

Supplemental Appendix for The Diplomatic Burden of Pandemics: Lessons  
From Malaria

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**Contents**

**Overview** 2

**Extended Theoretical Discussion of Diplomacy and Malaria** 2

    Factors shaping diplomatic missions . . . . . 2

    Malaria as a determinant of diplomacy . . . . . 4

**Independent and Variable Operationalizations** 6

**Summary Statistics** 9

**Robustness Models** 13

**Evidence for Overdispersion** 35

## Overview

In this supplemental appendix, we first provide an extended treatment of our theoretical arguments, with additional anecdotal evidence. We next present our control variable operationalizations in full. We then report two tables of summary statistics for our dependent variables, independent variable (*Malaria Prevalance<sub>j</sub>*), and our control variables. This is followed by a series of robustness tables—and corresponding discussion—for the main paper’s primary analysis. Finally, we present and discusses evidence to suggest the presence of overdispersion in our monadic *Sum Diplomacy<sub>at j</sub>* dependent (count) variable.

## Extended Theoretical Discussion of Diplomacy and Malaria

### *Factors shaping diplomatic missions*

The practice of establishing diplomatic relations with foreign polities predates the inception of the modern nation-state. Historically, such missions served as central means for governments to conduct their international relations, promote their economic interests, and maintain their power and prestige abroad. For instance, in this vein, historical accounts argue that diplomacy directly allows states to avoid war with one another (e.g., [Beilenson, 1980](#); [Bennett, 2006](#), 67; 393), and accordingly attribute the outbreak of war to failures of diplomacy (e.g., [Dorman and Kennedy, 2008](#), 183). Post-World War II (WWII), these traditional roles of diplomatic missions have expanded further to aid states in directing their foreign security policy when foreign intra and interstate wars arise ([Rosati and Scott, 2010](#), 138) and communicating with and aiding citizens abroad during natural disasters and related emergencies ([Haywood and Majerus, 2014](#), 2). In the current era of state-to-state relations, diplomatic missions continue to function as an essential policy instrument in these regards ([Bagozzi and Landis, 2015](#), 18).

Given the broad importance of diplomatic ties and interactions, what factors shape countries’ decisions to establish diplomatic missions with one another? Case-based evidence suggests that, often, the decision if and where to establish local relations is shaped not (only) by senior policymakers, but also by rank-and-file members of the countries’ respective diplomatic corps. In the U.S. for example, the State Department frequently lobbies its own government for the establishment of formal diplomatic ties with foreign states, and embassies therein. This was the case, for instance, with respect to Macedonia in the 1990’s, wherein the U.S. State Department domestically “stressed its belief that establishing diplomatic relations between the two countries would ‘help to strengthen the stability of the region’” ([Shea, 1997](#), 360).<sup>1</sup> In other cases, the U.S. State Department’s Secretary of State has played an even more instrumental role in establishing diplomatic relations with states and spearheading the creation of embassies by, in one such instance of policy gridlock, “‘making the decision to cut through the bureaucratic fog on both sides’ [... and moving] forward with plans to establish an embassy” ([Addleton, 2013](#), 30-31). Comparable autonomous decision-making has been evident in the Canadian Secretary of State’s past direction

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<sup>1</sup>Historically, similar dynamics have arisen in efforts to initially establish permanent diplomatic relations between nation-states. For instance, the establishment of permanent British-Chinese relations in 1834 where impeded when Britain’s diplomatic representative and his translator both contracted Malaria in China and passed away ([Kissinger, 2011](#)).

of embassy locations in Africa (Gendron, 2006).

Moreover, while executives and congressional bodies do play a role in these approval processes—and especially so for key states related to a country’s national interest—evidence suggests that such actors shy away from micromanaging these decisions when national interests are not of immediate concern. For example, the U.S. Congressional record indicates one House of Representatives member as stating in this regard that, “I cannot think of a dumber thing that we could do as to take this money away and to try and micromanage the way that we are going to establish an embassy...” (Congressional Record—House, 2005). This case-based evidence, in addition to research discussed below, suggests that diplomats have both the incentives and abilities to lobby their government to opt for—or against—locating a diplomatic mission within a given country, including in pandemic-affected states.

Though politically and economically beneficial, establishing and using diplomatic missions and envoys costs scarce resources, which can pose a strong constraint on developing or smaller states. Accordingly, scholars note a high degree of variance in the extent of diplomatic ties across countries and time (Neumayer, 2008). States (and diplomats) must make choices in where to send their limited diplomatic resources, and that in this endeavor, one typically sees governments weighing cost-benefit calculations when choosing diplomatic destinations (Neumayer, 2008; Kinne, 2014). In particular, factors such as proximity, power, and ideological affinity weigh heavily on governments’ perceptions of a potential diplomatic mission’s *benefits*, as these criteria ensure that the perks of diplomatic missions, including those related to trade promotion, cultural exchange, economic cooperation, and direct lines of access to allies and major powers, will be maximized (Rose, 2007). For instance, Neumayer (2008, 231) observes that geographic proximity lowers the costs of diplomatic representation in that it “is cheaper to set up and maintain embassies in close countries and easier to persuade staff to move to such countries, where the climate and culture is similar and home, with all its amenities (food, media, schools for the children, etc.), is not far away.”

In addition to their establishment, the upkeep of diplomatic missions is also potentially costly for states with respect to both their national interests and bureaucratic maintenance. Regarding the former, careful political considerations must be made by leaders in their assignment of diplomatic missions to particular states (and diplomatic recognition thereof) given the backlash that controversial diplomatic relations can provoke among domestic actors and allied states (Neumayer, 2008; Kinne, 2014). As for the latter, a country’s foreign service department’s operating budget, and its diplomatic service members themselves, can often incur variable service costs depending on an intended diplomatic host country’s social, political, and economic environment. Indeed, as one longtime Canadian foreign service member observed in this regard,<sup>2</sup> “[y]ou don’t enjoy every minute of life when you’re in a country that, after a while, you find difficult to live in, where the cultural differences affect the role of women, where children have to live in a compound and can’t go on the street, where malaria is a fact of life.”<sup>3</sup>

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<sup>2</sup>An account from the U.S. perspective similarly characterized the U.S. foreign service as one where “[p]olluted drinking water, severe pollution, malaria and other diseases are facts of life in dozens of overseas posts. Constant security threats in countries such Colombia, Haiti and Liberia and in areas such as the Middle East, make living conditions even harder.” *Ups and Downs of Diplomacy; Americans Weigh Risks, Rewards*. Nicholas Kralev. The Washington Times. April 19, 2004.

<sup>3</sup>Laura Pratt, “They Joined the Foreign Service to See the World But...” *The Financial Post* November 1, 1995.

Due to these perceived costs, diplomats and their support staffs often lobby, direct, or guide foreign policy decision-making so as to ensure that diplomatic missions are established and located in relatively agreeable locals. For instance, [Neumayer \(2008, 231\)](#) observes that geographic proximity lowers the costs of diplomatic representation in that it “is cheaper to set up and maintain embassies in close countries and easier to persuade staff to move to such countries, where the climate and culture is similar and home, with all its amenities (food, media, schools for the children, etc.), is not far away.” In this regard then, diplomatic staffers may influence the decision making process with respect to where diplomatic missions are established, via their opposition to serving in countries that make life difficult for them and their families. [Rose \(2007\)](#), in turn, empirically confirms that these individual preferences of diplomatic corps—including the perceived (un)desirability of a potential host country—often influence the actual location of diplomatic missions sent abroad.

### *Malaria as a determinant of diplomacy*

Building on these insights, we theoretically argue that a potential diplomatic host country’s levels of pandemic prevalence—specifically malaria—will make governments to be less likely to establish diplomatic relations. As discussed above, factors such as cultural (dis)similarity, distance, health threats, and the (un)availability of shopping, schooling, and housing amenities can each exert a strong influence on diplomatic service members’ incentives to serve in some countries and not others. Moreover, the costs of adjusting to life in such countries become higher in the presence of such challenges. Associated concerns will often accordingly alter the actual locations (and establishments) of embassies and consulates ([Rose, 2007](#); [Neumayer, 2008](#)).

Political science and economics research demonstrates that malaria has historically shaped political decisions, settlement patterns, and colonial policy choices amongst colonizers, impacting—for instance—the design of political institutions in colonies settled by Europeans ([Acemoglu, Johnson and Robinson, 2001](#)), the location of settlements in the Ottoman Empire ([Gratien, 2017](#)), and patterns of urbanization in Japanese-ruled Korea ([Kim, 2016](#)). In conflict, malaria impacts the choices of combat tactics during interstate and intrastate wars, as well as the outcomes of these conflicts ([Bagozzi, 2016](#)). Evidence also suggests that it has contributed to the actual incidence of civil war ([Cervellati, Sunde and Valmori, 2017](#)).

Extant research furthermore indicates that malaria’s incidence and prevalence rates have the capacity to shape the decisions and actions of transnational actors, often compelling these actors to choose against undertaking activities in malarial countries when alternative locations are available. One example is that of international trade and foreign direct investment, which are adversely affected by the presence of malaria for the very reasons discussed above. For instance, [Sachs and Malaney \(2002, 684\)](#) find that as “incentives to expand markets into malarious regions of the world will be lost in the event that trade and commercialization expose people to an increased burden of malaria...investors from non-malarious regions tend to shun malarious regions for fear of contracting the disease—a fear that is sadly well grounded in reality.” Similar contentions have also been leveraged with respect to malaria’s adverse effects on tourism. ([Gallup and Sachs, 2001, 95](#)), for example, find that “[m]alaria, unlike dis-

eases resulting from poverty, does not discriminate between rich and poor victims. As long as malaria protection is imperfect and cumbersome, well-to-do foreign investors and tourists may stay away from malarial countries.” (Gallup and Sachs, 2001, 95).

These contentions suggest that a variety of transnational actors, ranging from foreign investors and businessmen to tourists, will consciously avoid malarial regions—provided that other opportunities exist. Like these factors, pandemics—including malaria—can affect the diplomatic staff’s standards-of-living and directly endanger their health. Additionally, the costs of preventing and mitigating such pandemics can be high due to a variety of factors, ranging from vaccinations and treatments, through hospitalization, to the number of workdays lost due to indisposed staff and their family members (WHO 2015; Sawyer, 1993; Sachs and Malaney, 2002). Although these costs can be absorbed relatively easily by wealthier states such as the U.S., they can be prohibitive to many poorer and smaller states. Facing opportunity costs of where to invest their more limited pool of resources, such countries will steer diplomatic relations away from highly pandemic—and specifically, highly malarial countries—and towards more inviting locales.

These expectations are supported by ample case-specific evidence. Together this evidence implies that diplomatic actors *do* in fact make these sorts of cost-benefit calculations with respect to malaria. For example, a 1984 Washington Post account of U.S. Diplomatic and State Department challenges noted that a “decline in public health programs in some Third World nations poses new dangers to diplomats and their families. Of special concern to Dr. Martin Wolfe, State’s senior specialist in tropical diseases, is the emergence of drug-resistant malaria in parts of Africa and Asia.”<sup>4</sup> Indeed, even in an era of severe Cold War tensions, news reports depict malaria as being on the forefront of State Department security and health concerns. Similarly, the U.S. Ambassador to Equatorial Guinea, in discussing the U.S. embassy’s potential closure in that country, likewise lamented that “[w]hat you are paid more for is half the family coming down with malaria [...] My wife has had it. My boys have had it.”<sup>5</sup>

As briefly noted within our primary research note, the diplomatic concerns outlined above are not unique to the U.S. and its diplomatic Corps. For instance, the Canadian press reported concerns over malaria in the context of diplomacy when an anonymous ambassador to Equatorial Guinea was quoted as stating that “malaria is nearly a certainty, despite precautions”.<sup>6</sup> Likewise, Britain’s Ambassador to the U.S. during World War I—Sir Cecil Spring Rice—notably requested a move from “the semitropical climate of Washington” due to his belief that the hot and humid weather of Washington, D.C. posed a danger to his health given a previous bout with malaria—a request that was received favorably by the British Foreign Office (Burton, 1990, 31). Comparable concerns over the harm done by malaria to foreign service operations have been echoed more recently in media accounts of senior diplomatic representatives originating from countries ranging from Australia to Singapore.<sup>7</sup> Taken together, these individual accounts thereby clearly suggest that malaria has been a key concern among members of the foreign services

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<sup>4</sup>Don Oberdorfer, “State Department; Foggy Bottom Ups, Downs,” *The Washington Post* December 27, 1984

<sup>5</sup>James Brooke, “U.S. Outpost Feels Threat Of Budget Ax,” *The New York Times* October 27, 1987.

<sup>6</sup>Oakland Ross, “West African Nation Shaking off Image as Worst Posting for Envoys,” *The Globe and Mail (Canada)* June 15, 1989.

<sup>7</sup>See, for example, Ong Soh Chin, “Non-Resident Envoys Keep Singapore Plugged in Globally” *The Straits Times* June 26, 2007; Anthony Laver and Jillian Stevens, “Man of Many Talents and Achievements,” *Canberra Times* November 22, 2002.

throughout much of the modern era, and that it should push states against establishing missions in highly-malarial states.

### Independent and Variable Operationalizations

As briefly discussed in the main research note, our independent variable is operationalized as  $country_j$ 's 5-year average level of *Malaria Prevalance<sub>j</sub>* during the 5-year period prior to *Diplomacy<sub>i at j</sub>*. Constructing *Malaria Prevalance<sub>j</sub>* involved two steps. First, data on the percentage of  $country_j$ 's land area with malaria exposure in the years 1946, 1966, 1982, and 1994 were obtained from the Center for International Development (CID) Malaria data set (Gallup, Mellinger and Sachs, 2001) and interpolated to the yearly level.<sup>8</sup> Given the slow moving nature of malaria rates, as well as the low likelihood that diplomacy itself increases or decreases in malaria, the decision to interpolate malaria is a relatively negligible issue for the study at hand, and is consistent with past political science research (Bagozzi, 2016). We use the proportion of a country's land area with malaria, rather than the proportion of a country's population living in malarial regions (Gallup, Mellinger and Sachs, 2001), because our theory relates to a diplomat's actual assessment of country's malaria rates during the 1950-2005 time period. Such assessments will be dependent upon the information that diplomats had access to at their time decision. While the CID's population-based malaria measures are reported for the same time intervals mentioned above (i.e., 1946, 1966, 1982, 1994), they were not calculated and made publicly available until the late 1990s and were constructed, in each case, using geographic population projections for the year 1995. Hence these population based measures correspond poorly with diplomats' realtime assessments of potential malaria rates abroad, relative to the geographic malaria prevalence data that was available to them during the 1950-2005 time period through World Health Organization reports—from which the geographic malaria rates data used here are drawn. Nevertheless, we demonstrate that our results are robust to a population-based malaria further below

In addition, all primary analyses are repeated further below when (i) *only* prior values of malaria are used to code a country's inter-period *Malaria Prevalance<sub>j</sub>* values (e.g., all country time points within 1946-1965 were assigned a country's 1946 malaria prevalence value, and so on), and (ii) when *Malaria Prevalance<sub>j</sub>* (and all remaining variables) are only considered in relation to the four 5-year periods encompassing the years in which *Malaria Prevalance<sub>j</sub>* was actually recorded in the CID (i.e., 1946, 1966, 1982, and 1994). Our primary conclusions generally hold across these alternative modeling set-ups. We provide summary statistics on our relevant *Malaria Prevalance<sub>j</sub>*, and additional control and dependent variable measures, further below. Before doing so, we next briefly describe the operationalizations of each of our control variables.

- *Percent Tropics<sub>j</sub>*: The percentage of country  $j$ 's landmass that lies in the geographical tropics (Gallup, Mellinger and Sachs, 2001), averaged to the 5-year-period level, and lagged by one five year period
- *Ln Distance<sub>ij</sub>*: The natural logarithm of the distance between countries  $i$  and  $j$ , averaged to the 5-year-period

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<sup>8</sup>E.g., country-years prior to 1957 were assigned a country's CID recorded malaria rate in 1946, whereas country years between 1957 and 1966 were assigned that country's 1966 CID malaria rate, and so on.

level and lagged by one five year period, taken from [Rose \(2005\)](#).

- *Ln Dyadic Trade<sub>ij</sub>*: The natural logarithm (where a value of +1 was added to ensure that non-trading dyads were not dropped from the analysis) of the 5-year period average of country *j*'s yearly trade (*exports* + *imports*) with country *j*; taken from the International Monetary Fund's "Direction of Trade" dataset ([IMF, 2008](#)). The averaged values are then lagged by one 5-year period.
- *Colonial Ties<sub>ij</sub>*: a dichotomous variable equal to one if either member of a dyad was ever a colonizer of the other, taken from [Rose \(2005\)](#).
- *Diplomacy<sub>j at i</sub>*: a dichotomous dependent variable measuring whether (= 1) or not (= 0) country *j* had established some level of diplomatic representation within country *i*'s territory during a given time period, as determined by the Correlates of War's (COW) Diplomatic Exchange dataset ([Bayer, 2006](#)). Lagged by one 5-year period
- *Ln GDPpc<sub>i</sub>* & *Ln GDPpc<sub>j</sub>*: The period-averaged of country *i*'s and country *j*'s real GDP per capita, logged and lagged after averaging. Taken from [Rose \(2005\)](#).
- *Ideological Affinity<sub>ij</sub>*: Derived from [Gartzke's \(2006\)](#) affinity of nations index, which is a scaling of countries' United Nations (UN) General Assembly voting behaviors along a -1 to 1 continuum, with more positive values denoting countries with more coherent/similar national affinities. Dyad-year values for this index were then averaged to the five period level and the lagged by one period.
- *Ln CINC<sub>i</sub>* & *Ln CINC<sub>j</sub>*: The per period-averages of country *i*'s and country *j*'s "Composite Index of National Capability" (CINC) index scores ([Singer, Bremer and Stuckey, 1972](#)), which encompass countries' total population, urban population, iron and steel production, energy consumption, military personnel, and military expenditure. Each CINC score was logged (after adding a nominal value prior to logging to ensure that values of zero were not dropped) and lagged by one period after averaging.
- *Ln CINC<sub>i</sub>\*Ideology* & *Ln CINC<sub>j</sub>\*Ideology*: These variables correspond to the interactions of (i) *Ideological Affinity<sub>ij</sub>* and (ii) either *Ln CINC<sub>i</sub>* or *Ln CINC<sub>j</sub>*, each of which is described above.
- *Democracy<sub>i</sub>*, *Democracy<sub>j</sub>*, *Democracy<sub>i</sub>\*Democracy<sub>j</sub>*: Dichotomous democracy-dictatorship (*dd*) annual indicators taken from [Cheibub, Gandhi and Vreeland \(2010\)](#), and averaged to the 5-year period level. Then lagged by one period.
- *Dip. Total<sub>i</sub>*, *Dip. Total<sub>j</sub>*, *Dip. Total<sub>i</sub>\*Dip. Total<sub>j</sub>*: Total number of hosted diplomatic missions per country during a given 5-year period, lagged by one period. From [Bayer \(2006\)](#).
- *Internal Conflict<sub>j</sub>* and *External Conflict<sub>j</sub>*: The average number of years (per 5-year period) that a given host country experienced (i) internal armed conflict (minor, intermediate, and war) and (ii) interstate armed

conflict (minor, intermediate, and war) based upon the UCDP/PRIO Armed Conflict Dataset ([Gleditsch et al., 2002](#)).

- *Ln Iron & Steel Production<sub>j</sub>, Ln Military Expenditure<sub>j</sub>, Ln Military Personnel<sub>j</sub>, Ln Primary Energy Consumption<sub>j</sub>, Ln Urban Population<sub>j</sub>*: raw capability measures used in the creation of the CINC index ([Singer, Bremer and Stuckey, 1972](#)), which have been averaged to the five period level (primary analysis) and logged. Controlling for these absolute measures allows one to account for states' absolute capabilities, in addition to each state's relative proportion of total system capabilities (as captured by the CINC composite index)
- *Ln Years Since Independence<sub>j</sub>*: The logged number of years since independence, aggregated to various per-period levels, and based upon the "born years" provided in [Cheibub, Gandhi and Vreeland \(2010\)](#).



## Summary Statistics

Table A.1: Summary Statistics for Dependent & Independent Variables, Directed Dyad Sample

	<b>Median</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
<i>Diplomacy<sub>j</sub></i>	0	0.268	0.443	0	1
<i>Malaria Prevalance<sub>j</sub></i>	0.324	0.445	0.439	0	1
<i>Pop. Malaria Prevalance<sub>j</sub></i>	0.339	0.448	0.443	0	1
<i>Endemic Disease Prevalance<sub>j</sub></i>	0.358	0.458	0.446	0	1
<i>Percent Tropics<sub>j</sub></i>	0.471	0.496	0.474	0	1
<i>Ln Distance<sub>ij</sub></i>	8.357	8.173	0.798	4.0168	9.422
<i>Ln Dyadic Trade<sub>ij</sub></i>	9.664	9.486	3.371	0	20.699
<i>Colonial Ties<sub>ij</sub></i>	0	0.016	0.124	0	1
<i>Diplomacy<sub>jati</sub></i>	0	0.281	0.446	0	1
<i>Ln GDPpc<sub>i</sub></i>	8.335	8.282	1.059	4.654	10.723
<i>Ln GDPpc<sub>j</sub></i>	8.335	8.282	1.059	4.654	10.723
<i>Ideological Affinity<sub>ij</sub></i>	0.882	0.758	0.309	-0.915	1
<i>Ln CINC<sub>i</sub></i>	-6.940	-6.936	2.200	-14.265	-1.124
<i>Ln CINC<sub>j</sub></i>	-6.940	-6.936	2.200	-14.265	-1.124
<i>Democracy<sub>i</sub> * Democracy<sub>j</sub></i>	0	0.159	0.350	0	1
<i>Democracy<sub>i</sub></i>	0	.389	0.471	0	1
<i>Democracy<sub>j</sub></i>	0	.389	0.471	0	1
<i>Dip. Total<sub>i</sub> * Dip. Total<sub>j</sub></i>	910	1635.663	2061.497	0	26702
<i>Dip. Total<sub>i</sub></i>	34	39.499	30.156	0	169
<i>Dip. Total<sub>j</sub></i>	34	39.750	30.220	0	169
<i>Internal Conflict<sub>j</sub></i>	0	0.140	0.308	0	1
<i>External Conflict<sub>j</sub></i>	0	0.051	0.169	0	1
<i>Ln Iron &amp; Steel Production<sub>j</sub></i>	0	3.192	3.812	0	11.984
<i>Ln Military Expenditure<sub>j</sub></i>	11.871	11.659	3.446	0	19.471
<i>Ln Military Personnel<sub>j</sub></i>	3.497	3.451	1.915	0	8.715
<i>Ln Primary Energy Consumption<sub>j</sub></i>	8.588	8.340	3.065	0	15.400
<i>Ln Urban Population<sub>j</sub></i>	6.940	6.413	2.969	0	12.980
<i>Ln Years Since Independence<sub>j</sub></i>	4.111	4.244	0.671	2.708	5.953

Table A.2: Summary Statistics for Dependent &amp; Independent Variables, Monadic Sample

	<b>Median</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
<i>Diplomacy<sub>j</sub></i>	32	37.573	30.008	0	171
<i>Malaria Prevalance<sub>j</sub></i>	0.354	0.445	0.439	0	1
<i>Pop. Malaria Prevalance<sub>j</sub></i>	0.372	0.455	0.440	0	1
<i>Endemic Disease Prevalance<sub>j</sub></i>	0.378	0.462	0.443	0	1
<i>Percent Tropics<sub>j</sub></i>	0.355	0.449	0.436	0	1
<i>Ln Remoteness<sub>j</sub></i>	8.062	8.144	0.325	6.767	9.130
<i>Ln Trade<sub>j</sub></i>	750.574	769.656	547.419	0	2482.652
<i>Ln GDPpc<sub>j</sub></i>	8.117	8.130	1.030	5.511	10.667
<i>Ln CINC<sub>j</sub></i>	-6.789	-6.840	2.155	-14.265	-1.124
<i>Democracy<sub>j</sub></i>	0	0.377	0.466	0	1
<i>Internal Conflict<sub>j</sub></i>	0	0.130	0.298	0	1
<i>External Conflict<sub>j</sub></i>	0	0.056	0.178	0	1
<i>Ln Iron &amp; Steel Production<sub>j</sub></i>	0	3.159	3.784	0	11.984
<i>Ln Military Expenditure<sub>j</sub></i>	11.764	11.568	3.326	0	19.471
<i>Ln Military Personnel<sub>j</sub></i>	3.509	3.482	1.918	0	8.715
<i>Ln Primary Energy Consumption<sub>j</sub></i>	8.476	8.148	3.143	0	15.400
<i>Ln Urban Population<sub>j</sub></i>	6.908	6.409	2.911	0	12.980
<i>Ln Years Since Independence<sub>j</sub></i>	4.174	4.297	0.657	2.708	5.953

Table A.3: Mean and Standard Deviation (SD) of *Malaria Prevalance<sub>j</sub>* for Countries in Sample with Non-Missing Values on *Malaria Prevalance<sub>j</sub>*

Country	Mean	SD	Country	Mean	SD
Afghanistan	0.68	0.17	Laos	1.00	0.00
Albania	0.13	0.31	Latvia	0.00	0.00
Albania	0.13	0.31	Latvia	0.00	0.00
Algeria	0.04	0.07	Lebanon	0.04	0.13
Angola	1.00	0.00	Lesotho	0.00	0.00
Argentina	0.04	0.04	Liberia	1.00	0.00
Armenia	0.00	0.00	Libya	0.04	0.04
Australia	0.02	0.04	Lithuania	0.01	0.02
Austria	0.03	0.09	Lithuania	0.01	0.02
Austria	0.03	0.09	Luxembourg	0.00	0.00
Azerbaijan	0.00	0.00	Luxembourg	0.00	0.00
Bangladesh	0.44	0.01	Macedonia	0.00	0.00
Belarus	0.00	0.00	Madagascar	1.00	0.00
Belgium	0.00	0.00	Malawi	1.00	0.00

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Table A.3 – *Continued from previous page*

Country	Mean	SD	Country	Mean	SD
Belgium	0.00	0.00	Malaysia	0.83	0.15
Belize	0.75	0.37	Mali	0.66	0.10
Benin	1.00	0.00	Mauritania	0.50	0.19
Bhutan	0.42	0.35	Mauritius	0.00	0.00
Bolivia	0.48	0.23	Mexico	0.22	0.16
Bosnia & Herzegovina	0.00	0.00	Moldova	0.00	0.00
Botswana	0.37	0.16	Mongolia	0.00	0.00
Brazil	0.74	0.20	Morocco	0.25	0.33
Brunei	0.24	0.36	Morocco	0.25	0.33
Bulgaria	0.13	0.31	Mozambique	1.00	0.00
Burkina Faso	1.00	0.00	Myanmar	0.87	0.04
Burundi	1.00	0.00	Namibia	0.24	0.00
Cambodia	1.00	0.00	Nepal	0.58	0.07
Cameroon	1.00	0.00	Netherlands	0.04	0.09
Canada	0.00	0.00	Netherlands	0.04	0.09
CAR	1.00	0.00	New Zealand	0.00	0.00
Chad	0.71	0.02	Nicaragua	0.69	0.38
Chile	0.01	0.03	Niger	0.65	0.09
China	0.29	0.18	Nigeria	1.00	0.00
Colombia	0.77	0.06	North Korea	0.39	0.49
Congo	1.00	0.00	Norway	0.00	0.00
Costa Rica	0.20	0.30	Norway	0.00	0.00
Croatia	0.00	0.00	Oman	0.85	0.13
Cuba	0.24	0.33	Pakistan	0.91	0.09
Cuba	0.24	0.33	Panama	0.81	0.22
Cyprus	0.00	0.00	Papua New Guinea	0.88	0.06
Czech Republic	0.00	0.00	Paraguay	0.48	0.45
DRC	1.00	0.00	Paraguay	0.48	0.45
Denmark	0.00	0.00	Peru	0.53	0.08
Denmark	0.00	0.00	Philippines	0.93	0.09
Djibouti	1.00	0.00	Poland	0.02	0.04
Dominican Republic	0.43	0.49	Poland	0.02	0.04
Dominican Republic	0.43	0.49	Portugal	0.13	0.31
Ecuador	0.61	0.09	Qatar	0.00	0.00
Egypt	0.14	0.13	Romania	0.09	0.22
Egypt	0.14	0.13	Russia	0.01	0.02
El Salvador	0.42	0.48	Rwanda	1.00	0.00
Equatorial Guinea	1.00	0.00	Saudi Arabia	0.18	0.10
Eritrea	0.94	0.00	Senegal	1.00	0.00
Estonia	0.00	0.00	Sierra Leone	1.00	0.00
Estonia	0.00	0.00	Singapore	0.00	0.00
Ethiopia	0.86	0.04	Slovakia	0.00	0.00
Ethiopia	0.86	0.04	Slovenia	0.00	0.00
Finland	0.00	0.00	Somalia	1.00	0.00
France	0.00	0.00	South Africa	0.06	0.05
France	0.00	0.00	South Korea	0.39	0.49
Gabon	1.00	0.00	Spain	0.12	0.29
Gambia	1.00	0.00	Sri Lanka	0.72	0.34
Georgia	0.00	0.00	Sudan	0.84	0.04
Germany	0.00	0.00	Suriname	0.90	0.10
Germany	0.00	0.00	Swaziland	0.53	0.41
Ghana	1.00	0.00	Sweden	0.00	0.00
Greece	0.13	0.31	Switzerland	0.00	0.00
Greece	0.13	0.31	Syria	0.15	0.11
Guatemala	0.73	0.20	Syria	0.15	0.11

*Continued on next page*

Table A.3 – *Continued from previous page*

Country	Mean	SD	Country	Mean	SD
Guinea	1.00	0.00	Taiwan	0.08	0.24
Guinea-Bissau	1.00	0.00	Tajikistan	0.00	0.00
Guyana	0.75	0.20	Tanzania	1.00	0.00
Haiti	0.73	0.42	Thailand	0.78	0.14
Haiti	0.73	0.42	Togo	1.00	0.00
Honduras	0.43	0.37	Trinidad & Tobago	0.00	0.00
Hungary	0.05	0.11	Tunisia	0.28	0.37
Iceland	0.00	0.00	Tunisia	0.28	0.37
India	0.72	0.23	Turkey	0.42	0.21
Indonesia	0.93	0.02	Turkmenistan	0.00	0.00
Iran	0.60	0.18	Uganda	1.00	0.00
Iraq	0.54	0.39	Ukraine	0.00	0.00
Ireland	0.00	0.00	UAE	0.54	0.45
Israel	0.08	0.24	United Kingdom	0.01	0.02
Italy	0.10	0.23	USA	0.03	0.08
Ivory Coast	1.00	0.00	Uruguay	0.00	0.00
Jamaica	0.00	0.00	Uzbekistan	0.00	0.00
Japan	0.05	0.11	Venezuela	0.38	0.23
Japan	0.05	0.11	Vietnam	1.00	0.01
Jordan	0.04	0.11	Yemen	0.73	0.25
Kazakhstan	0.00	0.00	Yugoslavia	0.13	0.31
Kenya	0.96	0.04	Yugoslavia	0.13	0.31
Kuwait	0.01	0.01	Zambia	1.00	0.00
Kyrgyzstan	0.00	0.00	Zimbabwe	0.92	0.10

## Robustness Models

Our primary dependent variables— $Diplomacy_{i\ at\ j}$  and  $Sum\ Diplomacy_{at\ j}$ —are binary and count variables, respectively. In our main paper, we accordingly analyze these variables with logit and negative binomial models, while including a range of control variables and fixed effects for directed dyad or country, alongside fixed effects for time periods within our full model specifications. We then also consider these various dependent variables and specifications with system GMM models in the main paper. This primary paper analysis illustrates that our findings are robust to eight distinct model specifications. This current section instead illustrates the robustness of our results across 94 different model specifications.

We specifically begin by exploring a variety of additional modeling frameworks for these primary model specifications. To do so, we separately present tables that include a larger set of model specifications for (i)  $Diplomacy_{i\ at\ j}$  and (ii)  $Sum\ Diplomacy_{at\ j}$  in Tables A.4 and A.5, respectively. Tables A.4-A.5 begin by re-estimating our primary GMM specifications. We then present a standard logit (or negative binomial) model that includes all primary variables considered in the main paper, alongside several time-invariant variables that we were unable to include in our primary fixed effects specification:  $Percent\ Tropics_j$ ,  $Colonial\ Ties_{ij}$ , and  $Ln\ Distance_{ij}$  (or its average across all countries,  $Ln\ Remoteness_j$ , within our monadic models). This is followed by an additional standard logit or negative binomial model that employs an identical specification, but with standard errors clustered on directed dyad (in the case of  $Diplomacy_{i\ at\ j}$ ) or country (in the case of  $Sum\ Diplomacy_{at\ j}$ ). We then (re)report our main paper’s fixed effect specifications; followed by a comparable set of random effects specification.<sup>9</sup> As can be seen in Tables A.4-A.5, our findings hold across each and every one of these alternative modeling set-ups.

The above analysis demonstrates the robustness of our findings to a variety of potential confounds, and under a number of adjustments for the TSCS nature of our sample. Each of the primary five-year aggregation-models reported in Tables A.4-A.5 are then re-estimated while using non-lagged independent and control variables in Tables A.6-A.7; and then alternatively when using a non-lagged independent (malaria) variable alongside temporally lagged control variables in Tables A.8-A.9. These additional robustness models indicate that our findings for  $Malaria\ Prevalence_j$  remain significant when using a more temporally proximate measure of our independent (and control) variable(s). To ensure that the inclusion of non-malarial countries in our sample is not affecting our results, Tables A.10-A.11 next alternatively re-estimate our primary model specifications (i.e., those reported in Table A.4-A.5) when omitting all directed dyads (or in the case of our negative binomial set-up, countries) that saw  $country_j$  exhibit a malaria rate of zero. As can be seen in these additional tables, these omissions reduce our sample sizes substantially (especially in light of the number of fixed effects included in several specifications), but yield generally consistent results with those discussed above.

We next report the results (Tables A.12-A.13) obtained from our models of  $Diplomacy_{i\ at\ j}$  and  $Sum\ Diplomacy_{at\ j}$

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<sup>9</sup>Note that these fixed and random effects models are not fully comparable via, e.g., a Hausman test as the fixed effects specification omits variables and observations due to the non-varying nature of (i) the dependent variable (for some cases) and (ii) a number of controls.

when they are re-estimated while using a more conservative and time invariant (i.e., non-interpolated) measure of *Malaria Prevalence*<sub>*j*</sub>.<sup>10</sup> Tables A.12-A.13 demonstrate that our findings for *Diplomacy*<sub>*i* at *j*</sub> remain consistent across every model specification considered when this historical *Malaria Prevalence*<sub>*j*</sub> measure is implemented as our primary independent variable (Table A.12); and maintain the anticipated sign, and in several cases statistical significance, within our comparable models of *Diplomacy*<sub>*i* at *j*</sub> (Table A.13). Tables A.14-A.15 then provide a comparable set of models that use an alternative—but more temporally and theoretically questionable—measure of population-based *Malaria Prevalence*<sub>*j*</sub><sup>11</sup> so as to show that our conclusions are generally robust to this alternate operationalization of *Malaria Prevalence*<sub>*j*</sub>, although note that in the monadic GMM model, the coefficient—although still in the expected direction—is no longer statistically significant to conventional levels ( $p = .13$ ).

Following this, we next seek to evaluate whether our findings are robust to an adjusted measure of endemic disease exposure, in this case drawing upon not only geographic malaria rates for the diplomatic host countries in our sample, but also geographic rates of yellow fever exposure (Gallup, Mellinger and Sachs, 2001). Yellow fever exposure data is only available for two time points within our sample frame, thus ensuring added degrees of measurement area and temporal invariance relative to our malaria measure. Even so, when we construct a new joint *Endemic Disease Prevalence*<sub>*j*</sub> measure<sup>12</sup> and include this in place of *Malaria Prevalence*<sub>*j*</sub> within our logit and negative binomial specifications in A.16-A.17, we find generally consistent results with those of A.4-A.5 above. Following this, Tables A.18-A.19 return to our original *Malaria Prevalence*<sub>*j*</sub> and reestimate our logit and negative binomial specifications when only retaining cases in relation to the four specific time points that saw recorded malaria values in Gallup, Mellinger and Sachs (2001). That is, in these cases, we do not interpolate or lag forward our *Malaria Prevalence*<sub>*j*</sub> values to fill in intermediate time-points, and instead solely retain our one-period lagged *Malaria Prevalence*<sub>*j*</sub> measure in correspondence to the four periods where it was uniquely recorded. While this approach drops a substantial share of our total observations Tables A.18-A.19 illustrate that our primary conclusions above generally hold under this alternative sample-frame.

We now turn to further address concerns over the (un)desirability of host nations' diplomatic-appointments, as well as the network dependencies that have been found to underlie diplomatic ties (Neumayer, 2008; Kinne, 2014). To this end, Tables A.20-A.21 evaluate a set of expanded-control models that further control for each host country's ongoing levels intrastate and interstate conflict, raw CINC capabilities measures (e.g., energy consumption, urban population), and (logged) time since independence.<sup>13</sup> Our results are largely robust to the inclusion of these additional control variables. Finally, we reestimate our primary specifications of directed dyadic diplomatic representation via a series of additive multiplicative effects (AME) regression model for repeated events (Hoff,

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<sup>10</sup>Due to lack of variation across different time periods in the noninterpolated malaria measure we were forced to rely on deeper lag of the DV and IV for instruments in the dyadic model.

<sup>11</sup>This measure is more temporally inaccurate for our purposes as it is based off of population measures that were not available in real-time to diplomats during the years it is coded for.

<sup>12</sup>Constructed to equal the maximum level of geographic disease exposure for a given diplomatic host country-period, as based upon that country's interpolated geographic malaria prevalence and geographic yellow fever prevalence levels.

<sup>13</sup>Due to the large number of controls and autocorrelation, our GMM models ran into convergence issues, forcing us to use deeper lags in these models.

2017; Minhas, Hoff and Ward, 2018) in A.22. The specifications that we report therein incrementally add-in additional random effects and dyadic correlations for our directed dyadic data structure,<sup>14</sup> in addition to considering different output densities for our AME models' MCMC components.<sup>15</sup> Our findings remain highly reliable under each of these AME specifications.

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<sup>14</sup>In light of these random effects, these models accordingly omit all fixed effects.

<sup>15</sup>We utilize a Markov chain with 50,000 burn-in and 100,000 iterations after burn-in in each case.

Table A.4: Determinants of Directed Diplomatic Representation, Main Specifications

	GMM	Pooled	Clustered SEs	Dir-Dyad FEs	Dir-Dyad REs
<i>Malaria Prevalance<sub>j</sub></i>	-.065*** (.012)	-.165*** (.041)	-.165** (.059)	-.414*** (.093)	-.230** (.073)
<i>Percent Tropics<sub>j</sub></i>	.	.602*** (.035)	.602*** (.053)	.	.876*** (.080)
<i>Ln Distance<sub>ij</sub></i>	.	-.847*** (.016)	-.847*** (.026)	.	-1.543*** (.038)
<i>Ln Dyadic Trade<sub>ij</sub></i>	.031*** (.001)	.204*** (.006)	.204*** (.008)	.222*** (.014)	.318*** (.010)
<i>Colonial Ties<sub>ij</sub></i>	.	1.954*** (.134)	1.954*** (.223)	.	3.355*** (.270)
<i>Diplomacy<sub>j at i</sub></i>	.488*** (.005)	2.307*** (.022)	2.307*** (.032)	1.261*** (.040)	2.340*** (.036)
<i>Ln GDPpc<sub>i</sub></i>	-.001 (.002)	.068*** (.012)	.068*** (.019)	-.138* (.061)	.151*** (.026)
<i>Ln GDPpc<sub>j</sub></i>	-.014*** (.004)	.262*** (.016)	.262*** (.024)	.322*** (.062)	.504*** (.033)
<i>Ideological Affinity<sub>ij</sub></i>	.024*** (.006)	.192*** (.036)	.192*** (.054)	1.200*** (.092)	0.514*** (.068)
<i>Ln CINC<sub>i</sub></i>	.032*** (.001)	.454*** (.007)	.454*** (.012)	.752*** (.064)	.854*** (.018)
<i>Ln CINC<sub>j</sub></i>	.013*** (.001)	.333*** (.008)	.333*** (.013)	-.092 (.065)	.672*** (.019)
<i>Democracy<sub>i</sub> * Democracy<sub>j</sub></i>	0.035*** (.006)	.441*** (.044)	.441*** (.061)	-.445*** (.092)	.063 (.074)
<i>Democracy<sub>i</sub></i>	.015** (.075)	.252*** (.031)	.252*** (.044)	.266*** (.075)	.414*** (.056)
<i>Democracy<sub>j</sub></i>	-0.055*** (.005)	-.392*** (.032)	-.392*** (.046)	-.063 (.077)	-.244*** (.058)
$\sigma_u$	.	.	.	.	2.326 (.033)
$\rho$	.	.	.	.	.622 (.007)
<i>N</i>	105,039	103,493	103,493	36,955	103,493

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .



Table A.5: Determinants of Monadic Diplomatic Representation, Main Specifications

	GMM	Pooled	Clustered SEs	Receiver FEs	Receiver REs
<i>Malaria Prevalance<sub>j</sub></i>	-15.272* (.052)	-.160*** (.039)	-.160* (.065)	-.097* (.047)	-.119** (.043)
<i>Percent Tropics<sub>j</sub></i>	.	.218*** (.034)	.218** (.073)	.	253*** (.057)
<i>Ln Global Trade<sub>j</sub></i>	.048*** (.006)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)
<i>Ln GDPpc<sub>j</sub></i>	-3.241 (2.684)	.048** (.017)	.048 (.028)	-.039 (.035)	.024 (.024)
<i>Ln CINC<sub>j</sub></i>	3.963** (1.222)	.144*** (.010)	.144*** (.017)	.064* (.031)	.155*** (.013)
<i>Democracy<sub>j</sub></i>	-4.588 (2.668)	-.096*** (.026)	-.096** (.036)	-.047 (.030)	-.056* (.028)
<i>Ln Remoteness<sub>j</sub></i>	.	-.298*** (.035)	-.298*** (.071)	.	-.374*** (.060)
$\alpha$		0.068 (.005)	0.068 (.011)	.	.
<i>ln r</i>	.	.	.	.	3.719 (.160)
<i>ln s</i>	.	.	.	.	3.858 (.178)
<i>N</i>	1,085	1,072	1,072	1,066	1,072

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.6: Determinants of Directed Diplomatic Representation, Non-lagged Covariates

	GMM	Pooled	Clustered SEs	Dir-Dyad FEs	Dir-Dyad REs
<i>Malaria Prevalance<sub>j</sub></i>	-.070*** (.012)	-.289*** (.039)	-.289*** (.057)	-.605*** (.094)	-.455*** (.072)
<i>Percent Tropics<sub>j</sub></i>	.	.684*** (.034)	.684*** (.052)	.	.925*** (.077)
<i>Ln Distance<sub>ij</sub></i>	.	-.717*** (.014)	-.717*** (.023)	.	-1.279*** (.034)
<i>Ln Dyadic Trade<sub>ij</sub></i>	0.021*** (.001)	.156*** (.005)	.156*** (.007)	.135*** (.011)	.214*** (.008)
<i>Colonial Ties<sub>ij</sub></i>	.	1.295*** (.097)	1.295*** (.143)	.	2.309*** (.218)
<i>Diplomacy<sub>j at i</sub></i>	.562*** (.005)	2.617*** (.020)	2.617*** (.030)	2.185*** (.039)	3.234*** (.036)
<i>Ln GDPpc<sub>j</sub></i>	.001 (.002)	.054*** (.011)	.054*** (.018)	-.381*** (.054)	.081** (.024)
<i>Ln GDPpc<sub>j</sub></i>	-.015*** (.004)	.227*** (.015)	.227*** (.022)	.050 (.053)	.394*** (.030)
<i>Ideological Affinity<sub>ij</sub></i>	.008 (.005)	.009 (.034)	.009 (.050)	1.001*** (.084)	.285*** (.065)
<i>Ln CINC<sub>i</sub></i>	0.029*** (.001)	.420*** (.007)	.420*** (.011)	.465*** (.059)	.777*** (.016)
<i>Ln CINC<sub>j</sub></i>	0.011*** (.001)	.290*** (.008)	.290*** (.012)	-.036 (.061)	.578*** (.017)
<i>Democracy<sub>i</sub> * Democracy<sub>j</sub></i>	.035*** (.006)	.318*** (.041)	.318*** (.058)	-.839*** (.082)	-.278*** (.068)
<i>Democracy<sub>i</sub></i>	.029*** (.004)	.354*** (.030)	.354*** (.042)	.506*** (.068)	.663*** (.053)
<i>Democracy<sub>j</sub></i>	-.044*** (.004)	-.382*** (.030)	-.382*** (.044)	-.092 (.070)	-.185** (.054)
$\sigma_u$	.	.	.	.	2.283 (.030)
$\rho$	.	.	.	.	.613 (.006)
<i>N</i>	126,417	124,562	124,562	50,497	124,562

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.7: Determinants of Monadic Diplomatic Representation, Non-Lagged Covariates

	GMM	Pooled	Clustered SEs	Receiver FEs	Receiver REs
<i>Malaria Prevalance<sub>j</sub></i>	-18.059* (7.556)	-.258*** (.050)	-.258** (.080)	-0.274*** (.061)	-.274*** (.055)
<i>Percent Tropics<sub>j</sub></i>	.	.290*** (.044)	.290** (.090)	.	.286*** (.064)
<i>Ln Global Trade<sub>j</sub></i>	.045*** (.006)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)
<i>Ln GDPpc<sub>j</sub></i>	-5.342 (2.814)	.037 (.022)	.037 (.034)	-.074 (.039)	-.008 (.027)
<i>Ln CINC<sub>j</sub></i>	4.247*** (1.176)	.159*** (.012)	.159*** (.020)	.203*** (.030)	.193*** (.016)
<i>Democracy<sub>j</sub></i>	-3.240 (2.530)	-.087** (.032)	-.087* (.043)	-.081* (.037)	-.072* (.032)
<i>Ln Remoteness<sub>j</sub></i>	.	-.248*** (.045)	-.248** (.093)	.	-.256*** (.070)
$\alpha$		0.142 (.008)	0.142 (.018)	.	.
<i>ln r</i>	.	.	.	.	3.179 (.166)
<i>ln s</i>	.	.	.	.	4.141 (.189)
<i>N</i>	1,239	1,224	1,224	1,238	1,224

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.8: Determinants of Directed Diplomatic Representation, Non-lagged Independent Variable

	GMM	Pooled	Clustered SEs	Dir-Dyad FEs	Dir-Dyad REs
<i>Malaria Prevalance<sub>j</sub></i>	-.070*** (.012)	-.195*** (.041)	-.195** (.061)	-.539*** (.101)	-.352*** (.077)
<i>Percent Tropics<sub>j</sub></i>	.	.617*** (.036)	.617*** (.055)	.	.945*** (.082)
<i>Ln Distance<sub>ij</sub></i>	.	-.847*** (.016)	-.847*** (.026)	.	-1.545*** (.038)
<i>Ln Dyadic Trade<sub>ij</sub></i>	0.021*** (.001)	.205*** (.006)	.205*** (.008)	.221*** (.014)	.319*** (.010)
<i>Colonial Ties<sub>ij</sub></i>	.	1.953*** (.134)	1.953*** (.223)	.	3.356*** (.270)
<i>Diplomacy<sub>j at i</sub></i>	.560*** (.005)	2.307*** (.022)	2.307*** (.032)	1.261*** (.040)	2.339*** (.036)
<i>Ln GDPpc<sub>j</sub></i>	.003 (.002)	.067*** (.012)	.067*** (.019)	-.138* (.061)	.150*** (.026)
<i>Ln GDPpc<sub>j</sub></i>	-.015*** (.004)	.256*** (.016)	.256*** (.024)	.329*** (.062)	.489*** (.033)
<i>Ideological Affinity<sub>ij</sub></i>	-.152*** (.020)	.190*** (.036)	.190*** (.054)	1.207*** (.092)	.512*** (.068)
<i>Ln CINC<sub>i</sub></i>	0.028*** (.001)	.454*** (.007)	.454*** (.012)	.758*** (.064)	.855*** (.018)
<i>Ln CINC<sub>j</sub></i>	0.010*** (.001)	.333*** (.008)	.333*** (.013)	.101 (.065)	.673*** (.019)
<i>Democracy<sub>i</sub> * Democracy<sub>j</sub></i>	.035*** (.006)	.439*** (.044)	.439*** (.061)	-.451*** (.092)	-.060 (.074)
<i>Democracy<sub>i</sub></i>	.028*** (.004)	.252*** (.031)	.252*** (.044)	.271*** (.075)	.415*** (.057)
<i>Democracy<sub>j</sub></i>	-.044*** (.004)	-.389*** (.032)	-.389*** (.046)	-.053 (.076)	-.243** (.058)
$\sigma_u$	.	.	.	.	2.328 (.034)
$\rho$	.	.	.	.	.622 (.007)
<i>N</i>	126,417	103,493	103,493	36,955	103,493

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.9: Determinants of Monadic Diplomatic Representation, Non-Lagged Independent Variable

	GMM	Pooled	Clustered SEs	Receiver FEs	Receiver REs
<i>Malaria Prevalance<sub>j</sub></i>	-15.272** (7.456)	-.188*** (.040)	-.188** (.071)	-.176** (.051)	-.198*** (.045)
<i>Percent Tropics<sub>j</sub></i>	.	.231*** (.035)	.231** (.077)	.	.296*** (.057)
<i>Ln Global Trade<sub>j</sub></i>	0.048*** (.006)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)
<i>Ln GDPpc<sub>j</sub></i>	-3.241 (2.684)	.042* (.017)	.042 (.029)	-.040 (.035)	.014 (.024)
<i>Ln CINC<sub>j</sub></i>	3.963*** (1.222)	.143*** (.010)	.143*** (.017)	.064* (.030)	.154*** (.014)
<i>Democracy<sub>j</sub></i>	.	-.096*** (.025)	-.096* (.037)	-.048 (.030)	-.057* (.027)
<i>Ln Remoteness<sub>j</sub></i>	.	-.298*** (.035)	-.298*** (.072)	.	-.379*** (.059)
$\alpha$		0.068 (.004)	0.068 (.010)	.	.
<i>ln r</i>	.	.	.	.	3.730 (.159)
<i>ln s</i>	.	.	.	.	3.854 (.176)
<i>N</i>	1,085	1,072	1,072	1,066	1,072

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.10: Determinants of Directed Diplomatic Representation, Omitting Non-Malarial Diplomatic Host Countries

	GMM	Pooled	Clustered SEs	Dir-Dyad FEs	Dir-Dyad REs
<i>Malaria Prevalance<sub>j</sub></i>	-.048*** (.013)	-.421*** (.050)	-.421** (.071)	-.343** (.114)	-.419*** (.090)
<i>Percent Tropics<sub>j</sub></i>	.	.620*** (.046)	.620*** (.068)	.	.532*** (.107)
<i>Ln Distance<sub>ij</sub></i>	.	-1.049*** (.021)	-1.049*** (.035)	.	-2.041*** (.055)
<i>Ln Dyadic Trade<sub>ij</sub></i>	.029*** (.001)	.174*** (.007)	.174*** (.010)	.179*** (.016)	.255*** (.012)
<i>Colonial Ties<sub>ij</sub></i>	.	1.244*** (.186)	1.244*** (.294)	.	2.488*** (.385)
<i>Diplomacy<sub>j at i</sub></i>	.512*** (.006)	2.301*** (.028)	2.301*** (.041)	1.212*** (.053)	2.347*** (.048)
<i>Ln GDP<sub>pc i</sub></i>	-.003 (.003)	.145*** (.016)	.145*** (.025)	-.348*** (.086)	.330*** (.036)
<i>Ln GDP<sub>pc j</sub></i>	-.003 (.004)	.200*** (.018)	.200*** (.029)	.567*** (.083)	.449*** (.041)
<i>Ideological Affinity<sub>ij</sub></i>	.056*** (0.009)	.522*** (.056)	.522*** (.080)	1.563*** (.138)	1.024*** (.105)
<i>Ln CINC<sub>i</sub></i>	.033*** (.001)	.534*** (.010)	.534*** (.016)	1.260*** (.088)	1.040*** (.026)
<i>Ln CINC<sub>j</sub></i>	.005** (.001)	.312*** (.011)	.312*** (.017)	-.394*** (.103)	.598*** (.026)
<i>Democracy<sub>i</sub> * Democracy<sub>j</sub></i>	.068*** (.009)	.577*** (.065)	.577*** (.086)	-.529*** (.131)	.101 (.109)
<i>Democracy<sub>i</sub></i>	.010 (.006)	.220*** (.036)	.220*** (.050)	.166 (.090)	.382*** (.067)
<i>Democracy<sub>j</sub></i>	-0.067*** (.007)	-.520*** (.047)	-.520*** (.065)	-.045 (.106)	-.285** (.083)
$\sigma_u$	.	.	.	.	2.431 (.045)
$\rho$	.	.	.	.	.642 (.009)
<i>N</i>	63,182	63,182	63,182	21,398	63,182

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.11: Determinants of Monadic Diplomatic Representation, Omitting Non-Malarial Diplomatic Host Countries

	GMM	Pooled	Clustered SEs	Receiver FEs	Receiver REs
<i>Malaria Prevalance<sub>j</sub></i>	-2.736 (5.438)	-.207*** (.049)	-.207** (.070)	-.076 (.059)	-.155** (.052)
<i>Percent Tropics<sub>j</sub></i>	.	.254*** (.044)	.254** (.077)	.	.244*** (.069)
<i>Ln Global Trade<sub>j</sub></i>	.055** (.009)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)
<i>Ln GDPpc<sub>j</sub></i>	2.899 (1.505)	.058** (.020)	.058 (.033)	-.037 (.049)	.038 (.029)
<i>Ln CINC<sub>j</sub></i>	.811 (1.252)	.144*** (.015)	.144*** (.026)	.068*** (.042)	.136*** (.018)
<i>Democracy<sub>j</sub></i>	-4.472* (1.893)	-.037 (.034)	-.037 (.034)	-.064 (.039)	-.043 (.034)
<i>Ln Remoteness<sub>j</sub></i>	.	-.413*** (.051)	-.413*** (.094)	.	-.481*** (.070)
$\alpha$		0.076 (.006)	0.076 (.013)	.	.
<i>ln r</i>	.	.	.	.	3.819 (.194)
<i>ln s</i>	.	.	.	.	4.035 (.216)
<i>N</i>	707	707	707	705	707

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.12: Determinants of Directed Diplomatic Representation, Non-Interpolated Malaria Measure

	GMM <sup>1</sup>	Pooled	Clustered SEs	Dir-Dyad FEs	Dir-Dyad REs
<i>Alt. Malaria Prevalance<sub>j</sub></i>	-.058*** (.013)	-.221*** (.040)	-.221*** (.057)	-.420*** (.089)	-.313*** (.071)
<i>Percent Tropics<sub>j</sub></i>	.	.627*** (.035)	.627*** (.052)	.	.912*** (.079)
<i>Ln Distance<sub>ij</sub></i>	.	-.847*** (.016)	-.847*** (.026)	.	-1.542*** (.038)
<i>Ln Dyadic Trade<sub>ij</sub></i>	.030*** (.001)	.205*** (.006)	.205*** (.008)	.223*** (.014)	.319*** (.010)
<i>Colonial Ties<sub>ij</sub></i>	.	1.954*** (.134)	1.954*** (.222)	.	3.354*** (.270)
<i>Diplomacy<sub>j at i</sub></i>	0.494*** (.005)	2.307*** (.022)	2.307*** (.032)	1.262*** (.040)	2.341*** (.036)
<i>Ln GDP<sub>pc<sub>i</sub></sub></i>	-.003 (.002)	.068*** (.012)	.068*** (.019)	-.139* (.061)	.151*** (.026)
<i>Ln GDP<sub>pc<sub>j</sub></sub></i>	-.011** (.004)	.255*** (.015)	.255*** (.024)	.301*** (.062)	.493*** (.033)
<i>Ideological Affinity<sub>ij</sub></i>	.023*** (.006)	.194*** (.036)	.194*** (.054)	1.202*** (.092)	.512*** (.068)
<i>Ln CINC<sub>i</sub></i>	.032*** (.001)	.454*** (.007)	.454*** (.012)	.746*** (.064)	.854*** (.018)
<i>Ln CINC<sub>j</sub></i>	.015*** (.001)	.334*** (.008)	.334*** (.013)	.105 (.065)	.674*** (.019)
<i>Democracy<sub>i</sub> * Democracy<sub>j</sub></i>	.050*** (.006)	.444*** (.044)	.444*** (.061)	-.440*** (.092)	.070 (.074)
<i>Democracy<sub>i</sub></i>	0.016** (.005)	.250*** (.031)	.250*** (.044)	.262*** (.075)	.411*** (.056)
<i>Democracy<sub>j</sub></i>	-.057*** (.005)	-.404*** (.032)	-.404*** (.046)	-.076 (.077)	-.260*** (.058)
$\sigma_u$	.	.	.	.	2.325 (.033)
$\rho$	.	.	.	.	.622 (.007)
<i>N</i>	105,039	103,493	103,493	36,955	103,493

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

<sup>1</sup> Due to lack of variation across different time periods in the noninterpolated malaria measure we were forced to rely on deeper lag of the DV and IV as instruments.



Table A.13: Determinants of Monadic Diplomatic Representation, Non-Interpolated Malaria Measure

	GMM	Pooled	Clustered SEs	Receiver FEs	Receiver REs
<i>Malaria Prevalance<sub>j</sub></i>	-19.358** (6.168)	-.123** (.038)	-.123 (.066)	-.001 (.044)	-.025 (.040)
<i>Percent Tropics<sub>j</sub></i>	.	.198*** (.035)	.198** (.072)	.	204*** (.056)
<i>Ln Global Trade<sub>j</sub></i>	.045*** (.006)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)
<i>Ln GDPpc<sub>j</sub></i>	-4.977 (2.569)	.057** (.017)	.057* (.028)	-.031 (.036)	.037 (.024)
<i>Ln CINC<sub>j</sub></i>	4.418*** (1.132)	.146*** (.010)	.146*** (.018)	.076* (.031)	.158*** (.014)
<i>Democracy<sub>j</sub></i>	-4.497 (2.507)	-.095*** (.026)	-.095** (.036)	-.039 (.031)	-.048 (.028)
<i>Ln Remoteness<sub>j</sub></i>	.	-.298*** (.035)	-.298*** (.071)	.	-.369*** (.060)
$\alpha$		0.069 (.004)	0.069 (.011)	.	.
<i>ln r</i>	.	.	.	.	3.692 (.160)
<i>ln s</i>	.	.	.	.	3.834 (.178)
<i>N</i>	1,085	1,072	1,072	1,066	1,072

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.14: Determinants of Directed Diplomatic Representation, Population-based Malaria Measure

	GMM	Pooled	Clustered SEs	Dir-Dyad FEs	Dir-Dyad REs
<i>Pop. Malaria Prevalance<sub>j</sub></i>	-.034** (.010)	-.061 (.039)	-.061 (.054)	-.502*** (.084)	-.195** (.067)
<i>Percent Tropics<sub>j</sub></i>	.	.542*** (.032)	.542*** (.050)	.	.834*** (.076)
<i>Ln Distance<sub>ij</sub></i>	.	-.848*** (.015)	-.848*** (.026)	.	-1.545*** (.039)
<i>Ln Dyadic Trade<sub>ij</sub></i>	0.031*** (.0008)	.204*** (.006)	.204*** (.008)	.221*** (.014)	.318*** (.010)
<i>Colonial Ties<sub>ij</sub></i>	.	1.952*** (.134)	1.952*** (.223)	.	3.356*** (.270)
<i>Diplomacy<sub>j at i</sub></i>	.490*** (.005)	2.309*** (.021)	2.309*** (.032)	1.256*** (.040)	2.339*** (.036)
<i>Ln GDPpc<sub>i</sub></i>	-.001 (.002)	.069*** (.012)	.069*** (.019)	-.137* (.061)	.151*** (.026)
<i>Ln GDPpc<sub>j</sub></i>	-.005 (.004)	.276*** (.016)	.276*** (.024)	.298*** (.062)	.503*** (.033)
<i>Ideological Affinity<sub>ij</sub></i>	.022*** (.006)	.192*** (.036)	.192*** (.054)	1.211*** (.092)	0.511*** (.068)
<i>Ln CINC<sub>i</sub></i>	.032*** (.001)	.454*** (.007)	.454*** (.012)	.753*** (.064)	.855*** (.018)
<i>Ln CINC<sub>j</sub></i>	.014*** (.001)	.332*** (.008)	.332*** (.012)	.074 (.065)	.671*** (.019)
<i>Democracy<sub>i</sub> * Democracy<sub>j</sub></i>	.051*** (.006)	.444*** (.043)	.444*** (.061)	-.443*** (.092)	.064 (.074)
<i>Democracy<sub>i</sub></i>	.015*** (.005)	.252*** (.031)	.252*** (.044)	.268*** (.075)	.414*** (.056)
<i>Democracy<sub>j</sub></i>	-.056*** (.005)	-.388*** (.032)	-.388*** (.046)	-.070 (.077)	-.247*** (.058)
$\sigma_u$	.	.	.	.	2.328 (.034)
$\rho$	.	.	.	.	.622 (.007)
<i>N</i>	105,039	103,493	103,493	36,955	103,493

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.15: Determinants of Monadic Diplomatic Representation, Population-Based Malaria Measure

	GMM	Pooled	Clustered SEs	Receiver FEs	Receiver REs
<i>Malaria Prevalance<sub>j</sub></i>	-9.399 (6.233)	-.129** (.038)	-.129* (.057)	-.093* (.041)	-.104** (.038)
<i>Percent Tropics<sub>j</sub></i>	.	.188*** (.032)	.188** (.069)	.	235*** (.054)
<i>Ln Global Trade<sub>j</sub></i>	.047*** (.006)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)
<i>Ln GDPpc<sub>j</sub></i>	-1.369 (2.503)	.051** (.017)	.051 (.029)	-.043 (.036)	.023 (.024)
<i>Ln CINC<sub>j</sub></i>	4.258*** (1.141)	.144*** (.010)	.144*** (.017)	.063* (.031)	.155*** (.013)
<i>Democracy<sub>j</sub></i>	-4.739 (2.756)	-.099*** (.026)	-.099** (.036)	-.046 (.030)	-.054* (.027)
<i>Ln Remoteness<sub>j</sub></i>	.	-.304*** (.036)	-.304*** (.071)	.	-.379*** (.060)
$\alpha$		0.069 (.004)	0.069 (.010)	.	.
<i>ln r</i>	.	.	.	.	3.706 (.160)
<i>ln s</i>	.	.	.	.	3.843 (.178)
<i>N</i>	1,085	1,072	1,072	1,066	1,072

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.16: Determinants of Directed Diplomatic Representation, Combined Endemic Disease Exposure Measure

	GMM	Pooled	Clustered SEs	Dir-Dyad FEs	Dir-Dyad REs
<i>Endemic Disease Prevalance<sub>j</sub></i>	-.054*** (.013)	-.158*** (.041)	-.158** (.059)	-.338*** (.095)	-.200** (.074)
<i>Percent Tropics<sub>j</sub></i>	.	.609*** (.037)	.609*** (.056)	.	.872*** (.083)
<i>Ln Distance<sub>ij</sub></i>	.	-.848*** (.016)	-.848*** (.026)	.	-1.543*** (.038)
<i>Ln Dyadic Trade<sub>ij</sub></i>	0.031*** (.0008)	.204*** (.006)	.204*** (.008)	.222*** (.014)	.318*** (.010)
<i>Colonial Ties<sub>ij</sub></i>	.	1.954*** (.134)	1.954*** (.223)	.	3.353*** (.270)
<i>Diplomacy<sub>j at i</sub></i>	.489*** (.005)	2.308*** (.022)	2.308*** (.032)	1.261*** (.040)	2.341*** (.036)
<i>Ln GDPpc<sub>i</sub></i>	-.001 (.002)	.068*** (.012)	.068*** (.019)	-.139* (.061)	.151*** (.026)
<i>Ln GDPpc<sub>j</sub></i>	-.011** (.004)	.265*** (.015)	.265*** (.023)	.321*** (.062)	.510*** (.032)
<i>Ideological Affinity<sub>ij</sub></i>	.025*** (.006)	.195*** (.036)	.195*** (.054)	1.208*** (.091)	0.515*** (.068)
<i>Ln CINC<sub>i</sub></i>	.032*** (.001)	.454*** (.007)	.454*** (.012)	.751*** (.064)	.854*** (.018)
<i>Ln CINC<sub>j</sub></i>	.014*** (.001)	.334*** (.008)	.334*** (.013)	.097 (.065)	.673*** (.019)
<i>Democracy<sub>i</sub> * Democracy<sub>j</sub></i>	.050*** (.006)	.440*** (.044)	.440*** (.061)	-.442*** (.092)	.064 (.074)
<i>Democracy<sub>i</sub></i>	.015** (.005)	.253*** (.031)	.253*** (.044)	.265*** (.075)	.414*** (.056)
<i>Democracy<sub>j</sub></i>	-.053*** (.005)	-.387*** (.032)	-.387*** (.046)	-.055 (.077)	-.238*** (.058)
$\sigma_u$	.	.	.	.	2.326 (.034)
$\rho$	.	.	.	.	.622 (.007)
<i>N</i>	105,039	103,493	103,493	36,955	103,493

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.17: Determinants of Monadic Diplomatic Representation, Combined Endemic Disease Exposure Measure

	GMM	Pooled	Clustered SEs	Receiver FEs	Receiver REs
<i>Endemic Disease Prevalance<sub>j</sub></i>	-11.897 (7.556)	-.132** (.039)	-.132* (.067)	-.093 (.048)	-.108* (.043)
<i>Percent Tropics<sub>j</sub></i>	.	.212*** (.036)	.212** (.078)	.	.252*** (.057)
<i>Ln Global Trade<sub>j</sub></i>	.047*** (.006)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)
<i>Ln GDPpc<sub>j</sub></i>	-2.119 (2.660)	.056** (.017)	.056* (.027)	-.039 (.035)	.026 (.024)
<i>Ln CINC<sub>j</sub></i>	4.129*** (1.218)	.146*** (.010)	.146*** (.017)	.066* (.031)	.156*** (.014)
<i>Democracy<sub>j</sub></i>	-4.147 (2.584)	-.091*** (.026)	-.091** (.037)	-.044 (.030)	-.052 (.027)
<i>Ln Remoteness<sub>j</sub></i>	.	-.296*** (.035)	-.296*** (.071)	.	-.372*** (.060)
$\alpha$		0.069 (.004)	0.069 (.011)	.	.
<i>ln r</i>	.	.	.	.	3.709 (.159)
<i>ln s</i>	.	.	.	.	3.848 (.177)
<i>N</i>	1,085	1,072	1,072	1,066	1,072

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.18: Determinants of Directed Diplomatic Representation, Only Considering Periods with Observed Malaria Data

	Pooled	Clustered SEs	Dir-Dyad FEs	Dir-Dyad REs
<i>Malaria Prevalance<sub>j</sub></i>	-.203** (.076)	-.203* (.082)	-.864*** (.237)	-.295** (.101)
<i>Percent Tropics<sub>j</sub></i>	.489*** (.066)	.489*** (.071)	.	.593*** (.089)
<i>Ln Distance<sub>ij</sub></i>	-.827*** (.028)	-.827*** (.032)	.	-1.069*** (.041)
<i>Ln Dyadic Trade<sub>ij</sub></i>	.160*** (.010)	.160*** (.012)	.113*** (.027)	.199*** (.013)
<i>Colonial Ties<sub>ij</sub></i>	1.856*** (.226)	1.856*** (.260)	.	2.231*** (.277)
<i>Diplomacy<sub>j at i</sub></i>	2.352*** (.038)	2.352*** (.041)	1.549*** (.084)	2.778*** (.056)
<i>Ln GDP<sub>pc<sub>i</sub></sub></i>	.076*** (.021)	.076** (.023)	-.249 (.134)	.107*** (.029)
<i>Ln GDP<sub>pc<sub>j</sub></sub></i>	.214*** (.028)	.214*** (.030)	.212 (.129)	.273*** (.037)
<i>Ideological Affinity<sub>ij</sub></i>	.198*** (.066)	.198*** (.071)	.922*** (.191)	0.258*** (.086)
<i>Ln CINC<sub>i</sub></i>	.473*** (.013)	.473*** (.014)	.677*** (.128)	.601*** (.019)
<i>Ln CINC<sub>j</sub></i>	.268*** (.014)	.268*** (.015)	-.488*** (.126)	.347*** (.019)
<i>Democracy<sub>i</sub>*Democracy<sub>j</sub></i>	.284** (.082)	.284*** (.085)	-.396 (.216)	.270* (.104)
<i>Democracy<sub>i</sub></i>	.513*** (.054)	.513*** (.056)	.111 (.168)	.606*** (.071)
<i>Democracy<sub>j</sub></i>	-.152** (.057)	-.152* (.061)	-.318 (.185)	-.156* (.074)
$\sigma_u$	.	.	.	1.311 (.049)
$\rho$	.	.	.	.343 (.017)
<i>N</i>	31,294	31,294	8,399	31,294

Note: GMM models are not estimated given that these specifications are limited to only those periods with recorded malaria data (thus precluding the inclusion of the proximate temporal lags that our GMMs rely upon). Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.19: Determinants of Monadic Diplomatic Representation, Only Considering Periods with Observed Malaria Data

	Pooled	Clustered SEs	Receiver FEs	Receiver REs
<i>Malaria Prevalance<sub>j</sub></i>	-.148* (.067)	-.148* (.073)	-.137 (.140)	-.149* (.071)
<i>Percent Tropics<sub>j</sub></i>	.150** (0.057)	.150 (.077)	.	.166** (.063)
<i>Ln Global Trade<sub>j</sub></i>	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)
<i>Ln GDPpc<sub>j</sub></i>	.037 (.026)	.037 (.026)	.017 (.078)	.039 (.027)
<i>Ln CINC<sub>j</sub></i>	.131*** (.016)	.131*** (.019)	.094 (.061)	.121*** (.017)
<i>Democracy<sub>j</sub></i>	-.061 (.043)	-.061 (.043)	-.038 (.073)	-.063 (.045)
<i>Ln Remoteness<sub>j</sub></i>	-.249*** (.057)	-.249*** (.066)	.	-.286*** (.059)
$\alpha$	0.050 (.006)	0.050 (.010)	.	.
<i>ln r</i>	.	.	.	5.098 (.531)
<i>ln s</i>	.	.	.	5.662 (.635)
<i>N</i>	331	331	328	331

Note: GMM models are not estimated given that these specifications are limited to only those periods with recorded malaria data (thus precluding the inclusion of the proximate temporal lags that our GMMs rely upon). Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

Table A.20: Determinants of Directed Diplomatic Representation, Expanded Control Models

	GMM <sup>1</sup>	Pooled	Clustered SEs	Dir-Dyad FEs	Dir-Dyad REs
<i>Malaria Prevalance<sub>j</sub></i>	-.048*** (.012)	-.147*** (.042)	-.147* (.060)	-.274** (.094)	-.127 (.075)
<i>Percent Tropics<sub>j</sub></i>	.	.496*** (.039)	.496*** (.058)	.	.796*** (.086)
<i>Ln Distance<sub>ij</sub></i>	.	-.857*** (.016)	-.857*** (.026)	.	-1.609*** (.040)
<i>Ln Dyadic Trade<sub>ij</sub></i>	.031*** (.001)	.202*** (.007)	.202*** (.008)	.212*** (.014)	-.313*** (.010)
<i>Colonial Ties<sub>ij</sub></i>	.	1.971*** (.135)	1.971*** (.221)	.	3.305*** (.274)
<i>Diplomacy<sub>j at i</sub></i>	.491*** (.005)	2.304*** (.022)	2.304*** (.032)	1.259*** (.040)	2.319*** (.037)
<i>Ln GDPpc<sub>j</sub></i>	-.001 (.002)	.070*** (.012)	.070*** (.019)	-.152* (.062)	.170*** (.027)
<i>Ln GDPpc<sub>j</sub></i>	-.002 (.004)	.269*** (.020)	.269*** (.029)	.252*** (.066)	.402*** (.039)
<i>Ideological Affinity<sub>ij</sub></i>	.022*** (.06)	.187*** (.037)	.187** (.055)	1.163*** (.093)	.527*** (.070)
<i>Ln CINC<sub>i</sub></i>	.032*** (.001)	.460*** (.007)	.460*** (.012)	.748*** (.065)	.884*** (.018)
<i>Ln CINC<sub>j</sub></i>	.040*** (.005)	.449*** (.030)	.449*** (.042)	.064 (.108)	.712*** (.056)
<i>Democracy<sub>i</sub> * Democracy<sub>j</sub></i>	.050*** (.006)	.441*** (.044)	.441*** (.061)	-.498*** (.093)	.041 (.075)
<i>Democracy<sub>i</sub></i>	.016** (.005)	.257*** (.031)	.257*** (.044)	.287*** (.076)	.428*** (.057)
<i>Democracy<sub>j</sub></i>	-.054*** (.005)	-.397*** (.033)	-.396*** (.047)	-.021 (.078)	-.321*** (.060)
<i>Internal Conflict<sub>j</sub></i>	-.006 (.005)	-.201*** (.033)	-.201*** (.047)	-.570*** (.071)	-.412*** (.058)
<i>External Conflict<sub>j</sub></i>	-.031*** (.008)	-.138* (.062)	-.138 (.072)	-.177 (.098)	-.160 (.092)
<i>Ln Iron &amp; Steel Production<sub>j</sub></i>	-.006*** (.001)	-.027*** (.006)	.144** (.008)	.144*** (.014)	.066*** (.011)
<i>Ln Military Expenditure<sub>j</sub></i>	.001 (.001)	.023* (.011)	.023 (.015)	-.040 (.024)	-.002 (.019)
<i>Ln Military Personnel<sub>j</sub></i>	-.016*** (.003)	-.104*** (.018)	-.104*** (.027)	-.214*** (.047)	-.028 (.034)
<i>Ln Primary Energy Consumption<sub>j</sub></i>	-.006*** (.002)	-.064*** (.012)	-.064*** (.015)	-.111*** (.023)	-.124*** (.019)
<i>Ln Urban Population<sub>j</sub></i>	.002 (.001)	.061*** (.009)	.061*** (.013)	-.034 (.027)	.025 (.018)
<i>Year of Independence<sub>j</sub></i>	.006* (.003)	.082*** (.021)	.082** (.030)	.194 (.156)	.389*** (.045)
$\sigma_u$	.	.	.	.	2.370 (.034)
$\rho$	.	.	.	.	.631 (.007)
<i>N</i>	104,527	102,981	102,981	36,726	102,981

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

<sup>1</sup> Due to convergence issues we were forced to rely on deeper lag of the DV and IV as instruments.



Table A.21: Determinants of Monadic Diplomatic Representation, Expanded Control Models

	GMM <sup>1</sup>	Pooled	Clustered SEs	Receiver FEs	Receiver REs
<i>Malaria Prevalance<sub>j</sub></i>	-17.914* (8.265)	-.155*** (.039)	-.155* (.064)	-.076 (.047)	-.097* (.042)
<i>Percent Tropics<sub>j</sub></i>	.	.196*** (.036)	.196** (.065)	.	245*** (.055)
<i>Ln Global Trade<sub>j</sub></i>	.047*** (.006)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)	.001*** (.0001)
<i>Ln GDPpc<sub>j</sub></i>	-2.590 (2.620)	.063** (.020)	.063* (.034)	-.032 (.036)	.030 (.026)
<i>Ln CINC<sub>j</sub></i>	14.675*** (2.986)	.043 (.028)	.043 (.049)	-.019 (.052)	.018 (.035)
<i>Democracy<sub>j</sub></i>	-3.962 (2.473)	-.094*** (.026)	-.094** (.036)	-.048 (.030)	-.065* (.027)
<i>Ln Remoteness<sub>j</sub></i>	.	-.311*** (.036)	-.311*** (.064)	.	-.397*** (.059)
<i>Internal Conflict<sub>j</sub></i>	-2.857 (2.772)	-.027 (.032)	-.027 (.056)	-.118** (.034)	-.096** (.031)
<i>External Conflict<sub>j</sub></i>	-2.348 (1.732)	-.115* (.057)	-.115 (.059)	.001 (.045)	-.021 (.044)
<i>Ln Iron &amp; Steel Production<sub>j</sub></i>	-.483 (.572)	-.019*** (.005)	-.019* (.008)	.016* (.007)	.004 (.006)
<i>Ln Military Expenditure<sub>j</sub></i>	-1.248* (.485)	-.005 (.009)	-.005 (.013)	-.011 (.013)	.004 (.012)
<i>Ln Military Personnel<sub>j</sub></i>	-2.216 (1.489)	.065*** (.016)	.065* (.031)	0.044 (.023)	.058** (.019)
<i>Ln Primary Energy Consumption<sub>j</sub></i>	-3.391*** (.788)	.011 (.010)	.011* (.013)	.017 (.011)	0.013 (.010)
<i>Ln Urban Population<sub>j</sub></i>	-1.575 (1.000)	.051*** (.009)	.051** (.016)	0.012 (.016)	.046*** (.011)
<i>Year of Independence<sub>j</sub></i>	1.341 (1.589)	.064** (.019)	.064* (.028)	.048 (.078)	.092** (.030)
$\alpha$		0.061 (.004)	0.061 (.009)	.	.
<i>ln r</i>	.	.	.	.	3.900 (.165)
<i>ln s</i>	.	.	.	.	4.030 (.183)
<i>N</i>	1,073	1,060	1,060	1,054	1,060

Note: Coefficients are reported with standard errors in parentheses. All independent variables lagged by one period. Period fixed-effect are reported. \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ .

<sup>1</sup> Due to convergence issues we were forced to rely on deeper lag of the DV and IV as instruments.

Table A.22: Determinants of Directed Diplomatic Representation, Addictive Multiplicative Effects (AME) Regression Model for Repeated Events

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
<i>Malaria Prevalance<sub>j</sub></i>	-0.185 (0.023)	-0.158 (0.023)	-0.158 (0.023)	-0.185 (0.024)	-0.158 (0.023)	-0.158 (0.023)
<i>Percent Tropics<sub>j</sub></i>	0.414 (0.038)	0.375 (0.039)	0.375 (0.039)	0.416 (0.038)	0.376 (0.038)	0.376 (0.038)
<i>Ln Distance<sub>ij</sub></i>	-0.126 (0.003)	-0.142 (0.003)	-0.142 (0.003)	-0.126 (0.003)	-0.142 (0.003)	-0.142 (0.003)
<i>Ln Dyadic Trade<sub>ij</sub></i>	0.152 (0.002)	0.177 (0.003)	0.177 (0.003)	0.152 (0.002)	0.177 (0.003)	0.177 (0.003)
<i>Colonial Ties<sub>ij</sub></i>	0.652 (0.056)	0.730 (0.061)	0.730 (0.061)	0.650 (0.056)	0.730 (0.061)	0.730 (0.061)
<i>Diplomacy<sub>j at i</sub></i>	1.100 (0.011)	0.685 (0.015)	0.685 (0.015)	1.100 (0.011)	0.684 (0.015)	0.684 (0.015)
<i>Ln GDPpc<sub>i</sub></i>	0.025 (0.002)	0.030 (0.002)	0.030 (0.002)	0.025 (0.002)	0.030 (0.002)	0.030 (0.002)
<i>Ln GDPpc<sub>j</sub></i>	0.017 (0.002)	0.022 (0.002)	0.022 (0.002)	0.017 (0.002)	0.022 (0.002)	0.022 (0.002)
<i>Ideological Affinity<sub>ij</sub></i>	0.545 (0.019)	0.593 (0.020)	0.593 (0.020)	0.545 (0.018)	0.593 (0.020)	0.593 (0.020)
<i>Ln CINC<sub>i</sub></i>	-0.035 (0.003)	-0.038 (0.003)	-0.038 (0.003)	-0.035 (0.003)	-0.038 (0.003)	-0.038 (0.003)
<i>Ln CINC<sub>j</sub></i>	-0.044 (0.003)	-0.043 (0.003)	-0.043 (0.003)	-0.043 (0.003)	-0.043 (0.004)	-0.043 (0.004)
<i>Democracy<sub>i</sub> * Democracy<sub>j</sub></i>	-0.066 (0.023)	-0.075 (0.025)	-0.075 (0.025)	-0.066 (0.023)	-0.074 (0.025)	-0.074 (0.025)
<i>Democracy<sub>i</sub></i>	-0.052 (0.019)	-0.070 (0.020)	-0.070 (0.020)	-0.051 (0.019)	-0.071 (0.019)	-0.071 (0.019)
<i>Democracy<sub>j</sub></i>	-0.162 (0.019)	-0.166 (0.020)	-0.166 (0.020)	-0.161 (0.020)	-0.167 (0.020)	-0.167 (0.020)
Intercept	-3.299 (0.115)	-3.407 (0.122)	-3.407 (0.122)	-3.298 (0.113)	-3.411 (0.124)	-3.411 (0.124)

Note: Posterior means are reported with posterior standard deviations in parentheses. All independent variables lagged by one period. Models 1 and 4 include row and column effects. Models 2 and 5 then also add dyadic correlation. Models 3 and 6 then further add nodal random effects. Models 1-3 utilize an output density of 15; whereas Models 4-6 utilize an output density of 30. Per AME model defaults, missing values in each design matrix are treated as zeroes, leading to  $N = 409,068$  in each model reported above.

## Evidence for Overdispersion

Tables A.23-A.24 and Figure A.1 each provide evidence to suggest that our  $Sum\ Diplomacy_{at\ j}$  dependent count variable—which was used in the monadic section of the main analysis—exhibits (conditional) overdispersion. The histogram presented in Figure A.23, for instance, indicates that the  $Sum\ Diplomacy_{at\ j}$  count distribution contains both an excess number of low counts (i.e., countries that receive relatively few total diplomatic missions) and a right-skewed series of relatively high count values (i.e., countries that host a great many diplomatic missions). Together these traits suggest that our dependent count variable exhibits high degrees of overdispersion and positive contagion. This is confirmed by examining the variance, mean, and standard deviation of  $Sum\ Diplomacy_{at\ j}$  in Table A.23. Here we note, for instance, that the variance of  $Sum\ Diplomacy_{at\ j}$  is significantly larger than this variables’ mean of 37.57.

Taken together, the above evidence accordingly suggests that  $Sum\ Diplomacy_{at\ j}$  is overdispersed, and as alluded to in the main paper. Conditional overdispersion, if present, would violate a Poisson model’s mean-variance equality assumption, which would thereby undermine the Poisson model’s applicability in estimating my primary models of interest. For these reasons, the negative binomial (NB) model was favored over the Poisson model in the monadic section of the main paper. Furthermore, in comparing each of the five negative binomial models presented in the main paper to equivalent Poisson models via likelihood ratio tests, we find a statistically significant test statistic for each model comparison (see Table A.24), leading us to reject the null hypothesis (of no conditional overdispersion) in each and every case.

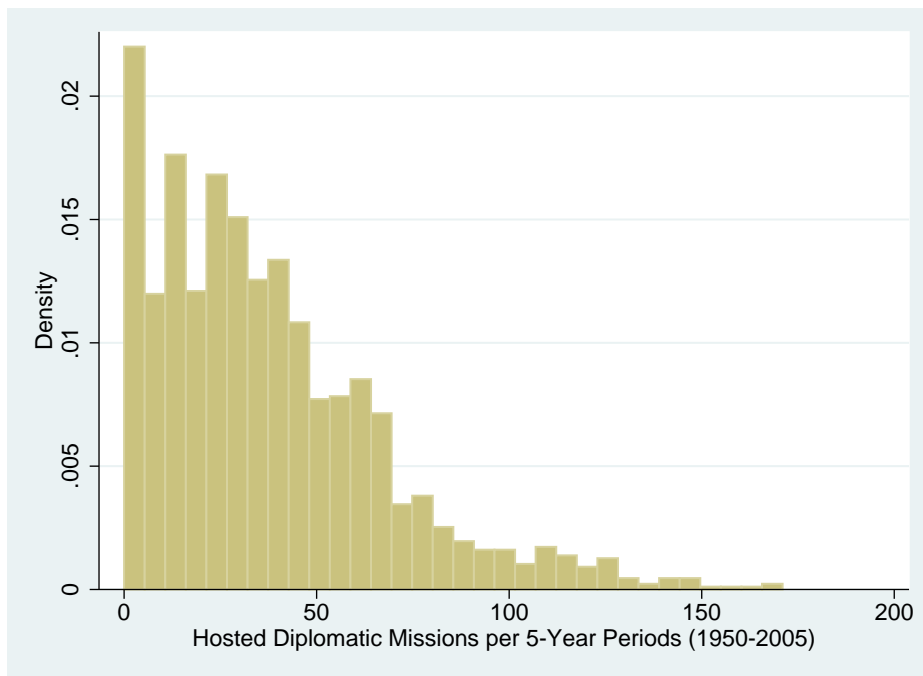
Table A.23: Summary Statistics for  $Sum\ Diplomacy_{at\ j}$ , Monadic Sample

	Median	Mean	Std. Dev.	Variance	Min	Max
$Sum\ Diplomacy_{at\ j}$	32	37.57	30.01	900.47	0	171

Table A.24: LR Test Statistics for NB and Poisson Count Models of  $Sum\ Diplomacy_{at\ j}$

	Malaria-Only	Pooled	Clustered SEs	Receiver FEs	Receiver REs
LR Test Statistic	17787.89	1282.29	1282.29	288.32	297.81
$Prob \geq \chi^2$	0.000	0.001	0.000	0.000	0.000

Figure A.1: Density Histogram of Hosted Diplomatic Missions, Monadic Sample



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