

# 16<sup>th</sup> Annual Report

2019-2020

## Healis Sekhsaria Institute for Public Health



A non-profit organization dedicated for improving public health in India and other low middle income countries.

Public Health | Research | Community Development

## ***Message from the Directors***

*Dear Friends,*

*It is our great honour to share with you the Healix Annual Report 2019-20. This report comes to you with pride, as it is a compilation of our major accomplishments and our experiences from the past financial year Healix has completed fifteen years. Institute vision is to advance public health through innovative science and evidence based research recommendation. To accomplish its vision, this year Healix has 5 projects in ongoing stage and 2 in data analysis phase and 3 are completed project. In addition to research, during this year, Healix has produced about 17 research publications in peer reviewed international journals.*

*Thank you all for your continued support on our journey!*

***Sincerely,***

***Dr. Prakash C. Gupta***



***Dr. Mangesh S. Pednekar***



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## About Healis



Healis Sekhsaria Institute for Public Health is a Non-profit Organization that aims to advance public health in India by undertaking timely high quality population based epidemiological research since 2004. Since its inception the organization is committed to improving the public health in India and in other LMIC countries addressing important public health questions and facilitating and guiding the translation of research findings into policies/programs at national level. It is among the few institutes that are solely dedicated to public health research in India.

The Institute was registered on April 29, 2005 under section 25 of the Companies Act, 1956 [corresponding to section 8 of the Companies Act, 2013 ('the Act')] as a company limited by guarantee and not having a share capital. The Institute is registered under section 12A of the Income Tax Act, 1961 vide Registration No. 39490 dated July 25, 2005.

### ***Healis Vision***

Advancing public health through innovative science and evidence-based research.

### ***Goals and Objectives***

- ✦ To undertake timely, quality, and population-based epidemiological research that addresses important public health issues.
- ✦ To facilitate the translation of research findings into policies and programs at national and international levels



## About Healix

Healis works in collaboration with leading National and International Health and Research organizations. Healix is operating from the premises of its own situated at MIDC, Mahape, Navi Mumbai since January 2015.

### ***Registrations & Recognitions***

Institutional Ethics Committee (IEC) is registered with National Institutes of Health and has Federal Wide Assurance (FWA).

Healis recognition as a Scientific and Industrial Research and Development Organization (SIRO) by Department of Science and Technology, Ministry of Science and Technology. For CSR recognition, Healix is also empanelled with the Tata Institute of Social Sciences CSR Hub and Guide Star India.

### **Donation**

Healis is registered U/S.80-G(5)(i)(a). Also have Permanent Registration of FCRA Act 1976 since April' 2009 vide registration No.083781138

## Abbreviations

ACC	Asia Cohort Consortium
ACTREC	Advanced Centre for Treatment, Research and Education in Cancer
ASPH	Arnold School of Public Health
CDC	Centers for Disease Control and Prevention, USA
CFI	Cancer Foundation of India
CGHR	Center for Global Health Research
COTPA	Cigarettes and Other Tobacco Products Act, 2003
CTFK	Campaign for Tobacco Free Kids
DFCI	Dana Farber Cancer Institute, Boston, USA
DGHS	Directorate General of Health Services
FDA	Food and Drug Administration
FSSA	Food Safety and Standard Act
FWA	Federal Wide Assurance
GATS	Global Adult Tobacco Survey
GBD	Global Burden of Disease
GOI	Government of India
GSPS	Global School Personnel Survey
GTSS	Global Tobacco Surveillance System
GYTS	Global Youth Tobacco Survey
HSPH	Harvard School of Public Health
IARC	International Agency for Research on Cancer
ICMR	Indian Council of Medical Research
IRB	Institutional Review Board
ITC	International Tobacco Control Project
IUATLD	International Union Against Tuberculosis and Lung Disease



## Abbreviations



<b>MCGM</b>	<b>Municipal Corporation of Greater Mumbai</b>
<b>MLA</b>	<b>Member of Legislative Assembly</b>
<b>MMC</b>	<b>Mumbai Municipal Corporation</b>
<b>MOHFW</b>	<b>Ministry of Health and Family Welfare</b>
<b>TCP</b>	<b>(International) Tobacco Control Project, India</b>
<b>TIFR</b>	<b>Tata Institute of Fundamental Research</b>
<b>TMH</b>	<b>Tata Memorial Hospital</b>
<b>VoTV</b>	<b>Voice of Tobacco Victims</b>
<b>WHO, India</b>	<b>World Health Organization, India Office</b>
<b>WHOSEARO</b>	<b>World Health Organization, South-East Asia</b>
<b>MP-VHAI</b>	<b>Madhya Pradesh Voluntary Health Association</b>
<b>MWTCS Mumbai</b>	<b>Worksite Tobacco Control Study</b>
<b>NCD</b>	<b>Non Communicable Disease</b>
<b>NCI</b>	<b>National Cancer Institute, USA</b>
<b>NGO</b>	<b>Non Governmental Organization</b>
<b>NIH</b>	<b>National Institutes of Health, USA</b>
<b>NSF</b>	<b>Narotam Sekhsaria Foundation</b>
<b>PHFI</b>	<b>Public Health Foundation of India</b>
<b>SBF</b>	<b>Salaam Bombay Foundation</b>
<b>SEAR</b>	<b>South-East Asian Region (of the WHO)</b>
<b>LMIC</b>	<b>Low Middle Income Countries</b>



## Healis Board of Directors

### ***Dr. Prakash C. Gupta***

**Dr. Prakash C. Gupta** is the Director of Healis. He is also an Adjunct Professor, at the Department of Epidemiology and Biostatistics, Arnold School of Public Health, University of South Carolina, USA and Visiting Scientist at the Harvard University, USA. He is a recipient of Luther Terry Award from the American Cancer Society for Exemplary Leadership in Tobacco Control in the category of Outstanding Research Contribution.

### ***Dr. Mangesh S. Pednekar***

**Dr. Mangesh S. Pednekar** is Director of Healis. He is also a visiting Scientist at the Department of Society, Human Development, and Health, Harvard School of Public Health, USA and Visiting Faculty, Tata Institute of Social Science, Mumbai, India. He is also a panel evaluation member of S. P. Jain Institute of Management and Research, Mumbai and guest lecturer at K J Somaiya Institute of Management, Mumbai.



## Healis Board

### ***Prof. P. V. S. Rao***

**Prof. Rao** is past President of the Bombay Association for the Science Education, past President and Fellow of the Computer Society of India, Distinguished Fellow of the Institute of Electronics and Telecommunication Engineers, Fellow of the Indian Academy of Sciences, the Indian National Science Academy, Indian National. He is recipient of the Padma Shri (1987) from the President of India, the Om Prakash Bhasin Award (Electronics and Telecommunications 1987), the VASVIK (1987) awards [Electrical and Electronics (combined) for 1985] and the Vikram Sarabhai Research Award (1976).





## Institutional Ethics Committee

Healis Institutional Ethics Committee (IEC) consists of 12 members, out of which nine are external members and three are from Healis. The committee is multidisciplinary and multi-sectoral in composition as per NIH and ICMR guidelines and maintains gender equity. This body has two functions, one is to assess the compliance of the research proposals with the protection of human subjects' guidelines and the other is to assess the scientific value of the studies.

The Chairperson of the Committee, a basic medical scientist, with many years of scientific experience, is from outside the Institution so that the independence of the Committee is maintained. Other members are a mix of medical / non-medical, scientific and non-scientific persons including a housewife to reflect differing viewpoints. The Committee is highly qualified, through the experience and expertise of its members, and the diversity of its member backgrounds, to foster respect for its advice and counsel in safeguarding the rights and welfare of human subjects in research.



# Institutional Ethics Committee

## List of Members during 2019-2020

1. *Dr. Daniel Joseph, Chairman, Professor, MUHS*
2. *Dr. Pankaj Chaturvedi, Oncosurgeon, TMH*
3. *Dr. Prakash C. Gupta, Epidemiologist, Healix*
4. *Dr. Mangesh S Pednekar, Epidemiologist, Healix*
5. *Ms. Farida Poonawala Tata, Advocate*
6. *Ms. Cecily Ray, Epidemiologist, Healix*
7. *Ms. Manorama Agarwal, Housewife*
8. *Ms. Tshering Bhutia, Social Scientist, SBF*
9. *Dr. Rajendra Agarkar Medical Scientist*
10. *Dr. Sabita M. Ram, Dentist, Dean, MGM*
11. *Dr. Sharmila Pimple, Professor, TMH*
12. *Dr. Raju Jotkar, Medical Scientist*



## International Collaborators



Healis work is carried out in collaboration with leading national and international organizations leading to publications in peer-reviewed journals and resulting in key policy level actions to improve public health, epidemiological research, tobacco control and dissemination and capacity building.

### April 2019- March 2020

1. Harvard School of Public Health Boston, DFCI , USA
2. Arnold school of Public Health, University of south Carolina, USA
3. University of Waterloo, Canada
4. University of Michigan (UM)
5. University of Minnesota Cancer Center, USA
6. Center for Global Health Research, University of Toronto, Canada
7. Campaign for Tobacco Free Kids, USA
8. American Cancer Society, Atlanta, USA
9. National Cancer Institute, Bethesda, Maryland, USA



## International Collaborators

10. Centers For Disease Control and Prevention, CDC Atlanta, USA
11. Roswell Park Cancer Institute USA
12. International Union Against Tuberculosis and Lung Disease (The Union)
13. Tobacco Free Initiative, WHO, Geneva, Switzerland
14. International Agency for Research on cancer, Lyon, France
15. Bloomberg School of Public Health, Johns Hopkins University, USA
16. University of Toronto, Canada
17. WHO, SEARO, New Delhi, India
18. World Lung Foundation, USA
19. Institute for Community Research Hartford, CT.



# National Collaborators



April 2019- March 2020

1. Ministry of Health and Family Welfare, Government of India
2. Indian Council of Medical Research
3. Office of Registrar General of India.
4. The Government of Maharashtra
5. Tata Memorial Hospital (TMH)
6. Advanced Center for Treatment, Research and Education in Cancer, (ACTREC)Navi Mumbai
7. Action Council against Tobacco – India (ACT- India)
8. Municipal Corporation of Greater Mumbai, Mumbai
9. Narotam Sekhsaria Foundation (NSF)
10. Salaam Bombay Foundation (SBF)
11. Voluntary Health Association of India (MP)

## National Collaborators

12. [Hriday, New Delhi](#)
13. [National Cancer Registry Programme \(ICMR\)](#)
14. [Mumbai Cancer Registry, Mumbai](#)
15. [Birla Institute of Science and Technology](#)
16. [Vital Strategies, India](#)



## **Recent Collaborations**

- **Recognition of Healix as training institute affiliated with 'WHO Collaboration Centre for Research in Surgical Care Delivery in LMICs**
- **Established Collaboration MIT World Peace University, Pune**



# Project Updates

## Project in Ongoing stage

### 1. Longitudinal Study of Adolescent Tobacco Use and Tobacco Control Policy in India (IPACTS)

#### **Background:**

Study of Community Tobacco Environmental Factors and Adolescent Tobacco Use: Mumbai Student Tobacco Survey. Cross sectional study conducted in Mumbai using population based survey of students and GIS data collection of schools, tobacco vendors and advertisements.

Provides foundation for research as students reported high exposure to tobacco advertisements, and half of the tobacco users reported obtaining tobacco from vendors

**Type of Study:** Cohort study

**Project Timeline:** August 2016- December 2021

**Research Design:** The research will be conducted in two geographically dispersed Indian cities Mumbai and Kolkata to reflect the diversity in tobacco use, tobacco control policy implementation, socioeconomic status and cultural factors. The main aim of this study is to prospectively measure Community Tobacco Environmental (CTE) factors (i.e., objective assessments of community level compliance with tobacco control laws, availability of all forms of tobacco products including gutkha and e- cigarettes, and the presence of tobacco vendors and advertisements). Also, to study the CTE factor is longitudinally associated with adolescent tobacco use initiation and trajectories. This study will contribute substantially to research on tobacco control policy implementation and the influence of policies on adolescent tobacco use, a behavioral cancer risk of immense concern globally.

**Expected Outcome and measure:**

To identify the social determinants of tobacco, use that include the analysis of policy, community and family factors and the GIS data on the location of tobacco vendors and POS policy compliance

- **Current Updates:** We have worked on finalization of all the survey tools of the Wave 2 for the project.
- The audios for Open Data Kit module are also recorded for Marathi, Bengali, Hindi and English languages.
- Pilot testing for new questions added in the questionnaire for Wave 2 was done.
- Testing for new module that is -ODK module was also performed and found to be effective in field settings.

#### **Training and Data collection updates:**

- We conducted training in Mumbai from Aug 08-12, 2019 and in Kolkata from Oct 16-20, 2020
- In Mumbai and Kolkata we have started the data collection for Wave 2 on Sep 28, 2019 and Oct 23, 2019 respectively.
- We are able to follow-up the following eligible adolescent and their main caregiver from both studies:

Data collection update till Feb 29, 2020:

City	2 <sup>nd</sup> Follow- up completed	Overall Sample
Mumbai	830	944
Kolkata	906	1038

#### **Community Tobacco Environment mapping update:**

- We have conducted random check in 8 IVs in both cities. The status of completion is depicted below:

City	Status
Mumbai	Completed in 8 IVs out of 26 IVS
Kolkata	Completed in 8 IVs out of 26 IVS

- Compliance observation checks has also been completed for both the cities.

#### **Booster Training update:**

- We have conducted one day booster training in Mumbai on Feb 17, 2020 and in Kolkata on Feb 25, 2020 for all the field investigators.

## **2. Disseminating an evidence-based tobacco control intervention for School Teachers in India**

### **Background:**

Dissemination of tobacco control intervention program implemented through Bihar School Teachers Survey (BSTS): *“Tobacco Free Teachers- Tobacco Free Society”*, Tested in Bihar and pilot tested in Mumbai schools, Plan to disseminate in the state of Bihar.

**Type of Study:** Intervention Dissemination

**Project Timeline:** December 2016- November 2021

**Research design:** Determine the feasibility of building the capacity of cluster coordinators to train and support principals in program implementation and maintenance in schools, and for the DoE to

sustain the program. Determine the direct financial costs of program implementation and maintenance.

#### **Expected outcome and measures**

Demonstration of the feasibility of implementation and the effectiveness of the TFT-TFS program within the infrastructure of the Bihar DoE. To better understand the implementation process and to identify factors that need to be taken into account as evidence-based interventions are taken to scale.

#### **Current update:**

- We are currently in the project maintenance phase in the three intervention blocks of Asthawan in Nalanda District, Kurhani in Muzaffarpur district and Sarairanjan in Samastipur district; and in the delayed intervention phase in the three blocks of Hilsa in Nalanda district, Minapur in Muzaffarpur district and Singhia in Samastipur district. We have completed 1 comprehensive training in delayed intervention blocks and 1 refresher training in intervention blocks.
- Boston team visit completed in Jan, 2020 where focus group discussions were conducted with representatives from all the 6 blocks to understand project implementation in the respective blocks within this academic year.
- We are now working towards sustaining the program within the educational infrastructure in Bihar and towards the Dissemination workshop to be conducted in Jan 2021.



### **3. Tobacco Control Policy Evaluation India Project (TCP) Wave 3**

#### **Background:**

The International Tobacco Control (ITC) Project is a multi-country prospective cohort study designed to measure the psychosocial and behavioral impact of key policies of the World Health Organization (WHO) Framework Convention on Tobacco Control (FCTC).

To evaluate the effect of the FCTC, the ITC Project is conducting parallel prospective cohort surveys with adult smokers in 21 other countries— Canada, United States, Australia, United Kingdom, Ireland, Thailand, Malaysia, South Korea, China, New Zealand, Mexico, Uruguay, Germany, France, the Netherlands, Brazil, Bangladesh, Mauritius, Bhutan, Kenya, and Zambia. Half of the ITC countries represent high income countries and the other half low- and middle-income countries.

As a part of the ITC project, the Tobacco Control Policy (TCP) India Survey is being conducted by Healix-Sekhsaria Institute for Public Health in India in collaboration with the University of Waterloo in Canada and the Roswell Park Cancer Institute, USA.

**Type of Study:** cohort Study

**Project Timeline:** Feb 2017- Oct 2019

**Objective:** The broad objective of TCP India Project is to evaluate and understand the impact of tobacco control policies of the Framework Convention on Tobacco Control (FCTC) as they are implemented in low and middle income countries (LMICs) participating in the International Tobacco Control Policy Evaluation Project (the ITC Project).

The objectives of the TCP India Survey are:

- To examine the change in prevalence and tobacco use behavior in India.
- To examine the impact of specific tobacco control policies implemented in India during the next 5 years.

- To compare smoking behavior and the impact of policies between India and other ITC countries.

#### **Current Status:**

- *Data collection update in all four states:*
- *We have completed data collection in four states – Bihar, Madhya Pradesh and Maharashtra and West Bengal.*
- *The final count till date:*

State	Tobacco User	Tobacco Non User	Total
Bihar	2013	604	2617
Madhya Pradesh	2010	604	2614
West Bengal	2017	615	2632
Maharashtra	2021	602	2623

- Error rectification for all states is completed.
- Finalization of data base for states is in process.

#### **4. Measurement of the effectiveness of a worksite multi-component canteen and behavioural intervention on cardio metabolic risks in India.**

**Rational:** CVD is the leading cause of morbidity, mortality, and disability in South Asia, where 20% of the world's population resides. Asian Indians have high rates of diabetes, prediabetes and cardio metabolic risk factors which is also affecting India acutely. There is

robust evidence that lifestyle change, particularly weight loss, increasing physical activity, and improving diet quality can prevent or delay diabetes and reduce cardio metabolic risk factors such as elevated glucose, plasma lipids, and blood pressure. Use of lifestyle intervention to prevent hypertension and diabetes and to improve glucose tolerance, their translation in real world settings has been challenging. Worksite-based health interventions have shown positive impacts on employees and worksites. However, the range and scope of the interventions adopted will largely depend on the feasibility and acceptability of the interventions and the ease of the implementation at each worksite, based on resources available and the support thereof.

**Research Objective:**

AIM 1. To facilitate the adaption and implementation of an existing evidence-based

canteen intervention to increase healthy eating habits at a worksite canteen environment.

AIM 2. To measure the effectiveness of a multi-component worksite intervention to reduce Cardio-metabolic risk.

Type of Study: Behavioral Qualitative cohort study

**Project Timeline:** June 2019- March 2022

**Expected Outcome:**

The primary outcome will be the proportion of individuals reaching two or more of their cardio-metabolic risk goals, namely reductions in blood pressure, triglycerides, and HbA1c. Participants will be scored on the number of risk factors they improve (0-3) as defined by decreases in (1) HbA1c  $\geq 0.5\%$ ; (2) systolic blood pressure  $\geq 5$  mm Hg; or plasma triglycerides  $\geq 10$  mg/dl.

These outcomes were selected because blood pressure, HbA1c, and triglycerides are commonly measured in clinical settings, which makes their use clinically-appropriate and translatable, and because

other CVD risk scores, for example the Framingham Risk Score, do not perform well in South Asian populations. Moreover, the composite outcome allows for individuals to reduce different factors based on their variable risk profiles at baseline

**Current Updates:**

- The MoU has been signed for the project.
- Visited the Work site in Nepal in the month of November.



- A worksite (Manufacturing Unit based in Chinchwad, Pune) is finalised, MoU is signed and the activity to collect the information (employee data, medical records, organization chart, shift rotation information) started.
- Developed the study related instruments in 3 languages (Marathi, English and Hindi)
- The instruments such as Body fat analyser, blood pressure monitor are been procured.
- Quotes are invited from the various pathological Labs and in the stage of finalization.
- Preliminary employee health data is received from the company. Analysis for the same is ongoing.



## 5. Analytical capacity building for the study of tobacco carcinogen exposures in India

**Research Design:** The goal of our proposal is to investigate the relationship between carcinogen content in smokeless tobacco (SLT) products and relevant exposures as well as oral/head and neck cancer (OHNC) risk in users of these products, while concurrently building capacity for a sustainable tobacco carcinogenesis research program in India. We will focus on the tobacco-specific nitrosamines N'-nitrosonornicotine (NNN) and 4(methylnitrosamino)-1- (3-pyridyl)- 1-butanone (NNK).

**Type of Study:** cohort Study

**Project Timeline:** July 2017- July 2022

### **Research Objectives:**

- (i) To determine the variation of NNN and NNK in SLT products currently available in Mumbai.
- (ii) To examine the relationship between NNN and NNK levels in SLT products and the levels of corresponding biomarkers in users of these products.
- (iii) To compare levels of urinary NNN and NNK biomarkers between SLT users with and without OHNC.

**Rationale:** (including that for undertaking human subject research in the light of existing knowledge): Indians develop oral/head and neck cancers (OHNC, includes oral cavity, lip, pharynx) at the very high rate of 20 cases per 100,000 per year; this results in an estimated 70,000 deaths per year, making India the worldwide epicenter of OHNC mortality. Therefore, India serves as a unique setting for such studies and more importantly, it is an area of critical need. This study will incorporate capacity building activities that include the development of analytical laboratory resources, training of young investigators from Mumbai in tobacco research

and relevant procedures, and establishment of tobacco product and bio specimen repositories for future research.

**Subject Recruitment Procedures:** The recruitment for Aims 2 and 3 will be carried out in a combined effort at TMH. For Aim 2, the 300 cancer-free SLT users will be recruited among persons accompanying cancer patients to the clinic. We anticipate recruiting at least 100 such SLT users per year. Since OHNC patients in Aim 3 will be included independent of the type of SLT product they use, their recruitment will start in Year 1. Enroll 40-50 patients per year is expected.

**Updates:**

- Healix is primarily working on
  - devising Standard Operating Procedures for tobacco product purchase, building a tobacco product repository and catalogue and
  - Creating a web portal for capacity building which will include tobacco product database, transdisciplinary tobacco research training, and peer reviewed publications, among others.
  - Finalizing tobacco use questionnaire to accurately assess the status and the patterns of smokeless tobacco use for each patient enrolled for the study.
- Successfully completed purchase of about 325 tobacco product samples for Aim 1 in 5 markets in and around Mumbai. Product labelling with creating a tobacco product master file completed.
- UMN team visit completed in Nov 2019 to discuss post Aim 1 completion, dissemination of study materials through web portal and webinars.

- Currently in the process of transferring patient product samples from TMH to Healix and from Healix to ACTREC for data analysis.
- Purchase of representative tobacco products from different states in India for repository is also in progress.
- Additionally, we are in process for creating a web portal to be hosted by Healix, which will display all necessary project information.

## **Project with ongoing data analysis**

### **6. Asia Cohort Consortium Projects**

#### **Background:**

The Asia Cohort Consortium (ACC) is a collaborative effort seeking to understand the relationship between genetics, environmental exposures, and the etiology of disease through the establishment of a cohort of at least one million healthy people around the world. The countries involved include China, India, Japan, Korea, Malaysia, Singapore, Taiwan, the United States, and few others. The Investigators from these countries meet on a biannual basis to report on the progress of each country's cohort, to discuss issues relevant to the development of common protocol guidelines, and to prepare for collaborative projects.

The collaboration involves seeking partners among existing cohorts across Asia to facilitate the exploration of specific research questions that need specific answers. Mumbai Cohort study data is a part of this Consortium. The study on BMI was completed and a paper has been published on relationship between body mass index and pancreatic cancer-No significant association was found.

**Current Progress:**

Data analysis is going on.

**7. Mumbai Cohort Study (MCS)-2nd Follow Up****Background:**

The Mumbai Cohort Study is a prospective cohort study following around 1, 48,000 individuals from Mumbai. The study has been conducted in two phases with phase one following 100,000 individuals, both men and women, and phase two following 48,000 men. By 2008, two follow-ups were completed for phase one individuals. For phase two, the first follow-up was completed in 2003 and the second follow-up for 48,000 individuals is currently in process of being completed.

**Objectives:**

The objective of this study is to study mortality associated with tobacco and alcohol use.

**Current Progress:**

Data analysis is going on.

## Completed Projects

### **8. Mumbai Worksite Tobacco Control Study**

#### **Background:**

This is a five years' randomized control trial aimed at testing and developing a tobacco control intervention suitable and effective in the context of Indian worksites. It is being conducted at 20 manufacturing worksites in the Mumbai, Thane and Raigad districts in Maharashtra, India. Dana Farber Cancer Institute, Harvard School of Public Health (United States of America) is the collaborator for this project.

#### **Objectives:**

To assess the efficacy of the comprehensive tobacco control intervention in terms of two outcomes:

- increased cessation of tobacco use among workers (primary outcome) and
- increased adoption and enforcement of worksite tobacco control policies (secondary outcome)

To meet these objectives, 20 participating worksites were randomly allocated to two groups of 10 worksites each: i) group receiving active intervention or Program A (including 6 health education events) and ii) group receiving alternative intervention or Program B (including one health education event unrelated to tobacco and the health communication material). Pre and post intervention surveys were conducted in each of the 20 worksites. Worksites in the program B group additionally receive one tobacco related health education event immediately after completion of the post intervention survey.

#### **Current Progress:**

Data analysis is going on.

## **9. Role of Genetic and Dietary Factors in Breast Cancer Risk: Study of a Population in Demographic Transition**

### **Background:**

This is a case-control study on 500 breast cancer study cases and 500 controls in Mumbai with the triparty collaboration between Arnold School of public Health, Tata Memorial Hospital and Healix – Sekhsaria Institute for Public Health.

### **Objectives:**

- Genotype 500 cases and 500 controls for 19 candidate single nucleotide polymorphisms (SNPs) association with inflammation, carcinogen metabolism and cell cycle/ DNA repair pathways
- Perform a case-control analysis to test the hypothesis that candidate SNPs are associated with increased BcCA risk and that subjects with both poor (pro-inflammatory, high-fat) diets and candidate risk genotypes have even greater BrCA risks compared to subjects without a risk allele and with more healthy diets.

**Current Update:** Data collection completed now analysis is going on.

## **10. Analysis of Karunagapally cohort data**

### **Background:**

Karunagapally cohort study was planned to establish a cohort of the entire residents in Karunagapally taluk in order to examine the risk of cancer. All household (n=71674) in Karunagapally taluk were surveyed using six page standardized questionnaire, starting from January 1, 1990 and ending on December 31, 1990. Healix has collaborated with RCC, Kerala to analyse the cohort data.

### **Objective:**

The objective of the study is to estimate all cause and cause specific mortality by analysing the cohort data.

**Current Status:**

Data analysis is going on and paper” Tobacco associated mortality in Kerala Karunagapally Cohort data” is under finalization.



## **Publications (April 2019-2020)**

1. Yang JJ....Gupta PC et al. Tobacco Smoking and Mortality in Asia A Pooled Meta-analysis JAMA Network Open. 2019;2(3):e191474.  
doi:10.1001/jamanetworkopen.2019.1474.
2. Mehrotra R....Gupta PC et al. Smokeless tobacco control in 180 countries across the globe: call to action for full implementation of WHO FCTC measures. Lancet Oncol 2019; 20: e208–17.
3. Yang JJ ...Gupta PC et al. Association of Diabetes with All-Cause and Cause-Specific Mortality in Asia A Pooled Analysis of More Than 1 Million Participants. JAMA Network Open 2019;2(4):e192696.  
doi:10.1001/jamanetworkopen.2019.2696.
4. Report on implementation of who framework convention on tobacco control (fctc) article 5.3-TOBACCO INDUSTRY INTERFERENCE INDEX. This report has been developed by HRIDAY New Delhi, in collaboration with the review committee consisting of four leading Civil Society Organisations (CSOs) in India: Healis Sekhsaria Institute for Public Health, Mumbai; International Union Against Tuberculosis and Lung Disease – India; Institute of Public Health, Bengaluru, and Mary Anne Charity Trust, Chennai. Sep 2018.
5. Abdulkader RW...Gupta PC. Trends in tobacco consumption in India 1987–2016: impact of the World Health Organization Framework Convention on Tobacco Control. International Journal of Public Health <https://doi.org/10.1007/s00038-019-01252>.



6. Nori-Sarma A, Benmarhnia T, Rajiva A, ....Pednekar MS, Gupta PC et al. Advancing our Understanding of Heat Wave Criteria and Associated Health Impacts to Improve Heat Wave Alerts in Developing Country Settings. *Int J Environ Res Public Health*. 2019;16(12):2089. Published 2019 Jun 13. doi:10.3390/ijerph16122089.
7. Nori-Sarma A, Anderson GB, Rajiva A, ShahAzhar G, Gupta P, Pednekar MS, Son JY, Peng RD, Bell ML. The impact of heat waves on mortality in Northwest India. *Environ Res*. 2019 Sep;176:108546. doi: 10.1016/j.envres.2019.108546. Epub 2019 Jun 20.
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9. NCD Risk Factor Collaboration (NCD-RisC). Rising rural body-mass index is the main driver of the global obesity epidemic in adults. *Nature*. 2019 May;569(7755):260-264. doi: 10.1038/s41586-019-1171-x. Epub 2019 May 8.
10. Global Burden of Disease Cancer Collaboration. Global, Regional, and National Cancer Incidence, Mortality, Years of Life Lost, Years Lived With Disability, and Disability-Adjusted Life Years for 29 Cancer Groups, 1990 to 2017: A Systematic Analysis for the Global Burden of Disease Study. *JAMA Oncol*. 2019 Sep 27. doi: 10.1001/jamaoncol.2019.2996. [Epub ahead of print]

11. Roy Burstein, Nathaniel J. Henry, ...,Gupta PC and Simon I.Hay.Mapping 123 million neonatal, infant and child deaths between 2000 and 2017. Nature. 2019 Oct;574(7778):353-358. doi: 10.1038/s41586-019-1545-0. Epub 2019 Oct 16.
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# Healis Activities

## ➤ Guest Lectures

S. No.	Presenter	Title	Date
1.	Dr. Ritesh Mistry	Latent Class Analysis of Tobacco Use: PATH Wave 3 Adult Data	Jan 09 2020

## ➤ Visitors

- We had Dr. Ritesh Mistry from University of Michigan, USA in regards with the “Longitudinal study of adolescent tobacco use and tobacco control policy in India IPACTS Wave 2”project.



- We had Dr. Mira Aghi, Behavioural scientists in regards with the “Measurement of the effectiveness of a worksite multi-component canteen and behavioural intervention on cardio metabolic risks in India” and had

detail discussion on the methodologies to be used while interacting with employees in the worksite from different background under one roof.

- We had people from MIT Pune along with Prof. Dr. Kuchekar visiting Healix in regards with the academic collaboration.
- We had Samir and Irina team from the University of Minnesota (UMN) in regards with the project "Analytical Capacity Building for the study of tobacco carcinogen exposures in India" visiting Healix.

## ➤ Foundation day celebration

- On August 01 every year Healis celebrate its Foundation day and this time the Institute has organized one day outdoor capacity building event for all the employees.



- The Healis Management has awarded “Best employee of the year” to Mr. Prakash Narawade.

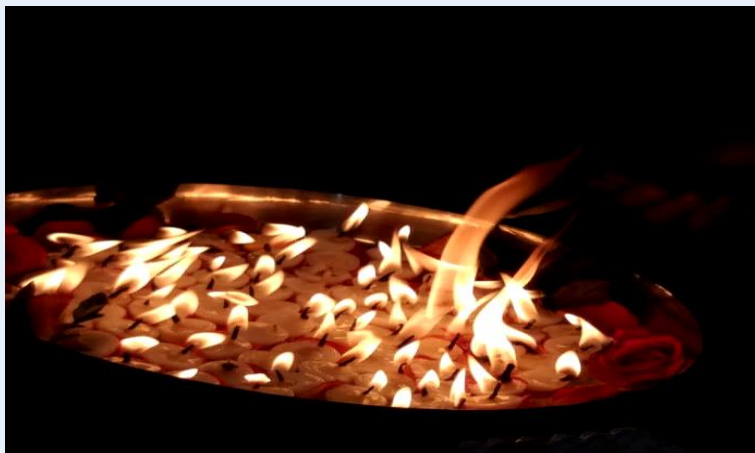


➤ 75th Birthday celebration of Dr. Prakash Gupta

- On the occasion of 75th Birthday Healix team arranged a small party to wish Dr. Gupta.



## ➤ Diwali Celebration





➤ Holi celebration



## ● Visits by Healix staff members

### International Visits:

#### June 12-14, 2019

Dr. Gupta, Dr. Pednekar and Dr. Namrata travelled to Ann Arbor on June 12 to 14, 2019 to attend IPACTS project related meeting in University of Michigan US. From University of Michigan side Dr. Ritesh and Dr. Raghu was present for the meeting. In the meeting the planning of Wave 2, finalization of questionnaires, adding questions to the sensitive module, redcap software was discussed.



#### June 15-16, 2019

Dr. Gupta, Dr. Pednekar and Dr. Namrata travelled to Boston to attend meeting at Dana–Farber Cancer Institute, Boston. Dr. Gupta, Dr. Pednekar and Dr. Namrata had a meeting with Prof. Michael Reich and Dr. Sujata Saunik (ex. Principal Secretary Health and current Takemi Fellow) to explore

collaborative research. In the evening around 6:00 PM they left for the meeting with Dr. Donna Spiegelman to discuss the updates of the Mumbai Intervention study and updated Dr. Donna in regards with the latest updates about the project.

### **June 17-18, 2019**

Dr. Gupta, Dr. Pednekar and Dr. Namrata attended the meeting at Dana-Farber Cancer Institute along with Drs. Glorain, Eve, Anne, Leah, Jane, Maria. The final revisions of training and implementation materials for both maintenance and delayed intervention groups were discussed and finalized. Status update process tracking sheets, Observation Checklists, Personnel Surveys, and Headmaster Interviews, as well as WhatsApp messages were discussed. Planning data analysis and interpretation, dissemination of findings were also explored.

### **June 19-21, 2019**

Dr. Pednekar and Dr. Namrata travelled to Toronto to attend a meeting at University of Waterloo (UW), Canada for TCP project. In the meeting the possibility of TCP Wave 4, Budget, Sampling, Sources of funding, Research focuses and Timeline was discussed. Dr. Pednekar also gave a presentation at School of Public Health, UW. The presentation was attended by all the ITC staff and research scholars from the university.



### **Nov 24-28, 2019**

Dr. Pednekar, Dr. Namrata and Ms. Ashwini travelled to Nepal to visit worksite in Dhulikhel, Biratnagar and to learn experience from the collaborator from the intervention work going there. The Healix team had a joint discussion with Dr. Archana, Biraj and later visited the Dhulikhel hospital and had interaction with the hospital officials. Later had a discussion with Ashika and Evvone from DUT University. Dr. Archana briefed the team about the current status of the project at the hospital and later visited the canteens. Dr. Pednekar conducted a discussion session with the various canteen as well as behavioral intervention learnings form the Nepal as well as India works study.



Dr. Pednekar delivered a presentation to all the faculty and research scholars on scaling up the BSTS study.



## National Visits:

### April 03-05, 2019

Dr. Pednekar travelled to Patna along with Ms. Keyuri in relation with the “Disseminating an evidence-based tobacco control intervention for School Teachers in India project”. It was four-day meeting and training workshop which included implementation survey training, walkthrough of Survey tools, survey Administration Protocol, Consent Procedures, School Personnel Survey, Headmaster Survey and Policy Observation checklist and orientation of Redcap software. Later a feedback session was conducted with all the field staff to address concerns during the demo surveys and redcap software.

Dr. Pednekar also conducted a feedback session with all the TCP Wave 3 staff members. Their progress so far, successes and challenges were discussed in detail for each field staff along with the suggestions for the future and improvement in next wave was discussed.



**April 08-09, 2019**

Dr. Pednekar travelled from Mumbai to Indore to attend a meeting with Madhya Pradesh Voluntary Health Association (MPVHA) Indore officials in regards with the new grant in collaboration with Harvard University. The main objective of the meeting was to understand the overall educational infrastructure, training and support process for head masters, smartphone ownership among the teachers, MP DOE use of mobile technology, proposed TFT-TFS program and proposed use of mobile technology to implement and monitor the TFT-TFS program at Madhya Pradesh. Also meeting with the District Program Coordinator was conducted FGDs of Block Officers from Indore district.

Dr. Pednekar also conducted a feedback session TCP Wave 3, MPVHA field staff. Their progress so far, successes and challenges were discussed in detail for each field staff along with the suggestions for the future and improvement in next wave was discussed.





**May 02, 2019**

Dr. Gupta attended a meeting at Indian Council of Medical Research (ICMR), Delhi which was organized by an expert group meeting on “Establishing ICMR Bio bank” at ICMR Headquarters, New Delhi. There were many dignitaries present for the meeting to name: Dr. Tanvir Kaur, Dr. Balram Bhargava, Dr. Ravi Mehrotra, Dr. Prashant Mathur and others. The meeting got over around noon time and Dr. Aghi very much wanted to meet Dr. Gupta. So Dr. Gupta, went to meet at her home and left after couple of hours and returned by evening flight to Mumbai.

**July 02, 2019**

Dr. Gupta attended a NCTOH planning online meeting through Skype on the request of the committee members on the release of Tobacco Free times.





### July 23 -25, 2019

Dr. Pednekar travelled to Patna to monitor and coordinated post intervention group discussions and key informant interviews with the education officials of intervention blocks in Bihar along with Ms. Keyuri. The team travelled to Nalanda and had discussion with the Block Resource Person in Asthawan block and the District Education Officer of Nalanda district for maintaining and sustaining the program in Nalanda.

### July 26, 2019

Dr. Pednekar visited the CDrasta organization at Kolkata and had meeting with the Director of the Institute. Dr. Pednekar gave an overview of Healix and research undertaken. Dr. Rajlaxmi also gave the introduction of the Organization (C-drasta), core area of research, current projects and team profile.



### **August 19, 2019**

Dr. Gupta travelled to Delhi from Mumbai to attend a meeting at Indian Cancer Resource Centre newly formed.

### **August 23, 2019**

Dr. Pednekar travelled to Pune to attend Industry Academia Conclave -INDCON 2019 organized by MIT World Peace University Pune. Dr. Pednekar also had a meeting with Dr. Aarti Shastri, Dr. Bhanudas Kucheckar from MIT pharmacy department in relation with their potential visit to Healix. He also had an interaction with Mr. Rahul Karad, Dr. S. Parasuraman, Mr. Sanjay Patwardhan and Dr. Khandekar in regards with public health research collaboration.

### **August 28-30, 2019**

Dr. Gupta, Dr. Pednekar travelled to Kurhani block near Patna to monitor Maintenance training of 24 Cluster Coordinators along with Ms. Keyuri. Dr. Gupta and Dr. Pednekar provided the introductory as well as concluding remarks of the program and resolved queries related to tobacco use as generated among the CCs. In this visit they later the team travelled to Hilsa block to monitor Delayed Intervention training of 11 Cluster Coordinators. There was some discussion points generated in the training session which included – Introduction to the project and its first phase; how tobacco free teachers will lead to a tobacco free society; explanation of the 6 themes along with 4 components; importance of non-users in the program, how to implement the program within schools; program monitoring and follow up. The training report was shared with the India team immediately post training by Healix team.

### **September 03, 2019**

Dr. Gupta travelled to Bengaluru from Mumbai to attend a meeting organised by National Centre for Disease Informatics and Research, National Cancer registry Programme, Indian Council of Medical Research, Bengaluru on “Research Area Panel on Cancer”. Dr. Gupta was invited as a panellist in the meeting. There was a welcome speech by Dr. Prashant Mathur followed by sessions on HBCR report- Number, Incidence and distribution, Analysis of common anatomical sites. Post lunch there was sessions on update on activities of new PBCR



### **November 14, 2019**

Dr. Gupta was invited to attend a meeting as an expert of the Scientific Advisory Committee of NATIONAL CENTRE FOR DISEASE INFORMATICS AND RESEARCH (ICMR) NCDIR, Bangalore. The minutes and action taken report on the recommendations of the last SAC of NCDIR held in January 2019 before the meeting. Discussion on Setting up of National NCD Surveillance Systems and

Prioritized Research Agenda for achieving the National Non Communicable Diseases Targets were made.

#### **Oct 01-02, 2019**

Dr. Gupta travelled to Delhi to attend a meeting on consultation on India's Progress towards Global Best Practice status for Tobacco Control Policies at Delhi by the Campaign for Tobacco Free-Kids (CTFK). The meeting was organised by Public Health experts from the World Health Organization (WHO), All India Institute of Medical Sciences (AIIMS) and civil society groups will speak along with representatives from the Ministry of Health and Family Welfare (MOHFW).

#### **Dec 02-04, 2019**

Dr. Pednekar travelled to Delhi to attend the three day workshop entitled “Priorities for Advancing Research on Health Effects of Air Pollution in India” at AIIMS, New Delhi. The workshop was organized by AIIMS institute in Delhi and workshop planning and execution was being undertaken by a joint committee comprised of Dr. Kalpana Balakrishnan (SRIHER), Dr. Sagnik Dey (IIT-Delhi), Dr. Harshal Salve (AIIMS) and HEI staff. The main objective of the workshop was to bring together a range of participants with an interest in air pollution and health effects research in India.

#### **Dec 04-06, 2019**

Dr. Gupta was invited to attend a meeting on “National Consultation on WHO FCTC strategies to advance tobacco control in India” Chhattisgarh organised by The Union South-East Asia Office. Dr. Aghi was also invited for the meeting as an expert in the group. The consultation was based on knowledge and experience sharing

from the tobacco industry inferences on implementation of tobacco control initiatives and explore the scope under existing National and State legislations for strengthening and advances smoke free, TAPS –free regulation and other policies in the country.



### Oct 16-19, 2019:

Dr. Pednekar travelled to Kolkata to monitor 4 day training workshop session and conducted feedback session with the participants of IPACTS project. The training was conducted by Dr. Namrata and Ms. Keyuri. Dr. Pednekar conducted the session with

all the participants in regards with the complete flow of the study procedure from approaching a Household to exit. He clearly explained again the 9 steps which need to be followed during data collection.

### **December 26, 2019**

Dr. Gupta was invited to attend a meeting as an expert - organized by ICMR National Cancer Registry Program (NCRP) coordinated from the National Center for Disease Informatics and Research (NCDIR) to ICMR-NCDIR-NHA Joint Stakeholder Consultation meeting at Bangalore. Discussion was made NCD prevention and control (Risk factors) Disease surveillance, monitoring & evaluation (morbidity and mortality), Continuum of care (Treatment outcomes and survival), Optimal use of IT and digital technology, Research governance: ethics, regulatory, (NCDIR policy, ICMR -National ethical guidelines), Linking evidence generation to action, Training & capacity strengthening.

The National Health Authority (NHA) is the apex body responsible for implementing India's flagship public health insurance/assurance scheme 'Ayushman Bharat Pradhan Mantri Jan Arogya Yojana, and is very relevant to the cancer registry functioning. Mutually, it was felt that better collaboration and coordination is needed to optimize the use of data and the schemes.

### **Jan 06, 2020**

Dr. Gupta travelled to Delhi to attend a meeting on reviewing and scoring the proposals on under the thematic area "Prevention & Epidemiology" organized by ICMR-ICRC. All the Principal

investigators will be given 10 min for the powerpoint presentation (upto 10 slides) and 5-10 min for the discussion.

### **Jan 12-17, 2020**

Dr. Gupta, Dr. Pednekar, Dr. Eve, Dr. Glorian, Ms. Keyuri and Mr. Sameer travelled to Patna from Mumbai in regards with the Dissemination project along with. Focus group discussions were conducted with the cluster coordinators, principals and teachers of the intervention group. Post discussion debrief session was completed with the team to discuss the learnings. Dr. Gupta and Dr. Pednekar monitored the Focus group discussions were conducted with the cluster coordinators, principals and teachers of the delayed intervention group. The team traveled to Kurhani block for monitoring refresher training and Focus group discussions were conducted with the cluster coordinators of the block. Later traveled for meeting with DEO Muzaffarpur along with the team.

### **February 07, 2020**

Dr. Gupta was invited to attend a meeting as an expert “Brainstorming Consultation on Training and Capacity Building in Cancer Epidemiology and Surveillance at ICMR-NCDIR”. The session began with the welcome by Dr. Prashant Mathur and remarks were made by Dr. G K Rath. Several presentation were made by on Drafting curriculum for week course, opportunities in cancer epidemiology and surveillance globally, capacity building in context of cancer epidemiology, evaluation and assessment. At the end recommendation and conclusion were made in the session.

## **Feb 25-26, 2020**

Dr. Pednekar travelled to Kolkata in regards with the IPACTS project and reached Kolkata around afternoon. He joined the booster training discussion session with all the field staff in regards with the – survey protocol, changes in the protocol, challenges faced in the field and other logistics issues which was conducted by Dr. Namrata.

Next day, Dr. Pednekar along with Dr. Namrata visited MANT, organization in Kolkata to learn more about their work and area of interest. Dr. Nirmalaya also shared field and research activities with objectives in tobacco control being which is carried out currently by MANT. Dr. Pednekar also shared the work carried out by Healix. Later, Dr. Pednekar delivered a presentation to all the research scholars.





## **Local Visits:**

### **April 26, 2019**

Dr. Pednekar was invited as a part of an evaluation panel at the institute to review reports and provide feedback of PGDM students at S P Jain Institute of Management & Research (SPJIMR). The panel comprising experts from NGOs, corporate and academics.

### **August 09, 2019**

Dr. Gupta was invited by Dr. Pankaj Chaturvedi and Dr. Rajesh Dixit to give a talk at Centre for Cancer Epidemiology (CCE) ACTREC, Kharghar. Also, Dr. Gupta had meeting with Dr. Rajiv Sarin in relation with BRCAGEL study.

### **September 17, 2019**

Dr. Pednekar was cordially invited by Praja Foundation to the release of their report on State of Health in Mumbai, 2019. The venue was Press Club, Glass House, Mahapalika Marg, Azad Maidan, Fort, Mumbai – 400001. The reports highlights the need of rehauling primary health care through public health dispensaries and improved monitoring of health in the city. There was a media release for the report and Dr. Pednekar was keynote speaker in the press release.

### **Oct 01, 2019**

Dr. Pednekar was invited by Praja Foundation as a selection panelist for the third Cohort of the Praja Elected Representatives Fellowship in the capacity of a resource person. The objective of this program

is to have fully dedicated team of individuals to help Municipal Councilors for effective functioning in their work and to provide exposure to students to participate in the process of governance.

## Healis Team

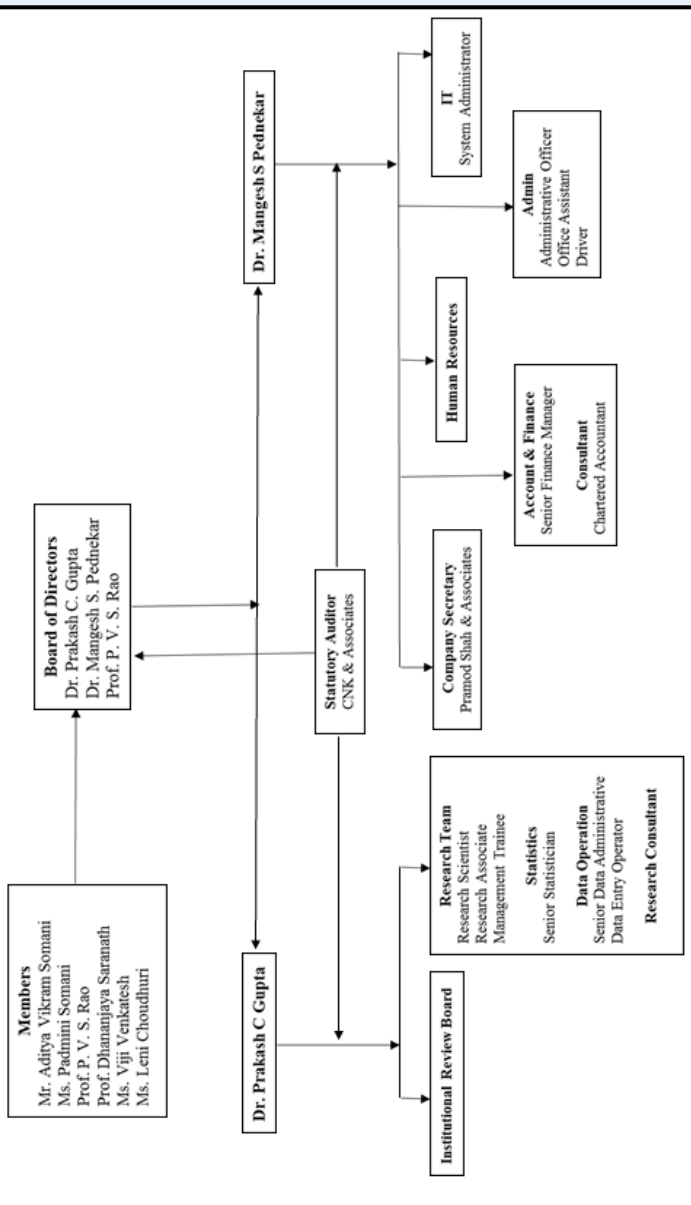
Our Research Team comprises of Masters and Doctoral from diverse background with expertise in areas like

- Epidemiological Research
- Applied Statistics and Statistical tools
- Health Outcomes and Socio-economic sciences
- Public Health Dentistry,
- Nutritionist and to name a few...

Our field staff comprises of trained field investigators with an experience of 15+ years with expertise in conducting House to house, Worksite, Community, School based surveys and many more...

We also have highly trained and qualified support staff for smooth day to day functioning.

## ORGANIZATIONAL STRUCTURE



## Statutory Compliance

A policy on Sexual Harassment Prevention and Redressal Guidelines is in place to ensure that the governance standards are met.

No complaints in the given category were received during the Financial Year 2019-20.

**Thank You**

**HEALIS-SEKHSARIA INSTITUTE FOR  
PUBLIC HEALTH**

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# Team Healis

