

IMPACT OF PUBLIC HEALTH AND SOCIAL LIFE IN ODISHA DURING COVID-19

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Abstract

The paper on how Odisha fights against COVID-19 pandemic very efficiently by taking unique. The objective of the paper is to analyze the impact of corona virus in Odisha with special reference to Ganjam. The outbreak of a novel human corona virus has become a global health concern causing severe respiratory infections in humans. Public health and social measures to slow or stop the spread of COVID-19 must be implemented with the full engagement of all members of society. The World Health Organization has described four levels of COVID-19 transmission with varying public health and social measures depending on the local evolution of the COVID-19 pandemic.

Keywords: Corona Virus, Education, Public Health, COVID-19, Medical Facility.

Introduction

Odisha (20.9517° N, 85.0985° E) is an eastern India state with a population of 41,974,218 and geographical area of 155,707 sq. km. Natural disaster is a regular phenomenon in Odisha. Odisha reported first corona positive case on March 15, 2020 (Sambad). Prior to this first case, government has already started taking necessary measures to control the pandemic and creation of treatment facilities in the state. Odisha government signed tripartite to setup two large Covid Hospitals in the country with 1000 beds with PPP operation mode (Office of the Chief Minister, Odisha, 2020). COVID-19 is an infectious disease caused by corona virus which was discovered recently in December, 2019 in China. The World Health Organization declared Corona virus as a 'Pandemic' which refers to an epidemic that has spread at Global level affecting large numbers of people. The Coronavirus (COVID-19) outbreak resulted in substantial human suffering and major economic disruption. The Coronavirus may cause illness in animals or humans. Several Coronaviruses can cause respiratory infections ranging from the common cold to more severe diseases. Due to the high death rate and the potential to cause epidemic, it is

needed to develop curative and preventive policy and action. However, the number of affected people is rising in 210 countries of the world in every hour. Authorities need to be mindful of both the potential negative and positive impacts of social media in managing outbreaks of infection in the community. To be effective, public health measures must be implemented with the full engagement of all members of society, including communities and professional groups. All measures should be accompanied with clear, accessible and regular risk communication to explain the response strategy and enable people to make informed decisions to protect themselves and help achieve the public health goal of ending the outbreak.

Objectives

- Highlight the impact of Covid-19 on public health and higher education sector.
- Enlighten various emerging approaches of Odisha economic policy.
- Few suggestions for continuing social life of facing the challenges created by Covid-19.

Methodology

Various sites of national and international agencies on Covid-19 pandemic are searched to collect data for current study. As it is not possible to go outside for data collection due to lockdown, information are collected from different authentic websites, Dailyhunt, news paper, TV show and e-contents relating to impact of Covid-19 on social life and health system of Odisha.

Impact of public health

Now currently, due to the rapid and unprecedented spread of the COVID-19 pandemic, extensive and stringent precautionary measures, as per this Oxford governance tracker, have been undertaken in almost all the countries to flatten the curve. Lockdown, the most commonly used measure, has been widely introduced restricting livelihood and leisure-related movements and activities of large swathes of the global population. Public health systems have been geared to focus on containing and mitigating the viral epidemic. This, on the one hand, suggests that the existing health system at global, national and local levels have not prepared for this pandemic and calls for a paradigm shift in our public health thinking, and, on the other hand, the current emphasis on response to address COVID-19 is likely to have significant attention-shifting and resource-shifting from control and/or elimination activities leading to increase in incidence and burden of other deadly infectious diseases like human immunodeficiency virus (HIV), tuberculosis (TB) and malaria among others in many low and middle income countries (LMICs).

India, which has done relatively well in malarial control in recent times, is likely to be one of them. That, Odisha has been first state in many such things to fight against COVID-19 pandemic. The state announced the closure of all educational institutions, cinema halls, swimming pools, gyms; cancelled all non-essential official gatherings, such as seminars, workshops, conferences; and, regulated all social gatherings and assemblies, like religious functions, marriage receptions and other events by the local authorities.

Helping the Government of Odisha to handle COVID-19

- To enforce a lockdown over 40% of the state from March 22, 2020 – the biggest of its kind in India's history at that point of time.
- To start dedicated Govt COVID hospitals run by professional hospitals (tripartite signed on March 26, 2020).
- To have dedicated COVID hospitals in all its district.
- In delegating collectors' power (within their jurisdiction in accordance with the provision of Disaster Management Act 2005, the Epidemic Disaster Act 1897 and Odisha COVID-19 Regulation) to Sarapanches for contain the virus spread in their gram panchayats.
- To start online registration of people returned from outside the state.
- To give cash incentive of 15000 for declaring travel history, which made self-declaration a huge success.
- To provide online pass to come out of home during the lockdown to avail essential commodities.
- To start community monitoring of people in home quarantine.
- To start dedicated helpline and Whatsapp for people coming from outside state.
- To provide cooked food to the underprivileged in all panchayats.
- To start special helpline for guest workers stranded in the state.
- To appoint nodal officers and issue helpline to help workers stranded in other states.
- To have allotted special fund to feed community stray animals. PETA awarded CM for this effort.
- To involve women self-help groups WSHGs directly in pandemic management.

Other steps to support its people

- Each inmate opting to work during the quarantine will be given ₹150 daily wage for 10 days in addition to the incentive of ₹2000 for successful completion of the revised quarantine period of 28 days (21 days institutional and 7 days home).
- Coordinated with other state governments for taking care of Odisha migrant workers and arranging trains for their safe return.
- Initiated a telemedicine helpline. State COVID Helpline No: 104, Odia Workers Stranded in other States: +0674-39115. People of other States stranded in Odisha: +180034566703.
- Legal action against those violating quarantine guidelines.
- Immediate police action against those spreading rumors and fake news on social media.

Ensuring communal harmony amid the hate-mongering by miscreants against certain communities. PDS supplies for three months distributed in advance and many other initiatives.

Corona virus

Corona viruses are known for their crown shape. Corona is derived from the Latin word Corona, meaning “garland, wreath, crown. The first case of the COVID-19 pandemic was confirmed in the Indian state of Odisha on 16 March 2020. The state has confirmed 3,01,574 cases, including 1,339 active cases, 2,86,857 recoveries, 1,425 deaths and total tests 49,39,390 as of 8th November. Table 1 presents statistics of most affected Odisha.

Corona viruses are a large family of viruses which may cause illness in animals or humans. In humans, several corona viruses are known to cause respiratory infections ranging from the common cold to more severe diseases such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS). The most recently discovered corona virus causes corona virus disease COVID-19. COVID-19 is the infectious disease caused by the most recently discovered corona virus. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019.

The most common symptoms of COVID-19 are fever, tiredness, and dry cough. Some patients may have aches and pains, nasal congestion, runny nose, sore throat or diarrhea. These symptoms are usually mild and begin gradually. Some people become infected but don't develop any symptoms and don't feel unwell. Most people (about 80%) recover from the disease without

needing special treatment. Around 1 out of every 6 people who gets COVID-19 becomes seriously ill and develops difficulty breathing. Older people, and those with underlying medical problems like high Blood pressure, heart problems or diabetes, are more likely to develop serious illness. People with fever, cough and difficulty breathing should seek medical attention.

Table :1
COVID-19 Statistics in affected Odishaas on 8th November 2020

Sl. No.	District	Confirmed	Active	Recovered	Deaths	Date of first case	Total tests
1	Angul	8,702	6,70	8,009	23	09/05/2020	-
2	Balangir	7,275	5,75	6,667	33	01/05/2020	-
3	Balasore	10,777	5,56	10,145	71	18/04/2020	-
4	Baragarh	9,139	5,97	8,517	25	24/05/2020	-
5	Bhadrak	6,938	2,16	6,697	21	31/03/2020	-
6	Boudha	2,638	23	2,606	9	10/05/2020	-
7	Cuttack	26,786	1116	25,547	119	03/04/2020	-
8	Deogarh	1,109	54	1,052	3	29/04/2020	-
9	Dhenkanal	5,314	263	5,031	20	08/04/2020	-
10	Gajapati	3,890	31	3,829	29	22/05/2020	-
11	Ganjam	21,380	141	20,999	232	02/05/2020	-
12	Jagatsinghpur	8,060	656	7,381	23	06/05/2020	-
13	Jaipur	11,135	403	10,711	20	03/04/2020	-
14	Jharsuguda	6,640	180	6,443	17	29/04/2020	-
15	Kalahandi	5,477	400	5,055	22	04/04/2020	-
16	Kandhamal	5,760	109	5,620	31	17/05/2020	-
17	Kendrapara	8,037	597	7,418	21	06/04/2020	-
18	Keonjhar	6,758	394	6,339	23	29/04/2020	-
19	Khordha	49,887	1,465	48,164	248	16/03/2020	-
20	Koraput	7,565	273	7,278	14	27/04/2020	-
21	Malakangiri	5,035	50	4,761	21	19/05/2020	-
22	Mayurbhanj	11,987	807	11,110	67	06/05/2020	-

23	Nawarangpur	5,488	265	5,208	13	22/05/2020	-
24	Nayagarh	6,194	268	5,886	38	09/05/2020	-
25	Nuapada	6,147	551	5,578	18	23/05/2020	-
26	Puri	12,987	569	12,328	87	03/04/2020	-
27	Rayagada	8,171	111	8,018	42	02/06/2020	-
28	Sambalpur	8,257	343	7,871	43	16/05/2020	-
29	Sonepur	4,549	165	4,369	15	25/05/2020	-
30	Sundergarh	11,780	894	10,805	77	11/04/2020	-
Total		3,01,574	13,239	2,86,857	1,425	08/11/2020	49,39,390

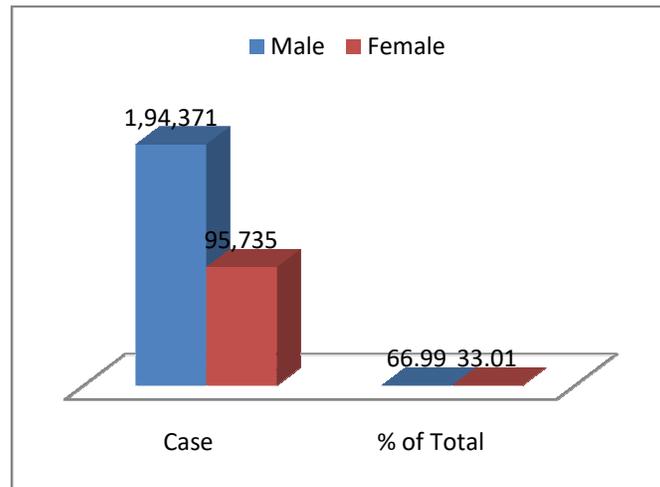
The Corona virus cases Male and Female .Gender wise both are be affected by the disease, the Male person are highest cases due to COVID-19. Table 2 shows that male corona virus affected cases have 66.99 % and female corona virus affected cases have 33.01%. This variation may be due to variation in immunity power and different food habits of male and female.

Table :2

Gender Wise Details on covid-19

Gender	Case	%
Male	1,94,371	66.99
Female	95,735	33.01
Total	2,90,106	100.00%

Figure :1



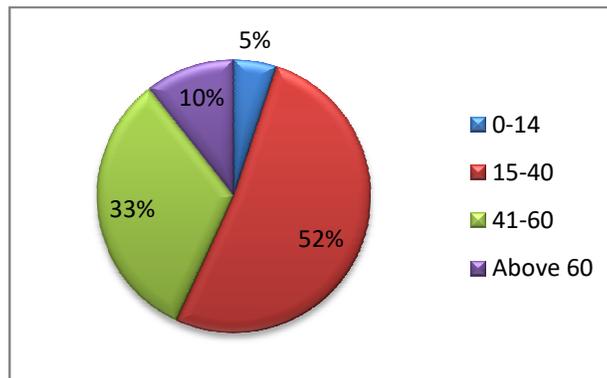
The Corona virus cases vary as per age of affected person. People in all ages can be affected by the disease, the age of 14-40 years old people highest cases due to COVID-19. The lowest cases of the age 0-14 years people 5.05% and the above 60 years old 10.55%.

Table: 3

Age wise Details on Covid- 19

Age	Cases	%
0-14	14,677	5.05
15-40	1,50,231	51.80
41-60	94,580	32.60
Above 60	30,628	10.55
Total	2,90,106	100.00%

Figure :2



Novel Coronavirus Outbreak and Odisha Health Care System

In the fight against COVID-19, Odisha is leading from the front along with Kerala. The state has received compliments from the national government, and national and international media. Odisha is facing for a potential explosion of corona virus cases as it is thickly populated with large number of poor people with less resource. India's health performance index which includes access to primary care, maternal mortality rates and child health, runs the spectrum, with some states outperforming others by almost 2.5 times. The best performer is Kerala that found and treated India's first three corona cases. The worst is Maharashtra which has detected many positive cases and deaths. The inequalities are further pronounced between urban and rural areas with most of the available beds are concentrated in Indian cities. According to WHO, India spent an average of \$62.72 per person on health care in 2016 as compared to China's \$398.33. Inequalities could make prevention even harder. In places with limited access to clean water, washing hands to prevent the spread of the virus is difficult. Health management system is very inadequate for India's existing problems. With limited access to clean water, washing hands to prevent the spread of the virus is very difficult (Gagandeep Kang, 2020). These inequalities are not just a reflection of not spending enough on health care, but also of not knowing where to spend.

Odisha's Response to COVID-19

The first confirmed case of coronavirus in India was reported on January 30, 2020, in the southern state of Kerala; the patient was a female student at the Wuhan University in China. Odisha reported the first confirmed coronavirus case on March 16, 2020. The patient is a 33-year-old researcher who returned from Italy to Delhi on March 6 and travelled to Bhubaneswar by train on March 12.

Even though the total number of COVID-19 cases identified were below five then, on March 21, the CM announced a near-total lockdown of five districts with a higher number of foreign returnee migrants, namely Khordha, Ganjam, Cuttack, Kendrapara and Angul and eight towns namely Sambalpur, Jharsuguda, Balasore, Rourkela, Bhadrak, Puri, Jajapur Road and Jajapur Town. Seventy percent of the 3200 foreign returnees belonged to these districts. People were allowed to go out only for essential commodities. Buses, trains, flights, grocery shops, vegetable shops, shops selling fish, eggs, chicken, petrol pumps, medicine stores, hospitals banks, ATMs,

police, fire service, ODRAF, drinking water and power supply were excluded from the lockdown. Private companies were directed to allow work from home.

On March 23, the state government launched a toll-free number 'Sadhan' in order to ensure the supply of essential commodities and services. The CM appealed to the people to donate generously to the Chief Minister's Relief Fund. By the second week of identification of the first COVID-19 case in the State, on March 27, the government opened a helpline number for the Odia people stranded in different states of the country. Odisha was the first state to announce that it will take care of migrant workers from all other states living in the state and that services during the COVID-19 emergency would be provided free of cost.

The state government clamped 48-hour complete shutdown or curfew in Bhubaneswar, Cuttack and Bhadrak cities to control the spread of the disease. During this shutdown, all services were suspended, excluding a few selected medical stores. Police teams in these three cities patrolled each locality intensely to ensure nobody came out and broke the curfew. The state has created quarantine facilities in all Panchayats. ASHA and Anganawadi workers are keeping track of returnee migrants and monitoring their home quarantine.

Medical facility

- On March 09, 2020, Odisha established its first testing facility for COVID-19 at the Regional Medical Research Centre (RMRC) in Bhubaneswar.
- The state government started publishing safety measures on Corona Virus in print, electronic and social media.
- The government signed a Memorandum of Understanding (MoU) with two private hospitals to open dedicated COVID-19 hospitals with 650 beds on March 29. These facilities have been created with the CSR funds of Orissa Mining Corporation in partnership with private hospitals.
- On 4th April COVID-19 hospital was operational at Rourkela in the Sundargarh District with a 200-bed capacity. The Ministry of Petroleum and Natural Gas, Government of India, provided support to open another 500-beds. .

- On 7th April CM launched a telemedicine helpline number 14410 and appealed to doctors to volunteer for this purpose and also Indian Air force airlifted personnel and medical equipment from Delhi to set up medical labs and other facilities in Odisha.
- On 10th April MKCG medical college and hospital, Berhampur was permitted by the ICMR to conduct COVID-19 testing.
- On 15th April CM announced the setting up of COVID-19 hospitals in every district with a plan to set up 36 hospitals with a combined bed capacity of 6000. CM directed the commencement of testing at VIMSAR, Burla.
- The state was able to set up five standalone COVID-19 hospitals with a combined bed capacity of 825, readied in record 30 days by April 20.
- Odisha became the first state to have dedicated COVID-19 hospitals in each of its districts with a cumulative 5100+ beds by April 22.

Education policy

The spread of pandemic Covid-19 has drastically disrupted every aspects of human life including education. It has created an unprecedented test on education. In many educational institutions around the world, campuses are closed and teaching-learning has moved online. Internationalization has slowed down considerably. In India, about 32 core learners stopped to move schools/colleges and all educational activities brought to an end. Despite of all these challenges, the Higher Education Institutions (HEIs) have reacted positively and managed to ensure the continuity of teaching-learning, research and service to the society with some tools and techniques during the pandemic. This article highlights on major impacts of Covid-19 on HEIs in India. Some measures taken by HEIs and educational authorities of India to provide seamless educational services during the crisis are discussed. Due to Covid-19 pandemic, many new modes of learning, new perspectives, new trends are emerged and the same may continue as we go ahead to a new tomorrow. So, some of the post Covid-19 trends which may allow imagining new ways of teaching learning of higher education in India are outlined. The Odisha government in partnership with UNICEF has started '*GhareGhare Arunima*', a home-based curriculum for children who are enrolled in Anganwadicenters that are closed due to COVID-19. This programme lays emphasis on reaching out to parents with a focus on keeping the children

engaged in a host of meaningful calendar activities that will keep them stimulated and improve their psychological well-being.

The severe impact of COVID-19 has led to temporarily closing down of educational institutions in an attempt to contain the spread of the virus. As part of the nationwide lockdown, all educational institutions have been close in Odisha and this has deeply affected learners at all levels - schools, colleges, universities and various professional and training centers. Many private institutions adapted to this technological change within a short period of time. However, for public schools, colleges and universities, the outcome was limited and patchy in spite of attempts. As a part of the package announced by Government of India to adapt to the COVID 19 shock, it was conveyed that the top 100 universities in the country would be able to start online courses via radio and television for students who did not have constant access to the internet amid the corona virus lockdown. It was proposed to add 12 channels for the purpose and the UGC has advised universities to initiate a blended mode for course delivery. Moreover, it has mostly been confined to urban areas. Most rural based students do not have either the required infrastructure or the finance to avail the resources required for digital education. Even if many people have mobile phones, many of these are not smartphones. Concerns regarding continuous internet connectivity and affordability to recharge high value data packs have been seen as major drawbacks of a shift to online education. Given the level of internet penetration at present, which is less than 50% at the national level, with only 33 % share for the women users, there is a probability that e-learning would accentuate the gender bias and other societal exclusions. The digital divide might result in a learning divide, challenging the 'equity' objective of the Higher Education programme of the Government of Odisha. Also, a higher dropout rate is expected due to the lack of supervision and peer pressure.

The Government of Odisha may train teachers on delivering courses online and developing e-content under the World Bank assisted Odisha Higher Education Programme for Equity and Excellence (OHEPEE). Investment in infrastructure to prepare institutions for online teaching needs to be made, for all state universities, autonomous colleges and cluster of colleges in certain geographical area. The Virtual Tutorial Project (VTP), another initiative of Government of Odisha for ensuring equity, needs to be pushed forward vigorously. Besides, online teaching will, to an extent, bridge the gap between the actual and desired availability of teachers at various levels of education and make it possible for the student to avail the best teacher in a particular

subject and or paper. Governments may provide smart phones to students who cannot afford these. Similarly, special data packs may be launched for the students on the production of ID cards. Government should set up mobile towers in remote areas wherever internet connectivity is weak. Tuition fee development fee for one year may be waived; this would increase the disposable income of their families and will have positive effects on demand. Time has come to take cognizance of the importance of social sector investment in building a more resilient economy, prepared to rise to the challenges of the future. The pandemic has exposed the inadequacy of our health care facilities and the need to enhance public investment in the sector. Furthermore, the education infrastructure, specifically in the public sector, also needs to be boosted up for all levels of education if the state is to retain its emerging image as an educational hub in the country.

The COVID-19 pandemic has dealt a severe blow to the economies at all levels- global, national and regional. The International Monetary Fund (IMF) forecasts that the global output is to contract sharply by - 3% in 2020, much worse than that during the 2008–09 financial crises. The advanced economies are set to witness a much larger contraction in output by - 6.1% and emerging and market economies by -1%. It further warns that the risks would be severe and substantial. For India, different agencies have provided varying growth estimates for 2020-21. The IMF has projected it to be 1.9%; Fitch Ratings has forecast 0.8 % growth. In early April, the Asian Development Bank (ADB) had forecast a 4% growth for India. Rangarajan and Srivastav have estimated 4.4% growth for India in 2019-20 and 2.94% in 2020-21. The professional forecasters' projection of real GDP growth given in the monetary policy report of the Reserve Bank of India (RBI) released in April 2020 reports 4.6 percent growth in the last quarter of 2019-20, 4.7% in the first quarter, 5.3% in the second quarter, 5.7% in third quarter and 6.1% in the fourth quarter. However, given the length of complete lockdown in India and suspension of most of the economic activities in the first quarter, it is hard to believe that the Indian economy would be able to achieve any growth in 2020-21. There is serious apprehension that the total national output would contract drastically in the first quarter, although there could be some improvement in the subsequent quarters; growth of total output would not be higher than that in the last year. Therefore, the fear of a double digit contraction in the output looms large. Odisha started imposing partial lockdown from March 21 and by March 22 it was extended to the entire state. With the assumption that the lockdown would be relaxed from early June, two months of

the first quarter were to fall under the lockdown. Although the state and national governments have relaxed some selected economic activities in the lockdown 3.0 (starting from May 4), the operation of those sectors is far from normal. Even if the lockdown has been relaxed from mid-May, there would be a lot of restrictions in most of the economic activities. Therefore, the effect of COVID-19 would continue in the second and third quarters. We would expect normal activities towards the fourth quarter. If we look at each sector independently during this fiscal year, agriculture is the least affected compared to all other sectors. The manufacturing and service sectors have emerged the worst-hit sectors due to lockdown. Odisha's export to the world amounts to around 16% of the GSDP. Due to the pandemic this export would be badly affected. The massive unemployment and return of migrant workers from within the country and outside would pull down the purchasing power of the people in the state. Thus, the aggregate demand (internal + external) would decline significantly. In this context, an attempt has been made to calculate the GSVA for Odisha for the fiscal year 2020-21

The symptoms of COVID-19

The most common symptoms of COVID-19 are fever, tiredness, and dry cough. Some patients may have aches and pains, nasal congestion, runny nose, sore throat or diarrhea. These symptoms are usually mild and begin gradually. Some people become infected but don't develop any symptoms and don't feel unwell. Older people, and those with underlying medical problems like high blood pressure, heart problems or diabetes, are more likely to develop serious illness. People with fever, cough and difficulty breathing should seek medical attention.

Suggestions against Covid -19

- Washing hand with soap.
- Alcohol based hand sanitizer.
- Social desistance.
- Using mask.

Protection measures for everyone

- Maintain at least 1 meter (3 feet) distance between yourself and anyone who is coughing or sneezing. Our hands contain innumerable viruses and bacteria due to frequent use and exposure. To remove many of the virus and bacteria, complete washing with water using soap or sanitizer helps removing virus.

- Avoid touching eyes, nose and mouth. Once contaminated, hands can transfer the virus to your eyes, nose or mouth. From there, the virus can enter your body and can make you sick.
- Make sure you, and the people around you, follow good respiratory hygiene. This means covering your mouth and nose with your bent elbow or tissue when you cough or sneeze. Then Dispose of the used tissue immediately.
- The alcohol based hand sanitizer will inactivate the virus since its presence in hand sanitizers dissolve the lipid envelope. The alcohol tends to also change the shape of the mushroom-shaped protein structures that stick out of the lipid envelope. To be effective, it is necessary for the sanitizers to contain at least 60 per cent alcohol.
- Stay home if you feel unwell. If you have a fever, cough and difficulty breathing, seek medical attention and call in advance. Follow the directions of your local health authority. This will also protect you and help prevent spread of viruses and other infections.
- The following measures are not effective against COVID-2019 and can be harmful: - Smoking, wearing multiple masks.

Conclusion

The state has shown some first of its kind actions to handle the COVID-19 pandemic. This could be seen as the state's learning from handling natural disasters year after year. During and post these disasters, the state has already been credited with management resulting in zero human and cattle loss. The same passion, commitment, pro-activeness is visible in its fight against the COVID-19 pandemic. Consequently, these digital initiatives both by government and EdTech companies are, in a way, perpetuating the hegemony of elite schools in the education system resulting in the access and usage divide between rural and urban, and rich and poor. There is an urgent need for health professionals and policy makers to recognize the intensity and magnitude of the coronavirus and its grave social impact. Since the government takes policy decisions regarding the Coronavirus which has grave human, social and economic and health consequences. Its success lies in effective implementation and wholehearted support from all stakeholders. Concentrated effort and global cooperation is the need of the hour because prevention is beyond the scope of any one country. Effective implementation of government policies require full support of all stakeholders, including Governments, health professionals, the media, non-governmental organizations, communities and individuals. To completely do away

with the coronavirus pandemic, it is necessary for international agencies and national governments to play the effective role in developing and implementing amicable and target oriented policies which priorities the diagnosis, therapeutics and vaccines for the virus globally.

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