life from Jorda, Niño-Zarazúa, and Tejería-Martínez (2024). We find that increases in corruption in a country leads to greater inequality in the length of life within that country. We then show that while corruption in the executive, judiciary, legislature and public sector all predict greater health inequality when entered in separate models, judicial and public sector corruption emerge as the significant factors when all are included in the same regression. We then show that corruption widens within country health inequality for both men and women. Finally, we show that corruption drives health inequality in middle- and low-income countries, but not in high-income countries. Our key results are robust to allowing for endogeneity between corruption and health inequality by estimating the relationship with GMM methods. We therefore conclude that while corruption does indeed kill as argued in the existing literature some people succumb more rapidly than others when the extent to which public power is abused for private gain increases.

The remainder of this paper proceeds as follows. In the next section, we discuss the theoretical links between corruption and health inequality. We then outline the data that we use to explore the links between corruption and health inequality and our methodological approach. Next, we present our results and discuss their implications before concluding with some suggestions for further work.

## Corruption and Health Inequality: A Public Choice Perspective

Public choice theory provides a powerful framework for understanding how corruption undermines health and exacerbates health inequalities. As noted by Leeson and Thompson (2023), public choice scholars have shown that understanding private incentives is essential if we are to understand public health outcomes. Corrupt incentives and opportunities can distort policy design and implementation. At its core, corruption represents the rational pursuit of self-interest by individuals endowed with public power. Corrupt, politicians, bureaucrats, and regulators act not as benevolent social planners, but as agents motivated to maximize private gain through rent-seeking, kickbacks, and embezzlement. These incentives systematically distort the design and implementation of health policy, erode public trust, and generate downstream harms that fall most heavily on the poor.

At the level of policy design, corrupt politicians may deliberately underinvest in healthcare to maintain clientelist structures (Khemani, 2015). Corrupt incentives can also distort government budgets. Mauro (1998) shows that corruption distorts the composition of public expenditure as some areas offer greater scope for rent-seeking, bribery and embezzlement. While Mauro only found suggestive evidence that corruption reduces health expenditure, later work has taken advantage of larger datasets to confirm that corruption reduces public expenditure on healthcare, at least in developing countries (Liang and Mirelman, 2014). Within health budgets, incentives for kickbacks and nepotism bias spending toward high-tech infrastructure at the expense of basic primary care (Vian, 2008a, 2008b). Such distortions systematically reduce access to affordable services, leaving the poor most disadvantaged. The macroeconomic consequences of corruption further amplify these effects. Corruption retards growth and development (Mauro, 1995; Del Monte and Papagni, 2001; Gründler and Potrafke, 2019), constrains public investment, and incentivizes tax evasion (Alm, Martinez-Vazquez, and McClellan, 2016; Boly, Konte, and Shimeles, 2021). Collectively, these effects reduce the scope for healthcare spending, deepening inequality in health outcomes.

Private incentives can also influence the implementation of health policy. The budget maximizing bureaucrat model of Niskanen (1971) suggests that officials may inflate the cost of care by developing unnecessarily complex and time-consuming regulations for pharmaceutical procurement, entering the market, or registering for public healthcare

services, for example. Excessive regulation arising from informational asymmetries and weak government in turn creates significant opportunities for bribery as health care providers and public health care users seek to avoid or expedite excessive regulation (Shleifer and Vishny, 1993). This bicausal relationship between corruption and bureaucratic inefficiency has been shown in several contexts, though not explicitly in the context of healthcare (Holcombe and Boudreaux, 2015; Choudhury, 2021; Breen and Gillanders, 2024). As explained by Munger (2019) who draws on the work of Gordon Tullock (Tullock 1975, 1987, 1996), even if corruption can yield efficiencies in over-regulated or poorly governed contexts, the long run consequences are “extremely negative” as corrupt incentives close the door on the possibility of reform. By increasing the cost of health inputs and accessing care, through corruption or compliance, corruption induced unnecessary red tape would lead to worse outcomes, particularly for the poor who are most reliant on public healthcare. Thus, the supply side of policy and the implementation by agencies can be distorted by corrupt behavior arising from private interests equipped with public power.

Country-level evidence illustrates these mechanisms. In Kenya, Friedman (2018) shows how ethnic favoritism distorted the distribution of AIDS medication, undermining effectiveness in reducing deaths. In Italy, Cavalieri, Guccio, and Rizzo (2017) demonstrate how corruption weakened healthcare infrastructure contracts. In China, over a fifth of all medical corruption cases between 2013 and 2019 involved embezzlement, with bribery dominating the remainder (Fu et al., 2023). Uganda offers another stark example: Reinikka and Svensson (2004) found that schools received on average only 13% of central grants, while corruption in healthcare manifested in drug theft, absenteeism, and embezzlement (Bouchard et al., 2012). These examples highlight how corruption systematically undermines the effectiveness of health investment.

Public choice theory also explains why citizens often fail to hold corrupt officials accountable. Due to the significant informational asymmetries that exist in healthcare and corruption, the cost to a citizen of becoming fully informed about the details of health policy and monitoring government and public officials for corruption is extremely high. At the same time, the potential impact of a single vote is vanishingly small. These incentives create ideal conditions for rational ignorance which reduces the scope for any form of accountability (Downs, 1957). Similarly, the logic of Olson (1965) suggests that while individual or small groups of corrupt

public officials or politicians stand to gain significantly from accepting bribes from, for example, contractors seeking to build a hospital or suppliers of equipment, it is harder for those who will be harmed by poor quality or unnecessarily expensive infrastructure or equipment to coordinate to avoid the smaller per capita costs of such corruption.

The most immediate consequence of these distortions is reduced access to care. Those who pay bribes are more likely to report difficulty obtaining needed treatment (Hsiao, Vogt, and Quentin, 2019). In post-Soviet countries, bribery reduces satisfaction with healthcare (Habibov, 2016). Afrobarometer data show that where medical corruption is more common, access to healthcare is harder and experiences worse (Ouedraogo et al., 2024). Case studies confirm the unequal burden: in the Philippines, corruption most severely harms access for the poor and rural residents (Azfar and Gurgur, 2008), while in Tajikistan, informal payments deter use of services altogether, with socioeconomic status shaping who receives adequate care (Falkingham, 2004). As Justesen and Bjørnskov (2014) and Hunt (2007) show, the poor and vulnerable are also more likely to be targeted for bribes. These dynamics reinforce the link between corruption and health inequality.

Corruption can discourage health care use through its effects on trust in medicine, health workers, and health systems (Radin, 2013). Moreover, corruption is detrimental to trust in the state more generally (Seligson, 2002) and this corruption induced lack of trust can levy huge individual and societal health costs. Reduced trust in government and medicine decreases compliance with public health advice, as shown during Ebola outbreaks in Liberia and the Democratic Republic of the Congo (Blair et al., 2017; Vinck et al., 2019) and during the COVID-19 pandemic in the United States (Dincer and Gillanders, 2021). Trust is also central to vaccination uptake and hesitancy (Yaquub et al., 2014; Chuang et al., 2015). Because some groups are more exposed to health risks than others, these effects again disproportionately harm vulnerable populations. At the fiscal level, corruption-induced distrust limits voter support for health spending. Lower trust reduces willingness to pay health-related taxes (Habibov, Cheung, and Auchynnikava, 2017; Lachapelle et al., 2021) and undermines backing for redistribution (Bergh and Bjørnskov, 2011; Bjørnskov and Svendsen, 2013; Yamamura, 2014). This further constrains resources available for public healthcare, reinforcing inequality.

The broader distributive effects of corruption extend beyond health financing. As Gupta, Davoodi, and Alonso-Terme (2002) argue, corruption disproportionately benefits elites with

the resources to manipulate the system. Their seminal cross-country study shows corruption increases both poverty and inequality, a finding corroborated in the United States, the Middle East and North Africa, and China (Dincer and Gunalp, 2012; Jha and Kirşanlı, 2024; Han, Li, and Xu, 2022). Poor governance has also been linked to multidimensional poverty (Jindra and Vaz, 2019). McDonough, Sacker, and Wiggins (2005) show that in the case of the United States “poverty history of any kind is health damaging” (p1796) and given the importance of early life conditions for child and adult health (Campbell et al., 2014), corruption may through its effects on poverty create significant health inequalities. Corruption induced income inequality will also heighten health inequalities to the extent that income allows people to access better healthcare, food, and other important health inputs. However, Deaton (2003) argues that there is no direct link between income inequality and mortality at the individual or national level. Corruption is therefore more likely to drive health inequality through effects on poverty.

Downstream effects of corruption also shape structural health risks. In infrastructure, corruption raises costs, reduces quality, and increases risks of collapse or failure (Tanzi and Davoodi, 1997; Kenny, 2009a; Gillanders, 2014; Fazekas and Tóth, 2018). Corruption in construction can also increase the risk of death and injury through failure and collapse of infrastructure and buildings through corrupt planning and inspection processes (Kenny, 2009b). As the collapse of the Rana Plaza in Bangladesh in 2015 tragically highlighted, the collapse or failure of low-quality buildings is likely to disproportionately harm poorer people who live or work in them. Corruption also magnifies the impact of natural disasters (Escaleras, Anbarci, and Register, 2007; Ambraseys and Bilham, 2011; Cevik and Jalles, 2023; Breen, Gillanders, and McMullen, 2024). While the failure and collapse of buildings and infrastructure such as bridges and tunnels is dramatic and often lead to calls for accountability and reform, the day-to-day health consequences of corruption in the utilities sector can be seen in terms of reduced access to basic needs such as clean water (Breen and Gillanders, 2024) – consequences that once again are likely to disproportionately affect the poor.

Environmental and workplace risks follow similar patterns. Corruption weakens environmental regulation, raising exposure to pollutants and associated mortality (Cole, 2007; Biswas et al., 2012; Fredriksson and Svensson, 2003). Therefore, it is not surprising that Varieur et al. (2022) find that corruption predicts increased death and illness related to air pollution in the post-Soviet countries. Poor households are least able to shield themselves from such

harms. In labor markets, politically connected firms in China face two to three times the worker death rates of unconnected firms, reflecting their ability to evade safety standards (Fisman and Wang, 2015). Anti-corruption campaigns, by contrast, have reduced mining fatalities (Xu et al., 2021). These findings underscore how corruption selectively endangers workers, amplifying health inequalities across social groups.

Across these diverse mechanisms, a consistent public choice logic emerges. Rational actors in public roles exploit opportunities for private gain at the expense of collective welfare. Corruption distorts health budgets toward rent-rich projects, entrenches bureaucratic inefficiency, erodes citizen accountability through rational ignorance and collective action problems, and undermines trust in health systems. These distortions in turn drive poverty, inequality, unsafe infrastructure, environmental degradation, and worker risk. The consequences of these behaviors are most likely to be borne by the poor as they are more likely to use public health services and less likely to have recourse to private alternatives. They include failing health systems in which public health is underfunded, with poor infrastructure and service, and bribes serve as a barrier to access. Low trust arising from corruption leads to low support for health spending and tax measures, and reduced compliance with health advice and requirements. Finally, corruption leads to increased and deepened poverty with the poor facing additional risk for low quality and unsafe infrastructure and working conditions, and increased pollution.

While the data is lacking to allow for us to test these specific mechanisms in our country level panel data exercise - particularly for health behaviors, poverty, income inequality, and infrastructure quality - all are plausible ways, supported by theory, quantitative evidence, and country specific studies and cases, in which corruption can influence health inequality.

## Data and Approach

To measure health inequality, our outcome of interest, we use data from Jorda, Niño-Zarazúa, and Tejería-Martínez (2024) that measure inequality in the length of life. While one can conceive of other important measures of health inequality, such as disease burdens, or morbidity, inequality in the length of life represents a fundamental measure of differences in



health outcomes for the population of a country. These data are based on UN Population Division data which covers many countries and years. Jorda et al. note that while data quality can vary across countries and over time, the UN Population Division estimates are internally consistent and plausible. Jorda et al. implement several quality control measures including manual checks and comparisons with other data sources. We use the Gini Index for the length of life for the total population as our main measure of health inequality. As this can be sensitive to the middle of the distribution, we also show in the appendix that our results are robust to using the Theil Entropy measure which gives equal weight to all segments of the distribution. Jorda et al. also provide separate estimates for the male and female populations. The full methodology can be found in the Jorda et al. (2024) paper.

Corruption is measured using the V-DEM index of political corruption (Coppedge et al., 2023). The V-DEM political corruption index is created by asking carefully selected and vetted experts such as academics, journalists, civil society leaders, or ex-judges to assess the degree of corruption in the Public Sector, and the executive, legislative, and legal branches of the state. The data is available over a long-time frame and for many countries, making it suitable for our purposes. It is also arguably less prone to perceptions biases than metrics such as the Corruption Perceptions Index of Transparency International, though as we note below the potential for reverse causality in which beliefs about how corrupt a country is are influenced by the degree of health inequality remain. The V-DEM data also allows us to examine the effect of each sub-component and their relative importance.

We control for the unemployment rate, the natural logarithm of GDP per capita, and the natural logarithm of population as these factors are plausibly correlated with both corruption and health inequality and with omitted factors such as health expenditure and poverty rates. While ideally, we would include variables such as health expenditure and poverty in the model directly, this would dramatically reduce size of sample in our panel data context. These variables are sourced from the World Development Indicators. Combining these data sources gives us a dataset that covers 170 countries between 1960 to 2021.

#### **<TABLE 1 HERE>**

Table 1 presents summary statistics for the variables used in our analysis. The mean of the Health Inequality Gini is 0.210 but this mask significant variation over time and country.

Ireland, for example, moved from 0.135 in 1960 to 0.080 in 2021. In our sample, the most equal countries in 2021 in terms of the length of life were Australia (0.073), Switzerland (0.077) and Iceland (0.077). The most unequal countries in this year were Nigeria (0.289), Chad (0.286), and South Sudan (0.270). Overall, in our sample, the country-year observations with the greatest levels of inequality in the length of life are Cambodia in 1975 (0.593, the first year of the Khmer Rouge) Timor Leste in 1978 and 1979 (0.580 and 0.571, respectively) and Somalia in 1991 (0.569). The mean of the Political Corruption index is 0.474 and again there is significant variation across time and country. In 2021, the least corrupt countries according to this index were Denmark (0.002), Sweden (0.006) and Singapore (0.007) with Venezuela (0.969), Chad (0.951) and Yemen (0.931) emerging as the most corrupt. The overall correlation between Political Corruption and the Health Inequality Gini is 0.38 in our sample.

While utilizing large panel data over an extended time period enhances the robustness and reliability of the results, it also introduces challenges. In particular, the issue of non-stationary variables poses a risk of spurious results. We test for unit roots using the Augmented Dickey-Fuller unit-root test. The results indicate that while our dependent variable is stationary, all our explanatory variables exhibit non-stationarity in their levels apart from population, necessitating the use of the first-difference transformation to achieve stationarity (see appendix Table A1 for the results of these tests). We thus include the growth rate of GDP per capita in our regressions, rather than the level of economic development. We also difference the logarithm of population and thus include the growth rate of population rather than the level.

We estimate the following model which includes country and year fixed effects to allow for time invariant country specific effects and time trends in corruption and health inequality. We therefore estimate the effect of changes in the growth of corruption on health inequality within a country.

$$\text{Health Inequality}_{it} = \beta_1 \Delta \text{Corruption}_{it} + \gamma \Delta X_{it} + \varepsilon_{it} \quad (1)$$

Although fixed effects estimation can allow for some forms of endogeneity, it is limited in addressing the endogeneity related to the lagged dependent variable. This is crucial because the effects of corruption on health inequality may persist over time, and past levels of health inequality can influence current levels, complicating the identification of a causal relationship.

In addition, expert assessments of corruption are prone to concerns about perceptions bias in which corruption is inferred by outcomes such as health inequality (Fan, Lin and Treisman, 2009). To test the robustness of our results to this potential endogeneity, we utilize the Generalized Method of Moments (GMM), which is particularly useful for addressing issues of dynamic panel bias (Arellano & Bond, 1991). However, traditional GMM has limitations, such as the loss of valuable information, leading to measurement error bias, and the risk of using weak instruments, as highlighted by Blundell and Bond (1998). To overcome these limitations, we employ System GMM, which enhances the traditional GMM approach by incorporating additional moment conditions, improving efficiency and consistency (Blundell & Bond, 1998). System GMM addresses the problem of weak instruments by utilizing both the level and difference equations, which improves the reliability of the instruments and yields more accurate estimates. We adopt the two-step model, which enhances efficiency over the one-step approach by accounting for heteroskedasticity and serial correlation in the errors. The lagged dependent variable (Gini coefficient) and corruption are treated as endogenous and instrumented with their own second and third lagged levels, while the control variables are entered as exogenous regressors and included as standard IV instruments. This specification yields a moderate instrument count relative to the sample size, as the lag depth is restricted to the second and third lags to limit proliferation. This is also evidenced by the insignificant p-value of the Hansen test of over-identification in our models. By construction, the model assumes that the chosen lags of health inequality and corruption are valid instruments, uncorrelated with the error term, while the macroeconomic controls are exogenous.

## Results

Table 2 presents the results of our baseline model estimated with the standard panel fixed effects estimator with country and year fixed effects. In Column 1, we use the overall Political Corruption index. Corruption emerges as a statistically significant and meaningful predictor of health inequality. Recalling that our model is estimated in differences, the results indicate that if the yearly change in corruption increases by a one standard deviation increase in the level of the Political Corruption Index (0.294), the Health Inequality Gini increases by 0.01323. This is approximately 13% of a standard deviation or 6% of the mean. As an example, taking the data from 2021, the effect of an increase in corruption of this magnitude is equivalent to a

move from the level of health inequality in the United States of America (0.12) to that of Bangladesh, Russia or Suriname (all approximately 0.133). In terms of our control variables, economic growth and population growth predict reductions in health inequality as one might expect. Conditional on economic growth, a higher unemployment rate also predicts reductions in health inequality though the magnitude of the effect is small.

**<TABLE 2 HERE>**

The remaining columns of Table 2 introduce the components of the overall Political Corruption Index as separate variables. Theoretically, corruption in any of these domains could lead to increased health inequality. Corrupt governments and legislatures can distort budgets and spending decisions, for example, while corrupted public services and courts can influence implementation of policy and remove legal recourse to victims of corruption. Each of these components is statistically significant and of appreciable impact when entered on their own. When we include all of them at the same time in Column 6, Judicial and Public Sector Corruption are statistically significant while the others lose their significance. While multicollinearity is a concern when including these variables simultaneously, the results do suggest that in terms of health inequality, it is corruption in the implementation and enforcement arm of the state that poses the greatest risk. Public Sector Corruption, often manifesting as bribery, extortion, or informal payments, creates barriers to accessing healthcare, particularly for lower-income populations. Bribery can also lead to unsafe buildings and working environments for lower income workers. Public officials can also embezzle from healthcare budgets. A corrupt legal system means that those who have been wronged or disadvantaged by corrupt or otherwise illegal practices are less likely to be able to avail themselves of corrective or restorative action. This is particularly the case for the poor.

**<TABLE 3 HERE>**

As noted above, the use of corruption perception-based metrics can give rise to perceptions biases. In our context, experts may judge a country to be more corrupt due to the presence of health inequality. We therefore test the robustness of our results using SGMM. Table 3 presents the results. We also present post-estimation tests including the AR (1) and AR (2) to demonstrate the validity and reliability of the model. structure and instrument specification. As was the case in our baseline results, corruption is a statistically significant cause of

increased health inequality (Column 1). The Hansen test does not reject the validity of the instrument set, and the Arellano–Bond AR(2) test confirms the absence of second-order serial correlation, supporting the robustness of the chosen lag structure. The chief difference between Table 2 and Table 3 is that legislative corruption is statistically significant but of a negative sign when entered on its own in Column 4, though the AR(1) test statistic is insignificant, which may indicate that the instrument set of 2/3 is not appropriate in this case. As was the case in Table 2, public sector corruption is a significant factor when all are included simultaneously, though we also find a significant negative coefficient on executive corruption. However, this specification betrays the hallmark of an instrument proliferation problem with a Hanen p-value of nearly 1. This is not surprising given that we are instrumenting for four different measures of corruption in Column 6. Taken together, the GMM results support the key findings from Table 2.

To test the robustness of our results, we employ alternative measures of health inequality and corruption. Table A2 in the appendix presents results for the Theil Entropy measure of health inequality and confirms our findings that corruption leads to increases in health inequality. In Table A3, we use the Bayesian Corruption Index and Transparency International’s Corruption Perceptions Index as alternative measurements of corruption. In both cases, increase in corruption leads to increases in health inequality.

It is often argued that women are more at risk from corruption than men (e.g. Merkle, 2020). For example, Parvanova (2025) finds that women are more likely to make informal payments when accessing health care. Moreover, in terms of health, as discussed above, corruption can distort spending decisions away from public health measures such as perinatal care towards high tech expenditure which offers greater scope for embezzlement, bribery, and favoritism. We therefore test if there are gender differences in the effect of corruption on health inequality using the data provided by Jorda, Niño-Zarazúa, and Tejería-Martínez (2024) for male and female inequality in life length. Table 4 presents the results for fixed effects and SGMM models. For both male and female populations, we find that increases in corruption cause increases in health inequality.

**<TABLE 4 HERE>**

Next, we split our sample into groups defined by World Bank Income Classification and by global region. Richer countries are likely to have more comprehensive public health systems and private insurance markets. Wealthy countries also tend to offer more transfer payments that may help to offset corruption induced distortions in health systems. Poorer countries and countries in the tropics also tend to face heavier disease burdens (Gallup, Sachs, and Mellinger, 1999). The types of corruption faced by richer and poorer countries can also be substantially different, with petty corruption being less common in richer countries, for example. Table 5 presents the results for groups defined by income classification and Table 6 for groups defined by global region. We find strong evidence that corruption leads to increased health inequality in middle income countries but not in high- or low-income countries. However, we note that in the cases of high- and low-income countries we have rather small numbers of countries. The SGMM results display instrument proliferation issues which arise from the large number of instruments relative to the number countries. While we must therefore take these results as suggestive rather than conclusive evidence of differences across income groups, the heterogeneity is consistent with the idea that wealthier countries can offer more transfer payments or public health services that can offset the effect of corruption. Corruption may also take different forms in wealthy countries, leading to different consequences for health systems and health outcomes.

#### **<TABLES HERE>**

Similar issues must be borne in mind in terms of the results reported in Table 6, where the coefficient of corruption is positive and statistically significant across all regions except Europe and North America, which are composed mainly of high-income countries, and the Pacific which only has six countries in the sample. These outcomes are broadly consistent with the patterns observed in Table 5. The absence of significance in Europe and North America may reflect the stronger institutional frameworks, more effective governance structures, and broader social safety nets in these regions, which can attenuate the direct impact of corruption on health inequality. The observed heterogeneity may also reflect differences in geography and disease burden that moderate the effect of corruption on health inequality. It is also the case that the average annual change in corruption is considerably smaller in Europe (0.0001) and North America (-0.0008) than in other regions (0.001). This lack of a large change

in political corruption in wealthier countries (on average) could explain the heterogeneity of the results.

**<TABLE 6 HERE>**

Finally, given the extended time span of our sample, we examine whether the relationship between corruption and health inequality is influenced by specific periods. To this end, we conduct a sub-sample analysis by splitting the data into two intervals: before and after the year 2000. The choice of 2000 as the breakpoint is motivated by major global developments around that time, including the introduction of the Millennium Development Goals (MDGs), the expansion of global health financing initiatives, and broader governance reforms in many developing countries. The results, presented in Table 7, show that the coefficient of corruption remains positive and statistically significant in both sub-periods, confirming that our findings are not driven by specific time periods. However, we note that the coefficient on corruption is smaller in the 21<sup>st</sup> century, perhaps reflecting improvements in medical technology and its accessibility.

**<TABLE 7 HERE>**

## Conclusion

Drawing on public choice theory, this paper argues that the rational pursuit of private gain by public officials can systematically increase health inequality within a country by biasing healthcare budgets away from primary needs, distorting regulation and oversight, raising access costs for the vulnerable, and degrading trust in public institutions. Our empirical results strongly support the conclusion that corruption causes increased inequality in the length of life with corruption in the public sector and the legal system emerging as are most harmful. These institutions serve as the gatekeepers of access to public services and the enforcers of the rule of law, and it is therefore not surprising that corruption in these domains is most harmful to health equality. We therefore conclude that while corruption does indeed kill as argued in the existing literature, some people succumb more rapidly than others.

While this work is, to the best of our knowledge, the first to establish a country level link between corruption and health outcomes inequality, more work is needed. Understanding the

mechanisms that drive this link requires micro level studies. Both quantitative and qualitative explorations are needed to understand these mechanisms and develop effective interventions. Moreover, while inequality in the length of life is a fundamental measure of health inequality, the role that corruption plays in driving cross country variation in other health inequalities, such as morbidity and mental health, remain open questions of high policy importance. Corruption can also exacerbate racial and ethnic inequalities (e.g. Dincer and Hoover, 2025), and thus future work should explore how corruption can drive health inequalities for different groups within a country.

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## **References**

- Alm, J., Martinez-Vazquez, J., & McClellan, C. (2016). Corruption and firm tax evasion. *Journal of Economic Behavior & Organization*, 124, 146-163.
- Ambraseys, N., & Bilham, R. (2011). Corruption kills. *Nature*, 469(7329), 153-155.
- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*, 58(2), 277-297.
- Azfar, O., & Gurgur, T. (2008). Does corruption affect health outcomes in the Philippines? *Economics of Governance*, 9(3), 197-244.
- Bergh, A., & Bjørnskov, C. (2011). Historical trust levels predict the current size of the welfare state. *Kyklos*, 64(1), 1-19.
- Biswas, A. K., Farzanegan, M. R., & Thum, M. (2012). Pollution, shadow economy and corruption: Theory and evidence. *Ecological economics*, 75, 114-125.



- Bjørnskov, C., & Svendsen, G. T. (2013). Does social trust determine the size of the welfare state? Evidence using historical identification. *Public Choice*, 157(1), 269-286.
- Black, W. K. (2007). Corruption kills. In *International handbook of white-collar and corporate crime* (pp. 439-455). Boston, MA: Springer US.
- Blair, R. A., Morse, B. S., & Tsai, L. L. (2017). Public health and public trust: Survey evidence from the Ebola Virus Disease epidemic in Liberia. *Social Science & Medicine*, 172, 89-97.
- Blundell, R., & Bond, S. (1998). Initial conditions and moment restrictions in dynamic panel data models. *Journal of Econometrics*, 87(1), 115-143.
- Boly, A., Konte, M., & Shimeles, A. (2021). Corruption perception and attitude towards taxation in Africa. *Journal of African Economies*, 30(Supplement\_1), i140-i157.
- Bouchard, M., Kohler, J. C., Orbinski, J., & Howard, A. (2012). Corruption in the health care sector: A barrier to access of orthopaedic care and medical devices in Uganda. *BMC international health and human rights*, 12(1), 5.
- Breen, M., & Gillanders, R. (2024). Money down the drain: Corruption and water service quality in Africa. *Governance*, 37(1), 119-135.
- Breen, M., & Gillanders, R. (2024). Corruption and the burden of regulation: National, regional, and firm-level evidence. *Public Finance Review*, 52(6), 765-790.
- Breen, M., Gillanders, R., & McMullan, C. (2024). Corruption, homelessness and disasters. *Journal of International Development*, 36(1), 70-83.
- Cavalieri, M., Guccio, C., & Rizzo, I. (2017). On the role of environmental corruption in healthcare infrastructures: An empirical assessment for Italy using DEA with truncated regression approach. *Health Policy*, 121(5), 515-524.

- Campbell, F., Conti, G., Heckman, J. J., Moon, S. H., Pinto, R., Pungello, E., & Pan, Y. (2014). Early childhood investments substantially boost adult health. *Science*, 343(6178), 1478-1485.
- Cevik, S., & Jalles, J. T. (2023). Corruption kills: Global evidence from natural disasters. IMF Working Paper No. 2023/220
- Choudhury, S. (2021). Regulation and corruption: evidence from the United States. *Oxford Bulletin of Economics and Statistics*, 83(4), 897-934.
- Chuang, Y. C., Huang, Y. L., Tseng, K. C., Yen, C. H., & Yang, L. H. (2015). Social capital and health-protective behavior intentions in an influenza pandemic. *PloS one*, 10(4)
- Cole, M. A. (2007). Corruption, income and the environment: an empirical analysis. *Ecological Economics*, 62(3-4), 637-647.
- Coppedge, Michael, John Gerring, Carl Henrik Knutsen, Staffan I. Lindberg, Jan Teorell, Kyle L. Marquardt, Juraj Medzihorsky, Daniel Pemstein, Lisa Gastaldi, Sandra Grahn, Josefine Pernes, Oskar Rydén, Johannes von Römer, Eitan Tzelgov, Yi-ting Wang, and Steven Wilson (2023). "V-Dem Methodology v13" Varieties of Democracy (V-Dem) Project.
- Deaton, A. (2003). Health, inequality, and economic development. *Journal of Economic Literature*, 41(1), 113-158.
- Del Monte, A. and Papagni, E., 2001. Public expenditure, corruption, and economic growth: the case of Italy. *European Journal of Political Economy*, 17(1), pp.1-16.
- Dincer, O., & Gillanders, R. (2021). Shelter in place? Depends on the place: Corruption and social distancing in American states. *Social Science & Medicine*, 269, 113569.
- Dincer, O. C., & Gunalp, B. (2012). Corruption and income inequality in the United States. *Contemporary Economic Policy*, 30(2), 283-292.

Dincer, O., & Teoman, O. (2019). Does corruption kill? Evidence from half a century infant mortality data. *Social Science & Medicine*, 232, 332-339.

Dincer, O., & Hoover, G. (2025). Does corruption discriminate? Racial opportunity gap in the United States. *Southern Economic Journal*, 91(3), 768-779.

Dincer, O., & Johnston, M. (2023). Black and (thin) blue (line): Corruption and other political determinants of police killings in America. *Governance*, 36(1), 167-186.

Downs, A. (1957). *An Economic Theory of Democracy*, Harper, New York

Escaleras, M., Anbarci, N., & Register, C. A. (2007). Public sector corruption and major earthquakes: A potentially deadly interaction. *Public Choice*, 132, 209-230.

Falkingham, J. (2004). Poverty, out-of-pocket payments and access to health care: evidence from Tajikistan. *Social Science & Medicine*, 58(2), 247-258.

Fazekas, M., & Tóth, B. (2018). The extent and cost of corruption in transport infrastructure. New evidence from Europe. *Transportation research part A: policy and practice*, 113, 35-54.

Fisman, R., & Wang, Y. (2015). The mortality cost of political connections. *The Review of Economic Studies*, 82(4), 1346-1382.

Fredriksson, P. G., & Svensson, J. (2003). Political instability, corruption and policy formation: the case of environmental policy. *Journal of Public Economics*, 87(7-8), 1383-1405.

Friedman, W. (2018). Corruption and averting AIDS deaths. *World Development*, 110, 13-25.

Gillanders, R. (2014). Corruption and infrastructure at the country and regional level. *Journal of Development Studies*, 50(6), 803-819.

Gründler, K., & Potrafke, N. (2019). Corruption and economic growth: New empirical evidence. *European Journal of Political Economy*, 60, 101810.

- Gupta, S., Davoodi, H., & Tiongson, E. (2001). Corruption and the provision of health care and education services. In A. K. Jain, & R. C. Issues (Eds), *The political economy of corruption* (pp. 111-141). London and New York.
- Gupta, S., Davoodi, H., & Alonso-Terme, R. (2002). Does corruption affect income inequality and poverty?. *Economics of Governance*, 3, 23-45.
- Fan, C. S., Lin, C., & Treisman, D. (2009). Political decentralization and corruption: Evidence from around the world. *Journal of Public Economics*, 93(1-2), 14-34.
- Fu, H., Lai, Y., Li, Y., Zhu, Y., & Yip, W. (2023). Understanding medical corruption in China: a mixed-methods study. *Health Policy and Planning*, 38(4), 496-508.
- Gallup, J. L., Sachs, J. D., & Mellinger, A. D. (1999). Geography and economic development. *International Regional Science Review*, 22(2), 179-232.
- Habibov, N. (2016). Effect of corruption on healthcare satisfaction in post-soviet nations: A cross-country instrumental variable analysis of twelve countries. *Social Science & Medicine*, 152, 119-124.
- Habibov, N., Cheung, A., & Auchynnikava, A. (2017). Does social trust increase willingness to pay taxes to improve public healthcare? Cross-sectional cross-country instrumental variable analysis. *Social Science & Medicine*, 189, 25-34.
- Han, L., Li, X., & Xu, G. (2022). Anti-corruption and poverty alleviation: Evidence from China. *Journal of Economic Behavior & Organization*, 203, 150-172.
- Holcombe, R. G., & Boudreaux, C. J. (2015). Regulation and corruption. *Public Choice*, 164(1), 75-85.
- Holmberg, S., & Rothstein, B. (2011). Dying of corruption. *Health Economics, Policy and Law*, 6(4), 529-547.

- Hsiao, A., Vogt, V., & Quentin, W. (2019). Effect of corruption on perceived difficulties in healthcare access in sub-Saharan Africa. *PLOS ONE*, 14(8)
- Hunt, J. (2007). How corruption hits people when they are down. *Journal of Development Economics*, 84(2), 574-589.
- Jha, C. K., & Kırışanlı, F. (2024). Arab Spring, democratization of corruption, and income inequality. *International Journal of Finance & Economics*, 29(3), 3678-3691.
- Jindra, C., & Vaz, A. (2019). Good governance and multidimensional poverty: A comparative analysis of 71 countries. *Governance*, 32(4), 657-675.
- Jorda, V., Niño-Zarazúa, M., & Tejería-Martínez, M. (2024). The Lifespan Disparity Dataset: An open repository on inequality and polarization in length of life (1950–2021). *Scientific Data*, 11(1), 650.
- Justesen, M. K., & Bjørnskov, C. (2014). Exploiting the poor: Bureaucratic corruption and poverty in Africa. *World Development*, 58, 106-115.
- Kenny, C. (2009a). Measuring corruption in infrastructure: Evidence from transition and developing countries. *The Journal of Development Studies*, 45(3), 314-332.
- Kenny, C. (2009b). Transport construction, corruption and developing countries. *Transport Reviews*, 29(1), 21-41.
- Khemani, S. (2015). Buying votes versus supplying public services: Political incentives to under-invest in pro-poor policies. *Journal of Development Economics*, 117, 84-93.
- Lachapelle, E., Bergeron, T., Nadeau, R., Daoust, J. F., Dassonneville, R., & Bélanger, É. (2021). Citizens' willingness to support new taxes for COVID-19 measures and the role of trust. *Politics & Policy*, 49(3), 534-565.

Leeson, P. T., & Thompson, H. A. (2023). Public choice and public health. *Public Choice*, 195(1), 5-41.

Liang, L.-L., & Mirelman, A. J. (2014). Why do some countries spend more for health? An assessment of sociopolitical determinants and international aid for government health expenditures. *Social Science & Medicine*, 161-168.

Mauro, P., (1995.) Corruption and growth. *The Quarterly Journal of Economics*, 110(3), pp.681-712.

Mauro, P. (1998). Corruption and the composition of government expenditure. *Journal of Public Economics*, 69, 263-279.

Merkle, O. (2020). Gender and corruption: what we know and ways forward. In A. Mungiu-Pippidi & P. M. Heywood (Eds.), *A Research Agenda for Studies of Corruption* (pp. 75–89). Edward Elgar Publishing

McDonough, P., Sacker, A., & Wiggins, R. D. (2005). Time on my side? Life course trajectories of poverty and health. *Social Science & Medicine*, 61(8), 1795-1808.

Munger, M. C. (2019). Tullock and the welfare costs of corruption: there is a “political Coase Theorem”. *Public Choice*, 181(1), 83-100.

Olson, M. (1965). *The logic of collective action: Public goods and the theory of groups*. Cambridge, MA: Harvard University Press.

Ouedraogo, Idrissa and Maiga, Eugenie and Gillanders, Robert and Aja-Eke, Doris, Health Sector Corruption and Access to Healthcare in Africa (February 7, 2024). Available at SSRN: <https://ssrn.com/abstract=4719753> or <http://dx.doi.org/10.2139/ssrn.4719753>

Parvanova, I. (2025). The effect of institutional characteristics and social norms on corruption in healthcare. *Governance*, 38(1), e12868.

- Radin, D. (2013). Does corruption undermine trust in health care? Results from public opinion polls in Croatia. *Social Science & Medicine*, 98, 46-53.
- Reinikka, R., & Svensson, J. (2004). Local capture: evidence from a central government transfer program in Uganda. *The Quarterly Journal of Economics*, 119(2), 679-705.
- Seligson, M. A. (2002). The impact of corruption on regime legitimacy: A comparative study of four Latin American countries. *The Journal of Politics*, 64(02), 408-433.
- Shleifer, A., & Vishny, R. W. (1993). Corruption. *The Quarterly Journal of Economics*, 108(3), 599-617.
- Tanzi, V., & Davoodi, H. (1997). *Corruption, Public Investment, and Growth* (No. 1997/139). International Monetary Fund.
- Tullock, G. (1975). The transitional gains trap. *The Bell Journal of Economics*, 671-678.
- Tullock, G. (1987). Rent seeking. In *The New Palgrave Dictionary of Economics* (pp. 1-4). Palgrave Macmillan, London.
- Tullock, G. (1996). Corruption theory and practice. *Contemporary economic policy*, 14(3), 6-13.
- Varieur, B. M., Fisher, S., & Landrigan, P. J. (2022). Air pollution, political corruption, and cardiovascular disease in the former soviet republics. *Annals of Global Health*, 88(1), 48.
- Vian, T. (2008a). Review of corruption in the health sector: Theory, methods and interventions. *Health Policy and Planning*, 23(2), 83-94
- Vian, T. (2008b). Corruption and the consequences for public health. *International Encyclopedia of Public Health*, 26-33.

- Vinck, P., Pham, P. N., Bindu, K. K., Bedford, J., & Nilles, E. J. (2019). Institutional trust and misinformation in the response to the 2018–19 Ebola outbreak in North Kivu, DR Congo: a population-based survey. *The Lancet Infectious Diseases*, 19(5), 529-536.
- Xu, G., Wang, X., Wang, R., Yano, G., & Zou, R. (2021). Anti-corruption, safety compliance and coal mine deaths: Evidence from China. *Journal of Economic Behavior & Organization*, 188, 458-488.
- Yamamura, E. (2014). Trust in government and its effect on preferences for income redistribution and perceived tax burden. *Economics of Governance*, 15(1), 71-100.
- Yaqub, O., Castle-Clarke, S., Sevdalis, N., & Chataway, J. (2014). Attitudes to vaccination: a critical review. *Social Science & Medicine*, 112, 1-11.



*Table 1 Summary Statistics*

|                          | (1)   | (2)   | (3)   | (4)   | (5)   |
|--------------------------|-------|-------|-------|-------|-------|
|                          | Mean  | SD    | p25   | p50   | p75   |
| Political Corruption     | 0.474 | 0.294 | 0.197 | 0.498 | 0.737 |
| Executive Corruption     | 0.474 | 0.306 | 0.182 | 0.485 | 0.750 |
| Public Sector Corruption | 0.455 | 0.297 | 0.171 | 0.458 | 0.724 |
| Judicial Corruption      | 0.491 | 0.211 | 0.336 | 0.514 | 0.662 |
| Legislative Corruption   | 0.522 | 0.200 | 0.382 | 0.532 | 0.680 |
| Health Gini              | 0.210 | 0.105 | 0.123 | 0.176 | 0.283 |
| Health Gini (female)     | 0.197 | 0.106 | 0.108 | 0.161 | 0.272 |
| Health Gini (male)       | 0.219 | 0.106 | 0.132 | 0.188 | 0.293 |
| Unemployment Rate        | 7.883 | 6.004 | 3.587 | 6.130 | 10.53 |
| Ln(GDP per capita)       | 7.500 | 1.716 | 6.160 | 7.353 | 8.770 |
| Ln(Population)           | 15.73 | 1.764 | 14.69 | 15.81 | 16.90 |

SD = Standard Deviation. P25, P50, and P75 denote 25<sup>th</sup>, 50<sup>th</sup>, and 75<sup>th</sup> Percentile, respectively

Table 2 Main Results

|                           | (1)                   | (2)                   | (3)                   | (4)                   | (5)                   | (6)                   |
|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| ΔPolitical Corruption     | 0.045***<br>(5.168)   |                       |                       |                       |                       |                       |
| ΔExecutive Corruption     |                       | 0.022***<br>(3.767)   |                       |                       |                       | 0.004<br>(0.583)      |
| ΔJudicial Corruption      |                       |                       | 0.043***<br>(3.736)   |                       |                       | 0.024**<br>(2.058)    |
| ΔLegislative Corruption   |                       |                       |                       | 0.032***<br>(3.137)   |                       | 0.017<br>(1.600)      |
| ΔPublic Sector Corruption |                       |                       |                       |                       | 0.030***<br>(4.335)   | 0.018**<br>(2.017)    |
| GDP per capita Growth     | -0.010***<br>(-5.104) | -0.010***<br>(-5.194) | -0.010***<br>(-5.113) | -0.008***<br>(-3.672) | -0.010***<br>(-5.100) | -0.008***<br>(-3.731) |
| ΔUnemployment Rate        | -0.001**<br>(-2.023)  | -0.001*<br>(-1.916)   | -0.001**<br>(-2.041)  | -0.000*<br>(-1.730)   | -0.001*<br>(-1.940)   | -0.000<br>(-1.641)    |
| Population Growth         | -0.222***<br>(-8.397) | -0.223***<br>(-8.476) | -0.223***<br>(-8.385) | -0.162***<br>(-5.670) | -0.222***<br>(-8.429) | -0.151***<br>(-5.275) |
| Constant                  | 0.272***<br>(57.337)  | 0.272***<br>(57.431)  | 0.273***<br>(57.094)  | 0.266***<br>(52.392)  | 0.272***<br>(57.425)  | 0.265***<br>(52.545)  |
| Country Fixed Effects     | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Year Fixed Effects        | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   | Yes                   |
| Observations              | 4,900                 | 4,914                 | 4,932                 | 4,805                 | 4,914                 | 4,734                 |
| Number of Countries       | 169                   | 169                   | 170                   | 170                   | 169                   | 168                   |

z-statistics in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3 Robustness: SGMM Results

| VARIABLES                 | (1)<br>Political         | (2)<br>Executive         | (3)<br>Judicial          | (4)<br>Legislative      | (5)<br>Public            | (6)<br>All            |
|---------------------------|--------------------------|--------------------------|--------------------------|-------------------------|--------------------------|-----------------------|
| ΔPolitical Corruption     | 0.020***<br>(113.056)    |                          |                          |                         |                          |                       |
| ΔExecutive Corruption     |                          | 0.013***<br>(135.501)    |                          |                         |                          | -0.076***<br>(-2.960) |
| ΔJudicial Corruption      |                          |                          | 0.016***<br>(203.002)    |                         |                          | 0.029<br>(1.067)      |
| ΔLegislative Corruption   |                          |                          |                          | -0.004***<br>(-49.527)  |                          | -0.017<br>(-0.629)    |
| ΔPublic Sector Corruption |                          |                          |                          |                         | 0.024***<br>(236.981)    | 0.131***<br>(2.980)   |
| Lag of Dependent Variable | 0.972***<br>(12,020.989) | 0.972***<br>(19,779.476) | 0.970***<br>(11,586.047) | 0.940***<br>(8,048.895) | 0.973***<br>(11,966.141) | 0.953***<br>(79.184)  |
| GDP per capita Growth     | -0.004***<br>(-178.508)  | -0.004***<br>(-161.166)  | -0.004***<br>(-167.699)  | -0.001***<br>(-152.574) | -0.004***<br>(-180.470)  | -0.001<br>(-1.078)    |
| ΔUnemployment Rate        | -0.000***<br>(-5.424)    | 0.000***<br>(5.440)      | 0.000***<br>(2.917)      | 0.000***<br>(28.166)    | 0.000***<br>(8.256)      | 0.000<br>(0.923)      |
| Population Growth         | -0.011***<br>(-45.375)   | -0.013***<br>(-45.991)   | -0.007***<br>(-19.034)   | 0.056***<br>(146.742)   | -0.014***<br>(-31.665)   | 0.046<br>(1.480)      |
| Constant                  | 0.003***<br>(184.739)    | 0.003***<br>(335.207)    | 0.003***<br>(175.547)    | 0.006***<br>(193.805)   | 0.003***<br>(172.302)    | 0.005***<br>(2.965)   |
| AR (1)                    | 0.022                    | 0.022                    | 0.034                    | 0.084                   | 0.021                    | 0.007                 |
| AR (2)                    | 0.304                    | 0.325                    | 0.386                    | 0.476                   | 0.336                    | 0.427                 |
| Hansen                    | 0.608                    | 0.628                    | 0.596                    | 0.659                   | 0.609                    | 0.950                 |
| Observations              | 4,900                    | 4,914                    | 4,932                    | 4,805                   | 4,914                    | 4,734                 |
| Number of countries       | 169                      | 169                      | 170                      | 170                     | 169                      | 168                   |

z-statistics in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Table 4 Male and Female Health Inequality*

|                           | Fixed Effects         |                       | SGMM                  |                       |
|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                           | (1)<br>Male           | (2)<br>Female         | (3)<br>Male           | (4)<br>Female         |
| ΔPolitical corruption     | 0.048***<br>(5.574)   | 0.043***<br>(4.664)   | 0.008***<br>(6.362)   | 0.001**<br>(2.013)    |
| GDP per capita Growth     | -0.010***<br>(-5.274) | -0.010***<br>(-4.696) | -0.004***<br>(-6.576) | -0.004***<br>(-6.068) |
| ΔUnemployment             | -0.000<br>(-1.596)    | -0.001**<br>(-2.552)  | -0.000<br>(-0.820)    | 0.000<br>(0.383)      |
| Population Growth         | -0.228***<br>(-8.765) | -0.209***<br>(-7.609) | -0.010<br>(-1.497)    | -0.008<br>(-1.108)    |
| Lag of Dependent Variable |                       |                       | 0.971***<br>(405.772) | 0.971***<br>(419.517) |
| Constant                  | 0.211***<br>(133.886) | 0.186***<br>(111.539) | 0.003***<br>(8.239)   | 0.003***<br>(8.663)   |
| Country Fixed Effects     | Yes                   | Yes                   | Yes                   | Yes                   |
| Year Fixed Effects        | Yes                   | Yes                   | Yes                   | Yes                   |
| AR (1)                    |                       |                       | 0.011                 | 0.032                 |
| AR (2)                    |                       |                       | 0.849                 | 0.506                 |
| Hansen test               |                       |                       | 0.620                 | 0.606                 |
| Observations              | 4,900                 | 4,900                 | 4,900                 | 4,900                 |
| R-squared                 | 0.578                 | 0.513                 |                       |                       |
| Number of Countries       | 169                   | 169                   | 169                   | 169                   |

z-statistics in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 5 Results by Income Classification

|                           | Fixed Effects         |                       |                       | SGMM                    |                        |                       |
|---------------------------|-----------------------|-----------------------|-----------------------|-------------------------|------------------------|-----------------------|
|                           | (1)                   | (2)                   | (3)                   | (4)                     | (5)                    | (6)                   |
|                           | High Income           | Middle Income         | Low income            | High Income             | Middle Income          | Low Income            |
| ΔCorruption               | 0.000<br>(0.054)      | 0.023***<br>(2.646)   | -0.004<br>(-0.574)    | -0.003<br>(-1.392)      | 0.009***<br>(14.222)   | -0.013<br>(-1.148)    |
| Lag of Dependent Variable |                       |                       |                       | 0.962***<br>(1,451.040) | 0.990***<br>(785.178)  | 0.991***<br>(175.228) |
| GDP per capita Growth     | -0.001<br>(-1.347)    | -0.005**<br>(-2.219)  | -0.010***<br>(-5.797) | 0.000***<br>(3.319)     | -0.002***<br>(-19.205) | -0.011***<br>(-8.966) |
| ΔUnemployment             | -0.000***<br>(-2.613) | -0.000<br>(-0.613)    | -0.000<br>(-0.248)    | -0.000***<br>(-16.302)  | 0.000***<br>(11.400)   | -0.000***<br>(-3.651) |
| Population Growth         | -0.019***<br>(-7.971) | -0.339***<br>(-7.494) | -0.069***<br>(-3.223) | -0.015***<br>(-22.089)  | -0.021***<br>(-7.655)  | -0.044**<br>(-2.568)  |
| Constant                  | -0.001***<br>(-5.969) | 0.208***<br>(112.372) | -0.000<br>(-0.183)    | 0.003***<br>(41.241)    | 0.000<br>(0.414)       | -0.001<br>(-0.502)    |
| Country Fixed Effects     | Yes                   | Yes                   | Yes                   |                         |                        |                       |
| Year Fixed Effects        | Yes                   | Yes                   | Yes                   |                         |                        |                       |
| AR (1)                    |                       |                       |                       | 0.000                   | 0.092                  | 0.041                 |
| AR (2)                    |                       |                       |                       | 0.130                   | 0.143                  | 0.656                 |
| Hansen test               |                       |                       |                       | 0.956                   | 0.977                  | 0.945                 |
| Observations              | 1,460                 | 2,717                 | 723                   | 1,460                   | 2,717                  | 723                   |
| R-squared                 | 0.163                 | 0.655                 | 0.137                 |                         |                        |                       |
| Number of ID              | 50                    | 92                    | 27                    | 50                      | 92                     | 27                    |

z-statistics in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Table 6 Results by Geographical Region*

|                           | (1)<br>Africa          | (2)<br>Asia            | (3)<br>Europe          | (4)<br>North America | (5)<br>South America | (6)<br>Pacific       |
|---------------------------|------------------------|------------------------|------------------------|----------------------|----------------------|----------------------|
| ΔPolitical Corruption     | 0.011***<br>(14.760)   | 0.019***<br>(8.342)    | 0.000<br>(0.237)       | 0.020<br>(0.779)     | 0.004**<br>(2.250)   | 0.044<br>(1.063)     |
| Lag of Dependent Variable | 0.943***<br>(313.035)  | 0.962***<br>(772.929)  | 0.954***<br>(341.541)  | 0.861***<br>(5.575)  | 0.968***<br>(54.905) | 0.878***<br>(10.762) |
| GDP per capita Growth     | -0.006***<br>(-12.823) | -0.002***<br>(-20.734) | -0.000***<br>(-4.143)  | 0.003***<br>(2.760)  | -0.000<br>(-0.607)   | -0.002<br>(-1.515)   |
| ΔUnemployment Rate        | 0.000<br>(1.352)       | 0.000***<br>(4.368)    | -0.000**<br>(-2.475)   | 0.000<br>(0.917)     | 0.000**<br>(2.133)   | -0.001<br>(-1.572)   |
| Population Growth         | -0.037***<br>(-7.561)  | -0.011***<br>(-5.028)  | -0.043***<br>(-18.095) | 0.239<br>(0.650)     | -0.056<br>(-1.509)   | 0.246<br>(1.359)     |
| Constant                  | 0.012***<br>(14.588)   | 0.004***<br>(20.369)   | 0.004***<br>(13.822)   | 0.014<br>(0.908)     | 0.004<br>(1.514)     | 0.011<br>(1.416)     |
| AR (1)                    | 0.022                  | 0.098                  | 0.007                  | 0.025                | 0.031                | 0.051                |
| AR (2)                    | 0.597                  | 0.348                  | 0.810                  | 0.282                | 0.313                | 0.122                |
| Hansen test               | 0.871                  | 0.879                  | 0.915                  | 0.932                | 0.934                | 0.911                |
| Observations              | 1,512                  | 1,244                  | 1,162                  | 299                  | 503                  | 180                  |
| Number of ID              | 53                     | 43                     | 40                     | 10                   | 17                   | 6                    |

z-statistics in parentheses  
 \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

*Table 7 Results by Time Period*

|                               | (1)<br>1960-1999      | (2)<br>2000-2021        |
|-------------------------------|-----------------------|-------------------------|
| $\Delta$ Political Corruption | 0.016***<br>(5.214)   | 0.005***<br>(6.741)     |
| Lag of Dependent Variable     | 0.887***<br>(207.344) | 0.961***<br>(1,773.206) |
| GDP per capita Growth         | -0.006***<br>(-9.917) | -0.001***<br>(-5.788)   |
| $\Delta$ Unemployment Rate    | -0.000***<br>(-2.924) | 0.000***<br>(5.140)     |
| Population Growth             | 0.097***<br>(17.035)  | 0.006*<br>(1.777)       |
| Constant                      | 0.017***<br>(17.318)  | 0.004***<br>(41.933)    |
| AR (1)                        | 0.026                 | 0.013                   |
| AR (2)                        | 0.809                 | 0.203                   |
| Hansen                        | 0.141                 | 0.380                   |
| Observations                  | 1,411                 | 3,326                   |
| Number of ID                  | 161                   | 169                     |

z-statistics in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Appendix

*Table A1 Augmented Dickey Fuller Unit Root Tests*

| Variable               | Z Test Statistic | p-Value |
|------------------------|------------------|---------|
| Health Inequality Gini | -20.6797         | 0.000   |
| Political Corruption   | -1.3476          | 0.0889  |
| Ln(GDP per capita)     | 2.9247           | 0.9983  |
| Unemployment Rate      | 2.8321           | 0.9977  |
| Ln(Population)         | -38.5283         | 0.000   |

*Table A2 Robustness: Theil Entropy Index of Health Inequality*

|                           | (1)                      | (2)                      | (3)                     | (4)                     | (5)                      | (6)                  |
|---------------------------|--------------------------|--------------------------|-------------------------|-------------------------|--------------------------|----------------------|
| ΔPolitical Corruption     | 0.020***<br>(367.168)    |                          |                         |                         |                          |                      |
| ΔExecutive Corruption     |                          | 0.015***<br>(249.605)    |                         |                         |                          | -0.073<br>(-1.082)   |
| ΔJudicial Corruption      |                          |                          | -0.071***<br>(-186.468) |                         |                          | 0.027<br>(1.051)     |
| ΔLegislative Corruption   |                          |                          |                         | -0.001***<br>(-41.213)  |                          | -0.031<br>(-1.105)   |
| ΔPublic Sector Corruption |                          |                          |                         |                         | 0.023***<br>(734.022)    | 0.126***<br>(2.996)  |
| Lag of Dependent Variable | 0.966***<br>(34,395.440) | 0.966***<br>(16,529.953) | 1.030***<br>(4,811.808) | 0.942***<br>(16,550.1)  | 0.966***<br>(30,440.474) | 0.948***<br>(96.673) |
| GDP per capita Growth     | -0.004***<br>(-429.567)  | -0.004***<br>(-182.110)  | -0.002***<br>(-161.345) | -0.001***<br>(-127.313) | -0.004***<br>(-494.823)  | -0.001<br>(-1.353)   |
| ΔUnemployment Rate        | -0.000***<br>(-20.250)   | -0.000<br>(-0.240)       | 0.000***<br>(12.024)    | 0.000***<br>(23.220)    | -0.000**<br>(-2.049)     | 0.000<br>(0.806)     |
| Population Growth         | -0.010***<br>(-68.939)   | -0.012***<br>(-81.957)   | 0.003***<br>(7.715)     | 0.060***<br>(289.765)   | -0.012***<br>(-83.140)   | 0.044<br>(1.473)     |
| Constant                  | 0.001***<br>(302.010)    | 0.001***<br>(147.451)    | 0.081***<br>(3,029.098) | 0.002***<br>(224.586)   | 0.001***<br>(184.715)    | 0.001***<br>(2.760)  |
| AR (1)                    | 0.024                    | 0.024                    | 0.026                   | 0.019                   | 0.023                    | 0.006                |
| AR (2)                    | 0.158                    | 0.165                    | 0.441                   | 0.299                   | 0.177                    | 0.297                |
| Hansen test               | 0.616                    | 0.623                    | 0.627                   | 0.593                   | 0.611                    | 0.937                |
| Observations              | 4,900                    | 4,914                    | 4,932                   | 4,805                   | 4,914                    | 4,734                |
| Number of countries       | 169                      | 169                      | 170                     | 170                     | 169                      | 168                  |

z-statistics in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



*Table A3 Robustness: Alternative Corruption Indices*

|                              | (1)                     | (2)                   |
|------------------------------|-------------------------|-----------------------|
| Bayesian Corruption Index    | 0.005***<br>(43.312)    |                       |
| Corruption Perceptions Index |                         | 0.002**<br>(2.351)    |
| Lag of Dependent Variable    | 0.978***<br>(7,428.771) | 0.966***<br>(401.779) |
| GDP per capita Growth        | -0.002***<br>(-84.172)  | 0.002***<br>(3.534)   |
| ΔUnemployment Rate           | 0.000***<br>(8.904)     | 0.000<br>(1.004)      |
| Population Growth            | -0.012***<br>(-39.058)  | 0.009<br>(1.444)      |
| Constant                     | 0.002***<br>(94.649)    | 0.003***<br>(10.464)  |
| AR (1)                       | 0.046                   | 0.000                 |
| AR (2)                       | 0.393                   | 0.150                 |
| Hansen                       | 0.647                   | 0.193                 |
| Observations                 | 4,689                   | 1,453                 |
| Number of ID                 | 169                     | 166                   |

z-statistics in parentheses  
\*\*\* p<0.01, \*\* p<0.05, \* p<0.1