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Indian state-level policy responses to COVID-19 during the second wave

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Key findings

India experienced essentially three periods of COVID-19 restrictions. Following a stringent set of restrictions in 2020, federal and state governments did not update official guidance and policy between October 2020, when the last restrictions from the first wave (instated by federal mandate) were relaxed, and March 2021 when the second wave of the pandemic was taking off in a few states. At this point stringent restrictions were re-introduced by state-level authorities.

State authorities across the country used a very similar basket of containment measures. School closures were deployed by almost all states in the country to control the spread of the virus. With rising case levels in the second wave in April 2021, stay-at-home requirements or curfews, workplace closure requirements, and subsequently restrictions on gathering size and public events were also adopted.

There is significant temporal variation in when restrictions were imposed by states, linked to political activities like rallies for upcoming elections or important political events, around the second wave of the pandemic.

Introduction

After two years of restrictions to counter the ongoing COVID-19 pandemic, the Indian government on 31 March 2022 rolled back almost all COVID-19 restrictions (India Ministry of Home Affairs, 2022). Since the start of the pandemic, the country has officially recorded a total of over 44 million cases and over half a million COVID-19 related deaths. The surge in infections and deaths was concentrated around three distinct periods, accompanied by a slew of containment and health measures issued by authorities at the federal and state level. In the initial stages of the pandemic India's policy response was touted as one of the strictest in the world (Yeol, The Print, April 2020), with a countrywide lockdown enforced by the federal government on states and citizens through emergency powers that were invoked at the time. In subsequent waves of the pandemic, more power was devolved to states to govern their citizens, but the tools used by policymakers remained largely the same. This paper tracks the evolution of the Indian government policy response to the coronavirus pandemic from January 2021 to September 2022. We use data from the Oxford COVID-19 Government Response Tracker, collected for Indian sub-national jurisdictions (i.e. States and Union Territories), for Containment and Health policies. Economic support policies and specific indicators collected in our wider dataset on Vaccine policies is not included in this analysis.

Data and measurement

For the 36 Indian states and union territories, OxCGRT reports publicly available information on 14 indicators (see Table 1) of government response. The indicators are of three types:

- Ordinal: These indicators measure policies on a simple scale of severity or intensity. These indicators are reported for each day a policy is in place. Many have a further flag to note if they are "targeted", applying only to a sub-region of a jurisdiction, or a specific sector; or "general", applying throughout that jurisdiction.
- Numeric: These indicators measure a specific monetary value in USD. These indicators are only reported on the day they are announced.
- Text: This is a "free response" indicator that records other information of interest.

ID	Name	Type	Binary flag
Containment and closure			
C1	School closing	Ordinal	Geographic
C2	Workplace closing	Ordinal	Geographic
C3	Cancel public events	Ordinal	Geographic
C4	Restrictions on gathering size	Ordinal	Geographic
C5	Close public transport	Ordinal	Geographic
C6	Stay at home requirements	Ordinal	Geographic
C7	Restrictions on internal movement	Ordinal	Geographic
C8	Restrictions on international travel	Ordinal	No
Economic response **			
E1	Income support	Ordinal	Sectoral
E2	Debt/contract relief for households	Ordinal	No
E3	Fiscal measures	Numeric	No
E4	Giving international support	Numeric	No
Health systems			
H1	Public information campaign	Ordinal	Geographic

H2	Testing policy	Ordinal	No
H3	Contact tracing	Ordinal	No
H4**	Emergency investment in healthcare	Numeric	No
H5**	Investment in Covid-19 vaccines	Numeric	No
H6	Facial coverings	Numeric	Geographic
H7	Vaccination policy	Numeric	Payment source
H8	Protection of elderly people	Numeric	Geographic
Miscellaneous			
M1	Other responses	Text	No

** *Indicators not captured in Indian sub-national data*

Data is collected from publicly available sources such as news articles and government press releases and briefings. These are identified via internet searches by a team of more than 40 Oxford University students, staff, and collaborators and partners. OxCGRT records the original source material so that coding can be checked and substantiated, available in the "notes" version of the data files on GitHub.

In order to ensure accuracy and consistency in the interpretation of the sources, all data collectors are required to complete a thorough training process. We also hold weekly meetings to discuss and clarify how to code edge cases, building a shared understanding of the codebook and its interpretation in light of concrete examples. Every data point is reviewed by a second coder, who examines the data entry and the original source, and either confirms the coding choices of the original coder or flags the data entry for escalation. Data may be corrected via this review process or following external feedback. Substantial revisions are rare.

OxCGRT measures for Indian states and union territories include state government policies that apply to a particular sub national jurisdiction and its constituent districts as a whole. The dataset also includes a measure for the Indian central government's policies itself, which records only federal level policies. Data that combines all policies that apply within jurisdictions - both those decided by the federal and relevant state government - are available in the country dataset on Github (and are denoted by the _TOTAL suffix, as described below).

OxCGRT measures for Indian jurisdictions take the following sources of policy decisions into account to record the strictest policy in effect in a given jurisdiction:

1. Policies made by ministries and equivalent authorities in the central government that apply to the country as a whole or for any specific state or union territories. (These data are referred to with a jurisdiction label of NAT_GOV in our detailed technical documentation).
2. Policies made by sub national governments – states and union territories. In the Indian context both these sub-national jurisdictions are given comparable powers over their territories. In the case of state governments, where there are more stringent measures adopted by city municipalities or district administration bodies, we record these policies with a "targeted" flag at the state level. These data are referred to with a jurisdiction label of STATE_WIDE in our detailed technical documentation.
3. Policies approved by a lower level of government, such as a municipality or a district (within a state or union territory), will be recorded as a state policy and

marked as a geographically "targeted" policy for the indicators that have a flag for geographical coverage. Policies applying to partial areas of a county-level administration are not recorded. These policies are recorded as STATE_WIDE data when they are more stringent than the policies enacted by province-level governments.

The Indian subnational data is presented as part of the main OxCGRT dataset, which is publicly available on GitHub. The Indian sub-national data includes measures taken by an individual level of government (states or union territories) and by lower levels of government within that jurisdiction, connotated by the suffix "_WIDE". This Indian sub-national data also includes the suffix "_GOV" where policy responses are tracked for only a single level of government. The Indian subnational data is published as the total set of policies that apply to a given jurisdiction - these are denoted by the suffix "_TOTAL". This includes measures adopted by the central government ("NAT_GOV") that may supersede provincial/territorial policies, for example a ban on international arrivals adopted by the central government that applies to all subnational units.

Data-collection occurs in once-a-week cycles and the database will continue to be updated and reviewed to provide accurate real-time information on the US subnational government response. The data is published in real time and made available immediately on GitHub, via an API and licensed under the Creative Commons Attribution CC BY 4.0 standard.

Policy indices of COVID-19 government responses

Governments' responses to COVID-19 exhibit significant nuance and heterogeneity. Moreover, like any policy intervention, their effects are likely to be highly contingent on local political and social contexts. These issues create substantial measurement difficulties when seeking to compare government responses in a systematic way.

Composite measures – which combine different indicators into a general index – inevitably abstract away from these nuances. This approach brings both strengths and limitations. Helpfully, cross-jurisdiction measures allow for systematic comparisons across different states. By measuring a range of indicators, they mitigate the possibility that any one indicator may be over- or mis-interpreted. However, composite measures also leave out much important information, and make strong assumptions about what kinds of information counts. If the information left out is systematically correlated with the outcomes of interest, or systematically under- or overvalued compared to other indicators, such composite indices may introduce measurement bias.

Broadly, there are three common ways to create a composite index: a simple additive or multiplicative index that aggregates the indicators, potentially weighting some; Principal Component Analysis (PCA), which weights individual indicators by how much additional variation they explain compared to the others; Principal Factor Analysis (PFA), which seeks to measure an underlying unobservable factor by how much it influences the observable indicators. Each approach has advantages and disadvantages for different research questions. In this paper we rely on **simple, additive unweighted indices** as the baseline measure because this approach is most transparent and easiest to interpret. PCA, PFA, or other approaches can be used as robustness checks.

For the 36 states and union territories of India, the indicators described above in Section 2 are aggregated into two policy indices, each of which measures a different set of government responses (the indicators that make up each index are listed in Table 2):

1. A containment and health index, showing how many and how forceful the measures to contain the virus and protect citizen health are (this combines 'lockdown' restrictions and closures with health measures such as testing policy and contact tracing).
2. A stringency index, which records the strictness of 'lockdown style' closure and containment policies that restrict people's behaviour.

Data collection was prioritised for indicators that form the Stringency and Containment and Health indices. The Economic indicators suite has not been collected for Indian sub national data, thus the Government Response Index and Economic Support Index are not produced.

Index name	**C1**	**C2**	**C3**	**C4**	**C5**	**C6**	**C7**	**C8**	**H1**	**H2**	**H3**	**H6**	**H7**	**H8**
Containment and Health Index	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Stringency Index	x	x	x	x	x	x	x	x	x					

Each index is composed of a series of individual policy response indicators. For each indicator, we create a score by deducting half a point from the ordinal value for a targeted flag, where such a geographic flag exists. We then rescale each of these by their maximum value to create a score between 0 and 100, with a missing value contributing 0. These scores are then averaged to get the composite indices.

Importantly, the indices should not be interpreted as a measure of the appropriateness or effectiveness of a government's response. They do not provide information on how well policies are enforced, nor does it capture demographic or cultural characteristics that may affect the spread of COVID-19. Furthermore, they are not comprehensive measures of policy. They only reflect the indicators measured by the OxCGRT (see Tables 1 and 2), and thus may miss important aspects of a government response. The value and purpose of the indices is instead to allow for efficient and simple cross provincial comparisons of government interventions. Any analysis of a specific province/territory should be done on the basis of the underlying policy, not on an index alone. In the sections that follow, we display principally the Stringency Index, as it correlates most closely with the kinds of policies considered as 'lockdown' measures.

The Indian context

India is a quasi-federalist union that comprises 28 states and 8 union territories. In general, legislative powers are categorised under a Union List (97 items), a State List (62 items) and a Concurrent List (52 items), representing, respectively, the powers conferred upon the Union government, those conferred upon the State governments and powers shared among them. Each level of government has its own jurisdiction in matters of legislation, taxation, and administration even though they govern the same citizens, with federal supremacy (i.e. higher authority to the Union government) afforded by the Indian Constitution in case of a conflict.

Although the Right to Health is not explicitly included in the Constitution (as is, for instance, the Right to Education), the Union government still has a constitutional obligation to provide healthcare to all citizens (Matiharan, 2003). All levels of government, from the central government, to state and local governing bodies (like panchayats, which are rural village governments, and municipalities) are crucial actors in the provision of guaranteed healthcare. Items related to public health are included in all three Lists. "Quarantine" (mentioned in the context of seamen and marine hospitals and medical institutions) is the mandate of the Union List. States can legislate on "health care, sanitation, hospitals, dispensaries, and prevention of animal diseases". Both entities have legal powers related to the medical profession and the spread of infectious diseases or pests (Narayanan, 2019).

However, there is no clear provision for the declaration of a "health emergency" in the Indian Constitution. The President is only able to declare three kinds of emergencies: national emergency (in the event of war or internal aggression), state emergency (in the event of a constitutional breakdown), and financial emergency. The COVID-19 pandemic is the first health emergency of its kind faced by the country since independence and the drafting of the constitution. Without clear constitutional guidance or precedent, the government deployed available measures to introduce restrictions on and protections for citizen to restrict the spread of the pandemic. This devolved responsibility on all matters related to public health underpins the motivation to collect and analysis state-level policy data from India, especially in the context of an unprecedented emergency like the COVID-19 pandemic.

Impact of COVID-19 in India

The pandemic affected lives dramatically for people across the country; nearly 45 million cases and over 53 thousand deaths have been recorded as of November 2022 by official sources. India recorded its first case of coronavirus on 30 January 2020 (Narasimhan, TE, January 2020). Since then, India has experienced three waves of the pandemic, with a rapid increase in number of cases and test positivity rate recorded for each of these waves. In the first wave (roughly lasting from March 2020 to October 2020), the central government exercised extensive control through a federal law that was mandated across all jurisdictions. This later transitioned to a targeted, localised approach that used case prevalence to determine stringency of restrictions. In the second wave (that began in approximately April 2021 and lasted until July 2021), under the provisions of the Epidemic Disease Act (EDA) the central government allowed states and union territories the flexibility to customise containment measures and target restrictions to specific sub regions based on test positivity rate and hospital bed

occupancy. In the third wave of the pandemic in the country, that began in late December 2021 and lasted through January 2022, states used the same central government guidelines around development of action plans and targeted strategies.

The OxCGRT's Stringency Index, which measures the strictness of policies that restrict individual movement through closure and containment policies and public information campaigns, captures how the state and federal governments reacted to these three waves. As can be observed in Figure 1 below which uses OxCGRT data from January 2021 onwards and illustrates the combined population-weighted territorial averages across all 36 sub-national jurisdictions of India, the second and third wave of elevated stringency can be observed between January 2021 and the present date.

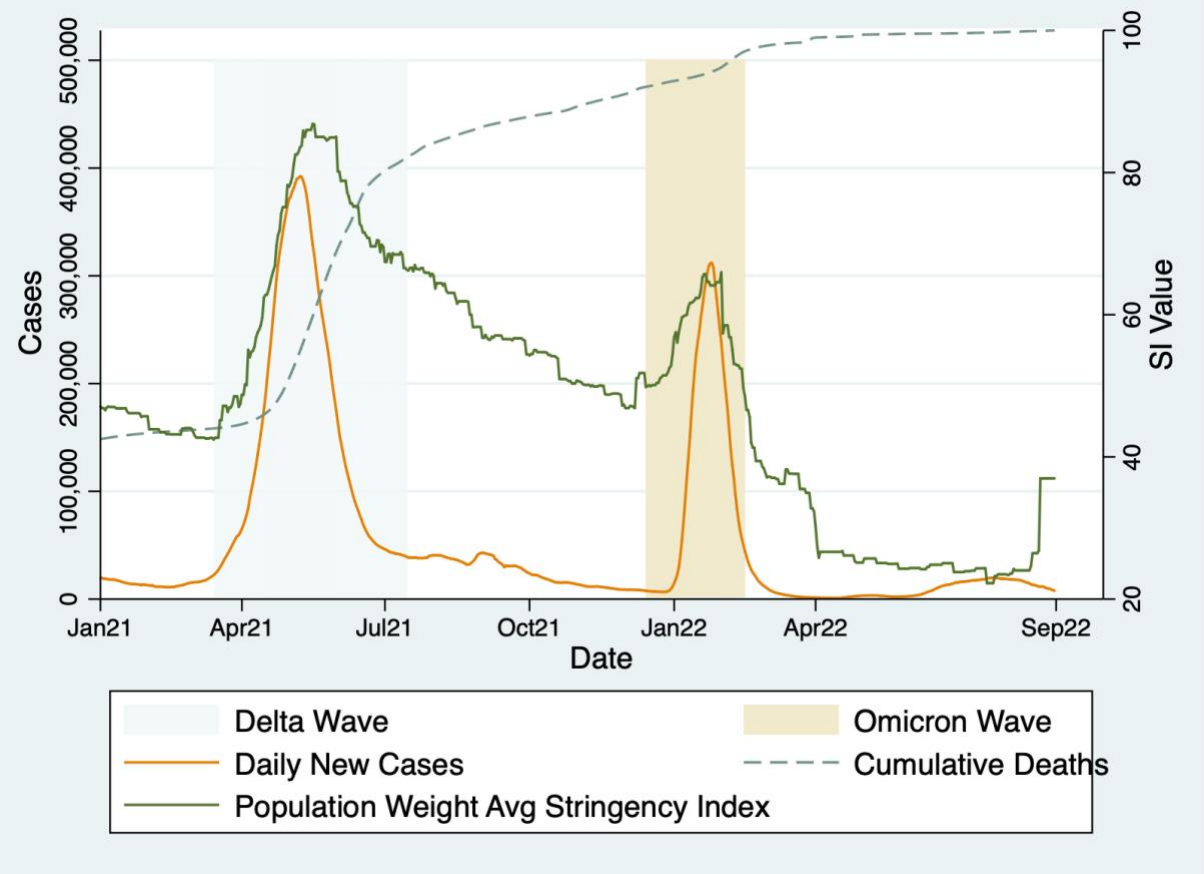

Figure 1: Daily new cases and Mean Population Weighted Stringency Index from January 2021 to August 2022. Cumulative deaths are also indicated. The approximate periods corresponding to the Delta (second) wave and Omicron (third) wave are shaded in the plot. Source: India COVID-19 data project; OxCGRT

Evolution of the pandemic in India

The sections below detail the legislative tools deployed by the federal and state governments, the non-pharmaceutical interventions or NPIs that were used, and a study of the way these strategies affected the spread of the virus in the country.

2020 – Alpha wave

During the first wave of the pandemic which lasted from March 2020 to August 2020 in India, the government enforced a complete lockdown for its over 1 billion citizens that lasted 40 weeks. In the first few weeks, federal government policies mandated complete closure for schools, workplaces and industry across all states. Over time, while the stringency of the enforced measures did not reduce, states were allowed to target these policies to specific demarcated "Containment Zones". Measures at the central and state level considerably relaxed over the months that followed. The last federal order with any significant restrictions last announced in October 2020 (link to order). The MoHFW has been issuing guidelines on various precautionary measures to be taken by all state/UT governments, but has not mandated any formal lines of reporting. This downward trend in stringency of COVID-19 related restrictions is captured in our data from January 2021 onwards. A timeline of significant events that occurred in 2020 is below. In India, colloquially and in the public domain, the designated periods during which restrictions were imposed were referred to as Lockdown 1.0 to 5.0. Periods of successive relaxations were similarly referred to as Unlock periods.

The first case of COVID-19 was reported in India on 27 January 2020, and by 22 March the situation prompted the Prime Minister to make a televised address to the nation requesting a "voluntary" public curfew for one day. Within a few days (on 25 March 2020), the Government of India announced a countrywide lockdown for an initial period of 21 days (Rai et al., 2020, Chinazzi et al., 2020). All public services were suspended. Mask mandates and mandatory testing requirements were enforced, alongside a suite of containment and closure policies. Industrial activity was suspended, flights cancelled, and public gatherings forbidden. By 15 April, after consultations with state governments and other advisory bodies, the first lockdown was extended by the federal government for an additional 19 days, or Lockdown 2.0. The Disaster Management Act was invoked at this time to facilitate coordination between national and state agencies and international organisations. The national lockdown was extended by another two weeks i.e. Lockdown 3.0. To improve targeting of policies and containment actions, the 727 districts in the country were divided into green, orange and red zones, depending on the infection rate in the communities. This signals the transfer of authority from the national level to the state and district level bodies. The national lockdown was extended by another two weeks i.e. Lockdown 3.0. To improve targeting of policies and containment actions, the 727 districts in the country were divided into green, orange and red zones, depending on the infection rate in the communities. This signals the transfer of authority from the national level to the state and district level bodies. By mid-May 2020, the Lockdown 4.0 was in place, with restrictions extended for another two weeks.

After these four lockdown "phases", restrictions were slowly adapted to be more targeted and less stringent. On 1 June 2020, Green and orange zones were allowed to resume some activities, conditional on infection rates remaining below threshold. This

marks the beginning of the resumption to normal life, referred to as Unlock phase 1.0. The next month, Unlock 2.0 is announced, with further easing of restrictions and expansion of permission for low-contact industrial sectors to open. Schools were still closed. Limited international travel is permitted, primarily repatriation flights to other countries, and the Vande Bharat Mission, a national government initiative to help Indians stranded in other countries return home. A month later, with Unlock 3.0, gyms, salons, and yoga centres were allowed to reopen with social distancing, capacity limitation, and mask requirements. Inter- and intra-state travel was permitted. Restrictions continued to be relaxed; the colour coded district categorisation is dropped, and Containment zones are introduced with Unlock 4.0 (Indian Express, 2020). The focus shifts from districts which are governed at a state level, to micro level containment of the infection in localities and neighbourhoods, with control in the hands of the city, village, municipality or panchayat. Lockdown measures in these local pockets where infections are detected in high concentration were allowed to continue, with threat of penalties in the event of violations. Regular hand washing, social distancing, and mask mandates in public places remained compulsory. Unlock 5.0 was announced for the month of October 2020 with further relaxation of movements and the opening of closed facilities. States were allowed to decide whether to reopen educational institutions from 15 October 2020 with the appropriate health and safety measures in place. (Gangwar and Ray, 2021):

2021 – Delta wave

Following Unlock 5.0, the final stage of relaxation of the most stringent restrictions, there was a lull in government activity and announcements related to COVID-19 at the federal and state level. Even within the scientific community, antibody data from population centres like Delhi and Mumbai led many researchers to conclude that the worst of the pandemic was over (Mallapaty, 2021). Studies testing for antibodies indicated that in January 2021, over half the residents of major Indian cities had been exposed to and acquired some degree of immunity against the virus. This led to rumours of generally higher immunity among the Indian population, perhaps instilling a sense of complacency. Large scale religious festivals that brought together millions of people were given the green light to proceed (Ellis-Peterson and Hassan, 2021). Economic activity was largely allowed to resume across most sectors, restrictions on gatherings and public events were relaxed, restrictions on movements between states were lifted; life more or less returned to relative normalcy in the country. Investment in vaccine development was encouraged by both the Indian federal government as well as international authorities, and in early January indigenous vaccines received emergency approvals from domestic regulatory agencies and roll-out began (Pulla, 2021). However there were no significant or coordinated efforts to bolster the public healthcare system, and indeed, vaccine take-up in the initial phases was low due to misinformation and hesitancy (MoHFW, Co-WIN dashboard).

Despite warnings from epidemiologists (Ghoshal and Das, 2021) as well as evidence from other countries that were further along in the pandemic trajectory that a second wave was forthcoming, no pre-emptive preparatory or advisory measures were issued at the federal or state level until March 2021, when some states began to reimpose restrictions on gatherings and individual movement to attempt to control the surge in infections (Beaumont, 2021). By this time the steep upward curve of infection spread was underway, especially in population centres like Maharashtra, as observed in Figure 2

below. Stringency of restrictions was also increased, albeit with a lag even in high population density states. Despite these tentative efforts, in April 2021, India faced a second wave of the COVID-19 pandemic, which was significantly more devastating than the first.

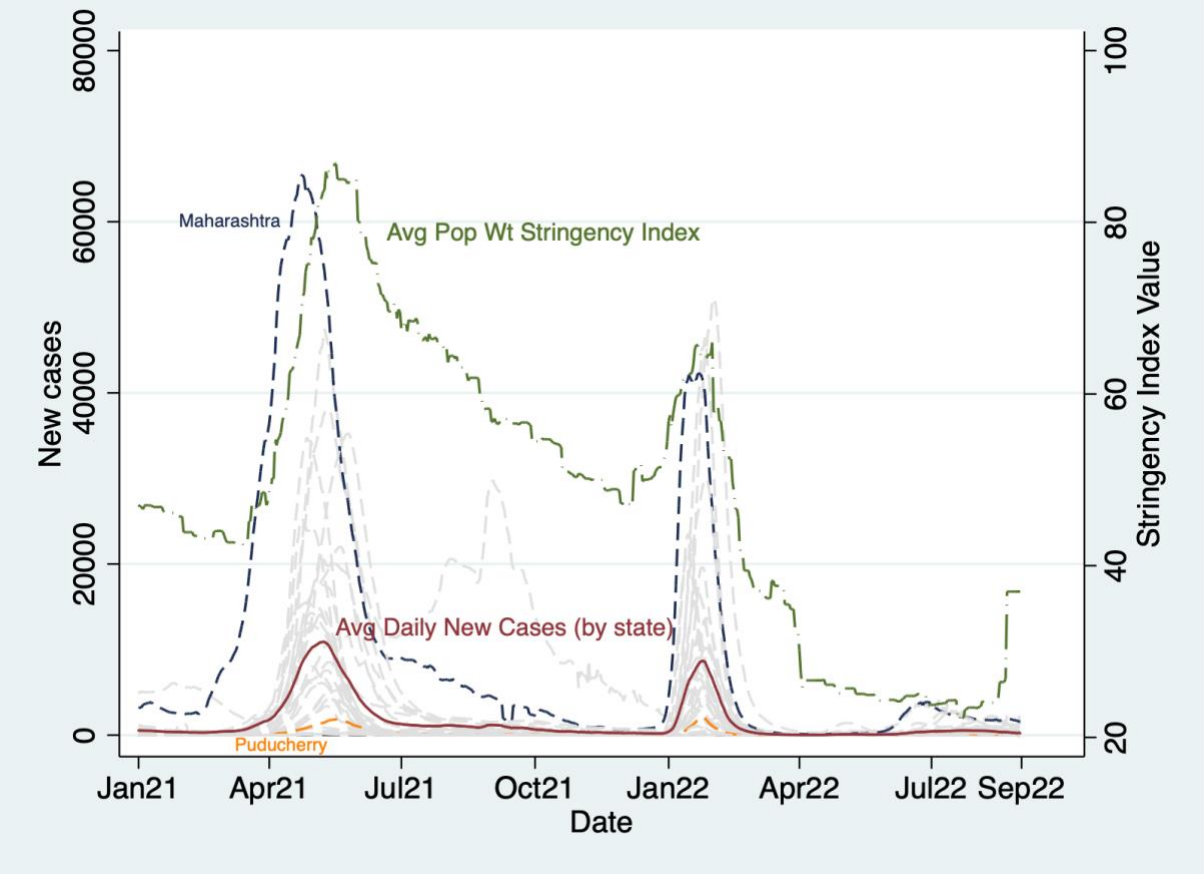

Figure 2: Daily figures for new cases by state and average population weighted Stringency Index, by time. (Source: India COVID-19 data project, OxCGRT)

The bulk of state and central policies related to containment and health were reintroduced around this time, as the OxCGRT data show through an uptick in mean Stringency Index (see Figure 2). These included a mixture of orders and advisories issued primarily by the Ministry of Health and Family Welfare (MoHFW) and the Ministry of Home Affairs (MHA) in the central government that were enacted by authorities at the state level in localised areas. Unlike in the first wave, when the central government mandated complete lockdown, this time the government pursued a devolved strategy of establishing "micro Containment Zones" where the most stringent levels of containment measures were prescribed, where states were given the mandate of enforcement.

During this second wave, the national government did not recommend any specific guidelines or issue any additional reactive federal mandates to support the states in controlling the spread of infection. In the graph (Figure 3) below, the green line represents the maximum recorded stringency across any sub national or national jurisdiction, the red line represents the stringency of the federal recommendation in place at the time, and the blue line represents average stringency across all states, while the orange line represents average residential mobility. As observed in the graph below, federal measures (red line) were less restrictive than the average state-wise measures

(green line) adopted during this time. This is in contrast to the approach adopted during the first (Alpha) wave of the pandemic, as described in the sections above, when the federal government issued sweeping orders that restricted autonomy at the state level but gave states increased powers for implementing highly restrictive measures with federal legislative backing.

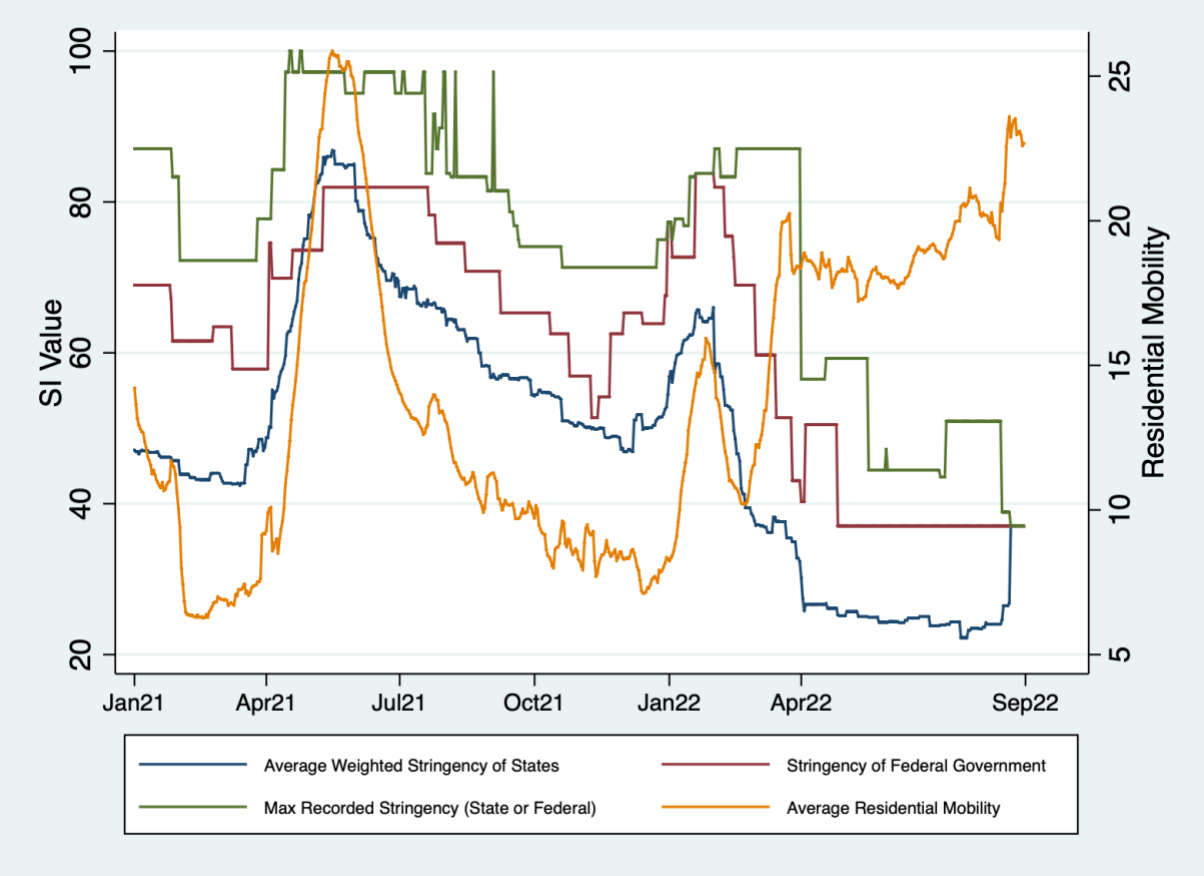

Figure 3: Comparing federally recommended stringency with state-level enforced measures

In the way that the OxCGRT Stringency Index is calculated, it would appear that despite high variation in context, both in terms of standard characteristics (like population density, presence of urban centres, or highly trafficked industries or areas within the state), as well as variables (like daily active case load and hospital capacity), Indian states all responded with the same stringency once they began to introduce restrictions. It is also interesting to note the timing at which restrictions are imposed, compared with when the peak of case load was reached. In Figure 4 below we compare per capita active case load and Stringency in the sub national territories of Maharashtra, one of the most populous states in the country, with multiple urban centres, that typically accounts for a high proportion of daily new cases reported in the country, and Puducherry, a Union Territory with a comparatively considerably smaller population and population density. The choice of comparator states is merely to illustrate the similarities between two groups of states (based on population density and per capita case loads). We note that despite high variation in the per capita active case load at any point, both Maharashtra and Puducherry used a very similarly restrictive basket of measures to contain the spread. When examining the timing at which restrictions were imposed relative to active case loads, we observe that Maharashtra, which experienced a higher

case load in the first wave, was quicker to elevate stringency of restrictions (pre-emptive), compared to Puducherry, where restrictions were imposed after cases had already peaked (reactive). In the next wave of the pandemic in early 2022 (Omicron wave), however, we observe that both states pre-emptively elevated stringency of restrictions prior to reaching peak case load.

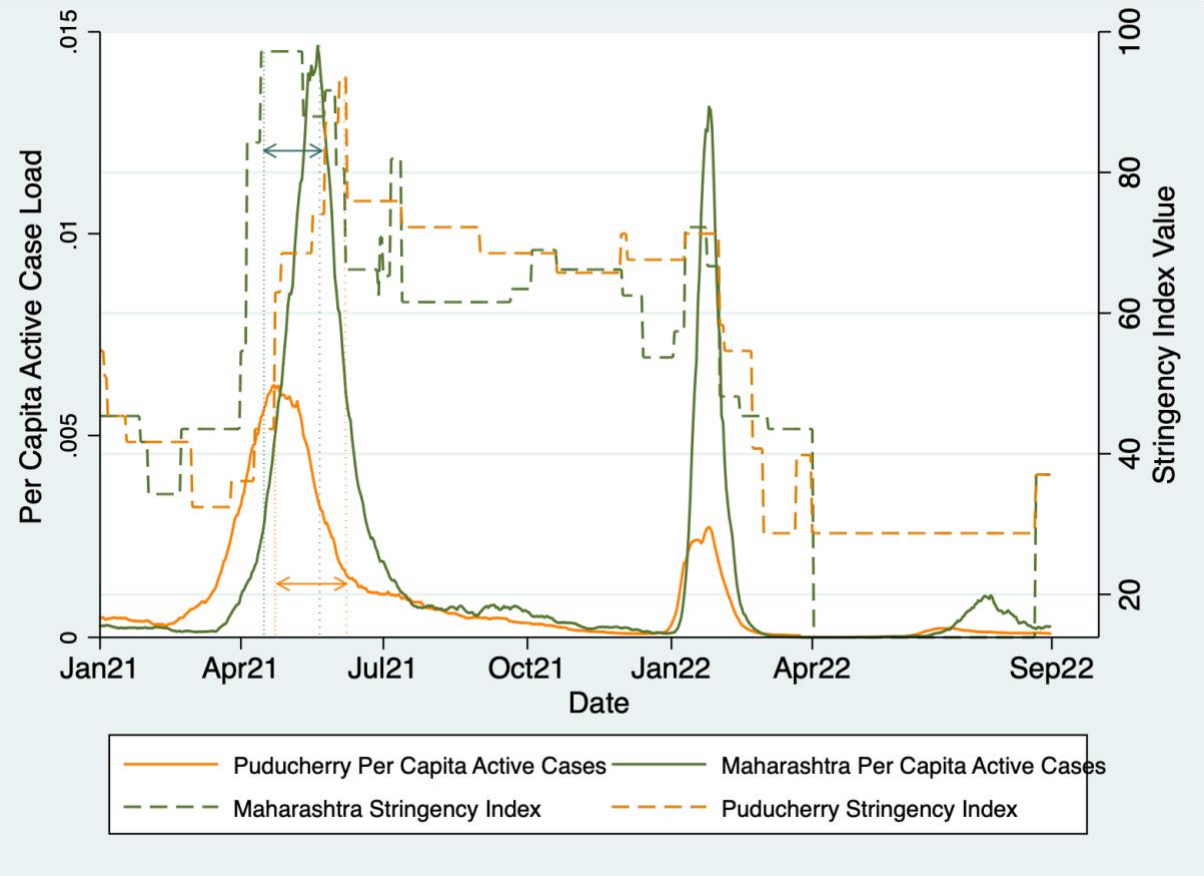

Figure 4: Per capita case load and Stringency Index for Maharashtra and Puducherry. (Source: India COVID-19 data project; OxCGRT)

States and Union Territories adopted a similar basket of measures that the central government had initially prescribed in the first wave to contain the spread. Schools had only just reopened after nearly 8 months of closures in January 2021 for some groups of students (older students or those in critical exam grades), but were quickly closed again across all states to control the pandemic. Restrictions on individual movement were once again enhanced; stay-at-home orders in the form of night or weekend curfews were introduced and only essential activities were permitted during the day (unlike in the first wave where all activities outside the home at all times were restricted). Public events and large-scale gatherings were also quickly banned by a growing number of states, albeit with some differences in the timing of these restrictions that did not always align with case levels. Masks had been mandated in all public places since the start of the pandemic. In the second wave enforcement policies such as fines and restricted access to public spaces if people were found not complying with the mask mandate were introduced (MoHFW, March 2021). States also began to introduce specific restrictions on incoming domestic travel from high-burden states to contain the spread

of the virus, in the form of complete closures, mandatory quarantine, heightened contact tracing or proof of a recent negative RTPCR test.

Containment and closure measures deployed by states are plotted in Figure 4 below. We note that school closures are deployed by the highest proportion of Indian states in the early parts of 2021 – around 70 percent. Around April 2021, states began ramping up measures, and the rates of those adopting other containment measures, such as curfews (stay-at-home orders), workplace closures, and public event cancellations, as well as school closures, began to increase until May 2021 when nearly all states in the country were implementing these restrictions. These measures were gradually withdrawn over the course of 2021 across the country, although school closures were still being used by over one third of the states in the country throughout this period. In late December 2021 / early January 2022, there is a brief period of uptick in restrictions observed, corresponding with the surge of infections related to the Omicron wave.

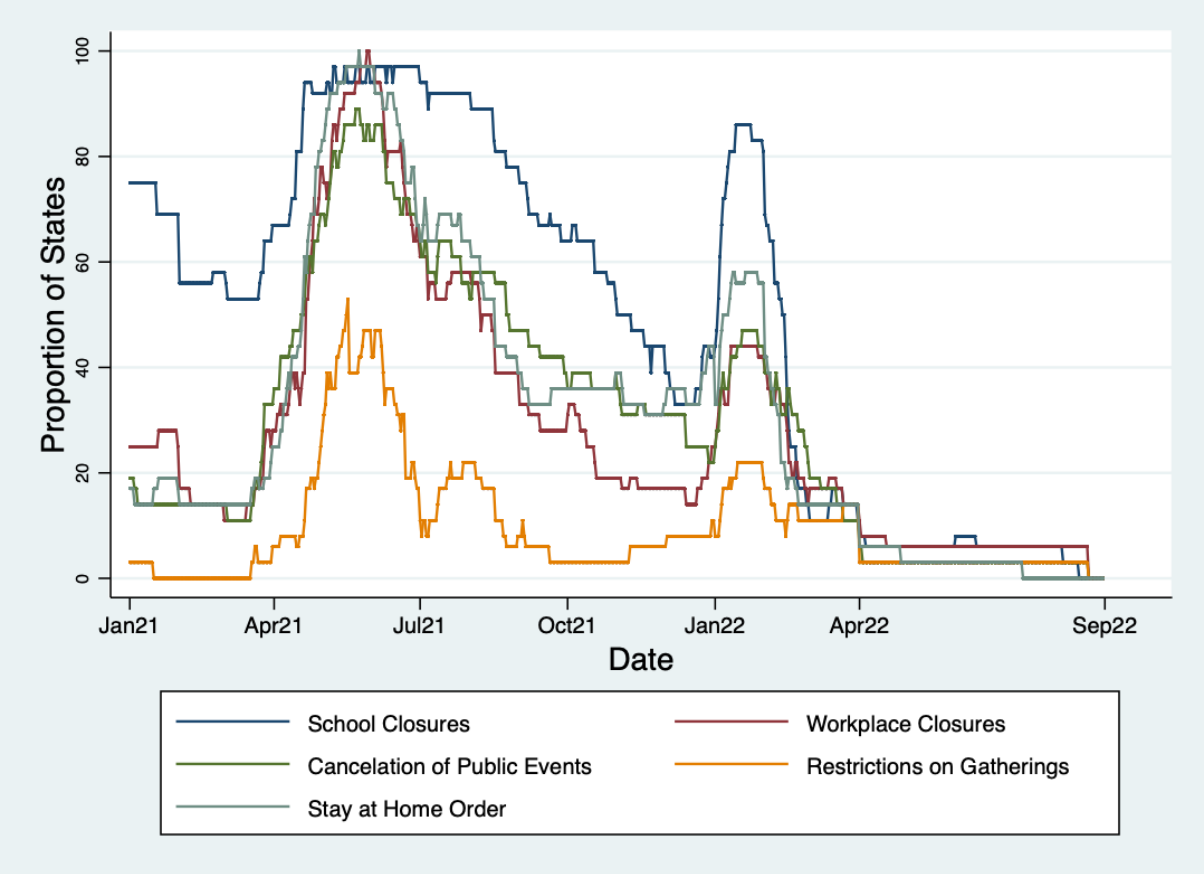

Figure 5: Proportion of Indian states implementing various containment measures

Stringency climbed steeply in the first couple of weeks of April 2021, signalling the rapid response and elevation of restrictions enforced by states to control the spread of the virus. However, states did not all mobilise at the same time, and there is considerable temporal variation in when states increased restrictions to control the second wave of the pandemic (Figure 6). A similar pattern was observed over the period of late December 2021 and early January 2022 during the uptick in infections due to the Omicron wave in the country – states all raised the level of restrictions, albeit for a short period.

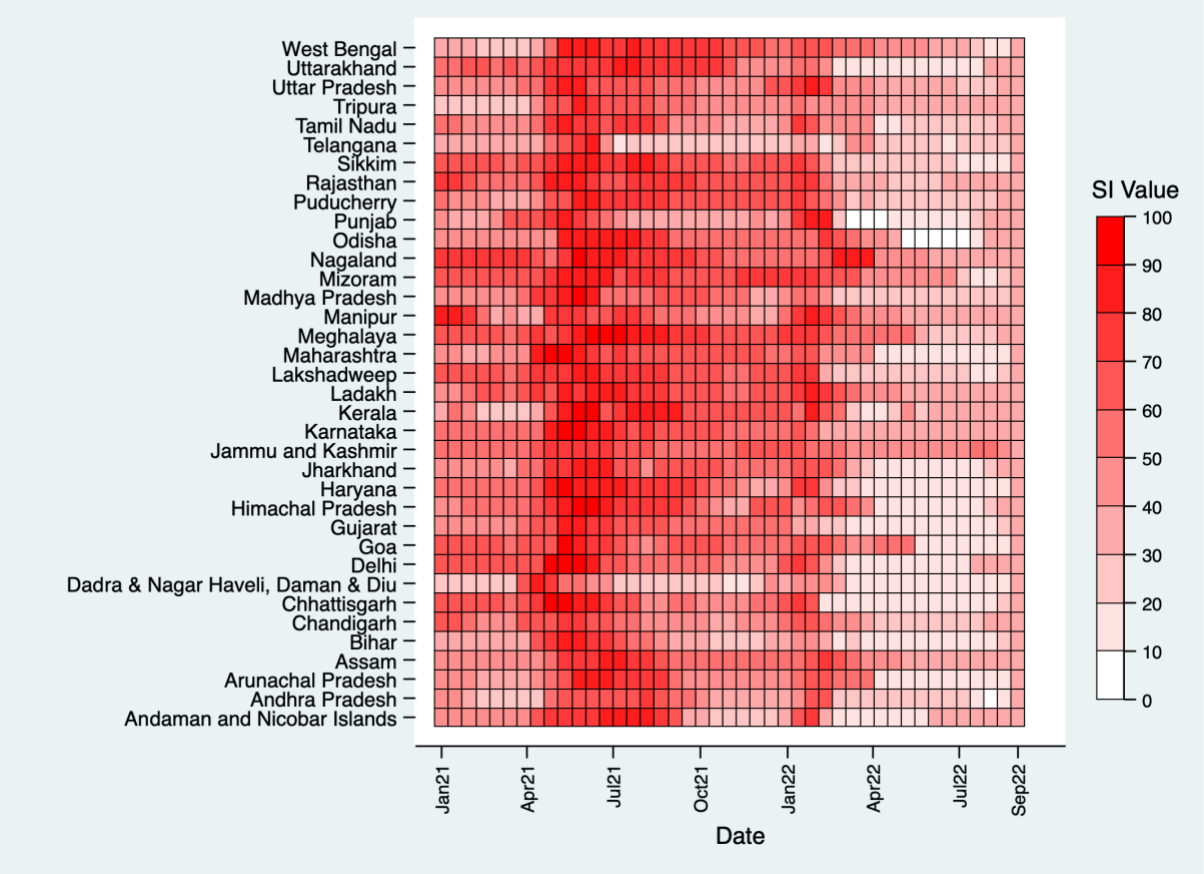

Figure 6: *Stringency Index by State, over time. Darker coloured cells indicate weeks with high Stringency, and vice versa.*

In trying to understand the drivers behind this apparent lag in implementation of containment measures like restrictions on gatherings and public events, it is important to highlight that there were state assembly and legislative elections ongoing in five Indian states in March and April 2021 (Ravi, 2021). In early March 2021 the election commission significantly relaxed COVID-19 restrictions and permitted large scale victory processions (Roy and Singh, 2021). Election rallies in India typically draw tens of thousands of people and have the potential to turn into large scale superspreader events. Studies have found that there was an increase in contact rates and effective reproduction number (and other factors related to the spread of the virus) during the pre-election time in these states (Manik et al, 2022). The stringency index captured in our data demonstrates that this could be attributed to lower stringency of enacted measures in these states compared to non-election-bound states (see Figure 5). By late April 2021 Election Commission of India (ECI) enforced restrictions on campaign rallies, meetings and other political activities, like banning all roadshows, rallies, and limiting public gatherings to 500 people (ECI, 2021). The corresponding uptick in recorded stringency in states with elections is also captured in our data (see figure 7).

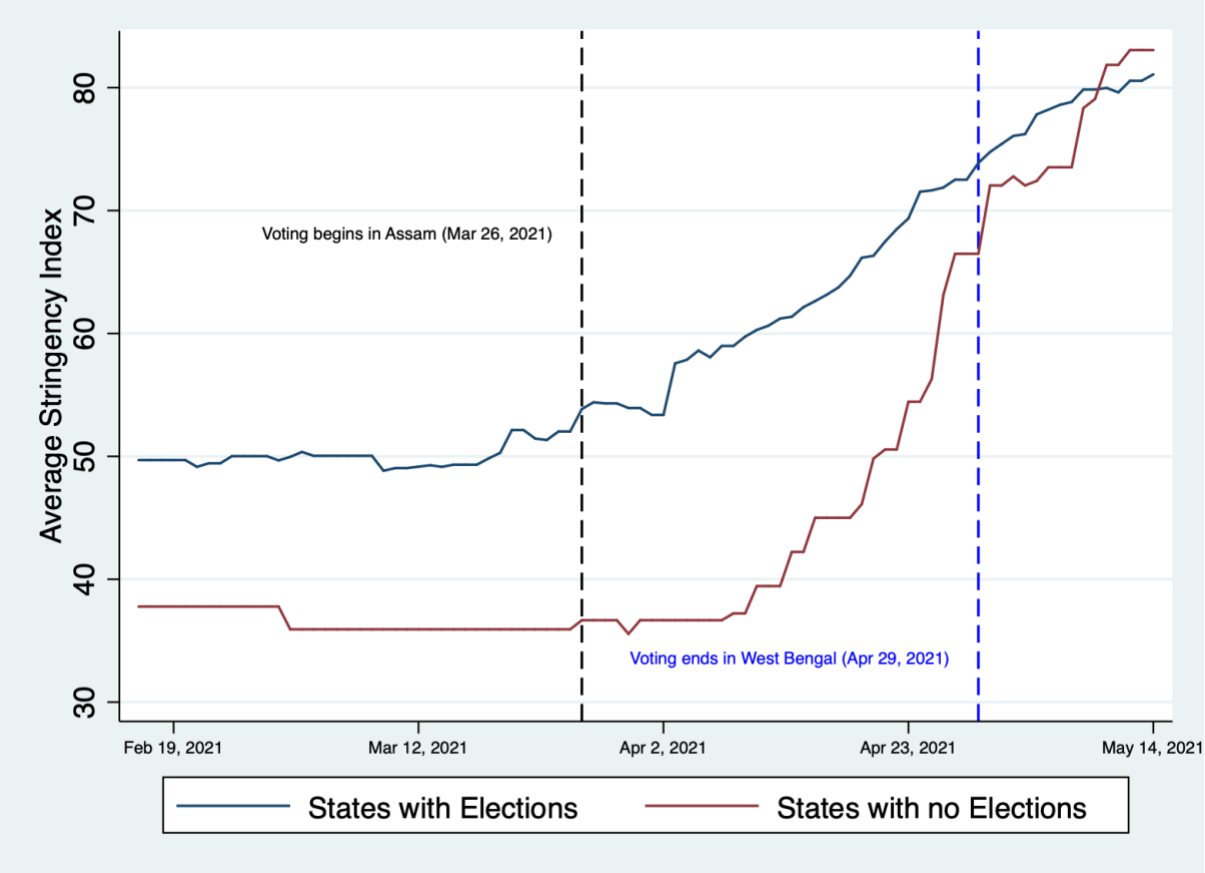

***Figure 7**: Average SI around April 2021, comparing states with elections to other states*

Conclusion

After an extended period of complete nationwide closures lasting the majority of 2020, federal and state-level restrictions in India were lifted. Lowering case levels and reduced pressure on health and government facilities signalled to authorities that the threat from COVID had passed. Official guidance and policy documents were not updated from October 2021 until the next surge of infections caused by the delta variant of the COVID-19 virus was already sweeping through the country. Our data shows that it was only after this Delta Wave of infections had begun in earnest in parts of the country that states began to issue renewed guidelines for containment and disease management.

Despite the inertia resulting in delayed take-up of policies to control this second wave of infections in mid 2021, the policies adopted by state governments did not vary significantly from those enforced by the federally mandated national lockdown in 2020, and were consistent across states, regardless of infection levels. The primary difference between 2020 and 2021 restrictions was observed in targeting. School closures remained the most commonly used containment strategy, followed by curfews or stay-at-home restrictions, workplace closures, and restrictions on public events and large-scale gatherings. This trend continued to be observed even through the subsequent Omicron wave which caused an infection surge in late 2021 – early 2022. The basket of policies being adopted by states was largely similar in both instances and regardless of state-wide case-levels, and has the potential to be better targeted to suit individual state circumstances. There is also potential for better coordination of restrictions and policies There is significant temporal variation in when restrictions were imposed by states, linked

to political activities like rallies for upcoming elections or important political events, around the second wave of the pandemic.