

RESPONSIBLE GOVERNANCE IN CONTAINING THE SPREAD OF COVID-19 IN A DEVELOPING STATE

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ABSTRACT

Aim. The study aims to scan through the public institutional policy implementation in tackling the global pandemic and framing universal policies for responsible governance. It also measures the impact of training interventions and non-training implications in containing the spread of COVID-19 at the grassroots level.

Methods. The samples were drawn empirically from pathological tests conducted over 23 weeks to precisely examine the success of the State Government's approach in lowering COVID-19 mortality and spread. Through trend analysis, the outcome has been predicted. The study establishes a link between acknowledged ideas and government practices, providing insight into how relevant the implementation of planned state-craft programs is.

Results. The findings indicated that government-imposed policies account for timely pandemic containment, and even a tiny developing state lacking advanced medical facilities and technology can set an example in combating the epidemic.

Conclusions. The temporal analysis is based on the inputs acquired from government publications and other sources, allowing us to assess policy initiatives that encompass training interventions and non-training implications as prioritised by the State Government. The paper shows that a good emergency preparedness and response system is needed to prevent huge losses in any sector. This includes the already-struggling health sector, which India needs to put first to avoid more tragedies.

Keywords: Government Policies, e-Learning, COVID-19, Northeast India, vaccine hesitancy

INTRODUCTION

The second wave of COVID-19 hit India with a higher lethal impact. Like all other states, Tripura, one of the shining states of North-East India, was also in need of strategic interventions to tackle the situation at ground zero. However, the process was initiated a year earlier during the outbreak of the COVID pandemic. The high mortality rate caused due to COVID - 19 impels the need to evaluate positive Government intervention for others to replicate in future. According to World Health Organization, as of 25 June 2021, there were 179,686,071 confirmed cases worldwide, including 3,899,172 global deaths, which are around 2.17% (World Health Organization [WHO], 2021), whereas, in India, there were 30,134,445 confirmed cases, including 3,93,310 loss of lives (1.30%) (WHO, 2021). Tripura, being

a border state, is covered by Bangladesh from three sides and is a long way from the mainland with limited medical facilities; it has figures which are quite encouraging and better than the national average. As of 27 June 2021, the number of confirmed cases in Tripura was 64,159, whereas the casualties were 665, which is around 1.04% (MyGov, 2021). It has been revealed that the dissemination of positive news during COVID-19 has significantly reduced negative emotions and strengthened resilience, which eventually boosts the Government machinery's morale, including the health care workers, policymakers, frontline supports staff, etc. (Giri, 2021). The study is an honest attempt in that direction.

Several research studies in the domain of Public Health have identified rapid testing as one of the most crucial interventions for impeding the chain of transmission for COVID-19. Still, extending such mediation needs strong support from expeditious infrastructure development so that a large number of people get quarantined quickly, which is a major test for regions with limited resources (Guest et al., 2020). Even the low and middle-income countries (LMICs) with limited scope for domestic manufacturing of test kits or reagents found difficulties while importing them as the manufacturers have mostly focused on the more significant markets of Latin America and Europe because of their strong economic power, which can readily outbid the LMICs (Peplow, 2020). However, countries such as Belgium, the United States, etc. are now moving towards a swab pool testing strategy to reduce the workload of the pathological laboratories, which is considered an alternative to RT-PCR testing so that reliable large-scale testing of the suspected individuals can be done at a lesser cost at a comparatively faster pace (Christoff et al., 2021). Thus, the capacity of swab testing facilities in a region becomes a decisive factor in curbing the spread of COVID-19 as Public Health experts across the globe are still hesitant to comment on the efficacy of fully or partially vaccinated individuals in restricting the transmission of SARS-CoV-2 virus (Curley, 2021).

The first positive case of COVID-19 in Tripura was confirmed by the Hon'ble Chief Minister and Health Minister of the State on 6 April 2020 and through his official Facebook and Twitter handles (Barman, 2020). Since then, the State Government has taken various steps to curb the infection rate. Demographic attributes of a region play a crucial role in determining counter-strategies to beat the evil of the deadly virus based on the local needs, and thus it is imminently important to identify the loose ends. Tripura, the third smallest state of India, captures a significant position in developing the North-Eastern region and the country. The total area of the state consists of 10,491.6 square kilometres and has an estimated population of around 40,12,000 in 2019-2020 (Planning (Statistics) Department, Govt. of Tripura, 2020). There are eight districts in the state, and based on population (9,18,200 as per the 2011 census), West Tripura District is the biggest of all. According to Pandey et al. (2021), states like Karnataka, Kerela, Telangana, Tamilnadu, and Punjab have better health infrastructure

than the rest of their counterparts. Compared to a level of performance in combating COVID-19, states like Rajasthan, Bihar, Haryana, etc., are better performers than most. Tripura is in no way lagging, as the death ratio of the state is lower than even Bihar, Haryana, etc., the best-performing mainland states (MyGov, 2021). Private hospitals in India command a greater market share of 62.78% in comparison to the Government sector, which is just 37.22%, whereas if we look at Tripura, Government dominance is visible as 95.13% of hospitals are Government hospitals (Kapoor et al., 2020). Another interesting resourcefulness of the administration is visible in the number of beds available per patient. The total number of hospital beds available per 0.1 million patients for Tripura is 116.62, which is a limiting factor but comparatively better than developed states such as Haryana (115.88), West Bengal (109.55), Gujarat (98.33), Assam (73.31), Madhya Pradesh (72.84), Jharkhand (71.91), Chhattisgarh (55.64), Odisha (54.67), Bihar (25.55) and so on (Kapoor et al., 2020). It is quite interesting to quote that in terms of hospital beds, Tripura is way ahead compared to immediate neighbouring countries of India such as Bangladesh, Nepal, Pakistan, Afghanistan, etc. (The World Bank, 2021). The Government's foresight in building 19 COVID Care Centres (CCC) and augmenting existing hospital beds or isolation wards shows its foresight. The objective was to deliver service to the residents of the state and the national or international travellers, mainly from Bangladesh (*The Hindu*, 2020). Keeping the need of different levels of citizens under consideration, the State Government has also introduced Paid COVID Care Centre facility with a fixed sealing limit on 25 May 2021. The first oxygen concentrator-supported paid quarantine centre was established in the West Tripura District and was assisted by one Medical Officer on a 24/7 basis (Deb, 2021(b)).

THEORETICAL UNDERPINNINGS

The sudden outbreak of COVID - 19 exposed many improvement areas that forced the health regulatory authorities to innovate to deal with the problems by adhering to the World Health Organization guidelines since it was a new problem and no solution had yet been found. The situation thus arose a classic example of the Problem-Based Learning theory of Barrows and Tamblyn (1960), which advocates for an instructional methodology for different learners to conduct research and identify viable solutions to a defined problem (Savery, 2006). The study's ill-structured problem guides the learner in finding a viable solution. It has been identified that during self-directed learning, learners or practitioners should be able to detect, grab and amalgamate all relevant knowledge regardless of the domain that may be related to a genuine comprehension of a certain subject. (Barrows, 1996). Despite its size, India's challenge was multifaceted, including migrant workers returning home, panic purchase of essentials, and the spread of the

virus among vulnerable groups who could not segregate themselves. Even the most developed regions can learn a lot from the Government's activities in containing the spread of the virus in a developing state with limited healthcare and other facilities.

Indeed, the journey of providing service to the people during distress is not always smooth, and the administration often has to face formidable hindrances. Despite extensive training, campaigning, and an awareness drive, there were many cases reported where the local residents cut off the entry and exit points of villages for not allowing the medical team to enter the villages for door-to-door surveys and sample testing as they believed that COVID is an „Urban Disease” (Deb, 2021(a)). Despite having all the essential amenities for Home Isolation, several families could not keep their patients in the isolation room because their neighbours or villager would not allow it. Afraid of a social boycott, patients from urban and rural regions have decided to remain in Institutional Quarantine facilities. Coronavirus was so highly stigmatised and ingrained that even people who tested negative were pushed into isolation centres by their neighbours with a tendency to isolate them socially (News18, 2020).

The Social Exclusion Theory of Red Lenoir (1970) gained popularity during the 1980s and focuses on primordial aspects such as inadequate access to products or services, social isolation, a sense of loneliness, inadequate social congregation, etc. Duffy (1995) defined it as a much more comprehensive approach to considering issues such as poverty or materialistic concept, encompassing the incapability of an individual or group of individuals to effectively participate in economic, politico-social, and cultural parameters within the mainstream society. The instances of social stigmatisation are not only particular to Tripura but are very much predominant in other parts of India. It becomes a general perspective to label the COVID-infected patients as negligent virus spreaders (active or passive), which develops negative perceptions against the infected or probably infected individuals (Bhanot et al., 2020). The perceived social stigma emerging out of uninformed and fringe groups think of possible contamination was associated with the profession of the individuals (Healthcare, Police, Cleaners, etc.), the religion of the individuals (Markaz Congregation returnees, Kumbh Mela returnees, etc.), migrant workers or even death of family members due to COVID-19 (Bhanot et al., 2020). According to Williams et al. (2019), „ostracism, i.e. being ignored and excluded”, is a particular negative emotion that is being injected into the mental process due to the prolonged reactions of a global pandemic in the form of social distancing, quarantine, lockdown, etc. and ultimately affecting the morale, self-esteem, etc. of an individual who faced the consequences. It has been observed through various studies that ostracism leads to a feeling of uncertainty among individuals as they feel they are being intentionally excluded and also remain unaware about the duration, i.e., how long people will continue to ignore them, and this is very pertinent in the present con-

text of COVID-19 (Williams et al., 2019). The restriction of participation of health officials during mass testing, isolating of COVID-positive patients at home or preventing them from returning to work after recovery can be regarded as a general phenomena. The issues were tackled by establishing public awareness by putting pre-recorded audio tapes on during calls and asking that posters not be displayed outside the homes of COVID-positive patients. (Delhi Information Bureau, 2021).

Various behavioural change models rely on cognitive, emotional, and social components. An essential health belief model focuses on the desire to avoid sickness and the idea that particular health practices will cure or prevent illness. During any public health emergency, while the common people understand and perceive the threat adequately, there is a high possibility that they would take precautions to avoid illness (Weston & Amlot, 2020). The protection motivation theory encourages the habit of adopting coping to deal with the threat (Rogers, 1975). People with adequate awareness tend to follow COVID-appropriate behaviour. In COVID, improving self-efficacy (confidence about controlling the disease or infection) was more important than instilling fear. With adequate training, capacity-building program, and awareness generation, people's self-efficacy should be improved (Rad et al., 2021).

The State Government, irrespective of infrastructural and operational constraints, has enforced COVID-19 appropriate conduct and thus made every single challenge a learning point for framing future courses of action (Gauttam et al., 2021). The Learning Continuity theory (Mukherjee et al., 2020) elaborates a pedagogic shift, where learners, i.e., the state departments, attained maturity through constant learning and improvisation, which was ultimately reflected in positive outcomes. In the second wave of COVID-19, the state implemented ward-wise curfews and weekend curfews rather than a complete lockdown, demonstrating inherent maturity in handling the COVID crisis while maintaining a perfect balance between the citizens' lives and livelihoods. (Deb, 2021(c)). It is noticed that when adopting policies, some aspects that have direct or indirect effects on the mass population must be considered to achieve holistic result that is strong and long-lasting. The study will uncover more critical parts of government policies and their impact on restricting COVID-19 spread in Tripura and make some recommendations.

THE HEALTHCARE SYSTEM OF INDIA WITH SPECIAL REFERENCE TO TRIPURA

In India, there are both public and private healthcare providers. Unlike urban or peri-urban areas, the rural sector relies heavily on public sector health facilities to help and support it (Dolley et al., 2020). Health Departments of states implement the programs in coordination with the Mini-

stry of Health and Family Welfare, Government of India (GoI). The State Government runs the public health system in the state as public health is a State subject. Health care in rural areas is divided from lowest to highest tiers according to population, namely sub-center (SC), primary health care (PHC), community health care (CHC), and first referral unit (FRU). The FRU is at the highest level and may include any District Hospital, Sub-divisional Hospital or CHC (Chokshi et al., 2016).

Tripura is not an exception and follows the same organigram. The detailed list of SC, PHC, CHC, and FRU may be seen below:

Table 1

District-wise status of Health Facilities of Tripura (As of 16-03-2021)

District	sub-center			PHC			CHC	SDH	DH	SH/ MC	Grand Total
	Rural	Urban	Total	Rural	Urban	Total					
Dhalai	121	0	121	16	0	16	2	3	1	0	143
Gomati	145	0	145	11	0	11	3	2	1	0	162
Khowai	104	0	104	10	0	10	1	1	1	0	117
North Tripura	99	0	99	14	1	15	3	1	1	0	119
Sepahijala	142	0	142	15	0	15	4	2	0	0	163
South Tripura	147	0	147	18	0	18	6	2	1	0	174
Unakoti	70	0	70	11	0	11	1	1	1	0	84
West Tripura	139	32	171	13	7	20	3	0	0	3	197
Total	967	32	999	108	8	116	23	12	6	3	1159

Source: National Health Mission, Tripura.

From the table given above, it can be concluded that Tripura has given more emphasis on the Rural Health Sector so that individuals residing in the far-flung areas can avail themselves of the health facilities at their doorstep, which is a very significant initiative that reflects the vision of the Government in citizen service delivery. In addition, the Ministry of Ayush, GoI, which was constituted on 9 November 2014 for the propagation of Ayurveda, Yoga & Naturopathy, Siddha, Unani, and Homeopathy methods of treatment and research, has also issued a separate guideline for building immunity among the citizens to curb the increasing viral load (Ministry of Ayush, GoI, 2021).

METHODOLOGY

The Government's policy interventions in Tripura are split into two categories: training interventions and non-training consequences. Individuals' capabilities can be increased through training and development, thereby

helping the organisation realise their goal (Collins et al., 2007 & Vinesh, 2014). Awareness of communities is considered one of the key interventions in the containment of COVID-19 (Ministry of Health and Family Welfare, 2020). The adult learning processes, particularly the capacity building or awareness of the Elected Representatives (ERs), draws support from the Transformative Learning Theory of Jack Mezirow (1970). It contributes to change in one's fundamental views towards the development of the world through a gradual change in thinking and action so that newly-acquired knowledge can be effectively introduced at the field level (Roumell, 2019). Tripura has emphasised building awareness on the prevention of the spread of COVID-19 among the ERs and functionaries of Rural Local Bodies (RLBs) so that the knowledge can be easily percolated to the ground level. The objective was achieved by introducing e-Learning with the help of four Panchayat Raj Training Institutes of the State.

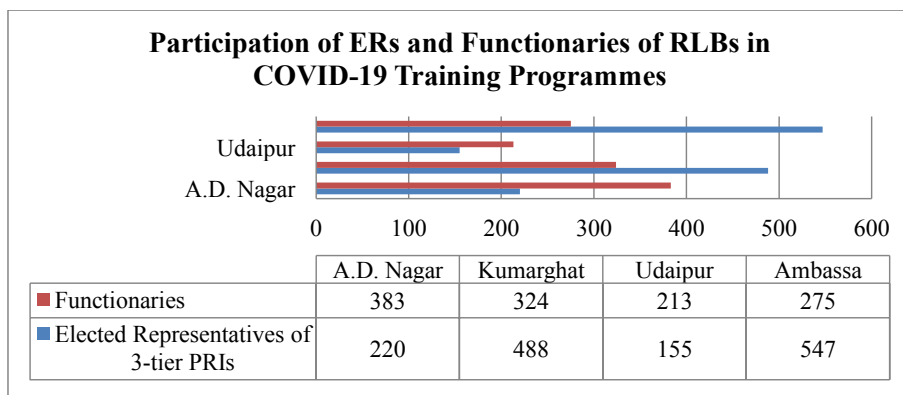
The method primarily relies on secondary research. Media bulletins, authenticated websites, and government records were consulted for data on the Rapid Antigen Test, Number of Positive Patients, etc. On the other hand, Panchayat Raj Training Institutes' training data were extracted from the respective department's training calendar. The West Tripura District has been selected as a sample for conducting the study because of its high population density. The district has the most public health care facilities, government offices (airports, railway HQs, etc.), and private hospitals in the state. Authenticated government reports, verified Facebook or Twitter posts from ministers, and other published records were used to assemble other non-training implications. Data confidentiality and official secrecy have been respected in all cases.

DATA ANALYSIS & DISCUSSION

Tripura detected the first positive case of COVID-19 on 6 April 2020 (Barman, 2020), but the state was well ahead in terms of strategic planning compared to other developed states of the mainland. The first training on the prevention of COVID-19 was scheduled on 27 April 2020 for ERs and functionaries of RLBs, followed by a series of eight training programs for RLBs so that they could then disseminate the information in small groups and eventually alert the citizens (Rural Development (Panchayat) Department, Government of Tripura, 2020). The training programs also focus on the roles of ERs in the containment of COVID-19. Here are the relevant details of ERs and functionaries who were trained during the series of training programs:

Figure 1

Graph showing the participation of ERs & Functionaries of RLBs in COVID-19 awareness training sessions at PRTIs of Tripura

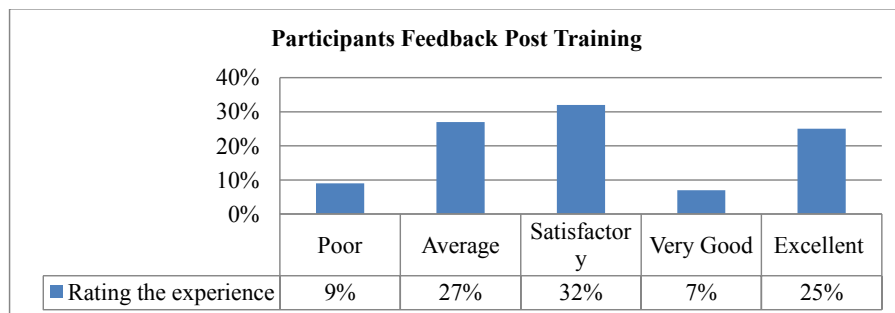


Source: Data collected from the training reports of RD (Panchayat) Department, Government of Tripura.

It was the first initiative by the PRTIs in the state and was the first e-training session for ERs. 1410 ERs and 1195 officials from all eight districts, 58 blocks, and 1178 Gram Panchayats and Village Committees (Sixth Schedule Areas) were trained in one month. The training materials were also provided via social media such as WhatsApp, Telegram, and Facebook groups so participants could access them and share them with their colleagues. ERs were more involved than functionaries, as the facts above show. Combined with the feedback collected from the participants after completing the training program, it was found that 9% of participants rated their experience as poor, 27% as average, 32% as satisfactory, 7% as very good, and 25% as excellent.

Figure 2

Graph showing feedback of the training programs collected from the ERs & Functionaries of RLBs in COVID-19 awareness training sessions at PRTIs of Tripura

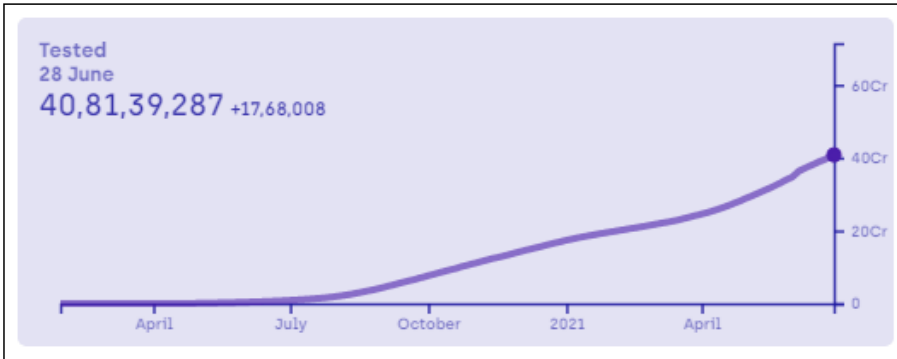


Source: Data collected from the reports of PRTIs of Tripura.

The training sessions enabled the Government to launch grassroots activities to raise public awareness of the health authorities' protocols, assisting the state in containing the spread of COVID-19 (Murphy, 2020). Trained ERs explained to residents their duties and responsibilities in setting up micro containment zones, assisting individuals during Home Quarantine, the necessity of testing for early detection, frequent handwashing with soap or sanitiser, etc. State Government prioritised the testing of suspected individuals and travellers. In July 2020, Rapid Antigen Testing (RAT) commenced primarily in the Agartala Municipal Corporation (AMC) area and later expanded to the rest of the state. (Bhattacharjee, 2020). Testing has been identified as the most important activity for identifying and isolating infected individuals to stop the chain of viral transmission (National Institute of Aging, 2020). Tripura was way ahead in conducting RAT and RT-PCR for asymptomatic and symptomatic individuals.

Figure 3

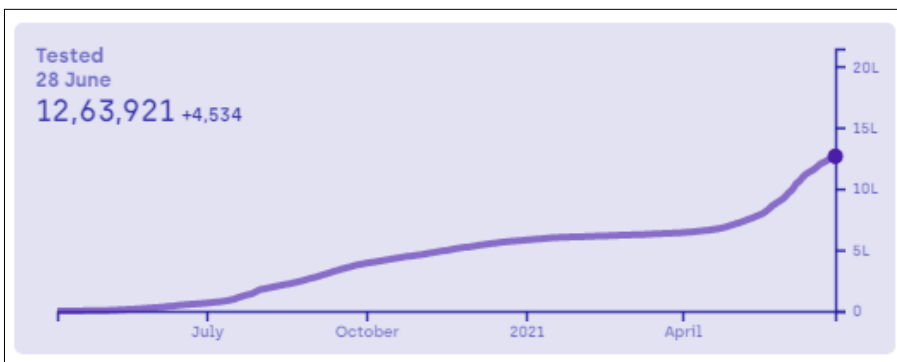
Graph showing the total number of testing done in India (As of 29 June 2021, 10:13 PM)



Source: COVID19india website, Govt. of India.

Figure 4

Graph showing the total number of testing done at Tripura (As of 29 June 2021, 10:13 PM)



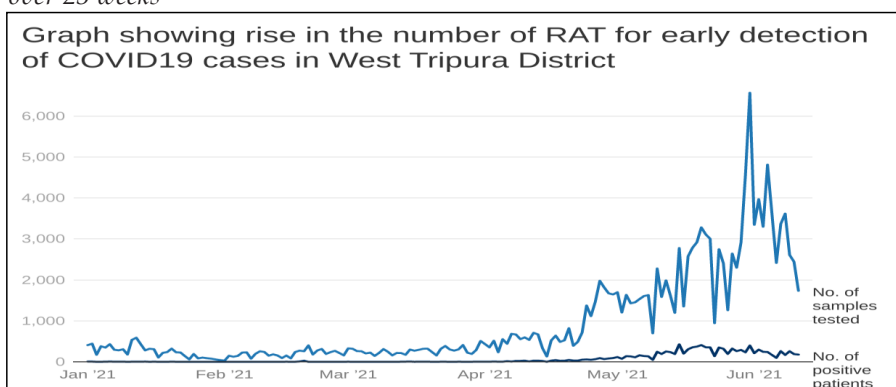
Source: COVID19india website, Govt. of India.

Based on the data received from COVID19INDIA (2021) dashboard as of 29 June 2021 (10:13 PM), upon comparing the total number of testing for Tripura vs India since the onset of the COVID-19 pandemic, we found that Tripura has conducted 0.31% (approx.) of the total testing done in India whereas the national average comes to 0.29% (approx.), indicating consonance at the national level.

The following graph demonstrates the efficacy of RAT in detecting infected people based on the data of 23 weeks drawn from West Tripura between 1 January 2021 to 11 June 2021.

Figure 5

Figure shows the number of RAT tests conducted and the number of positive cases over 23 weeks



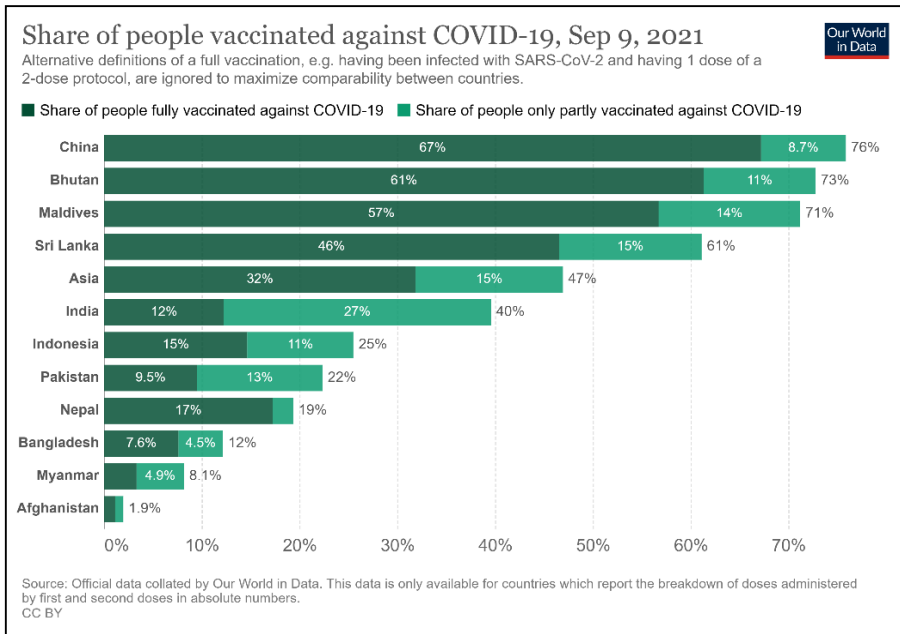
Source: Data extracted from daily government media bulletin and websites like COVID19 website, Govt. of Tripura.

The graph shows that even before the second wave of COVID-19, Tripura had conducted a significant portion of RAT for early detection of infected individuals and isolating them from the mass. The door-to-door survey launched in the 'epicentre of infection', i.e. Agartala, on 14 May 2021, helped lower the rapid growth of infection (Ali, 2021). Out of 65336 confirmed positive cases reported in Tripura till 29 June 2021 (12:34 PM), 26094 (39.93%) cases are from West Tripura, 7545 (11.56%) cases are from South Tripura, 5845 (8.95%) cases are from Gomati, 5794 (8.87%) cases are from Unakoti, 5728 (8.76%) cases are from North Tripura, 5575 (8.53%) cases are from Dhalai, 5250 (8.04%) cases are from Sepahijala, and 3505 (5.36%) cases are from Khowai District respectively (COVID19INDIA, 2021).

Vaccinating the world's second-largest population is a crucial step towards COVID-19 pandemic immunity, although it poses a significant challenge. The National Expert Group on Vaccine Administration for COVID-19 (NEGVAC) has been formed for the necessary oversight (Kumar et al., 2021). There were initial setbacks such as vaccine shortages, poor Cold Chain facilities, ensuring free vaccination for 1380 million people (by

2020), and quality control with quantity production. Still, overall, India had reached an important milestone in the vaccination of the vast majority of the population compared to their Asian counterparts, with better amenities and fewer populations. While Tripura outperformed the national average, 3,406,505 people received the first dose, and 935,850 received both between 16.01.2021 and 10.09.2021.

Figure 6
Graph showing vaccination status of India in comparison to the neighbouring countries

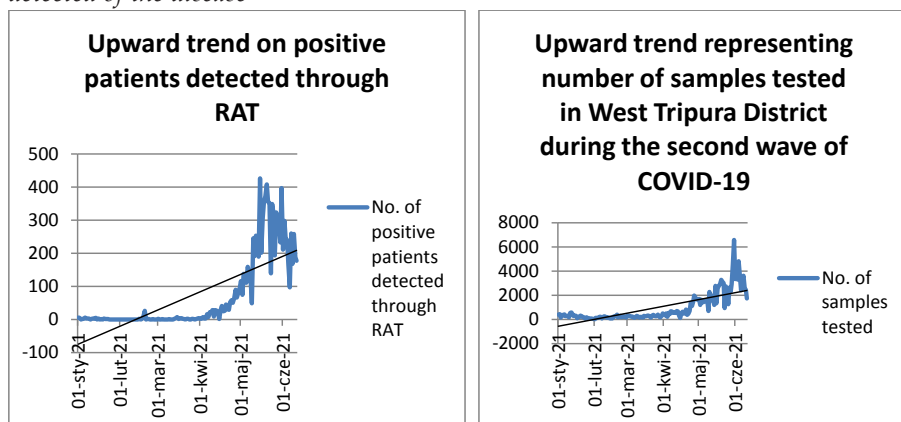


Source: tripuranrhm website, Govt. of Tripura.

The trend of COVID-19 positivity and RAT shows a linear upward trend. It may be because the state is well prepared for the upcoming third wave, which is expected to hit India in October 2021, according to experts who are constantly monitoring the virus (Reuters, 2021). The trend analysis may be seen below:

Figure 7 & 8

Graph showing the increase in tests conducted and the number of positive cases detected of the disease



Source: Data extracted from daily government media bulletin and websites like COVID19 website, Govt. of Tripura.

KEY LEARNING FOR ACTION

Adopting the scientific practice in its true sense: To ensure infection control, reduce outbreaks, and control within an area, two essential aspects of public health intervention are social management and medical management. Therefore, a number of public health interventions was suggested by medical bodies and enforced by the governments. Early intervention was pivotal, such as maintaining social distance, hand hygiene, wearing a mask, limiting movement, tracking infections, and early intervention. The article shows that having rules and regulations is not enough until they are taken in their true sense, making intervention most effective. In that regard, medical professionals' active engagement with government officials to impose restrictions and facilitate the care provisions were essential. To avoid the third pandemic wave, an effective combination of medical and social interventions is necessary. Effective vaccination using similar public health management will be essential.

Empowered, knowledgeable leadership at grassroots (PRI): A key strategy for facilitating public health interventions at the grassroots was reaching out to community leaders (elected community representatives in Panchyati Raj Institutions). Knowledgeable community leaders were able to adopt a scientific approach to contain the spread of infection and ensure rapid testing in the community. The lack of empowered, pro-active leaders often caused a lot of bottlenecks in rapid testing and other important steps to preventing disease spread. It is also expected that these community leaders will also play an important role in the vaccination drive.

Awareness for behaviour Change: The goal is to guarantee effective health behaviours by establishing several awareness generation efforts, disseminating appropriate information, and taking action. The study showed that PRI members' training programs helped the community prevent the disease. The people learned about covid restrictions, appropriate behaviour, and susceptibility to the problem. Behaviour change was achieved through training, rapid testing, and restrictions.

Dealing with the stigma of a pandemic: The trained community leaders as change agents often played an important role in dealing social isolation and stigma. Training and providing scientific information to the community leaders helped them become social influencers and effect change. Even as the second wave of COVID-19 threatened rural life, community leaders played a key role in dealing with the emerging situation. Additionally, they facilitated essential supplies and ensured basic care in quarantine and home isolation.

LIMITATIONS AND FUTURE SCOPE

The lack of validated COVID data hinders researchers from conducting multidimensional or cross-sectional analyses necessary for large-scale research. Due to the asymptomatic nature of COVID-19, conventional thermal screening at checkpoints can fail to detect a probable infection, making it impossible to pinpoint the specific source of viral transmission (Siddiqui et al., 2020). Based on the limited available data, the study provides insights into the policy intervention of the Government of Tripura in controlling COVID-19. Still, a more extensive analysis of the virus can be conducted with the help of various mathematical models such as the Deterministic Compartmental Model to understand better how the virus is spreading, following which best practices can be replicated within states or regions (Batista et al., 2021). Individuals with the same characteristics (infected, exposed, etc.) are grouped into sets in compartmental mathematical models, which help clinicians and policymakers identify the epidemiological spread dynamics and improve the recovery rate (Cooper et al., 2020). Following the World Health Organization's designation of the vaccine-resistant COVID ,Mu' variant as a 'variant of interest', early study on nations' readiness and containment of the variant may provide an altogether new paradigm for effective governance in front of the countries concerned.

CONCLUSION

After the first positive COVID-19 case was identified, Tripura, a small state, tried almost every possible measure to contain the pandemic. Still, factors such as porous international border, lack of awareness among citizens to wear a mask and keep physical distance in public places, and

limited healthcare facilities have made the task difficult for the Government. To combat the fake news and propaganda regarding COVID-19, the Government of Tripura adopted a proactive policy of engaging rural and urban people through e-training and effective social media platforms. As a result of sound strategic planning and early preparedness, the state achieved one of the top positions in the nation for running a vaccination drive providing progressive awareness among citizens throughout the country despite „Vaccine Hesitancy” (*The Indian Express*, 2021). On 29 June 2021, the Hon’ble Chief Minister of the State declared that out of 1178 Gram Panchayats (including sixth schedule regions), 73 villages and two municipal bodies had attained 100% immunisation (*Deccan Herald*, 2021). The paper shows that an adequate emergency preparedness response system is required to avert catastrophic losses in any sector, including the already disadvantaged health sector that India must prioritise to avoid future tragedies.

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