Decentralization, Intergovernmental Coordination, and Emergency Response in East And Southeast Asia: Lessons from Combatting the COVID-19 Pandemic

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Abstract

Despite region-wide lessons learned from the SARS pandemic in 2003, country responses to the Covid-19 pandemic in East and Southeast Asia have been very diverse. Outcomes have also varied widely, with some of the world's lowest per capita case and death rates in Taiwan and Vietnam and extremely high per capita case and death rates in Indonesia, the Philippines, and Malaysia. A common feature of many of these countries is their decentralized governance systems, most of which lack clear channels for coordination among different levels of government. I consider how government structure and political centralization shaped emergency response to the Covid-19 pandemic in East and Southeast Asia. While the quantitative analysis shows that weak coordination may actually exacerbate problems in executing decentralization when responding to the pandemic, a paired comparison of Indonesia and the Philippines suggests the drawbacks of a decentralized but uncoordinated system.

Keywords: COVID-19, decentralization, Asia

I.   Introduction

The global pandemic wrought by the onset of the novel coronavirus known as Covid-19 is a clear example of a situation highlighting the importance of understanding the distinct and interrelated effects of decentralization and intergovernmental coordination. As the Covid-19 pandemic affected populations around the world – spreading to every corner, taxing domestic economies and healthcare systems, exacerbating numerous forms of inequality, and leading to millions of excess deaths – national and subnational variation in the severity of the pandemic's effects quickly became apparent. While that variation has grown over the duration of the pandemic, it has sometimes been exacerbated and sometimes ameliorated by different governmental and international responses. While government and public health officials around the world sought to better understand the policy measures that will best improve case and fatality rates, scholars have also started to consider which structural factors most hamper or facilitate methods of controlling the pandemic's most devastating costs.

One particular feature of government structure speculated to drive variation in Covid-19 preparedness and responsiveness is the level of decentralization or subnational authority within a state. In decentralized countries, subnational and local differentiation in policies, measures, and interventions drove some of the most beneficial innovations as well as produced some of the most detrimental consequences. Federal systems, like India and the United States, saw wide-ranging policies adopted by state governments, including restrictive measures – e.g., lockdowns, school closures, and mask and vaccine mandates – and forms of assistance – e.g., mobile telemedicine units, income support, and emergency investment in healthcare systems. While some of these state-level policies were applauded for their originality and effectiveness, the application of such policies in a non-uniform fashion often intensified existing inequities in the population – between rich and poor, urban and rural, those educated and not. Although

decentralization sometimes enabled innovation in emergency responses to Covid-19, in the most decentralized of countries the national government still bore the brunt of costs and carried out the most extensive interventions and policy responses on behalf of the populations. Even when subnational and national responses were extensive and helped to alleviate some of the worst suffering wrought by the pandemic, international governmental organizations and non-governmental organizations supported national responses first with information sharing and then in brokering agreements to enable and expedite vaccination programs.

In East and Southeast Asia, countries with highly diverse and increasingly urbanized populations faced a number of distinct challenges in their responses to Covid-19. While both regions learned a number of lessons from the SARS epidemic in 2003, the presence of megacities in nearly every country posed severe risk of rapid and unmanageable spread of Covid-19. The regions comprise some of the world's most highly developed economies – Brunei Darussalam and Singapore in Southeast Asia, Japan, South Korea, and Taiwan in East Asia – but the vast share of the regions' populations live in low and low middle income countries where healthcare systems are underdeveloped and state capacity is generally weak. Air pollution is a problem in nearly every country in both regions, contributing to already poor respiratory health among many rapidly ageing populations. And while urbanization poses its own unique risks to managing outbreaks and overwhelmed hospital systems, most of East and Southeast Asia's rural populations live so far from modern infrastructure and healthcare that non-urban spread of Covid-19 poses a distinct risk to loss of life.

One key reality emerged from the early months of the pandemic: some of the larger countries were better able to control the spread of the virus, communicate with their populations, and prevent wide-scale outbreaks. Even when controlling for level of economic development and

urbanization, some of the countries that dealt best in the early stages of the pandemic shared a key feature: high degrees of intergovernmental coordination, which led to a set of clear, consistent policies and where clear, consistent messaging was communicated to the population. Conversely, the countries with high levels of decentralized government and limited channels for coordination often struggled to stay ahead of the pandemic in the early months and subsequently struggled with vaccine rollouts later on. Yet in some decentralized countries, intragovernmental coordination between national and subnational or local authorities facilitated testing and vaccination programs. Despite nearly all countries in the regions benefitting from shared information from the Association of Southeast Asian Nations (ASEAN) and financial assistance from the Asian Development Bank (ADB), weakly to moderately decentralized countries appeared to benefit the most from the external interventions. Though far from the only factor driving variation in the effectiveness of national Covid-19 responses, decentralization appears to exert a complex influence in how effective crisis management systems work in East and Southeast Asia.

In the following sections, I offer a critical take on the potential for decentralization to improve emergency response in predominantly lower and middle income countries. I first discuss extant theories and the empirical record regarding decentralization's impact on public service delivery, government responsiveness, and crisis management. Then I offer an argument regarding the importance of intergovernmental coordination to the delivery of crisis relief programs: even where decentralization is necessary for everyday governance, emergency and crisis management systems will produce worse outcomes when they fail to facilitate coordination among different levels of government and between international and domestic (national and subnational) partners. After providing context for the importance of studying these issues in East and Southeast Asia, I

consider my argument with an analysis of health outcomes over 22 months of the Covid-19 pandemic in 14 countries across both regions. The analysis shows the importance of considering how decentralization and coordination separately and collectively influenced the pandemic's societal outcome in this sample of cases.

II. Decentralization in Emergency Response and Disaster Management

For decades, many scholars and development specialists have championed the merits of decentralized forms of governance as a means to improve government representation, accountability, and responsiveness. Bringing government decision-making "closer to home" supposedly leads to more effective and efficient governance for a range of reasons. Chief among them is the idea that local decision-makers are more likely to know the needs of their local population better and to be more aware of the infrastructural and demographic challenges facing policy adoption and implementation. Another familiar claim is that local decision-makers are also more likely to be susceptible to community-based pressures and/or claims of shared identity with the local population that result in greater responsiveness and attentiveness to local demands. A final common rationale rests on the idea that more localized forms of decision-making, especially where they result in more responsive elites and better governance, empower and engage local populations to a greater extent, with positive consequences for democratic governance and accountability.

Yet, empirical support for the benefits of decentralization remains mixed. Decentralization can often provide space and opportunities for local expertise and greater community-based accountability, resulting in improvements to public service delivery (Tsai 2007), policy innovation (Malesky 2008), and satisfaction with government (Kim et al. 2022). Conversely,

local governments tend to suffer from weaker capacity and fewer resources with which to address policy problems, both large and small. Critics have pointed to an increase in opportunities for clientelism and corrupt practices when decentralization occurs and operates in states with weak commitments to and mechanisms for enforcing the rule of law (Fan et al. 2009; Lessman and Markwardt 2010; Neudorfer and Neudorfer 2015). While evidence seems to support the positive benefits of decentralization in high capacity, consolidated democracies, studies focused on measures of inequality point to the inability of decentralized systems to 'lift all boats' in a consistent and uniform manner in lower and middle income contexts (Ciccone et al. 2014; Lessman and Markwardt 2010).

Healthcare provision is an area where the track record on decentralization is especially fraught with conditional and inconsistent outcomes. For example, empowering local decision-makers can reduce healthcare inequities in lower socio-economic groups by improving community-based care provision (Andrade et al. 2017) and successfully targeting those groups with specialized messaging (Regmi et al. 2009). Yet assessment of access and utilization of different types of healthcare initiatives reveal stark differences in how decentralization affects the demand and supply of services. For health programs such as immunization campaigns, local elites are more likely to be net beneficiaries than net contributors to positive outcomes in vaccine coverage and herd immunity (Bardhan and Mookherjee 1998; Besley and Coate 2003). Local resistance to expenditures on or attention to various forms of health coverage, especially for health outcomes *without* an immediate and obvious consequence (Birn et al. 2000; Soerojo and Wilson 2001) or that target marginalized members of the population (Yamashita et al. 2015), can also prevent equitable or improved healthcare provision when the system is decentralized.

In many contexts, both routine and emergency, nationalized models may in fact be substantially better at healthcare service provision. For starters, incentives to improve provision may be absent at subnational levels due to political motives, such as a lack of clear responsibility attribution (Hicken et al. 2016). Furthermore, uniform subnational capacity to deliver healthcare tends to exist only in middle and higher income countries, leading to worse outcomes in states with lower development levels (Khalegian 2004). Capacity gaps in both healthcare provision and local governance, more generally, exacerbate inequity in care quality across a country's subnational units (Halimatusa'diyah 2019; Maharani and Tampuboulon 2015). The capacity issue is especially acute for certain types of healthcare provision that require routine clinician retraining (Namazzi et al. 2017) and coordination of information regarding both standards in patient care and to collect, track, and share individual patient data and local trends in outcomes (Lakshminarayanan 2003; La Vincente et al. 2013).

In the context of crisis management, the relationship between decentralized government systems and policy outcomes becomes even more complex and amplified: empirically, decentralization is linked to extremes of both shockingly poor and highly effective governmental response at the subnational level (Capano and Lippi 2021; Lele forthcoming; Shringare and Fernandes 2020). This is because where a crisis demands a rapid and comprehensive response, local governments may be strategically well-positioned to provide immediate and targeted support but often lack the necessary resources to execute that supporting role. In these cases, resource constraints are not limited to the physical or financial resources to provide support, but often include technical capacity. Think, for example, of managing the response to a typhoon-induced mudslide or a highly-contagious mosquito-borne pandemic. Those situations need both local know-how and supportive central governments to mobilize an effective response.

Governments are understood to be the primary line of response to crisis in how they direct resources to prepare for and respond once crisis occurs (c.f. Neumayer, Plumper, and Barthel 2014). The broader literature on crisis management highlights a series of lessons for policymakers regarding intergovernmental coordination as a general concept, as well as specific mechanisms in a healthcare service provision framework. Because response to Covid-19 represented a unique situation, with limited precedent in modern medical history, three of these lessons are of particular importance. First, local capacity is an immense hurdle facing the most effective and efficient deployment of crisis response. It is critical to both develop and maintain local capacity, but also key to continually sustain that capacity by regularly updating and communicating national and international standards in best practices (Asmorowati et al. 2022; Duchesne and Lacombe 2018; Putra and Matsuyuki 2019). Second, communication mechanisms are often insufficiently developed or poorly envisioned, especially with respect to channelling policies and regulations among levels and agencies of government as well as transmission of data that might enable more adaptive response (Comfort et al. 2004; Gillespie et al. 2016). Finally, coordination among partners at different levels of government is widely referenced challenge in mounting an effective response to crises of all sorts, but especially those that span internal and external borders, diffuse rapidly, and affect multiple different aspects of the physical and economic health of a nation (c.f. Comfort et al. 2020; see also Bae et al. 2016).

III.   **Why Decentralization without Coordination Hampers Response to Crisis**

Even with adequate resource input, the transfer, management, and use of those resources may require one further attribute: effective coordination between the central government and ministries who typically provide or manage the distribution of resources and the local

governments utilizing them. Examples of intergovernmental coordination may occur in both elected and unelected contexts, such as between the national and subnational legislatures, between provincial governors and local mayors, or between national ministers and local bureaucrats. Even where local governments and civil servants are empowered to make decisions about the best way to implement policies and respond to emergency situations, they often still benefit from or rely upon national officials and high-ranking bureaucrats to provide up-to-date information, coordination among local government units, and dissemination of best practices and innovative approaches in public administration. In short, even if local governments and civil servants know the local lay of the land, they are still likely to find assistance and value in the information provided and coordinated by the national level.

I begin by drawing on Comfort's (2007) depiction and the significance of coordination in crisis decision-making. Comfort's underlying theoretical perspective rests on the idea that coordination – "the degree to which organizations align their resources, tasks, and time to engage in interdependent functions to achieve a shared goal" (Comfort et al. 2020, p. 617) – is one of four critical aspects of emergency management.[1] In this theoretical context, coordination facilitates interagency and intergovernmental crisis response by providing a framework through which distinct actors share a common goal and pool their respective resources and perspectives to help achieve that goal. Such coordination mimics non-traditional leadership approaches to governance, which prioritize communal or transformational decision-making: the collectively-decided sum of diverse and varied viewpoints and assessments leads to more innovative and responsive policy-making, especially in challenging political environments (c.f. Shair-Rosenfield and Wood 2017).

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[1] The others are cognition, communication, and control (Comfort 2007).

Yet, Comfort views the "voluntary" nature of actors' decisions to coordinate their activities as vital to how coordination facilitates emergency response; once such activities and actions must be coerced, they are no longer "coordinated" but instead become a different phenomenon (2007, p.194). This is partly because the broader notion of emergency management response on which she focuses includes the activities of non-state actors – e.g., public, private, and non-profit organizations, or individuals – and those not subject to the broader government system outside of which emergency management activities often occur. Here, I focus on the potential for coordination between formal international governmental organizations – the Association of Southeast Asian Nations (ASEAN) and the Asian Development Bank (ADB) – and different levels of government bodies, comprising predominantly state-based responses to a crisis situation. While it is true that all full and associated member states of ASEAN and the ADB are sovereign nations and only partially bound by their commitments to those organizations, they are nevertheless quite constrained in their individual ability to ignore directives from the ASEAN Health Secretariat or loan conditions from the ADB. Therefore, I do not consider that coordination must be theoretically or conceptually limited to voluntary acts in this type of context.

The concept of coordination is of particular importance when considering *why* decentralization often fails to produce effective public service delivery and government responsiveness, which are of utmost importance in crisis management and emergency response. Critics of the decentralized model tend to highlight unit-specific (e.g., weak local capacity, limited financial resources) and nationally-specific (e.g., endemic corruption, lack of rule of law) factors to explain these failures. Yet, where decentralized systems often fall down in their ability to facilitate service delivery and responsiveness in crisis is their lack of coordination between

central, subnational, and local entities.[2] These same failures of coordination also apply to the inability of subnational and local entities to truly benefit from engagement with capacity building and financial resources shared by external partners and organizations. Therefore, important to explaining the quality of governance during an emergency is the degree to which channels for intra- and intergovernmental coordination among decentralized state actors – including the dissemination of clear and consistent information, the funnelling of resources both up and down the vertical chain of command, and an unambiguous distribution of responsibilities – exist.

Particularly where the unit-specific reasons for decentralization's failures pertain, such as weak local capacity or limited financial resources, coordination becomes even more important. For example, where local capacity in healthcare provision is weak, strong coordination can help direct crucial information on basic standards and best practices, or enable regular training by national experts with local practitioners. Infrastructural challenges such as improvements to local energy grids or road repairs should similarly benefit from good coordination, as the specialist expertise and capacity in engineering by international or national agencies can work in conjunction with local knowledge of the most vulnerable or most in need of upgrades to produce more efficient and targeted improvements.

IV.   Decentralization and the Political Landscape in East and Southeast Asia

In considering Covid-19 response in East and Southeast Asia, it is first important to establish the comparative utility of evaluating the relationship between decentralization and intergovernmental coordination on outcomes in the region. The countries in East and Southeast

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[2] Alternatively, failures at monitoring, credibility, and consultation can degrade the ability of actors to successfully complete tasks at various stages of the policy making and execution process (c.f. Ricks and Donner 2021).

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Asia comprise approximately 30% of the world's population, including six of the world's 20 largest countries by population (China, Indonesia, Japan, the Philippines, Vietnam, and Thailand). The regions are also home to ten of the world's 30 largest cities, in China, Indonesia, Japan, and the Philippines, and some of the world's fastest urbanization trends in the past half century. Many of the regions' countries also comprise large and/or highly diverse landscapes, from vast archipelagos (Indonesia with 17,000+ islands and the Philippines with 7,600+ islands) to countries whose topography traverses' tropical river deltas to mountain ranges. Despite these numbers, the regions also boast some of the world's most densely populated countries in Singapore (the world's second most densely populated nation after Monaco) and South Korea, with Japan, Vietnam and the Philippines all among the 45 most densely populated countries in the world.

The two regions sit on the Ring of Fire, where frequent natural disasters born of extreme weather and seismic activity occur. Since 2000, eight of the world's 15 deadliest earthquakes and ten of the world's largest tsunamis occurred in the regions, incurring tens of thousands of lives lost and tremendous damage to property and infrastructure. Typhoons and other cyclones with the potential for tremendous devastation due to high winds and subsequent high rainfall are common events in the regions, with Yolanda (2013), Seroja (2021), and Hagibis (2019) among the more damaging recent weather events in terms of lives lost and/or financial cost. Droughts are also a weather feature in mainland Southeast Asia and the Chinese province of Hainan, bringing routine challenges to the agriculturally-dependent populations of Cambodia, Thailand and Vietnam.

The scale of populations, geographic diversity, and climactic challenges faced in the regions have resulted in a great deal of attention placed on building government capacity in risk management and preparedness to face natural disasters. Yet, especially in Southeast Asia, many

of the regions' countries face weakness in overall state capacity and infrastructure development. When combined with generally high levels of corruption, poor oversight, and limited accountability mechanisms (c.f. Atkinson et al. 2015; Hutchcroft 2012), most regions' government responses to crisis situations have been inadequate. Limited improvement in preparedness often occur as a result of infusions of human capital and resources from external partners, such as international aid agencies. However, these inputs are often subject to domestic politicization and produce questionable impact on longer-term bureaucratic capacity and preparedness to respond to disasters.

Most countries in these regions are decentralized to some degree, many as recipients of aid agency or multilateral institutional pressures to devolve authority away from the central state toward more local entities (White and Smoke 2005). While there has been some success of decentralization in improving public service delivery or government accountability in certain countries, the balance across the regions is far from uniform (Shair-Rosenfield 2021). States in East Asia have remained much more centralized than in Southeast Asia, where Indonesia, Malaysia, and the Philippines are among the most decentralized countries in the world of those which gained their independence following World War II.

Most of the countries have authority devolved to at least one subnational tier,[3] and nearly all countries with at least one authoritative subnational tier have differentiated status for at least one special region (Shair-Rosenfield et al. 2014; Shair-Rosenfield et al. 2021). This means that while much of the two regions are decentralized to some degree, there is also an unusually high level of within-country variation in the shape and diversity of that decentralized authority. Yet, while in comparative terms, even the most authoritative subnational units in Southeast Asia rarely have

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[3] The exceptions are Brunei, Singapore, and Timor-Leste.

much for formalized authority shared between subnational units and the center. Upper chambers of the legislature, when they even represent subnational unit interests,[4] are typically much weaker than the lower chamber; many of the regions' countries do not have any formal mechanisms for routine engagement between elected officials at the subnational and national levels (Shair-Rosenfield et al. 2014).

The Association of Southeast Asian Nations (ASEAN), Asian Development Bank (ADB), and other international partners such as the US and Australian Agencies for International Development (USAID and AUSAID, respectively) have created platforms for sharing information and improving risk assessment and management, as well as disaster preparedness. However, the vast majority of international assistance is given to directly support post-disaster mitigation efforts, e.g., reconstruction funds to rebuild homes, businesses, and infrastructure after the disaster occurs. Even where support in search and rescue missions occurs, this represents usually a small percentage of assistance from regional or external partners. As a result, this largely reactive model of disaster relief assistance has led to little or no benefit in capacity building and improvements to the structure, training, and financing of national systems of emergency response.

V.   Empirical Analysis of Covid-19 in East and Southeast Asia

Intergovernmental coordination is difficult to measure, in part because evidence of coordination rarely reflects whether mechanisms for coordination, such as policies, regulations, and specific coordination bodies, are in place. In practical terms, it is therefore quite difficult to assess the

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[4] For example, the Senate in the Philippines is the body tasked to represent nationwide interests rather than geographic constituencies.

relationship between decentralization and intergovernmental coordination on policy adoption and outcomes. In the context of decentralization, measurement is a great deal more straightforward given the most recent temporal and geographic expansion of the Regional Authority Index (RAI). The 2021 release of the latest version of the RAI includes all of East and Southeast Asia from 1950 to 2018 (Shair-Rosenfield et al. 2021), facilitating analysis of countries in this sample. While the temporal coverage runs only to 2018, few major changes occurred between the end of 2018 and the start of 2020 that would have a measurable impact on RAI scores at the country level.[5]

The RAI is a multi-dimensional measure of the formal authority held by subnational units. Its full geographic coverage includes all of the Americas, Europe, and Asia and the Pacific except for West Asia. The RAI's most useful feature in this analysis is the score for subnational unit self-rule, which aggregates across five different measures of subnational authority: broad institutional depth, range of policy areas, ability to raise revenues, ability to borrow, and electoral representation for executive and legislative bodies at the subnational level. The RAI aggregates scores to the country level, which provides a clearer picture of the average weight of governmental authority regardless of location within a country.[6]

An additional useful feature of the RAI is the dimensional scores for shared rule – individual measures of the authority shared between central and subnational governments on a range of

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[5] One clear exception to this is in order: in China, the regional scores for Hong Kong SAR and Macau SAR will likely be downgraded due to developments in Beijing's level of interventionism. However, the relative sizes of Hong Kong and Macau are so small that these downgrades will have a relatively negligible impact on China' country scores. Although many other political developments in the regions have occurred since December 2018 – military coup in Myanmar, shifts in the application of martial law in some parts of the Philippines, and degradation of democratic rule in Malaysia – these are unlikely to exert a direct effect on RAI scores for individual regions and/or whole countries.

[6] This is in contrast with decentralization measures assuming uniform subnational authority across all of a country's territory.

policy and financial areas. In particular, the measure of "executive control" can serve as a proxy, albeit imperfect, for the elusive intergovernmental coordination. This is because "executive control" scores a subnational unit based on whether the central government is required to hold routine (score of 1) and binding (score of 2) consultations with subnational governments on policy issues. Though different from a more direct measure of the degree to which intergovernmental coordination is regulated and actually occurs, the RAI's executive control measure provides some reflection of whether coordination (via consultation) occurs between subnational and central authorities on policy.

Figure 1. Self-rule and Executive Control in East and Southeast Asia
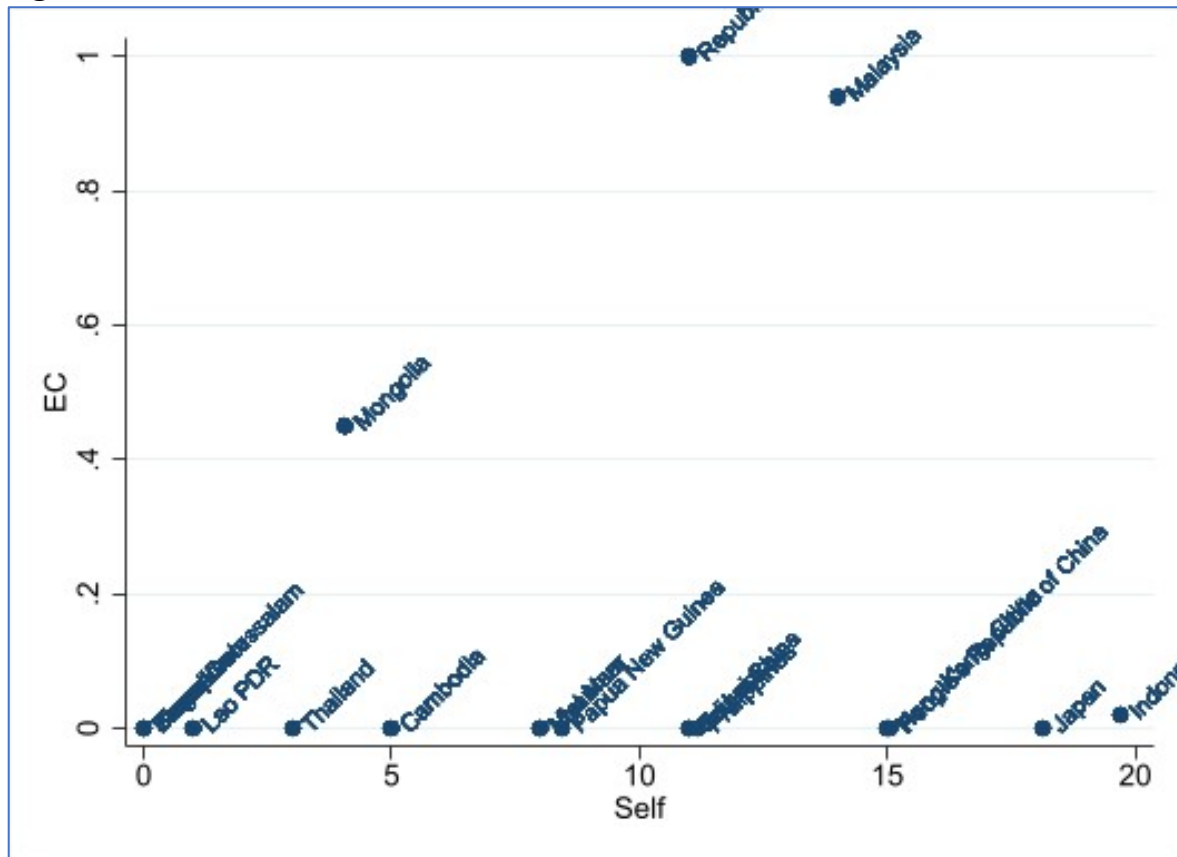
Source: Shair-Rosenfield et al. 2021

Figure 1 shows the range of RAI self-rule and executive control scores for each case in the sample. Higher values on the x-axis indicate higher levels of self-rule, while higher values on the

y-axis indicate higher executive control scores. Clearly, there is relatively little executive control/intergovernmental coordination relative to the amount of self-rule/ decentralization in the sample of cases. Again, the executive control measure is an imperfect proxy for intergovernmental coordination, but should broadly reflect a similar concept. As a result, this a 'hard' test of the theoretical proposition because there is limited variation in this proxy for intergovernmental coordination.

Alternatively, one might consider the level of political party system nationalization as a reflection of the potential for intergovernmental coordination in decentralized systems (c.f. Lago-Peñas et al. 2022). Party system nationalization refers to the degree to which the vote-share of major political parties in a country varies from one subnational unit to another (Jones and Mainwaring 2003). The theoretical rationale for how this relates to coordination is straightforward: there is likely to be greater coordination in policy decision-making and implementation in countries with party systems where the winners and losers of electoral competition are relative similar across subnational units. In other words, policy should be easier to coordinate – and indeed disaster response easier to mount – when there is consistency in the controlling political actors from region to region.

Yet, existing measures of party system nationalization suffer from two potential drawbacks when applied in this context. The first is theoretical: first, political control and competition may or may not reflect how or whether coordination occurs. Indeed, if intergovernmental coordination is primarily executed by civil servants and bureaucrats, then the political alignment between subnational units and the central government may not influence the coordination process. The second is empirical: countries without recognized competitive elections are not typically included in cross-national databases of such measures. In East and Southeast Asia, this is

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undoubtedly a problem given the number of one-party systems and countries with not-infrequent military coups.

To address the theoretical drawback, I include both the RAI's executive control measure and the most widely-used party system nationalization measure in the ensuing empirical models. Doing so accounts for both *institutionalized* coordination (reflected in the RAI's 'executive control') and *political* coordination (reflected in the standardized and weighted party system nationalization score). In the absence of a good cross-national measure of intergovernmental coordination, this combination can provide greater leverage than either measure separately.

To address the empirical drawback, I begin from and update the nationalization measure. The standardized and weighted party system nationalization score is measured on a scale of 0-1, where 0 indicates no congruence and 1 indicates full congruence between partisan control at national and subnational levels (Kollman et al. 2019). Of the countries in East and Southeast Asia, a number do not have scores in the database: Brunei Darussalam, China, Laos, and Vietnam. By most accounting of how partisan competition works, each of these countries are effectively one-party systems (i.e., not democratic); I argue that this theoretically would reflect total congruence between subnational and national party competition by the underlying logic of how the nationalization measure is constructed. As a result, *Nationalization* reflects the Kollman et al. scores for all available countries that have interparty competition and scores of '1' for all countries that are recognized one-party states.

My main models will focus on disaggregating the effects of decentralization, executive control, and party system nationalization. Due to data limitations for some of the regions/countries in

East and Southeast Asia,[7] the following 14 countries are included in this analysis: Brunei Darussalam, Cambodia, China, Indonesia, Japan, Laos, Malaysia, Mongolia, Myanmar, the Philippines, Singapore, South Korea, Thailand, and Vietnam. To better understand the influence of intergovernmental coordination on the decentralization-policy outcome relationship, I then parse the mechanisms through an analysis of new case counts, new death counts, and the WHO's measure of excess mortality in two decentralized countries: Indonesia and the Philippines.

For the dependent variable, data on estimated excess mortality due to Covid-19 are gathered from the World Health Organization (https://www.who.int/data/sets/global-excess-deaths-associated-with-covid-19-modelled-estimates). As the excess mortality data are highly skewed and include both negative and zero values, I transform them using a cube root function (Cox 2011). *Decentralization* is measured as the RAI's self-rule score for a country in 2018, the most recent year for which the data are available. *Coordination* is measured as the RAI's executive control score for a country in 2018. *Nationalization* is measured with the party system standardized and weighted nationalization score (PSNS_sw) from Kollman et al. (2019), expanded to cover countries without party system data coded '1' as discussed above.

Additional control measures to account for specific factors that may influence country-level response to emergencies of any sort, including a pandemic such as Covid-19. The country's *Population Size*, standardized as the number of people in millions, and the number of *Subnational Units* in the first tier of subnational government reflect demographic and geographic spread of the population. Different measures from the World Bank's World Development Indicators (WDI) account for how population composition and dispersion may alter the spread and impact of a pandemic: 1) *Urban* is the proportion of the population who live in urban areas;

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[7] For example, the WHO does not collect data on Taiwan.

and 2) *Life Expectancy* in years. Economic measures (also from the WDI) may reflect differences in the ability of states to respond to crisis: 1) the economic *Development* level measured in GDP per capita (in 2015 USD); and 2) *Tourism* (proxied by the number of annual international arrivals) to account for the flow of people across borders. The Transparency International score reflects the overall perception of *Corruption* in a country, which may signal inefficiency in the delivery of public goods and services necessary to effectively respond to crisis.

To reflect the proposed mechanisms through which decentralization affects policy performance in a crisis, I include three interaction terms. The first is an interaction between *Decentralization* and *Coordination*, to assess whether decentralization's influence on policy performance is constrained by whether decentralized units are coordinated in the policy-making process. The second interacts *Decentralization* and *Nationalization*, to assess whether decentralization's influence on policy performance is constrained by whether political parties are coordinated between national and subnational levels. The third interacts *Decentralization* and *Development*, to ascertain whether decentralization's influence on policy performance is contingent upon a country having a particular level of development.

The model is time-series OLS, using a dependent variable of the cube root transformation of the country's estimated excess mortality due to the pandemic.[8] I run four models to account for a basic model with no interaction terms, followed by the three interaction terms separately. Table 1 shows the results of the models. The results suggest no pattern of decentralization influence on excess mortality counts when a range of controls are included. In conjunction with coordination,

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[8] Measures such as reported case rates and death rates have potential data concerns, with different national standards for counting and reporting. However, models replacing the excess mortality count with cumulative death counts produce similar findings with respect to the variables of interest.

decentralization actually appear to increase excess mortality due to Covid, though the substantive effects are small given that the large values (both positive and negative) for the range of excess mortality across the cases. In conjunction with development, decentralization does appear to decrease excess mortality due to Covid, but again the substantive impact is small. Overall, the results suggest that the relationship between decentralization and response to the pandemic is tenuous for the countries of East and Southeast Asia.

Table 1. Predicting Excess Mortality due to Covid-19

	Model 1	Model 2	Model 3	Model 4
Decentralization	1.733	-4.027	-6.823	3.652*
	(1.944)	(2.776)	(11.706)	(1.904)
Coordination	-21.058	-429.012***	-8.816	-27.597
	(33.775)	(165.646)	(32.992)	(27.224)
Nationalization	-63.374	-311.566**	-75.559	-66.401
	(88.360)	(123.108)	(78.749)	(72.334)
Population Size	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Subnational Units	-0.473	-1.605***	-0.127	-0.581
	(0.514)	(0.607)	(0.627)	(0.420)
Urban	-0.355	-0.064	-0.106	-0.286
	(0.972)	(0.786)	(0.889)	(0.814)
Life Expectancy	0.760	16.218**	-1.759	3.052
	(5.697)	(7.560)	(5.883)	(4.742)
Development	0.000	-0.004*	0.001	0.000
	(0.002)	(0.003)	(0.002)	(0.002)
Tourism	0.000	0.000	0.000	0.000
	(0.000)	(0.000)	(0.000)	(0.000)
Corruption	-0.294	-0.090	-0.561	-0.499
	(1.291)	(1.279)	(1.289)	(1.274)
Decentralization # Coordination		30.710**		
		(12.324)		
Decentralization # Nationalization			10.766	
			(14.506)	
Decentralization # Development				-0.000*
				(0.000)
N (groups)	308 (14)	308 (14)	308 (14)	308 (14)
R-squared (between)	0.6390	0.8976	0.6776	0.7824

Standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.

To better unpack the relationship between decentralization and intergovernmental coordination on Covid-19 outcomes, a deeper analysis of two regional cases is in order: Indonesia and the Philippines. Indonesia has twice the population as the Philippines and 2.5 times as many islands, but both are archipelagos marked by environmental and infrastructural challenges that are often exacerbated by their generally weak states, endemic corruption, and modest levels of economic development. Both decentralized at similar points in their respective histories – shortly following transition to democracy – and were lauded by international nongovernmental organizations for their speed of decentralization. They have similar levels of economic development, populations in urban areas and over 65 years of age, and similar incidence of cardiovascular disease and diabetes in their populations.

With respect to governance, Indonesia and the Philippines have average (to the overall dataset) levels of decentralization at the first tier of subnational government: the Indonesian provinces, Philippines provinces, and Philippines independent cities all score '11' on regional self rule in the RAI.[9] Both first subnational tiers are similar with no executive control form of shared rule, although each country has special provisions for shared rule in restive regions (e.g., Aceh and Mindanao). In terms of interparty electoral competition, they have very different nationalization scores, with the Indonesian system more highly nationalized. While they have the same score on the executive control measure and both have national health insurance schemes administered by the central government, the Philippines has a 20-year head start on its Indonesian counterpart in rolling out care and convincing the population to utilize services.

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[9] They have different country-weighted RAI scores because Indonesia's second tier registers on the measurement scale, while the component cities of the Philippines do not receive scores as they do not reach the population threshold in the coding scheme.

In Indonesia, decentralization in a range of policy areas empowers both the first (provincial) and second (municipal) tiers of subnational government, but fears of regionalism and secessionist pressures resulted in the second tier as the national government's originally intended target for authority. Over time, this strategy to equally empower municipal governments has often led to a dilution of capacity building for coordinated service delivery at the provincial level. Political parties are required, with the exception of those competing exclusively for provincial seats in the province of Aceh, to contest elections nation-wide (Shair-Rosenfield 2019). The upshot is that there is a high level of congruence between national and provincial election outcomes for the major parties, though there are a number of exceptions where specific parties representing certain political ideologies reflect municipal and provincial socio-demographic distinctiveness.

While the Philippines has long eschewed full-scale federalism, it has decentralized a great deal of authority and financial resources to the provinces and independent cities that comprise its first subnational layer of government. Fiscal transfers follow a relatively automated formula and disbursement process, so that subnational units are well aware of what resources will be available. Yet, it often struggles to promote coordination and information sharing between bureaucratic agencies across different levels of government. Fierce interparty competition for national and subnational offices, often controlled by regionally-concentrated family dynasties, has led to a relatively weak convergence between national and subnational party systems.

Over the course of the pandemic, the two countries demonstrate a number of similarities in their response and ability to stave off some of the worst outcomes associated with Covid-19. Figure 2 shows the patterns in new monthly Covid-19 cases in the two countries during the 30 months from April 2020 to September 2022, with the red reference bar showing when the Omicron variant emerged in December 2021. The data shows that the two cases weathered most phases of

the pandemic in similar fashion with respect to newly reported cases. The Philippines shows a

few more peaks in case rates, including an especially higher peak following the emergence of the

Omircon variant that was exacerbated due to high socialization levels over the Christmas holiday

period in the Catholic country. While both countries continued to enforce travel restrictions, the

Philippines reintroduced constraints at the outset of the Delta variant's spread that were not

removed until spring of 2022.

**Figure 2. New Monthly Cases per 1 Million Population**
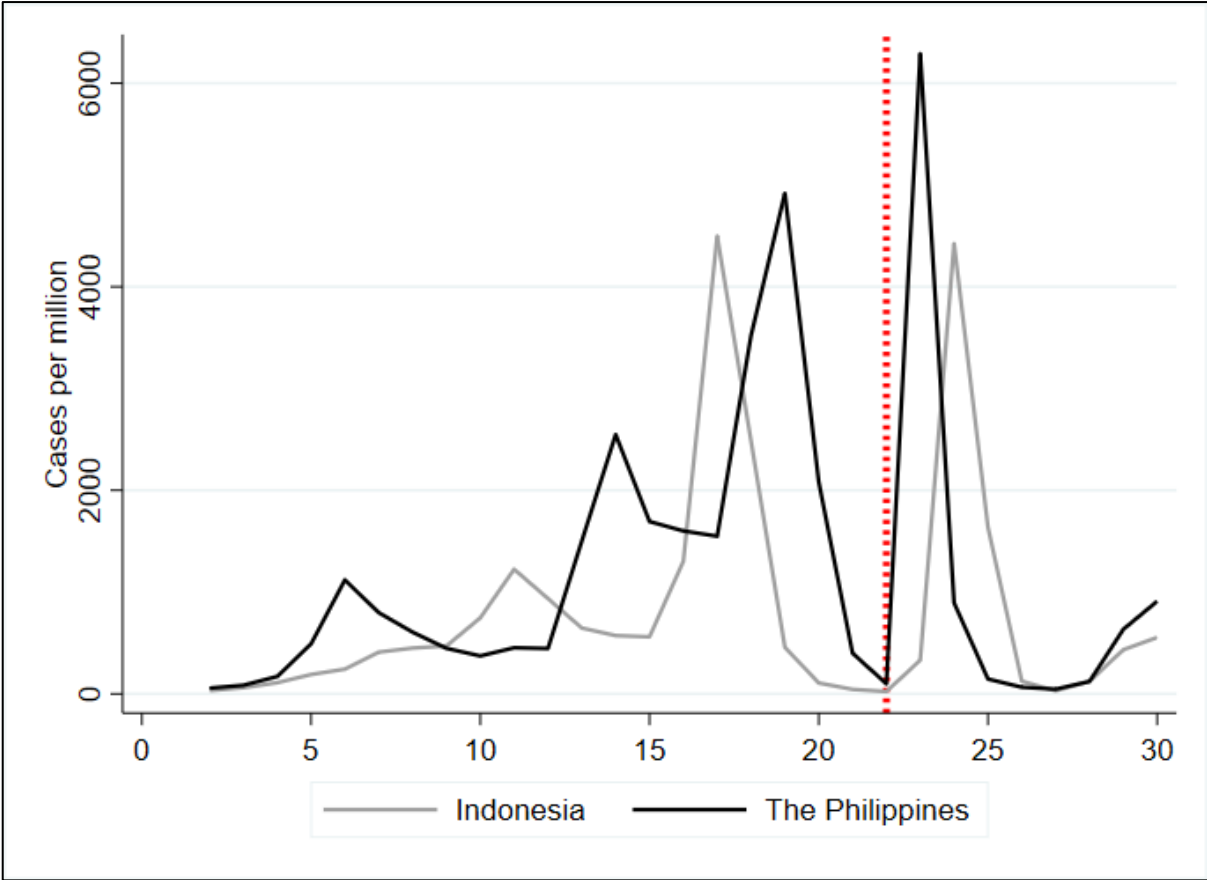
Source: Our World in Data (Ritchie et al. 2020)

In contrast, there was a greater divergence in new deaths following the Delta variant's spread in

mid-2021. Figure 3 shows the new monthly death counts, scaled to 1 million population, with the

red reference bar indicating when Delta became the dominant global variant. The high peak in

deaths in the Indonesian case corresponds to the spread of Delta. The Indonesian trend then

drops precipitously to end 2021, and from the start of 2022 both countries follow a similar

pattern in new monthly death counts. Much of this decline and continuing low death rate is due

to vaccination programs in both countries, where similar and fast increasing rates of full

vaccination occurred from December 2021. Both countries currently have approximately 2/3 of

their population fully vaccinated at the start of September 2022, with Indonesia having a slightly

higher boosted population.

Figure 3. New Monthly Deaths per 1 Million Population
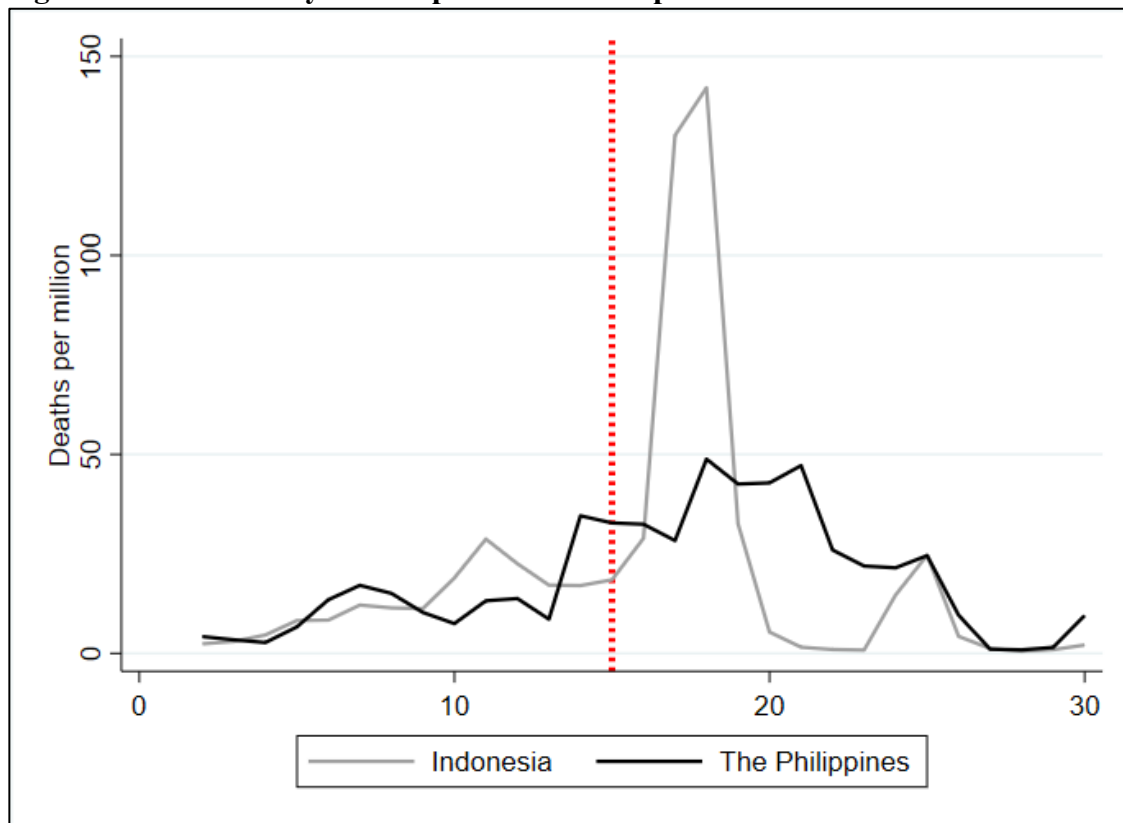

Source: Our World in Data (Ritchie et al. 2020)

Finally, the estimated excess cumulative mortality figures suggest a clearer point of divergence

between the less coordinated Indonesian case with a more centralized party system and the more

coordinated Philippines case with a less centralized party system. Figure 4 shows the two sets of

estimated excess mortality counts from the WHO. While the Philippines remains net negative in

terms of excess mortality through May 2021,[10] Indonesia's excess mortality becomes positive

quite early in the pandemic and continues to climb to the highest rate in East and Southeast Asia.

Part of the divergence is an issue of data sharing and coordination: in Indonesia in the summer of

2021 when the Delta variant drove a huge surge in cases and deaths, discrepancies detected by an

independent domestic data initiative[11] showed that city and provincial levels of government were

reporting different case and death rates. The lack of consistent data made an effective

government response difficult, especially given the government's transfer of authority over

testing sites and vaccination centers to the military instead of health authorities (Indonesian

Presidential Decree Nos. 7 and 9 Year 2020). In contrast, particularly during the Delta wave, no

similar reporting of data coordination failures emerged from the Philippines.

Figure 4. Estimate Cumulative Excess Mortality
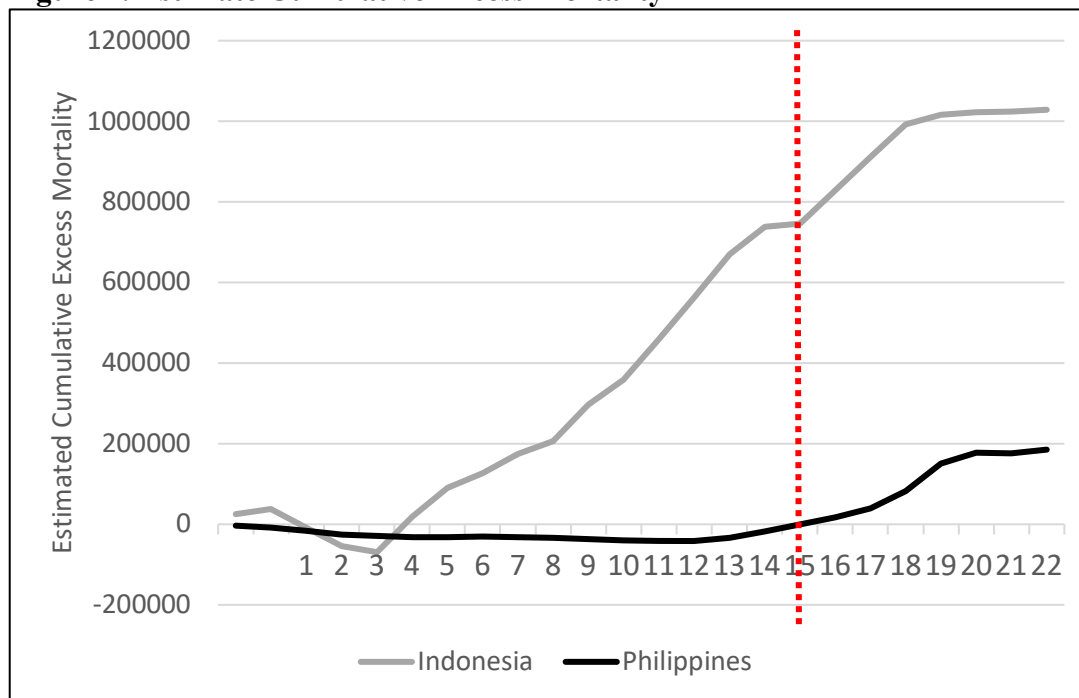
Source: World Health Organization

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[10] Some of this figure may be attributed to the fact that then-President Duterte's war on drugs, which has been accused of tens of thousands of extrajudicial deaths in recent years, likely declined as the pandemic curbed daily social interactions and movement of people

[11] https://laporcovid19.org/kajian-dan-pengembangan/kajian

VI.   Discussion

For more than 2 years, the Covid-19 pandemic posed serious challenges for governments all around the world. No country, regardless of the level of state capacity, has remain untouched by the pandemic – even where the demographic consequences of Covid-19 have been limited, it has taken immense governmental response and restrictions to accomplish the feat.[12] Yet, during the years of the pandemic, the world has witnessed great variation in the degree to which country governments have been able to shield their populations from the devastation of the novel coronavirus. The impact of Covid-19 has undoubtedly been affected by government preparedness to respond to the crisis, which itself is shaped by the internal structure of state governments and their ability to adapt to new information and challenges.

What these analyses do not show is the breadth of divergence within country in how well governments have responded to the pandemic. Both Indonesia and the Philippines, fairly decentralized and modestly coordinated, demonstrate similar responses to the pandemic, although their ability to avoid peaks in case and death counts has varied over time and in response to different challenges. Indonesia managed to avoid higher case rates due to the spread of the Omicron variant, which was more challenging for the Philippines given the timing of Omicron's spread during the Christmas season in 2021. Yet, the Philippines weathered the Delta storm with greater resilience, and its peak in case count did not manifest in the same peak in the death count as occurred in neighboring Indonesia. Some of this is due to failures in Indonesia at a time when a fast and coordinated response to Delta – a deadlier variant that caused greater risk of serious complications – was needed.

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[12] Taiwan and New Zealand, two standouts for their impressively low case and death rates, achieved their successes by implementing some of the world's most severe isolation and quarantine policies.

Countries with decentralized forms of government contributed some extraordinarily innovative solutions to address the potential for community-based devastation, with individual state governments in India providing relief to the some of the world's poorest and most disconnected of populations (Shringare and Fernandes 2020). At the same time, decentralization has also been associated with complications in health service delivery, equitable access to health services and vaccinations, and communication delays and inconsistencies (Capano and Lippi 2021; Lele forthcoming; Park and Fowler 2021). While it is clear that there are some benefits to decentralization as local governments mounted specialized responses to address community needs, the absence of coordination and clear communication between those localities and the central state clearly hampered testing, treatment, and vaccination efforts.

Although scholars have called for greater attention to the importance of coordination to better prepare countries to deal with emergency situations (c.f. Comfort et al. 2020), many countries still have limited channels through which such coordination can take place. This is especially true in East and Southeast Asia, where decentralization itself is a relatively recent phenomenon and coordination has yet to really be embraced. As this analysis shows, more work is needed to understand and appreciate the interrelated effect of decentralization and intergovernmental coordination on emergency response and how countries prepare for and rise to the test when faced with crises and disasters. In East and Southeast Asia, lessons learned from the SARS epidemic helped to inform government policy and preparedness on generating stocks of personal protective equipment and communicating to the population about the value of wearing masks to reduce viral transmission. Yet, both the capacity and political complications of coordinating response through different levels of government proved a tremendous challenge across both regions in the face of Covid-19. It remains to be seen whether countries in the region learn the

importance and value of intergovernmental coordination that the Covid-19 pandemic has

highlighted to the world.

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