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COVID-19: Urban Middle Class Survey Highlights Need for People's Agency in Policy Making



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Residents of Mumbai, always known to be engaged in a wide range of activities, spend time with their families on March 31, 2020, during the nation-wide lock down imposed by the Union Government to contain the spread of COVID-19. File photo: Prashant Nakwe/The Hindu

Calamities throw a critical spotlight on state policies. As the SARS-CoV-2 virus continues to mutate, governments of the world, medical researchers, clinicians, and the citizenry are scrambling for solutions and coming to terms with the COVID-19 pandemic. The deeper question of public response to government policy, however, remains unexplored to a large extent.

As a component of its coverage of the pandemic, The Hindu Centre for Politics and Public Policy, which publishes an up-to-date compendium on the responses by the Government of India and the World Health Organization, and special articles on the impact of the pandemic, hosts a Report on a 10-city survey on the 'Health Seeking Behaviour and Experience of the Lockdown among the Indian Urban Middle Class in the Early Phase of the COVID-19 Pandemic', by The Holistic Health Systems Research Network (HHSRN), a pan-India, multi-disciplinary network of scholars from diverse fields such as Public Health, Anthropology, Psychology, and Sociology.

In this article, Ritu Priya, Amitabha Sarkar, Leena Abraham, Prashant Kesharvani, and P. Unnikrishnan, provide an overview of the Survey, which foregrounds the issues faced by the urban middle class and provides an insight into how this politically significant population responded to government policies between March and June of 2020. The online Survey, based on a sample of 1,138 households, was held between May 1 and June 12, 2020.

Introduction

Pandemics pose severe challenges to public policy practitioners. The manner in which countries across the world reacted and responded to the outbreak of the Coronavirus Disease-2019 (COVID-19) is the latest case in point. This respiratory disease that took the form of a pandemic opened up a phase of uncertainty worldwide. The threats from pandemics such as the COVID-19 are tremendous, especially in their early phase. Grave uncertainties engulfed the possible magnitude of spread of the causative SARS-CoV-2 virus, and its effects in terms of disease and mortality among the infected. To confound policy makers further, the knowledge available to effectively contain and treat the viral infection was thoroughly inadequate. The initial global response was first to deny and then impose strong measures that brought several economies to a standstill.

Governments and the citizenry reacted to the pandemic in different ways. The former, after initial hesitation and incomprehension about the magnitude of the looming crisis, attempted to address it with strong measures (The Hindu Net Desk 2020). The citizenry — this included communities, families and individuals, civil society and businesses — understood the risk posed by the pandemic and took steps to protect themselves and others, often on their own initiative. Initial responses are important as they set the path for the pandemic (Bickley et.al, 2021) and how it is managed. For instance, countries with early closure of borders and activities

did better in terms of prevention than those that waited for the disease to spread and to be identified on a large enough scale before the Non-Pharmaceutical Interventions (NPIs) such as lockdowns, masking and physical distancing were enforced (Gwee et al, 2021; Grepin et al, 2020). In general, the initial phase of pandemics also creates a policy frame that continues to be in place through the entire pandemic period, albeit with constantly calibrated course corrections. This is also the phase in which the image of the pandemic is imprinted in the popular mind and, hence, shapes subsequent public behaviour despite changing conditions and state responses.

Such a pandemic not only has geographical proliferation but is also non-discriminatory as it can potentially affect both the rich and the poor. On the one hand, there is high demand for health care services resulting in

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a population-level medical emergency. The possible overwhelming of health systems, therefore, justifies the adoption of strong regulatory measures across societies.

On the other hand, restrictions on social, economic, political, and cultural activities impact all segments of the population, albeit in varying degrees. These combine to create conditions requiring peoples' struggles for access to rights, justice, and entitlements. Public health approaches to the pandemic must, therefore, consider all these dimensions. Ignoring the non-medical aspects leads to much additional suffering, as witnessed among the urban informal sector migrant workers in India (Khanna, 2020). Similarly, there has been much unnecessary suffering worldwide due to the lack of context-specific, people-centered health care, a bane of the neo-liberal era (Sarkar, Liu, Jin, Xie & Zheng, 2020).

The governance response to the pandemic in March and after was largely two-fold: universal and unilateral imposition of Non-Pharmaceutical Interventions (NPIs) across the country to curb the spread of the virus and, subsequently, social security support to mitigate impact of the NPIs, especially for those at the lower rungs of society (Boin et al., 2021). These responses conveyed a lack of agency of the ordinary citizen, who was required to sit back at home, keep distance from others, and comply with advisories issued by states and multilateral organisations such as the World Health Organization (WHO) to keep one's own family protected. The most devastating manifestation of this lack of agency was observed in the plight of the migrant workers, who were deprived of their position as urban citizens and plodded their own ways back to their distant villages after the Government of India announced a nearly immediate and total lockdown across the country on the evening of March 24, 2020, with effect from the same midnight.

Such NPIs, meant to minimise the spread of the virus, were based on the understanding that hospital services will get overwhelmed and that the institutional health care systems would require time and resources to gear up and meet the exceptional demands that had to be met almost instantaneously. Research for vaccine development commenced in an emergency mode across the world. However, in this process, routine health

care at primary and secondary levels for COVID-19 and non-COVID illnesses took a back seat. It is here that people made their own efforts to identify and adopt steps to protect themselves and their communities. The behavioural modifications by the citizens were based on their observations of government decisions and health advisories, as well as socially available experiences and cultural practices.

[Health Seeking Behaviour and Experience of the Lockdown among the Indian Urban Middle Class in the Early Phase of the COVID-19 Pandemic: A Survey across Ten Cities](#)

Source: The Holistic Health Systems Research Network

This article discusses the policy implications of findings from a survey on urban middle class¹ responses from 10 cities in India in the early phase of the pandemic. The survey, conducted between May 1, 2020, and June 12, 2020, was designed to capture the multi-dimensional experience of the pandemic and the lockdown as well as the actions taken by the middle class to safeguard themselves from COVID-19. This article aims to provide a framework that aids health systems to plan, design, and implement actionable measures to tackle the current and future pandemics, and to design post-COVID health service systems from the people's perspective vis-a-vis the state.

I. The pandemic, the lockdown, and the middle class

For the migrant working class in the informal sector, the loss of livelihood and the inability to meet the basic necessities of everyday living, such as housing and food, were the major concerns. Consequently, waves of workers and their families were forced into long treks to their faraway homes along roads and railway tracks crisscrossing the country. The middle class, in contrast, remained cloistered in their homes, with their health risk perceptions and economic insecurities less visible to the public eye.

That said, the middle class was not just sitting and waiting for the pandemic to abate or the vaccine to come to its rescue as the saviour. Based on its assessment of the risks posed by the pandemic on health and in other spheres of their lives, they too devised ways of handling the risks. These included taking to online social interaction to minimise face-to-face encounters with outsiders, or using home remedies to serve as immunity boosters. Some of these were in conformity with government guidelines², while others went beyond what was being advised.

The middle class is a dynamic entity with its prowess in multiple spheres. Its economic access through income opportunities, and its social and cultural capital propel it to a position of power and privilege and providing societal leadership (Prabhu 2015).

India's middle class has been steadily increasing in size since 1991, fuelled by pro-market liberalisation policies. One study showed that the number of households with disposable annual incomes of more than about ₹6 lakh (\$10,000 in 2015) had increased from 2.5 million in 1990 to nearly 50 million in 2015 (Roy, 2018). According to the India Human Development Survey II (2011–12), 28.05 per cent of total Indian population was in the middle-class category, and a majority of them (16.24 per cent) were residing in urban areas (Aslany, 2019). In the post-liberalisation period, the middle class has emerged as a politically facilitated social group, particularly in cities. This group is primarily urban-oriented, speaks English, is salaried or self-employed, and commonly advocates globalisation (Fernandes, 2006, 2011).

Its influence on society is substantial because of its overwhelming presence in politics, administration, academia, media, and many other platforms. These positional advantages empowered them to become a self-reliant segment of society that has access to material resources, the capacity to shape public discourse, and the opportunity to mobilise social capital.

A multi-disciplinary study on how this economically advantaged, socially agile, and politically powerful group responded to the COVID-19 pandemic is, therefore, illuminating. There are several studies on the impact of the lockdown in the early phase of the pandemic on the urban and rural poor, but none on the middle class (Kesar et al 2021; Mishra et al, 2021; Wasdani and Prasad, 2020; Auerbach and Thachil, 2020). While the severe plight of the poor rightly warranted greater attention, popular understandings of the thoughts and actions of the middle class were largely those that were hastily drawn impressions from social media and other non-rigorous sources of information. This is the larger context in which a group of researchers interested in public health and related subjects — the Holistic Health Systems Research Network (HHSRN) — carried out the online survey among the urban middle class.

II. The Survey

During the period of the first intense lockdown in 2020, the policy responses of the Union and State governments were directed towards migrant and other working-class population to alleviate their socio-economic distress caused by the pandemic. Policy makers in a resource-poor economy perhaps expected that the urban middle class would take care of itself. For instance, other than waiver of compound interest on loans or deferment of payment of equated monthly instalments for housing and car loans drawn from nationalised banks during the lockdown period, the middle class was not considered for any major financial relief (Rajagopal, 2020). Therefore, the ground reality was that the positive interventions — irrespective of whether they were effective enough or not — were specific to vulnerable populations, while all sections of the population, including the urban middle class, were impacted by the heightened physical and psychological insecurities caused by the lack of public health interventions to prevent the spread of the disease,

(including limited implementation of the track-test-treat model and poor quarantine and isolation facilities in several States).

It is this complex and contrasting scenario of the early phase of the COVID-19 pandemic that the survey attempted to capture i.e., the risk perception, health seeking behaviour, and experience of lockdown among India's urban middle class between end-March and early-June 2020. This time period is significant because the national lockdown was imposed on March 24 for 21 days, then extended several times up to June 30, 2021 and thereafter, with graded relaxations.

Priya et al, (2020) point out that the urban middle class was the section of the population in which the COVID-19 infection largely manifested itself in the initial months of the pandemic in India. Since the source of infection was mostly linked to international travel, and testing was being done among the travellers and their contacts, cases identified tended to be from the urban centres and the middle class, even though international travellers do include the international migrant manual workers.

In comparison with the poorer sections, the urban middle class was also the segment with the social and economic capacity to not only practise most of the 'COVID-appropriate' preventive measures being prescribed but also adopt additional measures that it considered appropriate to deal with the situation.

To elaborate: it was *not* the section incapacitated by the lockdown, unlike the poorer sections of urban manual workers. How the initial phase of the

The findings throw light on what people experienced despite being insulated from total loss of livelihoods and income and demonstrate the agency of the people during times of uncertainty.

pandemic impacted the urban middle class and how it responded to it in this phase is what this survey captured. The findings throw light on what people experienced despite being insulated from total loss of livelihoods and income. The findings also demonstrate the agency of the people during times of uncertainty and crisis in their adoption of health seeking behaviours.

Methodology: Online data was collected using a Google Form across 10 cities covering all the regions of the country (Delhi, Jaipur, Mumbai, Chennai, Bengaluru, Kochi, Indore, Raipur, Kolkata, Guwahati), with a total sample of 1,138 households, including a minimum of 100 households from each city, from May 1 to June 12, 2020.

The survey questions focused on three dimensions:

1. risk perception and preventive practices as well as curative health-seeking behaviour;
2. changes in material conditions of income and access to goods and services; and
3. the psychological and mental health conditions of the respondents.

The questions varied from multiple choice ones with tick boxes to open-ended queries with space provided for the respondents to share their experience in their own words. The findings give an overview of choices that people of the middle class went by to keep a balance between their physical, economic, social, and mental wellbeing.

As the spread of the Indian urban middle class is diverse (from developed States to underdeveloped States, tier-I cities to tier-II cities and towns), the respondents were selected on the basis of two distinct uniform criteria — occupation (professionals, white collar workers, small to big business owners), ownership of 4-wheeled automobile and /or house in a middle class location. Persons 18 years and above were the respondents, with almost equal number of women and men, and a variable income bracket ranging from Rs. 2,000 per capita per month to Rs. 2 lakhs per capita per month. This wide range of income brackets reflects the variations across tier-I cities (such as Mumbai, Delhi, Chennai) and tier-II cities (Indore, Raipur, Jaipur) as well as occupations from small businesspersons to bigger businesspersons and salaried professionals.

The standardised Google Form used for online data collection was almost always self-administered barring an insignificant number of exceptions when telephone/Skype calls were used to provide technical help to fill the Form. Given the timing of the survey, the study captured the impact of the most stringent phase of the lockdown on the middle class in the 10 cities. In addition to the survey, the study drew from relevant qualitative literature and quantitative databases such as the Worldometer corona virus, Ministry of Health and Family Welfare COVID dashboard, and city-specific data sources.

The findings of the survey were analysed in three ways. Descriptive and inferential statistics were used with the quantifiable data. The responses on impact of the pandemic and lockdown were analysed as the aggregate means of the 10-city data, with correlations by age, gender and income categories (tables in full report). Variations in means across the cities are also reflected in the tables. For this article, responses to the multiple items to capture a specific dimension (such as ‘worries due to COVID’ and ‘symptoms of mental stress’) were brought together by calculating a composite score that facilitates comparison of the dimension across cities/states.

For the health seeking behaviour, the protective practices adopted against COVID-19 were aggregated as means. For treatment accessed, a separate analysis was done for those with COVID-19-like symptoms and for those with non-COVID-19 illness/health care needs. In each case, the knowledge system used (Allopathy, Ayurveda, Homeopathy and Bach Flower Remedies, Unani, Siddha, Tibetan Medicine or home remedies) and the sources from where care was accessed (public, private, self-medication or repeated earlier prescriptions or prescription by a chemist) were analysed as proportions of those needing treatment. Additionally, a thematic

analysis of the open-ended questions posed to the respondents was carried out. Finally, the survey's findings were subjected to a policy analysis to discuss the applicability of the findings and their political, scientific, and operational relevance.

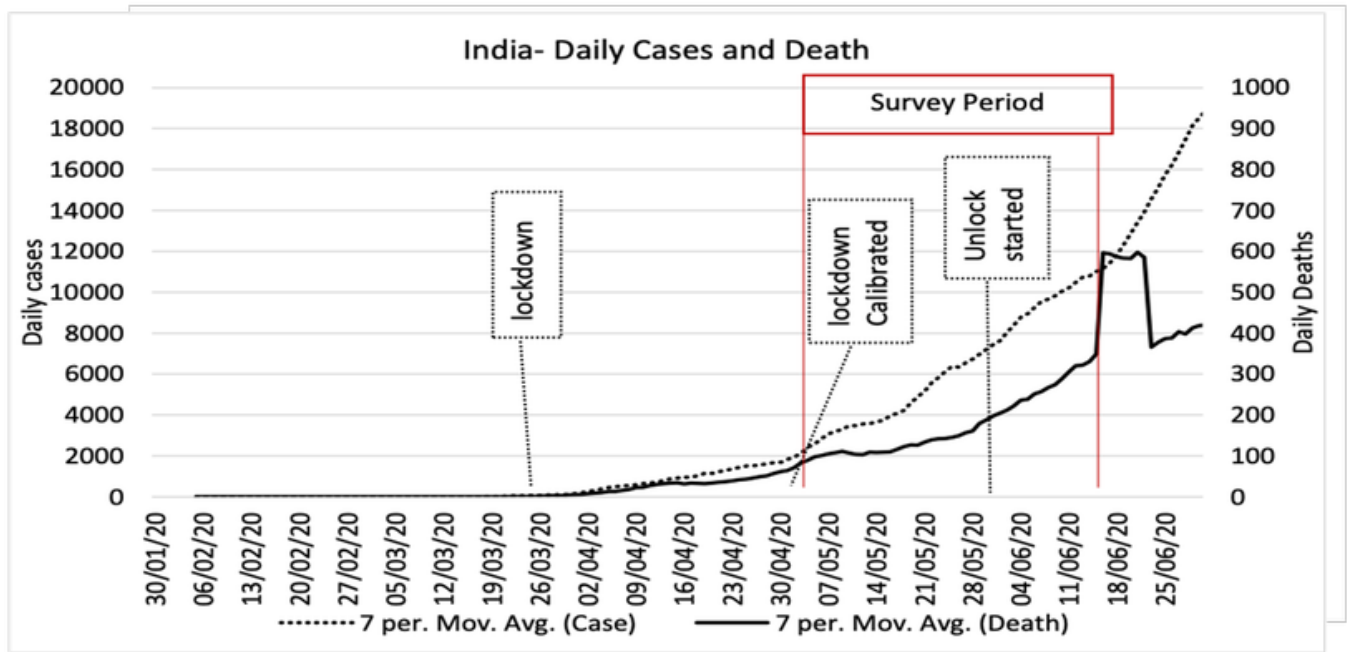
City-specific dynamics were incorporated in the survey by the geographically diverse and multi-disciplinary network of researchers who administered the forms through email and WhatsApp that brought in as much diversity as possible. Although the sample does not claim representativeness, the rich diversity in composition of the team of researchers (from age groups 30 years to 60 years, with diverse social backgrounds of economic class, religion, caste, gender and region), ensured that a wide spectrum of respondents from the middle class was surveyed for the study. (The researchers had worked together earlier and while confined to their homes in the lockdown, shared their concerns and, thus, initiated work on the study on a voluntary basis in April 2020).

Importantly, the contributions of scholars in the research team who come from various disciplines, such as Public Health, Medicine, Sociology, Anthropology, Psychology, Ayurveda, Public Policy, and Systems Studies, enriched the processes of developing the questionnaire, interpreting the data, and arriving at the policy recommendations. (Systems studies is an inter-disciplinary field studying the various inter-related components and dimensions of a system that may be natural or man-made or a combination of the two.) Such multi-disciplinary perspectives, knitted together into an inter-disciplinary conceptualisation, are important in the study of public health issues, including crises such as pandemics, because of the multidimensional determinants of health and healthcare. The advantages of such an approach in the study is reflected in the themes explored, analysis of data and in the emergence of policy implications.

III. Findings and Discussion

COVID-19 was primarily a physical threat for the entire population but, until the time of this survey, for most people it was not a first-hand encounter. As none of the respondents or their family members had tested positive, the pandemic became visible to them only through the mass media, both official and commercial, and the social media. For the urban middle class, the strict restrictions on international flights since early March 2020, brought the possible seriousness of the pandemic closer home. The *janata curfew* on Sunday, March 22, 2020, and then the complete lockdown from the midnight of March 24-25, 2020, made it a serious affair affecting all dimensions of life. For all of India, the cases and deaths tracker showed a mere three cases and no deaths on March 1, soaring to 2,000 cases and 58 deaths by March 31, 2020. The numbers then started to climb steeply through April and May, hitting over three lakh cases and 8,000 deaths by June 12, 2020 (Data sourced from <https://www.covid19india.org/>).

Figure 1: All-India Epidemic Curve until the Survey Period (January - June 2020)



Source: HHSRN, 2021. Health Seeking Behaviour and Experience of the Lockdown among the Indian Urban Middle Class in Early Phase of the COVID-19 Pandemic: A Survey across Ten Cities.

Recommendations/advisories were given by many scientific bodies/institutions, most notably the WHO and the Indian Council of Medical Research (ICMR), Government of India. The data and the preventive advisories were relayed very prominently by the mass media. A perusal of the advisories reveal the manner in which the Government of India, the WHO, and other medical institutions initially reacted, and then responded, to the unfolding pandemic.

The earliest advisories from January 2020 by the Ministry of Health and Family Welfare were about international travel cautions and restrictions; those by the Ministry of AYUSH's were about immune-booster remedies of the various systems; and the ICMR put out guidelines for surveillance, testing and isolation, contact tracing and quarantine. However, the mass advisories since mid-March 2020 were in terms of the NPIs, 'social distancing', hand hygiene and sanitisation of surfaces in contact with human hands, home-isolation of cases, and quarantine of possible contacts and cases. An advisory about wearing masks came by mid-April after a public controversy where WHO and ICMR explicitly denied its value. Images and perceptions created by all this impacted the middle class.

The findings of the survey are discussed under two broad themes: (i) health risk perception and health seeking behaviour, and (ii) material and affective impact of the lockdown during the early months of the pandemic.

Health Risk Perception and Health Seeking Behaviour

COVID-19 risk perceptions and related fallouts: Although the risk perception of COVID-19 was high among the respondents, the most common worry at the time of this survey was about the infection spreading in their locality and about access to and quality of health care services, less about contracting the infection individually. This low level of anxiety was probably because of no direct experience of infection and the early imposition of lockdown that cocooned the middle classes. Almost 58 per cent respondents from all the 10 cities reported their anxiety about the possible spread of COVID-19 infection in their localities, while the worry about themselves or their family members getting infected was less (31 per cent about self and 52 per cent for elder members) due to their secured position and implementation of protective practices.

About 51 per cent respondents were concerned about the quality of services in government health facilities for COVID-19 care. Until May 2020, the health service interventions were provided largely by the public system. The media representation of government-run COVID-19 care facilities reinforced the fears of the middle class, which is sceptical about government health care even in normal times. Conversely, Kochi was the only city where those surveyed were the least apprehensive about government health services, including quarantine facilities and testing centres as well as the spread of infection in their locality (10 per cent to 28 per cent). This seems to reflect the levels of trust in the government health services in normal times.

The survey also revealed that almost one-third (32 per cent) of the respondents had expressed their doubts over the knowledge of the experts about COVID-19. In cities like Indore (48 per cent) and Mumbai (41 per cent), this proportion was quite high. In the case of COVID-19 testing, close to half of the respondents (45 per cent) were unsure about the steps to follow for themselves or their family members. This again seems to reflect the levels of trust in the government health services in normal times, in addition to the uncertainty of knowledge and operations that is inevitable at the beginning of any new pandemic.

The experience of lockdown and the disruptions in daily life caused by it as well as worries related to the infection and consequent medical-care needs raised concerns over mental health too. Respondents from various cities expressed different extent of fear and anxiety: for themselves (13 per cent in Kochi to 44 per cent in Kolkata), close family members (34 per cent in Indore to 73 per cent in Kolkata), friends (27 per cent in Indore to 57 per cent in Kolkata) and domestic helps (26 per cent in Indore to 64 per cent in Kolkata) about getting infected from the virus.

Trust Deficit and Stress

The city-wise composite scores generated from responses for questions related to worries about COVID-19 showed that Kochi residents experienced the least anxiety on this account (see Table 1). Worries about jobs or business and incomes was also low in Kochi, though similar to many other cities, with the other tier-2 cities

Jaipur, Raipur and Indore being the most worried. As a consequence, negative impact on sense of security was reported markedly lower in Kochi relative to other cities. And the symptoms of mental stress were also among the two lowest there, Bengaluru being the other. Thus, we find that the trust in public systems in Kochi, bolstered by the state government’s response to the pandemic and its transparent communication about it, led to least worries, and that translated into least impact on sense of security among the people as well as least manifestations of mental stress (Table 1).

Table 1: Inter-City Comparison of Worries about COVID-19 and Psychological Impact (May-June 2020)

	Worries about COVID-19 Spread and Public Health Services [#]	Worries about Job/Business and Income ^{##}	Impact on Sense of Security ^{###}	Self Reported Symptoms of Mental Stress ^{####}
Name of the City	Mean (95% CI)	Mean (95% CI)	Categorically Negative (%)	Mean (95% CI)
Overall	3.81 (3.75- 3.86)	2.90 (2.84- 2.96)	33.1	2.56 (2.52- 2.59)
National Capital Region	4.01 (3.87-4.15)	2.88 (2.72-3.04)	35.9	2.73 (2.64-2.83)
Mumbai Metropolitan Region	4.02 (3.84-4.19)	2.76 (2.56-2.96)	28.6	2.47 (2.37-2.57)
Kolkata Metropolitan Area	4.11 (3.96-4.26)	2.78 (2.59-2.97)	43.3	2.78 (2.67- 2.90)
Chennai Metropolitan Area	3.77 (3.59-3.95)	2.55 (2.36-2.73)	27.3	2.38 (2.29-2.47)
Kamrup Metropolitan Area	3.77 (3.64-3.90)	2.80 (2.63-2.97)	23.0	2.63 (2.54-2.73)
Bengaluru	3.64 (3.44-3.84)	2.77 (2.57-2.97)	27.8	2.32 (2.23-2.41)

Jaipur	3.91 (3.75-4.06)	3.27 (3.11-3.43)	34.2	2.67 (2.55-2.79)
Indore	3.79 (3.56-4.02)	3.37 (3.21-3.53)	50.0	2.54 (2.43-2.65)
Raipur	3.81 (3.62-4.00)	3.13 (2.94-3.31)	42.4	2.51 (2.40-2.62)
Kochi Metropolitan Area	2.97 (2.81-3.13)	2.67 (2.45-2.88)	15.3	2.36 (2.27- 2.46)

Notes for table:

Worries about COVID 19 Spread: Average composite score of following 4 items: I am worried about the infection spreading in my locality/town; I am worried about using the govt. quarantine/health care facilities; I am worried because I feel experts do not know enough about COVID-19; and I am worried because there isn't enough clarity about what is required to be done if me/my family/friends/co-workers need to get COVID-19 test done or get treatment.

Worries about Job/Business and Income: Average composite score of following 2 items: I am worried about uncertainty about my job or my business and I am worried about uncertainty about my/family income

###Sense of Security: The percentage of respondents giving a categorical response of negative impact has been used here. There were other responses such as 'positive impact', 'negative but adjusted' and 'can't say'. The categorical 'negative impact' response was considered relevant here since what was experienced as negative impact to which the respondent could adjust also indicates a level of confidence and trust in the support systems

Self Reported Symptoms of Stress: Average composite score of following 5 items: I am having difficulty in concentrating on tasks at hand; I am having repeated and disturbing dreams about COVID-19; I am experiencing sadness; I am having trouble with my sleep; and Nowadays, I don't feel hungry: have lost my appetite.

While it is not possible to ward off the worries completely because of the severity of the pandemic, the public health communication and interventions must be able to address this concern as far as possible. The risk communication strategy in most States in this pandemic has adopted a one-way approach wherein only recommended preventive measures are communicated along with emphasising the data of cases and deaths. While this is likely to motivate compliance in the practice of advisories, without avenues for people to air and discuss their own doubts and worries, it does little to dispel the related mental stress. The most efficient manner to address such worries, therefore, lies in effective interventions for prevention and treatment.

Presence of a trusted public health system during normal times even before the pandemic is the surest source of such a possibility, as the State of Kerala demonstrates.

Preventive measures and strategies: Over half of the respondents (53 per cent) said that they were taking precautions and, hence, they were not worried about being infected by COVID-19, compared with nearly one-third of the respondents (31 per cent) who were worried about contracting the infection.

Many preventive measures were found to have been adopted in practice at the beginning of the pandemic (see Table 2). There seems to have been an overall perception that it will be wise to adopt healthy lifestyles by changing behavioural and dietary habits. Other forms of preventive measures also emerged, which were rooted in the community knowledge and in traditional healing practices as well as based on the official advisories and social media messages. Preventing exposure to the virus by staying at home, wearing a mask when going out and hand washing were three measures that were almost universally reported (over 90 per cent). Other precautionary measures, such as maintaining distance from outsiders (85 per cent) and disinfecting door handles/tabletops (58 per cent) were also practised. A little over 50 per cent reported doing physical exercises (53 per cent), and many resorted to warm water gargling (40 per cent) and followed Yoga/breathing exercises (33 per cent) and meditation/prayers (25 per cent). A few reported quitting *gutkha*, alcohol and smoking and a few reported increasing their intake of proteins, Vitamin D, and Vitamin C. Thus, people adopted multiple behavioural and dietary changes that were a combination of both culturally followed practices as well as newer ones.

Table 2: Preventive and Protective Practices Adopted by the Middle Class Respondents

Preventive Measures Taken by May-June 2020	
Preventing Exposure to Virus	(%)
Wearing Mask While Going Out	97.8
Frequent Hand Washing	92.4
Staying at Home	91.7
Maintaining 1–2 meters Physical Distance from Outsiders	84.9
Restricting Entry of Outsiders into the House	74.8
Cleaning Door Handles/Table Tops with Disinfectant	58.2
Behavioural/Dietary Changes	(%)
Maintained Daily Routine including 7-8 hour sleep	53.0

Physical Exercise regularly	52.9
Yoga/Breathing Exercise	32.5
Warm Water Gargling	40.3
Meditation/ prayers	25.3
Added certain food items in meal	47.7
Removed certain food items from meal	25.9
Quit Smoking/ Gutkha/ Pan Masala	14.5
Quit Alcohol	8.0
Added Remedies for Protection	(%)
Home Remedies	52.8
AYUSH (Ayurveda, Homeopathy, Siddha, Unani, Bach flower remedies, Tibetan medicine)	43.5
Allopathic (Vit-C, Vit-D)	12.7

Use of home remedies was the highest among all remedies used for protection during these months. Over half of the middle-class families (53 per cent) covered by the survey reported using them. These included herbal teas/decoctions using various ingredients of ginger, lemon, turmeric, pepper, honey, garlic, *amla* (Indian gooseberry), *neem* (Margosa), *tulasi* (basil), and *guduchi* (heart-leaved moonseed) among others. The recourse to formal alternative systems of medicine to get protection from the virus infection was not reported by as many as those who chose home remedies. A smaller percentage (43.5 per cent) used the formal AYUSH formulations as preventives, with about 18 per cent having used Ayurveda and 14 per cent Homeopathy while about 13 per cent used Allopathic self-medication for prevention. The use of AYUSH formulations as a preventive in this initial phase was lower relative to their use as reported for various ailments in pre-COVID-19 times (from 41 per cent reporting pre-COVID-19 use to 35 per cent reporting their use for prevention of COVID-19), with city/state specific variations. The advisories by the Ministry of AYUSH had recommended both the use of specific spices and food items as well as more formal formulations of Ayurveda, Unani, Siddha and Homeopathy as preventives. However, there was little media coverage of these in the initial period, and if at all, it was more in terms of questioning the validity of the advisory. Therefore, it is most likely that the use of home remedies came more from the local health care knowledge shared within families and communities and to a lower extent from formal AYUSH advisories.

The urban middle class appeared to place its trust on the formal specified NPI measures in the initial phase. These recommended measures were based on a direct causal relationship with virus transmission. This was reflective of an imbibing of the dominant scientific understanding — the germ-centric approach — that was promoted through the government and UN agencies. On the other hand, the urban middle class combined this with the promotion of healthy lifestyle practices through modifications in behaviour and diet, which were more to strengthen immunity. The intake of Vitamins C or D, herbal home remedies and practise of yoga have the potential to enhance immunity and respiratory capacity but little direct benefit as anti-viral action.

While the contestation about mainstreaming of complementary and integrative medicine is a long-standing one, it is prudent to include them in the risk communication strategies for several reasons. These systems of health knowledge are not technology- or fully expert-driven as in the case of allopathic medicine; people still have reasonably good command over them as they are composed of community-processed household knowledge. These systems are essentially linked to behavioural and dietary pattern of individuals as well as use of herbal formulations that have immune-modulating or anti-viral properties. Their products are more easily available than factory produced, patent guarded, commercialised modern medicine. Their scientific efficacy is also now hard to discard, with evidence building up as the salience of traditional knowledge, complementary and integrative medicine is increasing globally. Evidence for their efficacy is abundant in more ways than merely the anecdotal and experiential (Sujatha and Abraham, 2012; Priya & Sujatha, 2020). Formally including the ‘other’ remedies in preventive or curative measures will, therefore, provide a wider option of choices and facilitate people’s agency in public health interventions.

Health seeking for COVID-like Symptoms: Until mid-April 2020, testing was not easily available, thereby creating uncertainty over medical diagnosis. Forty-four per cent respondents reported that they did not know what to do or where to go in case of contracting COVID-19. The general perception was to avoid going to health facilities to avoid likely exposure in the pandemic. Home remedies were in high use (66 per cent) for treatment in the case of seasonal illness/COVID-like symptoms. In addition, three-fourths of the respondents’ families had resorted to drinking hot water (74 per cent) and gargling (71 per cent) as ways of treating the seasonal illness/COVID-19-like symptoms. About 44 per cent reported self-medication with common medicines such as Paracetamol, Cetirizine, cough syrups and antibiotics.

Health seeking for Other Health care Needs: Of the total respondents, about 20 per cent reported having some other illness, including chronic illnesses that needed medical care during lockdown. For treatment of health problems other than seasonal illness, conventional modern medicine was used by over 90 per cent of those needing treatment, along with other practices. Telephonic consultation with doctors was the most

common treatment seeking behaviour (60 per cent). Over half (54 per cent) got treated at a private facility, 30 per cent resorted to self-medication or repeated earlier prescriptions or prescription by a chemist, and 22 per cent got treated at a government facility. Denial of treatment by facilities was experienced during this period, with five per cent reporting denial at a public facility and seven per cent by private facilities.

The fear of the virus spreading among the public and the doctors had restricted people's physical access to health care facilities. In this situation, telephonic consultation has emerged as an alternative form of health care service. The usage of telephonic consultation for seasonal and chronic illness came out in significant proportion. This once again shows the need to redesign the health service with an option of remote access to health care.

Treatment for the other health problems also included a high use of home remedies (45 per cent), and only seven per cent Ayurveda, 10 per cent Homeopathy, two per cent Siddha and one per cent Tibetan medicine. This reiterates the significance of socialisation in self-care to make these practices even more informed by the traditional as well as conventional bio-medical knowledge.

Material and Affective Impacts of Lockdown

The second broad theme of the survey was the impact of the lockdown on urban middle class in the 10 cities. The survey found that the middle class was affected materially and by increased worries and anxieties even in the initial months, though, of course, with much less severity compared with the informal working class, for instance migrants and daily wage earners. It has been commented that the Government of India's response to the COVID-19 pandemic had been shaped with a middle-class perspective whose occupations allow for working remotely from homes while this is not possible for the manual working class (Ghosh, 2020; OECD, 2020).

In terms of access to goods and services, the urban middle class in the 10 cities did not face much problem in obtaining essential food items. However, the lower income group among the middle-class and the economically most productive age group of 31-45 years faced more problems than others. Their lower levels of economic security and purchasing capacity during the time of lockdowns may be a relevant factor for these groups. Not only essential goods and services but non-essentials (for example, alcohol/tobacco/cosmetic products) and personal services (such as gym or domestic help) also became more scarce compared with public services like waste disposal.

As high as 88 per cent of those surveyed reported that the sudden lockdown in the early months of the pandemic had impacted day-to-day life. The closure of schools and workplaces, work from home, crises in support services and increased volume of work in households disrupted normal lives. The responses to such

sudden and several disruptions were mixed, both positive and negative. The positive impact was having more time to spend with families (80 per cent). This was expressed as one of the most positive effects in these early months. However, about 53 per cent respondents felt that their workload had increased, and this was reported across the cities but to a lower extent in the smaller cities of Jaipur, Indore, Raipur and Kochi. More women (61.7 per cent) than men (45.7 per cent) reported an increase in their workload, reflecting the fact that despite men being at home and participating in the household and childcare work, the burden continues to be disproportionately on the women.

Concomitantly, more than half of the respondents complained of work pressure and negative growth in family income, which also led to decline in the sense of security about job/business and income. The survey found that even in the middle class and so early in the pandemic, almost half the respondents (48 per cent) were worried about their income/family income. Job/business-related uncertainties (41 per cent) and children's education (29 per cent) also caused worries and anxieties. It needs to be recognised that the lockdown and subsequent job/income losses came in the wake of an already declining economy and reducing livelihood opportunities (Jaffrelot, 2020; Vyas, 2020). Access to quality education for children and their educational performance is an ongoing major source of anxiety for middle class parents even in normal times. The lockdown aggravated these worries.

All these aggravated worries contributed to more people developing symptoms of anxiety. Respondents reported symptoms such as difficulty in concentration (32 per cent), feeling of sadness (33 per cent), difficulty with sleep (23 per cent), and even loss of appetite (nine per cent).

An interesting and maybe significant finding was that of those who were used to tobacco products (24 per cent) or alcohol intake (27 per cent), the majority faced issues of access but over half of them coped well with the lack of access (13 per cent and 18 per cent, respectively). Even if for a short period, the decrease in the consumption of such 'non-essentials' in more than half of the respondents who were normally habituated to their use may have some significant outcome. It demonstrates that they can abstain from such consumption, and in the prevailing health context of COVID-19 as well as of non-communicable diseases being on the rise, this may gain salience in post-COVID-19 times too.

The impact of lockdown on urban middle class was, thus, more of a psycho-social issue where the threats to physical health, economic as well as social condition made a profound impression on the people's mental health condition. This is corroborated by the data from the National Crime Records Bureau (NCRB) for the year 2020 that shows that suicide rates among businessmen (including traders, vendors, and others) had crossed the number of farmers' suicides for the first time. The suicides by 'tradesmen' had gone up by 50 per cent compared with the previous year (NCRB, 2021). This brings poignantly into relief the impact of the Coronavirus Disease 2019 and its control measures on various sections, including the urban middle class

(NCRB, 2021). That the economic, educational and health worries were already having mental health impacts by the second month of the lockdown is evident in the survey findings. The NCRB data shows that the anxieties could only have escalated as the months passed. Negative impacts on women in terms of job loss and domestic violence have also been recorded in addition to the higher workloads at home that our survey had found (Krishnakumar and Verma, 2020; Oxfam India, 2020).

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Unlike the first theme, the impact of lockdown cannot be dealt through conventional public health interventions or scaling up health care infrastructure alone. The economic and social policies related to disruption of economic activities, financial packages and other social security measures should be of value to fight the distress on the ground. From a public health perspective, the usage of Information and Communication Technology-led health advocacy programmes through television, radio or app services may be an effective way to discuss the various insecurities, such as of job/business/income/education. Forming virtual health clubs with the participation of age-based urban resident associations is another way to address such population-level challenges. Such holistic approaches can create collective psychosocial support, and create an eco-system for cooperative social innovations as well.

IV. Policy Implications

Several policy suggestions emerge from these findings of the survey related to health care, both during such pandemics and to address issues relating to longer term visions for health systems development.

For Health Crises such as the COVID-19 Pandemic

Situations such as pandemics throw up special social, physical and mental health issues. These need to be anticipated and prevented through appropriate measures. They require not only medical and human services but also measures that minimise the negative impact on people's economic situation and their social functioning.

As the survey findings show, people make attempts to adjust to difficulties at their own level. The authoritatively imposed control measures lead to additional suffering, that needs to be moderated. Where some disruption of economic and social life is inevitable, the control measures must promote individual and collective community participation in dealing with the crisis. This will not only make crisis control more effective but will also prevent some of the negative social and psychological effects. In addition to the overall

policy decisions at a centralised level, there must be consultation at all levels, States, cities, villages, communities, and households for context-specific planning and implementation.

Communication of the asymptomatic and mild nature of COVID-19 in over 80 per cent of those infected, and provisions for monitoring of indications of moderate or severe disease so that timely and appropriate

Informed community-led/involved advocacy could be more effective to counter disinformation and misinformation contents as well as address worries through peer support.

treatment could be accessed were the components that were missing in the official interventions.

Communication of this epidemiological fact about the pandemic and appropriate interaction with healthcare

providers even in the mild cases would have allayed the

anxiety (and the panic observed once anyone tested positive for COVID-19). Involvement of the community in the risk communication strategy with full information sharing could widen the communication base.

Informed community-led/involved advocacy could be more effective to counter disinformation and misinformation contents as well as address worries through peer support.

While uncertainties are inevitable, especially in the early phase of pandemics, such rapidly changing situations call for community-level dialogues for better health communication to address anxieties/fears/worries related to health events. This is an opportunity for the National Mental Health Programme to come out of the clinic-based patient intervention approach. This type of community mental health programme that integrates mental health into the public health services is much needed (Ng et al., 2014).

Governments need to take a policy decision to integrate the other systems of health knowledge with public health interventions, including in general health care systems. The decision should get reflected in building institutional mechanisms to forge scientific as well as programmatic and clinical collaboration among the various systems of medicine. Developing an early understanding of a new disease such as COVID-19 through interactions across the various formal systems can help in initiating more specific integrative regimens for prevention and treatment as well as promote integrative research that will bring best outcomes with optimal use of all health-related knowledge.

The perception and the self-initiated protective measures suggest that the urban local bodies should, even in the early stages of an epidemic, include communities in the operation of public health interventions to manage ward-level infection control. The greater participation of community will allow locals to understand the situation much better and offer cooperation.

Special attention must be given to the likely problems of the women, the young and the elderly, the lower income groups, and the more affected regions to ensure that interventions are designed taking their impact on these population groups into consideration. Health care needs for all kinds of health problems must be catered to even during a collective health crisis such as the pandemic. Additional arrangements must be made for catering to the pandemic generated additional needs rather than substituting them and denying care for other health problems. Otherwise, unnecessary hardship is created, and even routine problems are experienced as an 'emergency'.

Health care needs for all kinds of health problems must be catered to even during a collective health crisis such as the pandemic.

For Long Term Health Systems Design

Integrative approaches to health problems that optimally utilise all available knowledge as suited to context must be developed for the health system. And then these can also be drawn upon in times of health crisis like the present pandemic.

Self-care, whether based on traditional/alternative/complementary knowledge or on modern Allopathic medicine, should be recognised as the broad base of any health care system. This applies to epidemic situations such as the COVID-19 pandemic as well as to normal times with endemic health problems (Ghodajkar et al, 2019). Health problems that people were able to handle during the lockdown without accessing a health care facility should be considered for such self-care regimens that can be developed in an integrative manner and made part of public knowledge.

Validation of these self-care strategies could be done by incorporating them into the existing studies of various categories of population, under various management and treatment procedures. As there are variations in care strategies, cross-regional studies of such practices need to be undertaken.

As online medical consultation has become a normal mode of ambulatory care in the private set-up during the pandemic, policy direction needs to consider the option of developing telephonic consultation as a formalised mechanism in a decentralised public service structure to cater to community need. This would potentially ease the burden of secondary and tertiary levels of care too, especially in outdoor services. However, effective inclusion of telephonic consultations in health care requires examining the limitations and strengths of this mode and, thereby, its appropriate utilisation. Their benefits must be studied and optimised even while their drawbacks are identified and factored into the systems design. This is an urgent dimension for health systems research since it is likely to become a significant mode of medical advice seeking and provisioning in the coming months, even after COVID-19 is over.

Active efforts are necessary to minimise the worry and anxieties through greater transparency and consultative interactions with communities through interactive communication channels at various levels. Distrust of the **Distrust of the medical and public systems was evident, increasing the worries of the middle class.** medical and public systems was evident, increasing the worries of the middle class. However, where there was a strong and trusted public system, the epidemic control was better and the worries of even the urban middle class were less there. As the public health system plays a predominant role in all epidemic control activities, with the private sector's interventions being minimal and restricted to testing and treatment, the trust deficit that was observed in the study is a major drawback that needs to be rectified in more 'normal' times.

V. Conclusion

Problems articulated by the middle class early in the pandemic go beyond issues of subsistence and survival to provide additional insights about the impact on society as well as on policy approaches.

The study findings reveal that even the middle class suffered significant psychosocial impacts within two to three months of the pandemic manifesting itself. Secondly, it reflects the agency exerted by them in protecting their health through preventive and treatment practices adopted beyond official advisories. Third, that the levels of trust in the official pandemic control measures relate to the extent of pre-existing trust in the public systems and the openness in information sharing about pandemic control measures. In States where pre-existing trust in public systems was low, the trust deficit added to the psychological stress experienced.

Contrary to the general impressionistic popular narratives, almost half the middle-class respondents experienced worries about household income and their livelihoods even in this early phase. The self-employed and those in private sector jobs were already under stress and the uncertainty regarding the period for which lockdowns would last gave them basis for worry. While they experienced little loss of access to items of everyday use, a substantial section of the middle class acutely felt the loss of services of domestic workers. The increase in family time was viewed positively by most in these early months, even though the women bore the brunt of increased workload.

The restrictions on walking outside and closure of gyms was also acutely felt, especially when there was an additional perceived need for increasing physical exercise and other such healthy lifestyle practices that was thought to aid in building up immunity and prevention of COVID-19.

Moreover, contrary to the sense of the advisories at that time, they exerted their agency in home-based preventive practices and treatment. The use of home remedies and the resort to telephonic consultation with

doctors stand out as two innovations adopted by over half the survey respondents. The collective action by middle class neighbourhood volunteers and resident welfare associations, as reported even in the media (Loewenson et. al. 2020), is another evidence of their agency. Policy makers and health systems need to consider this large laypersons resource base in such times of crisis. However, they must not limit it only to crisis times but build these considerations of people's agency and integration of various knowledge systems into the health care systems even for normal times.

Summing up, it can be observed that the survey findings clearly indicate that policy-level intervention is needed early on in a pandemic situation not only for health care but also well beyond it to address sources of anxiety such as good quality primary level care and psychosocial support, livelihoods, children's education, and credible sources of information sharing.

The limitations of policy responses in fighting the pandemic in these spheres created a deficit of trust and much worry and anxiety among the people. While the epidemiological, pathophysiological, and clinical understanding of COVID-19 as well as vaccine production-distribution-administration is now much developed and aiding in policy decisions, the coping mechanism of people in dealing with the pandemic uncertainties has been near absent in COVID-19 research. Policy mechanisms for addressing the pandemic-generated challenges as well as longer term health systems design should be guided by public health perspectives informed by such holistic community informed evidence.

Post-script: Qualitative in-depth interviews were planned as part of the study design and undertaken in most of the 10 cities but could not be completed and fully analysed by the time of drafting this report due to the constraints of lockdown and the time consuming nature of qualitative data gathering and data analysis. A separate report based on the findings from the interviews is planned by the HHSRN.

There are wide variations between the cities in the characteristics of the sample as well as in the findings, and some significant points have been noted in this report, while much more can be seen in the tables in the annexure. City-level reports, which will bring out the differences in sharper detail, are also planned to be released soon.

This study was conducted over two months in the initial period of the pandemic and, thereby, the findings reflect the experience of the urban middle class of that time. As the pandemic evolved, the experience of the urban middle class, too, would have changed drastically in later months of the first year and even more so during the second wave in 2021. Therefore, a repeat study would be useful to understand this changing experience and its implications. While this survey was conducted on a voluntary basis, HHSRN hopes to undertake a follow up study subject to the availability of resources.

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End Notes:

i. There is no one definition of the Indian middle class. Scholars generally use income, assets and other social characteristics to identify its members. The households fall in a wide range between poor and extremely rich categories with educational, occupational and cultural attributes such as urban orientation, English speaking, salaried or self-employed occupations etc. (Lobo & Shah 2015). From colonial era to the Nehruvian model of development to the post-liberalisation period, Indian middle class has always been playing the role of chief anchor in economic development. The concept of the middle class has its root in the discourse of development wherein it's proportion in the population is categorised as an important indicator for national economic prosperity. In general, it has a significant role in shaping public opinion.

ii. **The Hindu Centre for Politics and Public Policy. 2020.** Resources | COVID-19 Compendium: Official Information on COVID-19 Released by India and the WHO, March 28. [<https://www.thehinducentre.com/resources/article31149551.ece>].

References:

[All URLs are last accessed on January 12, 2022]

Arora, K., et al. 2020. [Locked-down: Domestic Violence Reporting in India during COVID-19](#), Oxfam India, Blog, August 3. [<https://www.oxfamindia.org/blog/locked-down-domestic-violence-reporting-india-during-covid-19>].

Aslany, M. 2019. [The Indian middle class, its size, and urban-rural variations](#), *Contemporary South Asia*, February 19, Vol. 27 (2), pp.196–213. [<https://doi.org/10.1080/09584935.2019.1581727>].

Auerbach, A. M., and Thachil, T. 2021. [How does Covid-19 affect urban slums? Evidence from settlement leaders in India](#), *World Development*, April, Vol. 140, 105304. [<https://www.sciencedirect.com/science/article/pii/S0305750X20304319>].

- Bickley, S.J., et al. 2021.** [How does globalization affect COVID-19 responses?](https://doi.org/10.1186/s12992-021-00677-5), *Globalization and Health*, 17, 57, May 20. [https://doi.org/10.1186/s12992-021-00677-5].
- Boin, A., et al. 2021.** [Governing the Pandemic](https://doi.org/10.1007/978-3-030-72680-5), Springer International Publishing. [https://doi.org/10.1007/978-3-030-72680-5].
- Fernandes, L. 2006.** *India's new middle class: Democratic politics in an era of economic reform*, University of Minnesota Press.
- Fernandes, L. 2011.** *Hegemony and inequality: Theoretical reflections on India's 'new' middle class*, In *Elite and Everyman*, Routledge India, pp. 58–82.
- Ghodajkar, P., et al. 2020.** *Towards Re-Framing Operational Design for HFA 2.0: Factoring in Politics of Knowledge in Health Systems*, *Medico Friend Circle Bulletin*, February, 380: 16-25.
- Ghosh, J. 2020.** A critique of the Indian government's response to the COVID-19 pandemic, *Journal of Industrial and Business Economics*, July 11, Vol. 47(3), pp.519–530. [https://link.springer.com/article/10.1007/s40812-020-00170-x].
- Grépin K. A., et al. 2021.** [Evidence of the effectiveness of travel- related measures during the early phase of the COVID-19 pandemic: a rapid systematic review](https://gh.bmj.com/content/6/3/e004537), *BMJ Global Health*, Vol. 6, Issue. 3, [https://gh.bmj.com/content/6/3/e004537].
- Gwee, S. X. W., et al. 2021.** [Impact of travel ban implementation on COVID-19 spread in Singapore, Taiwan, Hong Kong and South Korea during the early phase of the pandemic: a comparative study](https://doi.org/10.1186/s12879-021-06449-1), *BMC Infectious Diseases*, August 11, 21:799 [https://doi.org/10.1186/s12879-021-06449-1].
- Iyengar, K. P. and Jain, V. K. 2020.** [COVID-19 and the plight of migrants in India](https://doi.org/10.1136/postgradmedj-2020-138454), *Postgraduate Medical Journal*, Vol. 97, Issue. 1149. [https://doi.org/10.1136/postgradmedj-2020-138454].
- Jaffrelot, C. 2020.** [From slowdown to lockdown, India's economy and the COVID-19 shock](https://www.institutmontaigne.org/ressources/pdfs/blog/slowdown-lockdown-policy-brief.pdf), Policy Brief, June 11, Institut Montaigne. [https://www.institutmontaigne.org/ressources/pdfs/blog/slowdown-lockdown-policy-brief.pdf].

Kesar., et al. 2021. *Pandemic, informality, and vulnerability: impact of COVID-19 on livelihoods in India*, Canadian Journal of Development Studies / Revue canadienne d'études du developement, 42:1-2, 145-164, DOI: 10.1080/02255189.2021.1890003.

Khanna, A. 2020. Impact of Migration of Labour Force due to Global COVID-19 Pandemic with Reference to India, Journal of Health Management, Vol. 22 (2), pp. 181–191, DOI: 10.1177/0972063420935542.

Krishnakumar, A and Verma, S. 2021. Understanding Domestic Violence in India During COVID-19: a Routine Activity Approach, *Asian Journal of Criminology*, March 10, pp. 19-35.
[<https://doi.org/10.1007/s11417-020-09340-1>].

Lobo, L and Shah, J. 2015. *Introduction* in Lancy Lobo & Jayesh Shah [Eds.] *The Trajectory of India's Middle Class: Economy, Ethics and Etiquette*. Cambridge Scholars Publishing.

Loewenson, R., et al. 2021. [Beyond command and control: A rapid review of meaningful community-engaged responses to COVID-19](#), *Global public health*, March 18, Vol. 16(8-9), pp. 1439–1453.
[<https://doi.org/10.1080/17441692.2021.1900316>].

Mishra A., et al. 2021. Health care Equity in Urban India, Report, Azim Premji University, Bengaluru.

NCRB. 2021. *Accidental Deaths and Suicides in India 2020*, National Crime Records Bureau, Ministry for Home Affairs, Government of India.

Ng, C., et al. 2014. Integrating mental health into public health: The community mental health development project in India, *Indian Journal of Psychiatry*, Vol. 56, Issue. 3, pp. 215–220.
[<https://doi.org/10.4103/0019-5545.140615>].

Organisation for Economic Co-operation and Development. 2020. [The territorial impact of COVID-19: Managing the crisis across levels of government](#), OECD Policy Responses to Coronavirus (COVID-19). [<https://www.oecd.org/coronavirus/policy-responses/the-territorial-impact-of-covid-19-managing-the-crisis-across-levels-of-government-d3e314e1/>].

Prabhu, N. 2015. *The Indian Middle Class and its Politics* in Lancy Lobo & Jayesh Shah [Eds.] *The Trajectory of India's Middle Class: Economy, Ethics and Etiquette*.

Priya, R and Sujatha, V. 2020. [AYUSH for COVID-19: Science or Superstition?](#), *Indian Journal of Public Health*, Vol. 64, Issue. 6, p. 105. [https://doi.org/10.4103/ijph.IJPH_500_20].

Priya, R., et al. 2020. [Beyond Biomedical and Statistical Approaches in COVID-19: How Shoe-leather Public Health Works](#), *Economic & Political Weekly*, October 31, Vol. IV, Issue. 44, pp. 47-58. [https://www.epw.in/journal/2020/44/special-articles/beyond-biomedical-and-statistical-approaches-covid.html].

Rajagopal, K. 2020. [Lockdown moratorium | Loans up to ₹2 crore may get relief](#), *The Hindu*, October 3. [https://www.thehindu.com/news/national/will-waive-compound-interest-for-loans-up-to-2-crore-govt-informs-supreme-court/article32758208.ece].

Reeves, R. V., et al. 2018. [Defining the middle class: Cash, credentials, or culture?](#), The Brookings Institution, May 7. [https://www.brookings.edu/research/defining-the-middle-class-cash-credentials-or-culture/].

Roy, A. 2018. [The Middle Class in India: From 1947 to the Present and Beyond](#), *Spring*, Vol. 23:1 (Spring 2018), pp. 32–37. [https://www.asianstudies.org/publications/ea/archives/the-middle-class-in-india-from-1947-to-the-present-and-beyond/].

Sarkar, A., et al. 2020. [Public health preparedness and responses to the coronavirus disease 2019 \(COVID-19\) pandemic in South Asia: a situation and policy analysis](#), *Global health journal (Amsterdam, Netherlands)*, December, Vol. 4, Issue. 4, pp. 121–132. [https://doi.org/10.1016/j.glohj.2020.11.003].

Sujatha, V and Abraham, L. 2012. *Medical Pluralism in Contemporary India*, Orient Blackswan, New Delhi.

The Hindu Net Desk. 2020. [India coronavirus lockdown | Day 1 updates March 25, 2020](#), March 25. [https://www.thehindu.com/news/national/india-coronavirus-lockdown-day-1-updates-march-25-2020/article31159466.ece].

Vyas, M. 2020. The jobs bloodbath of April 2020, *Centre for Monitoring Indian Economy Pvt. Ltd.* May 5. [https://cmie.com/kommon/bin/sr.php?kall=warticle&dt=2020-05-05 08:22:21&msec=776].

Wasdani, K. P., and Prasad, A. 2020. [The impossibility of social distancing among the urban poor: the case of an Indian slum in the times of COVID-19](#), *The International Journal of Justice and Sustainability*, Vol. 25, Issue. 5, pp. 414-418. [https://doi.org/10.1080/13549839.2020.1754375].