

Mobilizing hospitals to monitor air pollution and communicate the health impacts: The Chennai Pilot



By Shweta Narayan

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In 2017 one of Health Care Without Harm's partner organizations in India initiated an innovative pilot to work with a local hospital to install low-cost air pollution monitors and engage its leaders and staff in the public discourse on air pollution.

The effort, led by our partner, Healthy Energy Initiative India (HEI--a project of Community Environmental Monitoring), was successful by a number of measures. It not only educated staff, patients, and the public on the health impacts of air pollution, but also engaged hospitals and health professionals in the debate on the health impacts of energy choices and the need to transition to clean, renewable energy.

Health Care Without Harm is now working with HEI India and our other core partner in India, the Public Health Foundation of India/Centre for Chronic Disease Control, to adapt and scale this model in at least 15 cities in India and in other countries including South Korea, the Philippines, South Africa, and the United States. The following is our Health Energy Initiative India team leader's account of the Chennai Pilot.

Background

Since 2014, as part of Healthy Energy Initiative India, we have been building our relationship and engagement with Dr. Hisamuddin Papa, a pulmonologist and the lead doctor at Huma Lung Hospital in Chennai, on environmental health, the health impacts of coal, air pollution, and climate change. Before setting up the air pollution monitoring network on the hospitals in Chennai, we engaged with Dr. Papa in a scoping exercise of the various polluted locations in the city to see where to set up the monitoring equipment. The logic behind this approach was that it is not enough for a hospital to set up a monitor on top of its facility and relay that information but also to look at other locations in the city.

The other reason to do this is because the air pollution information is intended as an advisory service to the patients, and many of them do not live near the hospital but visit the facility from other places. In Chennai we mapped out three areas: the North Chennai region, which is the hub for port, coal transport, coal-fired thermal power plants and fly ash ponds; Kodungaiyur, which is the largest dumping ground in the city and is among the neighborhoods with the poorest air quality; and Anna Salai, which is the main and the busiest highway that passes through the city.

The scoping exercise and interaction with the communities, especially with the North Chennai coal plant region, was an eye opener to our team of doctors. Most of them had never stepped out of their clinics to visit the populations they serve. The visit and experience was so dramatic for them that they requested follow up trips to the region for their colleagues. Not only were the pollution levels very high, the community health infrastructure for people who have been severely impacted in the region is abysmally absent.



The Chennai Pilot, implemented with the Huma Lung Foundation, has engaged hospitals and health professionals in the debate on the health impacts of energy choices.

Photo: Health Care Without Harm.

We had five monitors with us, and after the visit we decided that two should be located in the coal plant region. In addition, one monitor was located downwind of the dumping ground, and two on the highway including one on the hospital itself.

Toxic Tours - Planned visits to pollution hotspots in the city

As part of the air monitoring program Dr. Papa invited his colleagues from different specialties (pediatrics, cardiovascular specialists, dermatologists, etc.) to participate in “toxic tours” of the North Chennai coal plant region and to engage in conversations with the impacted communities. This also led to discussions about how the doctors could play a more active role in this region, since this area is part of the city but terribly neglected and highly polluted. We did about five toxic tours for 15 doctors between April to June 2017. We also did one toxic tour of North Chennai with Dr. Peter Orris from Health Care Without Harm when he was in India in 2016, which was [documented in our blog](#).

Health professionals providing expertise in critiquing Environmental Impact Assessments (EIAs) of new coal-fired power plant projects

As doctors in North Chennai became increasingly involved in our air monitoring initiative, we started seeing that these specialists were more accessible and available for communities. When a public hearing was held for a new 660 MW coal-fired plant project in May 2017, three public health specialists spoke to the lack of health impact assessment in the project documents and sought rejection of the project. This was perhaps the first time anywhere in India that health specialists were deposed at an environmental public hearing. The project has been stalled since the hearings, and one of the Environment Ministry’s insiders tells us it was because of the health and air quality arguments we made.

Health study in North Chennai as an outcome of our intervention and toxic tours, resulting in delay of new coal plant

Community members in North Chennai requested a medical camp or temporary clinic given that they were



*View of the Ennore Thermal Power Station.
Photo: Health Care Without Harm*

experiencing severe health impacts because of the fly ash dump in the vicinity and did not have access to any public/ governmental health facilities in the region. The most accessible public hospital was 20 km away from their residence and going there for checkups would mean giving up on their day’s wage. Dr. Papa and his team at Huma Hospital conducted a day-long respiratory health check up in August 2017 in one of the many hamlets around the fly ash ponds in the region. The research findings of the camp were startling, indicating that respiratory illness among residents in this region was three times higher than in the larger population. Dr. Papa gave community members official copies of the report and scans, and the residents used this report to advocate for further detailed health studies before the Environment Ministry grants clearance for the aforementioned 660 MW coal-fired power plant. This also helped to stall the project.

Training media

As part of the hospital air monitoring program and with help from the Global Strategic Communications Council (GSCC), we undertook a half-day media training workshop in January 2018, where we had Dr. Papa from Chennai and Dr. Arvind Kumar, a chest surgeon from Sir Ganga Ram Hospital, New Delhi, interact with lead English and vernacular media reporters on the issue of air pollution and health. The aim of the workshop was to encourage journalists to have a nuanced understanding of air pollution and health impacts.

Clean air champions



A radio jockey clean air champ

Sanobar Sultana

RJ with Fever FM 91.9 Chennai- Sultana, or RJ Sano, as she is known, is the host of The Breakfast Show on Chennai Live, a radio station. The Chennai Live website describes her as a "passionate Chennai-oholic" who dreams of being chased by tube lights.

She has a master's in environmental sciences and was one of the first to start a radio update on AQI for Chennai city with Health Advisories.



The doctor who popularised media alerts

Dr. Hisamuddin Papa

Dr Hisamuddin Papa, started provided free medical services for air pollution affected communities around Chennai along with popularizing the concept of advisories for alerts on AQI with radio, internet and newspapers. He is also the founder of the Huma Lung Foundation.

Dr Papa said he came up with the idea of issuing advisories following a fire accident that broke out in his city. For at least three weeks after the fire, residents complained about severe respiratory discomfort and I kept receiving patients with several asthmatic problems. This was because no health information was provided to them.

Through the media, we hope that citizens will be better prepared to tackle poor air quality days, says the good doctor.

Dr. Papa and RJ Sanobar Sultana are profiled as Clean Air Champions in "Every Breath Counts," an India focused toolkit for concerned citizens to understand the issue and take action for clean air.

It was a very successful training and since then we have been tracking media coverage on our work and environmental health issues in Chennai/ Tamil Nadu. We have seen a marked improvement in understanding and reporting of environmental health issues. We aim to do similar trainings in other cities where we are planning to launch our network.

Air quality updates on local FM radio

Dr Papa's Huma Lung Foundation in Chennai has teamed up with popular local radio station Fever FM 91.9 to provide daily air quality updates. Modeled along the lines of traffic updates, the "Air Check" air quality updates aim to inform citizens about the air quality in their region and associated measures to protect their health in case of poor air quality. The radio station began broadcasting air quality alerts at least six times a day for 45 seconds or more each since December 2017.

Radio is a popular medium that reaches a lot of people (especially the young generation) in the city. Fever's alerts are also shared with its sizable social media following. This first-of-its-kind project is providing air quality and health information from a trusted health care source and assisting the public in relating air pollution to the health and wellness of their loved ones. The radio updates have garnered positive feedback from the public and so much popularity that local businesses are coming forward to sponsor air time for Air Check on the radio.

Official launch and National Green Tribunal-appointed research

All of our preparatory work culminated in the official launch of the Chennai project in January this year, and it got tremendous media coverage. This unique initiative of doctors as monitors and communicators of health through their websites and radio collaboration is exciting and a new concept. One unanticipated outcome was that the National Green Tribunal's Chennai bench (Special Environmental Court at par with the High Courts of India) appointed Dr. Papa as the lead health researcher and assistant to the court on matters regarding pollution from coal fly ash in North Chennai involving over 2500 MW of coal-fired power generation. The court noticed Dr. Papa's community health work in North Chennai and hence he was given this role. So now we have an official spokesperson of Clean Air and Health assisting in legal advocacy work appointed by the state itself.

Leading doctors urge Environment Minister to implement power plant standards to protect health

The project has also allowed us to begin to build a coalition of health leaders around the country who are willing to speak out on air pollution. In August this year, in response to continued delay and dilution of the revised emissions standards for thermal power plants, we organized more than 13 lead pulmonologists and chest physicians from six cities in India, including Dr. Papa, to urge the Environment Minister Dr. Harshvardhan to implement the standards without further delay. In their letter, the doctors noted that power plants are one of the biggest contributors to air pollution in our country, that they're seeing an unprecedented increase in the number of chest diseases and specifically lung cancer—notably in the non-smoker population—and that there are numerous studies linking particulate matter and toxic gases to these ailments.

Next steps

1) Deepening the work in Chennai

We are now working on strengthening our base in Chennai and engaging with the government to set up systems of regular health advisories on air pollution or any other environmental issues in the city. We are also looking at having the government set up a team of medical advisors to assist them in policy decisions at a city and state level.

2) Scaling across India

Together with Health Care Without Harm's other core partner in India, the Public Health Foundation of India and Centre for Chronic Disease Control (PHFI and CCDC), we plan to adapt and scale this model in at least 15 cities across the country. PHFI and CCDC bring to the table capacity for research, their reputation as two of the country's leading health policy think-tanks, and their prominent positions in the Indian and global health communities. PHFI and CCDC are now in the process of developing data visualization tools (such as TV displays at hospitals, mobile apps, etc.) for relaying the real-time air quality information and educating patients, hospital staff, and community members.

Together PHFI, CCDC, HEI, and Health Care Without Harm have established a network of more than 30 health organizations representing 6,000 hospitals and health centers in India called the Health and Environment Leadership Platform (HELP).

HELP serves as the foundation to scale this collaboration. To date the organizations have established low-cost monitoring stations in Kochi, Coimbatore, Korba, and are nearing launch in Rae Bareilly, Dhanbad, Gangtok, Guntur, and Kolhapur, while developing plans through our hospitals network in Bangalore, Chandigarh, Raipur, and Mumbai. To achieve this scale-up, we are developing a systematic approach for communications, technology, and policy advocacy across all cities.



Shweta Narayan is an environmental health researcher working with grassroots communities in helping understand the environmental and social impacts of energy choices. She coordinates Health Care Without Harm's Healthy Energy Initiative program in India. As part of the program she works with health professionals in developing policies on environmental health in India, and assists with the development of climate resilient and climate smart health system policies in Indian states.

Leading pulmonologists ask Env Min to implement emission standards for coal plants

Press Trust of India | New Delhi
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The doctors from Delhi, Mumbai, Chennai, Hyderabad, [Coimbatore](#) and [Bangalore](#) wrote a letter to [Environment](#) Minister Harsh Vardhan, asking him to implement the emission norms proposed by the ministry as soon as possible.

We are also replicating successful strategies from one place to another. Our health arguments on environmental impact assessments and public hearings are being widely replicated around the country, and the demand for health impact assessments in industrial or mining projects is progressively gaining traction. We also hope to use the lessons and success from our Chennai hospital air monitoring project in other cities.

3. Scaling in other countries

Over the coming year, we'll be assisting our Health Care Without Harm colleagues in other countries to apply the lessons learned from our Chennai pilot to scale the project internationally—in places like South Korea, the Philippines, South Africa, and the United States. Health Care Without Harm is working in large cities and urban areas in all of these countries, where the population faces urgent air pollution challenges arising from coal-fired power plants, industrial facilities, and/or vehicle transport.