Research Focal Areas of the Department

Air pollution and health effects in rural and urban populations of rapidly developing countries

Populations in rapidly developing countries face an enormous health burden from air pollution on account of high and often extreme exposures to emissions from a variety of sources in the household, ambient and occupational environments. The EHE team has led largescale exposure measurement exercises across multiple states in India as well as assisted in scoping exposure assessment methods in many Asian countries to specifically address the heterogeneity and complexity of air pollution exposure profiles, experienced by both rural and urban populations. Collectively, these studies have generated an expansive base of knowledge on exposure informing both regional and global efforts to estimate the health effects of air pollution and disease burdens. They have also informed the intervention efforts related to household air pollution from cook-fuels in rural communities.

Assessing neuro-behavioral impacts of lead in children in India

Despite the phasing out of leaded gasoline in the late 1990s, exposures to lead continue to pose health risks for children in India. The EHE team has been involved in a long-term collaboration with investigators at Harvard University to profile the exposures in children as well as assess associated neuro-behavioural impacts and the role of gene-polymorphisms in effect modification. These studies provide some of the first continuous exposureresponse relationships for lead and neuro-behaviour in India.

Climate change, heat stress and worker productivity

Occupational heat stress is rapidly becoming a major concern for worker productivity in the face of climate change. The EHE team is mapping vulnerabilities for impacts of heat stress on workers across multiple industrial sectors.

Developing academic and research infrastructure for environmental and occupational health in India

The department has been involved with a network of more than 50 national and international organizations for research and training collaborations, the most notable amongst them being the collaboration with UC Berkeley under support from the ITREOH program of The Fogarty International Center and the International Integrated Experts Program of the GTZ. The department also provides routine occupational safety and health consultancy services to a wide spectrum of industries.

Need for Public Health Professionals

There is an imminent need for developing and implementing public health policies and programs in the face of emerging health transition in order to manage

- new communicable diseases (like the current COVID-19 pandemic), as well as
- increasing incidence of non-communicable diseases (WHO estimate – Deaths due to non-communicable diseases such as air pollution amount to as much as 8.2 million).
- Moreover, the World Health Organization (Calcutta Declaration) has also emphasized the need for Public Health training.
- Government of India has highlighted that a large number of specialists should be trained in Public Health (National Health Policy, 2002).
- There is a growing demand for professionals with sound scientific knowledge and skills in the service of public health.

Facilities and Research Activities of the Department



CONTACT INFORMATION Dept. of Environmental Health Engineering, Faculty of Public Health, SRI RAMACHANDRA INSTITUTE OF HIGHER EDUCATION AND RESEARCH (Deemed to be University), Porur, Chennai – 600 116, Tamil Nadu, India. Email: hod.ehe@sriramachandra.edu.in Mobile: 9941005560 <u>For further details</u> www.srmc-ehe.org.in or www.sriramachandra.edu.in



Bachelor of Science in Public Health (Full time – 3 Years)

Department of Environmental Health Engineering,

SRI RAMACHANDRA Faculty of Public Health

A World Health Organization Collaborating Center for Occupational and Environmental Health & SRU-ICMR Center for Advanced Research on Air Quality, Climate and Health



About SRIHER

Sri Ramachandra Institute of Higher Education and Research (**Deemed to be University**) was established by Sri Ramachandra Educational and Health Trust in the year 1985 as a private not-forprofit self-financing institution and dedicated to serve the society as a centre of excellence with emphasis on medical education, research and healthcare. Over three decades, the institute has transformed into a full-fledged Deemed to be University with 11 Constituent Colleges offering 114 UG and PG programs in healthcare sciences. The university is spread over 150 acres, with a refreshingly-green campus. The university is awarded with several national and internaltional accreditations, few of which are below.

- Graded by UGC as **Category I University in June 2018** for maintaining consistently high academic standards, among the 11 deemed Universities that have been granted such status in the whole of India.
- Accredited by NAAC (Cycle-2) with "A" Grade (with CGPA of 3.62 on a 4-point scale)
- The University has achieved the distinction of being placed at the 28th rank among all Universities in India by the MHRD NIRF Ranking 2020
- **Ranked 3rd among category** of Technical Institutions by **MHRD SWACHHTA RANKING 2017** of Higher Educational Institutions for maintaining a clean, hygienic and green campus.

FACULTY OF PUBLIC HEALTH



WHO Global Network of CCs in Occupational Health www.who.int/occupational health

The Department of Environmental Health Engineering, Faculty of public Health, Sri Ramachandra Institute of Higher Education and Research (Deemed to be University) was set up, as a part of the Basic Science Research Wing of the University in 1998 with the aid of financial assistance provided by the United Nations Industrial Development Organization (UNIDO). The department originally set up to provide occupational safety and industrial hygiene monitoring services to the leather/tanning industry in Tamil Nadu, has since then expanded to include acadamic, research and training in this area.

 The Department serves as a World Health Organisation Collaborating Center. Being one of only 3 such centers in the South East Asia region, it is a leading contributor to research and training in recognition, evaluation and management of environmental and occupational health risks.

- The department is recognised as a Center For Advanced Research for Research on Air Quality, Climate and Health by the Indian Council of Medical Research, Govt. of India.
- The main emphases of our research programs include air pollution and health risk assessments, occupational hygiene and health, and policies related to environmental health with implications related to the general public.
- With more than 2 decades of experience in global environmental health research, students can expect to receive world class training within and outside the classroom that will include opportunities for service in the areas of public health.
- The faculty collaboration spans across more than 50 national and international institutions.

The B.Sc. Public Health Program

- The duration of **B.Sc. Public Health program** shall be THREE academic years comprising of six semesters.
- The program
- o introduces the student to the concepts of public health
- orients on the basics of medical sciences, psychology. social sciences and toxicology
- explores the key areas of water, sanitation and environmental pollution
- emphasizes the importance of public health nutrition, and prevention of communicable & non-communicable diseases
- o focuses on public health needs of special groups
- trains in communication skills, health education & communication, health administration & promotion, health economics & informatics
- imparts the basic knowledge on public health ethics & law and policy, and basic training on food safety and quality control
- prepares for conducting public health research and managing projects

Field Practicum

• The program provides extensive practical/field experience in public health practice, with a dedicated & comprehensive coverage across 3 semesters

Program Eligibility

HSC/CBSE/ISC or equivalent examination

In any stream

Eligibility for Higher Studies

After successful completion of their under graduation, these students can pursue higher studies in the areas of

- Public Health
 - o MPH (All Streams)
- Social Sciences
 - o MSW
 - o M.Sc. Sociology
- Health Administration
 - o MBA

Career/ Placement Opportunities

- Colleges and Universities
 - Higher Studies/Research Project Assistant
- Laboratories
 - Technician/Analyst in Food quality Testing
- Research and Development & NGOs
 - Project Supervisor/ Field Coordinator, Social Worker
- Community Development Blocks
 - Public Health Manager
- Corporations/Municipalaties
 - Health Inspector*, Food Inspector^
- Health Department
- Health promotion staff
- * An additional course might have to be completed (as per regional requirement)
- A qualifying exam has to be cleared

Course Fee

The tuition fee per academic year is Rs. 75,000/-

Admission

Advertisement for admission will be published in leading Newspapers as well as in the University Website during the month of April, and the classes will commence usually from **June-July** of the academic year.