

# INITIATIVES IN RESPONSE OF COVID-19

by

Public Health Foundation of India (PHFI)

&

Indian Institutes of Public Health

(Bhubaneswar | Delhi | Gandhinagar | Hyderabad | Shillong)

PHFI and its constituent centres located at various states have been actively engaged in various activities related to the containment of the ongoing COVID-19 pandemic response. We continue to support the evolving efforts of the Government of India. Regular updates on the same will be shared on <https://phfi.org/phfi-and-iiphs-working-for-covid-19/>.

## Dr. K Srinath Reddy (President, PHFI)

Both PHFI and its technical talent under the guidance of Dr K Srinath Reddy is providing all possible support and technical expertise during this time of crisis. Dr Reddy is a member of the following national and international committees:

1. National Technical Taskforce convened by ICMR.
2. Honorary Advisor on Health to the Governments of Odisha and Andhra Pradesh with Cabinet Rank in both states.
3. Post-COVID strategy paper for the health system, by the National Security Council Secretariat.
4. WHO Solidarity Trial

## Health Technology Division

### [HI Rapid Lab designed developed reusable n95 Grade face mask](#)

Dr. Suresh Kumar Munuswamy is member of the Telangana govt digital interventions task force. He has designed and developed a reusable n95 grade face mask.

The HI Rapid Lab at the Indian Institute of Public Health, Hyderabad, a constituent unit of the Public Health Foundation of India has developed an indigenous mask, with cotton gauze as a filter, for healthcare providers to protect them from the risk of infection. The product is currently under the process of testing and further to get quality certification.

## [Covid-19 Contact Tracing App](#)

A significant proportion of Indian and Global population is expected to be affected by Covid-19 infection either directly or indirectly. Current focus of the Government to identify a suspect Covid-19 patients are those who have travelled abroad and their direct contacts. However, there is a significant proportion of population who are returning from urban and metro areas to their villages. This carries a significant risk for transmission of infection to rural population. It is essential that we reach out to this population especially in rural areas using technology for early identification of population at risk. Towards this PHFI has developed a contact tracing application for use by Health volunteers. This will provide details of the population who have migrated, if they have any symptoms and most importantly if there are family members who are at high risk for the disease in the family.

## [Swasthya Sahayak Covid-19 test:](#)

PHFI has also indigenously developed Swasthya Sahayak, a point of Care technology which is operated using an Android tablet and provides several upstream and downstream benefits. It integrates multiple diagnostic tests and enables preventive, curative, and behavioural interventions. It helps screen citizens at population level for ailments, Non-Communicable, Infectious diseases and antenatal care. The services can be delivered either as 'door to door' or as a Static service. This allows for on the spot digitization of the patient record and enable GIS mapping of patients and service providers. The system allows conducting several diagnostic tests that can be scaled up to include more tests. The device comes with a blue tooth printer to provide receipt to the beneficiary. It has already been deployed with more than 1000 users and more than 100,000 beneficiaries have benefited from it.

We are in the process of integrating IgG antibody test for Covid-19 as an additional diagnostic test and could be available over next 3-4 weeks.

## [PHFI Training Division \(“Know COVID- NO COVID”\)](#)

As the world battles the huge crisis of the COVID-19 pandemic, which has put healthcare system of various countries out of gear. We at the Public Health Foundation of India (PHFI), deeply value the role of Training workshops and awareness campaigns.

Training Division of PHFI has prepared a series of e-workshops “Know COVID- NO COVID” for various groups. These workshops provide credible information on the pandemic and an opportunity to interact and better understand the science and public health impact of COVID-19. These e-workshops are for various groups of Primary Care Physicians, participants nominated by state governments, various PSUs such as NTPC, different associations and societies, and conducted with the help of renowned experts.

- E-workshops for Primary Care physicians (PCPs): First webinar of the workshop (series of 6 webinars) for 1<sup>st</sup> batch of PCPs (Medical Graduates) conducted from 6<sup>th</sup> April.

- E-workshops for Healthcare workers comprising Physicians, Dentists, Allied Health Personnel and Nurses (series of 4 webinars)
- E-workshop for Community (series of 1 webinar). Each of these have Q &A rounds and the queries of the participants answered by the Experts
- Community Mobilization and Social Messaging (a series of simplified messages/ infographics based on authentic national and international technical guidelines in the context of COVID-19 is being regularly circulated to the 28,000 PCPs trained till now and put up on the PHFI App and our course websites

We have engaged so far our own 28000 PCP's for these webinars, PSU's like NTPC and some in pipeline like Indian Oil, NHPC, Hindustan Cooper, HPCL, PI and Various State Govts like West Bengal, Gujarat, Manipur And some Medical Associations like Meghalaya Diabetes Association, Physicians association of Navi Mumbai, Clinical Cardio Diabetic society of India and some Communities Like World Malyalee Council, Indian Habitat Centre also. So far 500 PCPs participated in the webinar series which were conducted in two batches.

Other than this we are also providing webinars to our GDC Fellows representing 9 countries along with their Senior leaders under our partnership with Research Information system which is think tank of MEA. We have started these webinars with 350+ registered from 22 countries across the globe.

We are also in touch with some industries for these webinars for their management and workers. Apart from these, round of webinar has been conducted for the community, where apart from COVID information, the various myths were also discussed and protocols shared with them.

### Support to UNICEF(Lucknow)

In Feb 2020, PHFI had received second grant from UNICEF-Lucknow for improving nutrition outcomes through SHG platform. However, due to COVID, the focus of state team has now shifted to supporting UNICEF team in their response to COVID emergency as well as shifting the gear from of SHG project from infant young child feeding (IYCF) to COVID prevention activities. In last three weeks following activities were/are being undertaken:

1. Our frontline facilitators, WADA sakhis (410 facilitators, 6 districts and, 24 blocks & 425 villages) have initiated phone based counseling with SHG members on COVID themes. The plan is to reach about 50,000+ SHG households every week on varied COVID themes. We have identified 5 themes for counseling which will be delivered in a modular form over a one-week period. The themes are (a) Corona prevention and promotion of social distancing in public places ( hand pumps, ICDS center, shops and PDS shops etc.) (b) Boosting immunity to fight Corona (C) Mental health during COVID (d) Infant Feeding during COVID (e) Feeding during pregnancy. By April 13, about 20,000+ phone calls have been initiated by WADA Sakhis.

2. PHFI Lucknow team is supporting the UNICEF team in leveraging student's National Service Scheme (NSS) to reach student's network. By April 13, 421 professors from different universities in the state have been oriented on Zoom. Each professor (NSS coordinator of their respective colleges) in turn contact 1000 NSS students under them with COVID messages. By April 12, more than 3 lakhs college students have been reached by NSS coordinators
3. About 15 social and institutional platforms have been identified for promotion of COVID prevention activities and messages. A team of UNICEF consultants are engaging with these platforms to increase reach of COVID messages. The PHFI team daily prepares brief COVID communication activity for wider dissemination

### Statistical/ Mathematical Modelling using COVID-19 data:

Two of our senior researchers are working on statistical/mathematical modelling using the COVID-19 data:

1. [Dr. Siddhartha Mandal](#) is working on modeling the number of deaths in India and its states using statistical modeling techniques using data from multiple countries. Within this, he is looking at the progression of deaths into the future months and how the public health interventions would affect the disease pattern. The modeling results for the country level deaths have already been shared with NITI Aayog and he is currently working on age standardized death rates at the state level.
2. [Dr. Surabhi Pandey](#) is working on modelling COVID situation at the country level taking in account the disaggregated rural and urban population, migration of labourers from urban to rural areas and impact of lockdown to predict the prevalence of infection for coming months (May and June). So far the data available in public domain and for migration rate the migration data derived using Facebook users (from Harvard team) has been used. Under-reporting is also taken into consideration and will be modelling different scenarios for this. This work will be completed once the data on migration is available. Plan is also to improve the results of aforesaid modelling with the availability of migration data using telecom users (as migrant labourers use mobiles and not FB). For now as Harvard team had FB data thus using it as proxy for migration. Also with the availability of age-segregated data of COVID cases stratified by rural and urban India (awaited from NITI), the modelling results are likely to improve.

## Centre for Environmental Health (CEH), PHFI

### Activities co-ordinated by CEH for COVID:

1. Responding to COVID-19 by strengthening the health infrastructure and systems in low-resource settings – Webinar, co-hosted by PHFI, CCDC, Health Care Without Harm and SELCO Foundation on Saturday 11<sup>th</sup> April, 2020 , 3pm -6pm to facilitate cross-learning to healthcare practitioners across the country. Well-attended with about 250 attendees. Attached concept note and detail of speakers. Prof. Srinath Reddy and Prof. D. Prabhakaran participated as panellists providing key insights.
2. We have developed a pictorial guide based on the revised Biomedical Waste Management Rules , now updated with the CoVID waste management guidelines that can be used as stand-alone visual aids to facilitate healthcare waste management at healthcare facilities, quarantine centres and laboratories. This is awaiting endorsement from MoEFCC and release in a few days .
3. Ms. Samayita Ghosh , on behalf of CEH, PHFI facilitated the transfer and delivery of 75 N-95 masks that were donated by a philanthropist to us , to the Officer-in –Charge , Medical Store and Medical Superintendent of the Safdarjung Hospital and V.M.M.C in response to their urgent request and call for PPEs for their doctors and nurses.
4. Developing research proposals in relation to COVID-19 and air pollution for immediate conduct of studies, subject to funding.
5. A webinar series for Urban Local bodies for COVID response and resurgence strategies in collaboration with National Institute of Urban Affairs and Ministry of Housing and Urban affairs is under discussion.

## Health Promotion Division, PHFI

The Health Promotion Division of PHFI is undertaking activities on prevention and management aspect of COVID 19 as part of 'Project PaTHWay: Promoting Health and Wellbeing', using social media platforms.

This project is being funded by the AXA Business Services as part of their CSR. The project is being undertaken in Bengaluru and Pune in collaboration with National Institute of Mental Health and Neuro-Sciences (NIMHANS) and Janaseva Foundation. The programme is ongoing in 20 schools, 4 colleges and 5 workplaces, in Pune and Bengaluru. As part of the project, the students, teachers and faculty members posted their selfies sharing interesting activities that they have been doing at home during the lockdown (<https://www.facebook.com/362601477116421/posts/3020773554632520/?flite=scwspnss&extid=wT9xrXaMQHhVoNkK>). We are developing resources like informative presentations, pamphlets and collating resources developed by WHO, Ministry of Health and Family Welfare etc. on COVID-19, for schools and colleges. These resources would be used by teachers and faculty members during their online academic classes with students.

Some of the other planned activities include: online competitions, mask making at home, social media activities on World No Tobacco Day, 2020 on 'Tobacco and COVID-19'. As PHFI is a member organization of World Heart Federation, we are also planning to organize interactive and informative activities on World Heart Day on 'CVD and COVID'.

## Indian Institute of Public Health, Delhi (IIPHD)

IIPH Delhi faculty members and MPH students have been actively engaged in various activities related to the containment of the ongoing COVID-19 pandemic response.

### 1. Team working with NCDC:

One team of faculty members and students started their work on 9th March 2020 after a discussion between senior officials at PHFI and senior officials of MoHFW, GoI and NCDC, Delhi. The team were given a list of names of 14 COVID positive patients admitted at Safdarjung hospital with COVID-19, and were asked to collect data of these patients in the Case Investigation Form (CIFs). Later, as the cases started rising, the student teams were assigned the task of collecting data of COVID positive patients in Delhi NCR, and filling up the CIFs for these patients. A total of 41 additional CIFs of Delhi – NCR region were successfully filled by the students over a period of about 10-12 days. During this period, they would telephonically contact the respective district's DSO as well as the patients themselves/ their family members and collect information related to their socio-demographic information, onset of symptoms, travel history, etc. They also tried to collect as much information as possible about the close contacts of these patients. Subsequently, they also followed up with each patient on a daily basis, to get information of their disease status. Another task assigned to the students was to contact the District Surveillance Officers (DSOs) in each district of Delhi-NCR to get information about the hotels in the area where foreigners had or were staying during the period of surveillance. The objective of this exercise was to procure information about the country from which these foreigners had arrived, how long they stayed in that hotel, where they were going next, their contact details, etc. Over the next few days, the students (each student was allotted a couple of districts) continued their follow up with the DSOs and hotels to get this information in a specified format.

Currently, all the students are working with the NCDC team from within the NCDC premises, based on the request of the NCDC team. Some students are assisting the NCDC officials in planning State-wise strategies for contact tracing and cluster containment measures. And the rest are working with different staff members of the IDSP program on data entry, sorting, and preliminary analyses.

The faculty group has been coordinating the entire activity; they are fully engaged in this work and are providing necessary support and guidance to students and helping them to sort out bottlenecks / challenges they face on a daily basis. On a daily basis, the activities carried out by the students and the status of the patients for the day are summarised and sent to NCDC.

PHFI team has also provided actionable information for identification and contact tracing of the Tablighi Jamaat network in Delhi and Mumbai.

### 2. Work with MoHFW, Government of India:

Two other faculty members are part of a team that provides need-based expert epidemiology inputs to the BCG team operating within the Ministry of Health and Family Welfare, GoI.

### 3. Publications related to COVID:

One of our faculty members has contributed to background papers on “Investment requirements for scaling up COVID 19 response”, and “National Health Systems support and Advisory Strategy” developed by PHFI. This faculty is also providing technical support to an independent initiative for development of technology platform for real time monitoring of COVID 19 cases and logistics support. ([COVID19India.org](https://www.COVID19India.org)).

### 4. Proposed work with ILO on multi-country study:

One of our faculty members was invited by ILO Delhi to participate in a UN led proposed multi-country study which wants to capture the impacts of COVID-19 on smallholder farmers, the elderly, informal, domestic and platform workers, migrant workers and their families (both with and left behind), social security systems, SME recovery, intra-household dynamics and other impacts on children, impact on wellbeing and capacity of public workers, access to public services during and post-epidemic, including access to sexual and reproductive health services. As of now, it is in early stages – only certain points related to survey design and points to be covered in the proposed survey have been shared with the ILO.

### 5. Committee member of National Task Force research group:

Some of our faculty members have been invited to become part of technical committees related to COVID containment and response. A senior faculty member has been roped in by the National Task Force for COVID-19 at ICMR to become a member of the Epidemiology and Surveillance research group. This group is expected to identify the research priorities related to Epidemiology and Surveillance, and quickly initiate research studies.

### 6. Creating awareness at various platforms:

One of our senior faculty members has been actively creating awareness about the need for physical activity during this period across various social media platforms. The campaign includes not only measures that can be taken to protect oneself and the family from this virus, but also steps to stay protected from the increase in non-communicable diseases, which also have a potential to rise in such circumstances. IEC messages have been prepared and shared with Government of India.

## Indian Institute of Public Health, Gandhinagar (IIPHG)

IIPHG team has done various support efforts to help improve response to Covid epidemic. Pl see attached excel worksheets giving details and links. We have done the following;

1. Two faculty Dr. Deepak Saxena and Dr. Anish Sinha went to Delhi at short notice to help NCDC in various activities including contact tracing, taking detailed epidemiological history of quarantine / isolated cases in Safdarjung hospital along with IIPHD faculty and students. A details report with short-term and long-term suggestion has been given to govt.
2. IIPHG faculty and RAs have prepared various health educational materials for public like videos. We have also participated in TV and FM radio debates/talk shows as experts to provide technical information to the public. We have written various open editorials and articles in newspapers, online media and health magazines.
3. IIPHG faculty have advocated for SARI surveillance at national level and state level. SARI surveillance has started in Gujarat in public and private hospitals.
4. IIPHG faculty have conducted online training/orientation to various managers of NGOs working in the community.
5. IIPHG faculty have provided technical support to educational institutions including IIT Gandhinagar on preparing the campus for COVID control.
6. IIPHG faculty have provided inputs and advocacy for making testing widely available.
7. IIPHG is member of the Research coordination committee of Gujarat govt on Covid.
8. IIPHG faculty has disseminated various information to professional colleagues via social media on issues such as PPE use and reuse, mortality rates, secondary attack rates etc which are very much related to covid epidemic control.
9. IIPHG has motivated students to take up special studies on various aspects of the epidemic in various countries through secondary data and media reports.
- 10 Faculty of IIPHG with PHFI are building mathematical models of the epidemic in India to predict the course of the disease.
11. IIPHG encouraged students to make videos and social media posts on various methods of prevention such as social distancing, hand washing etc. These are available on Youtube.
12. IIPHG is also planning to make low cost hand sanitizers for local distribution - plan could not be executed due to supply problems after lockdown. We will revive this after lockdown is over.

13. IIPHG based NIDHI Techno-Business Incubator is supporting new product development for prevention of Covid epidemic. It is also giving a new call for proposals in this area.

14. IIPHG faculty have also undertaken social media campaigns to reduce fear of the disease in the community.

16. IIPHG is planning to make various case studies and exercises to teach the students using real data from the epidemic.

17. IIPHG is guiding its alumni working in the government of Gujarat to do analysis of the epidemic and its prevention activities.

18. IIPHG has prepared various proposals to work on different aspects of the epidemic including new rapid lab test development, behavioural change, epidemiology, training of community workers, training program for health workers. etc. These are being sent to various CSR funding agencies. IIPHG has also prepared brief proposal to set up a new Biosafety level III lab for work on respiratory and other viruses.

19. Gujarat govt has requested to take over IIPHG hostel of 150 person capacity for quarantine as and when needed. IIPHG has agreed to this request and Preparations have been made for this.

#### IEC Videos:

- |   |   |   |
|---|---|---|
| 1 | WASH Short film   | <a href="https://www.youtube.com/watch?v=rrXjMVdZHc4">https://www.youtube.com/watch?v=rrXjMVdZHc4</a>                     |
| 2 | Corona COVID19 English  | <a href="https://www.youtube.com/watch?v=kWj3XIDHuGc&amp;t=74s">https://www.youtube.com/watch?v=kWj3XIDHuGc&amp;t=74s</a> |
| 3 | Corona COVID19Gujarati  | <a href="https://www.youtube.com/watch?v=2e5SE3-lojY&amp;t=32s">https://www.youtube.com/watch?v=2e5SE3-lojY&amp;t=32s</a> |
| 4 | Corona COVID19Hindi   | <a href="https://www.youtube.com/watch?v=6f0H_08I8dl&amp;t=56s">https://www.youtube.com/watch?v=6f0H_08I8dl&amp;t=56s</a> |
| 5 | Corona Virus Video (Information and travel advisory)          | <a href="https://www.youtube.com/watch?v=S56GvwLP-yA">https://www.youtube.com/watch?v=S56GvwLP-yA</a>                     |
| 6 | Social Stigma associated with COVID19                         | <a href="https://www.youtube.com/watch?v=ebqT4Efm9n8">https://www.youtube.com/watch?v=ebqT4Efm9n8</a>                     |
| 7 | Safety and Care of Hostel Residents during COVID19 (English)  | <a href="https://www.youtube.com/watch?v=jVouw7urAKo&amp;t=75s">https://www.youtube.com/watch?v=jVouw7urAKo&amp;t=75s</a> |
| 8 | Safety and Care of Hostel Residents during COVID19 (Gujarati) | <a href="https://www.youtube.com/watch?v=MZWAjU8fAko">https://www.youtube.com/watch?v=MZWAjU8fAko</a>                     |

## Indian Institute of Public Health, Bhubaneswar (IIPHB)

Under the leadership of Dr Subhash Salunke, Director – IIPHB and Senior Advisor - PHFI, the Indian Institute of Public Health Bhubaneswar is providing technical and managerial support to Department of Health and Family Welfare, Government of Odisha on all aspects of COVID19. In addition to Odisha, Dr Salunke being the chair and member of various committees providing technical support to Government of Maharashtra and Government of India. Following are the key activities providing support to Government of Odisha

1. IIPHB is one of the 13 member expert group formed during a meeting chaired by Chief Secretary, Government of Odisha. We are giving technical inputs to Government of Odisha on all aspects of COVID19. This group operates through a WhatsApp group, telephone and emails.
2. IIPHB developed and shared a planning tool for containment and mitigation of COVID19 at state and district level.
3. IIPHB developed and shared tentative epidemiological prediction model graphs for future planning of containment and mitigation (shared with only Health Secretary for planning purpose and not for public use to avoid panic).
4. IIPHB shared experiences of Maharashtra for learning and decision making e.g. engaging private sector.
5. IIPHB did advocacy for ensuring safety of health staff and suggested approaches for that.
6. IIPHB is member of training committee for capacity building of medical and paramedical staff of public and private sector including undergraduates through online courses on COVID offered by Government of Odisha. This group operates through a WhatsApp group, telephone and emails.
7. IIPHB will coordinate capacity building of undergraduate nursing students of both public and private sector through online courses offered by Government of Odisha.
8. IIPHB estimated human resource requirement for a proposed 100 bed COVID hospital. Also shared the costing estimates per bed per day.
9. IIPHB is regularly sharing the guidelines of MOHFW, GOI and their update with Government of Odisha
10. IIPHB is analysing epidemiological data on testing and case detection in other states and sharing with Government of Odisha for learning and decision making.

11. In the current academic year, IIPHB has 30 in service doctors as students of Post Graduate Diploma in Public Health Management (PGDPHM) and 14 senior doctors as students of Certificate Course in Public Health Management (CCPHM). In consultation with Government of Odisha, the classes of both the course has been suspended and these officers has been sent back to their original duty stations to work for COVID19 pandemic. The faculties are sharing ground level experiences gained through the network of PGDPHM and CCPHM alumni and students at district and peripheral level and also providing mentoring to these alumni and students.

12. IIPHB is also doing community practice through opinion article on economics and COVID through print media.

13. IIPHB is supporting on any other requests made by Govt of Odisha.

## Indian Institute of Public Health, Hyderabad (IIPHH)

Faculty and Staff at Indian Institute of Public Health – Hyderabad (PHFI) are putting up their untiring efforts in helping the State Government and ESI Medical College Hospital in myriad ways like:

### Engagement with IIHFW-Hyderabad- the following are supported and planned

1. Training and capacity building
  - i. Helping in developing their training material, abridged protocols in forms of Flow charts and SOPs that can be easily disseminated as ready tools.
  - ii. Devising the remote training strategy in the form of short recorded videos and using video conferencing. It is proposed to form a roster of subject experts who shall be available to the health and outreach staff through phone/ dedicated numbers. This is being explored
2. IEC
  - i. We shared the material prepared by PHFI before just placing the material on-site. But it was realised to devise a whole strategy.
  - ii. The immediate requirement was to support them in compiling IEC material and translating already available from MOHFW and WHO-India. Have associated 2 research staff for the same.
3. IIHFW's Requirement for innovative material for special and high risk groups, particularly IEC targeted to rural population in Telugu. This can be jointly developed along with IIHFW.
  - a. Those with co-morbidities any specific considerations
  - b. Elderly
  - c. Disabled, can we also identify hospitals which may be user friendly
  - d. Pregnant and children amidst gaps in routine care
  - e. What shall a person going into facility quarantine expect or prepare for
  - f. Mental health needs of those quarantined. IEC for wards and videos that can be played for them
  - g. What should the family members of those facility quarantined expect and manage
  - h. If in future epidemic explodes, the mild positive cases may be required to stay at homes. Can we plan strategy for slowly sensitising the community without creating panic?

### Engagement with ESI Medical College Hospital:

- 1) Developed the in-house IEC material and collated and shared IEC that was developed by others but have open licenses – Shared with ESI hospital

2) We have also advised them on how to share information on prevention with their patients.

Consultation to State Governments (by Bengaluru Campus)

- Consultation provided to Karnataka State government
- Consultation provided to Andhra Pradesh State government for preparedness
- Consultation being provided to Uttar Pradesh State government
- Dr. Giridhar R Babu-- Member of Epidemiology and surveillance Research group constituted by National Task Force for COVID-19
- Information dissemination through journals and newspaper articles.

## Indian Institute of Public Health, Shillong

The Commissioner & Secretary Health & Family Welfare, Government of Meghalaya (GoM) requested the Indian Institute of Public Health Shillong to provide technical support during the COVID crises to the Dept of Health, GoM. Thus our faculty and research teams have been contributing to the Meghalaya State's COVID preparations. Although there were no cases reported in Meghalaya until 13 April, 2020, the health department had geared up planning and preparation on several fronts including general measures and health system preparedness. IIPH-Shillong faculty and research team members have been supporting the state in data analysis, assessment of health system preparedness, mathematical modelling and projections, research and publication for improving general awareness about COVID -19. Our faculty are also members on state level expert committees and task forces – working group (Ministry of Ayush).

### Activities:

1. **Data analysis:** Our team have been extending support to the States' IDSP team in analyzing data and in assessing significance of higher numbers of fever and or respiratory infections observed in some districts in Meghalaya during the past weeks.
2. **Health system preparedness:** In assessing preparedness of hospitals in the public sector and private sector for COVID preparedness, in preparing checklists and surveys (lead by epidemiologist Badondor Shylla). Some of our MPH students are also helping in the management of the newly established Corona Care Centers.
3. **Mathematical modelling:** We have also developed predictive models for health system planning in collaboration with (lead by Dr Rajiv Sarkar, Asst Professor) in collaboration with researchers from the Indian Statistical Institute and IIT Rourkee. The Dept of Health, GoM has used these figures for their COVID planning and preparations.
4. **Research:** on the request of the Govt we have developed a survey questionnaire on "A cross sectional study to assess knowledge, attitude and practices towards hand hygiene, respiratory etiquette and community quarantine in Meghalaya", however the roll out of the survey was hampered by the lockdown announcement.

### Membership to Expert Committees /Task force/working groups

- a. Prof Sandra Albert is a member of the Working group on Epidemiology Survey and Documentation constituted by the Interdisciplinary AYUSH Research and Development Task Force on Covid-19. Notification No. A.17020/1/2020-E.1 of **Ministry of AYUSH**

- b. Dr Rajiv Sarkar, Badondor Shylla and Uniqueky Mawrie are members of the technical support group of the State response team for COVID-19, GoM
- c. Prof Sandra Albert is a member of the **State Level Medical Expert Committee** constituted by the Govt of Meghalaya

#### Publications on COVID-19:

A series of articles and bulletins on COVID-19 were published in the Shillong Times newspaper, one the oldest and widely read newspapers in the northeast region of India. This was done to improve general awareness, for education and as a means to reduce the general panic that was gripping the populace.