

# Master of Public Health

(MPH-2025-27)  
HANDBOOK



**PHFI**  
**INSTITUTE of**  
**PUBLIC HEALTH**  
**SCIENCES**

Hyderabad | Bhubaneswar | Bengaluru



## MESSAGE FROM THE VICE-CHANCELLOR



**Dr. Vishnu Vardhana Rao**  
Vice- Chancellor (Officiating)  
ICMR-Chair  
Director retd. ICMR-NIMS, New Delhi

It is my great pleasure to welcome you to the Master of Public Health (MPH) program. By choosing this field, you have committed yourself to a profession dedicated to safeguarding and advancing the health of communities both locally and globally. This commitment is not only admirable but also urgently needed in a world where public health challenges continue to evolve in complexity and scale.

Our university is deeply invested in cultivating leaders who combine scientific knowledge, ethical practice, and a strong sense of social responsibility. The MPH program reflects this mission by offering rigorous academic training, meaningful research opportunities, and practical field experiences that prepare you to make evidence-based contributions to public health systems and policies.

This handbook outlines the academic guidelines, expectations, and resources that will support you throughout your studies. I encourage you to fully engage with your coursework, collaborate with your peers and faculty, and make use of the many resources available to you across the university.

As you begin this journey, please know that the entire university community stands behind you. I am confident that your time in the MPH program will be transformative integrity and to create in the communities you serve.

I wish you every success in your academic and professional endeavours.



## MESSAGE FROM THE DEAN ACADEMICS



**Dr. Raghupathy Anchala**  
Dean Academics

Welcome to the Master of Public Health (MPH) program. As you embark on this important path-breaking professional journey, I extend my warmest greetings to all of you.

Public health is an ever growing field that is grounded in practice, tempered with scientific rigor, with a commitment to improving the well-being of communities, both from a preventive and a health promotive perspective. Our MPH program is designed to equip you with the knowledge, skills, and competencies needed to address today's most pressing public health challenges. Through a combination of interdisciplinary and multidisciplinary coursework, experiential learning, and engagement with local communities and field practice areas, you will develop the skills to be a competent public health professional.

This handbook serves as a guide to the academic policies, program requirements, and resources that will support your success. I encourage you to use it often and to reach out to faculty, mentors/ advisors, and staff whenever you need assistance or clarification.

We are proud to accompany you on this transformative path and are confident that the work you do here will have a lasting impact on the communities you will serve. I wish you a rewarding and enriching experience throughout your studies.

## MESSAGE FROM THE REGISTRAR'S OFFICE



**Mr. Rohit Tiwari**  
Registrar In- charge  
& OSD to the VC

The Registrar's Office welcomes you to the Master of Public Health (MPH) program. We are committed to supporting your academic journey by ensuring accurate record-keeping, transparent communication, and timely access to essential student services.

Our office manages course registration, academic records, enrolment verification, graduation processing, and compliance with institutional and regulatory requirements. To help you navigate these processes smoothly, we encourage you to familiarize yourself with the policies and deadlines outlined in this handbook.

Should you have questions regarding registration, program requirements, student status, or academic policies, please do not hesitate to contact us. We are here to assist you and to help ensure your experience in the MPH program is productive and rewarding.

We wish you success throughout your studies and look forward to supporting your academic progress.

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## **Scope of the Document**

This document serves as official guidelines on academics' aspects of the Master of Public Health Program for students pursuing MPH course (2025 Batch) at PHFI Institute of Public Health Sciences (Deemed to be university).

The PHFI Institute of Public Health Sciences (Deemed to be university) commenced its activities on July 1, 2008, with a mission to deliver public health education, pursue research and advocacy, and support policy development. It lays strong emphasis on pursuing public health policy, practice, training, and research, positioning its programmes according to the public health priorities of the state and the nation. The institute has brought together a highly qualified and diverse faculty of nationally and internationally trained and extremely motivated public health academics and practitioners. It aims to create an environment that supports excellence in teaching, research and practice.

### **1. Background**

The PHFI Institute of Public Health Sciences (PHFI – IPHS), Deemed to be University, is India's premier institution dedicated to education, research, and practice in public health. Building upon the legacy of the Public Health Foundation of India (PHFI), PHFI–IPHS integrates the strengths of the Indian Institutes of Public Health across Hyderabad, Bengaluru, and Bhubaneswar. Other PHFI institutes, including IIPH Gandhinagar, Delhi, and Shillong, continue to contribute to the national public health network.

The University offers postgraduate programs that develop leaders equipped to address national and global health challenges. Recognized globally for academic excellence, PHFI was ranked #2 in the world by the Public Health Academic Ranking (PHAR). Through innovative curricula and international partnerships, the University fosters leadership in science-based public health practice.

### **2. Mandate**

The University is entrusted with the responsibility to:

- Strengthen and expand India's public health workforce with high academic and professional standards.
- Advance research, innovation, and technology to address evolving public health needs.
- Promote evidence-based policies and improve population health outcomes through research and learning partnerships.

### **3. Academic Vision**

The Master of Public Health (MPH) programme reflects PHFI–IPHS's commitment to excellence and innovation in public health education. The curriculum is benchmarked against national and international standards, including those of the Ministry of Health and Family Welfare (MoH&FW), the National Education Policy (NEP), the South-East Asia Public Health Initiative Network (SEAPHIN), and the Council on Education for Public Health (CEPH).



## 4. Programme Duration

The MPH programme extends over two academic years, with a maximum permissible period of five years to complete the degree. The curriculum integrates classroom instruction, fieldwork, and research components to strengthen analytical, managerial, and leadership capacities.

On completion of this program, students may expect to obtain research positions in academic institutions, private health organisations, foundations and funding agencies, pharmaceutical organisations, NGOs, and government departments; epidemiologist/nutritionist/health counsellor/trainer positions; District Surveillance Officer, faculty positions in educational institutions; and also pursue higher (doctoral) studies in particular areas of public health.

## 5. Eligibility for Admission

· Bachelors' degree in Agriculture, Medicine, AYUSH, Dentistry, Nursing, Pharmacy, Veterinary Sciences, Physiotherapy, or Allied Health Sciences from a recognized Institute / University with minimum 50% marks in aggregate, (or)

· Bachelor's degree in Technology (B. Tech), Public Health (BPH), Business Administration (BBA) or Law (LLB) from a recognized Institute / University with minimum 50% marks in aggregate, (or)

· Bachelor's degree in Science / Life science / Statistics / Economics / Nutrition / Demography from a recognized Institute / University with minimum 50% marks in aggregate

· All the above qualifications must be from Universities/Institutions recognized by UGC or Government of India.

· Those candidates with prior public health experience will be given preference for admissions in case of a tie in the academic profile / performance in the entrance examination.

## 6. Admissions

### 6.1 Admission Process

- Preliminary screening and evaluation of the Statement of Purpose (SoP).
- An entrance test including multiple-choice questions.
- A personal interview before a panel of academic experts.

### 6.2. Withdrawal of Admission

If a candidate wishes to withdraw their admission due to any reason, they can do so by writing to the Registrar; the refund policy will be as per the University Grants Commission (UGC) and Government of India norms, which are updated from time to time.

## 7. Program Objectives

The course will help candidate to develop **skills** in the following areas:

- Analytical and assessment skills for collecting and interpreting information
- Policy planning and development skills to address public health challenges
- Communication skills for advocacy, dissemination and evaluation of public health data and information
- Financial planning and management skills for running public health programs in the country
- Leadership skills

At the end of the 2-years program, the Public Health Post-graduates are expected to demonstrate the following **Broad Values** in the context of Public Health:

- Apply contemporary ideas to influence program organization and management, problem solving and critical thinking in public health domain
- Undertake operational research in institutional and field settings
- Work in socially, culturally and economically diverse populations by being attentive to needs of vulnerable and disadvantaged groups and be well versed with existing health systems
- Demonstrate qualities of leadership and mentorship
- Be an effective member of a multidisciplinary health team
- Demonstrate ethics and accountability at all levels (professional, personal and social)
- Practice professional excellence, scientific attitude and scholarship
- Demonstrate social accountability and responsibility
- Be open to lifelong learning

Specific to the course content, successful candidates are expected to demonstrate the following **competencies** in a Public Health setting:

- Apply the course learning to the public health system and its challenges:
- Demonstrate adequate knowledge and skills to a wide range of public health topics
- Critically conduct the situational analysis and develop action plan for identified public health issues
- Develop workforce for taking public health related responsibilities in defined geographical areas
- Develop an understanding of the epidemiological transitions of programs specific to each State within the country in order to prioritize public health challenges for policy making

Develop, implement and evaluate key public health policies:

- Develop a capacity to apply conceptual framework to understand policy processes in health care
- Understand roles of supply and demand in policy making in health care. Develop an understanding to facilitate inter-sectoral coordination and public-private partnership
- Critically analyse resource allocation for competing public health interests across programs
- Formulate context appropriate policies and design programs to address public health challenges, effectively

Develop and demonstrate competency in managing health systems at different levels:

- Identify immediate and long-term health program goals at national, State and district levels
- Prioritize health issues in population
- Describe various managerial information systems and their application
- Describe program management plans in health
- Understand and apply program budgeting and economic evaluation
- Understand and apply quality assurance and improvement techniques in health care



Develop **competency** in research:

- Understand and apply ethical principles in research, evaluation and dissemination
- Develop competence to critically evaluate existing information and identify gaps
- Formulate and test research hypotheses in real world scenario
- Translate research knowledge for evidence-based policy making

## **8. Program Structure**

The Master of Public Health (MPH) Program at PHFI – IPHS (Deemed to be University) is a full-time on-campus program. The course is a two-year fulltime program and a total of 80 credits, including an internship and a dissertation. One semester usually lasts for 16 -18 weeks. The MPH program at PHFI – IPHS (Deemed to be University) is in accordance with UGC's recommendations.

## Program Glance

Semester	Modules	Credits
MPH 101	Principles and Practice of Public Health	3
MPH 102	Social and Behavioural Sciences in Health	4
MPH 103	Epidemiology	5
MPH 104	Biostatistics & Data Management	5
MPH 105	Health systems and policy	3
MPH 106	Health system exposure - Field visits	0
<b>Semester -I Total credits</b>		<b>20</b>
MPH 207	Demography and Population Sciences	1
MPH 208	Health Economics and Health Financing	2
MPH 209	Public Health Nutrition	2
MPH 210	Environmental and Occupational Health (Climate Change, One Health, Disaster Preparedness)	5
MPH 211	Digital Health and Health Information Systems	2
MPH 212	Public Health Management and Project Planning (M&E)	4
MPH 213	Research Methods (Quantitative and Qualitative)	3
MPH 214	Ethics in Research & Public Health Laws	1
MPH 215	Community Exposure - field visits (2 months internship)	
<b>Semester -II Total credits</b>		<b>20</b>
MPH 316	Health Communication and Health Promotion	2
MPH 317	National Health Programs (MCH, NCD, NTEP, NVBDCP, HIV etc.)	3



MPH 318	Health Technology Assessment	2
MPH 319	Seminars on Emerging Issues in Public Health: Gender Vulnerable Population)	1
MPH 320	Electives 320.1 Advanced Epidemiology, Biostatistics & Data Management 320.2 Non-Communicable Disease – Epidemiology 320.3 Public Health Disability 320.4 Public Health Surveillance 320.5 Advanced Public Health Nutrition 320.6 Health Systems & Health Policy 320.7 Maternal & Child Health 320.8 Community Mental Health 320.9 Tribal Health & Vulnerable Population	12
<b>Semester -III Total credits</b>		<b>20</b>
MPH 421	Dissertation	15
MPH 422	Elective Speciality Project	5
<b>Semester -IV Total credits</b>		<b>20</b>
<b>TOTAL CREDITS</b>		<b>80</b>

### 8.1.Semester

- MPH Program is spread over four semesters over two years. Each year will have two semesters. Students undergo internship after the second-semester exam including a dissertation in the fourth semester, covering an overall 80 credits.
- A detailed semester planner / information will be shared with students at the beginning of each semester. Such information will be communicated via e-mails, oral communication in class and/or through the class representatives and will be displayed on the notice board. Every student is responsible for being aware of the class timetable.

### 8.2 Core Modules

The core modules are mandatory and needed to be taken by all the students.

#### Electives:

- Apart from the core modules, the students will be offered a range of electives in the 3rd semester. Students are required to choose electives as per their expertise/interest. It is compulsory for each student to choose electives for a total of 12 credits.

### **8.3. Credit System**

Each of the courses follows a credit system. One course credit is equivalent to one hour of theory class per week or two hours of practical or field work per week for duration of sixteen weeks.

### **8.4 Teaching Methods**

- The Master of Public Health (MPH) is an interdisciplinary program in both its content and pedagogy. The faculty represent diverse disciplinary backgrounds and bring with them extensive national and international experience, encompassing a wide range of expertise in public health and hospital management.
- To ensure a rich and engaging learning experience, the program employs a variety of innovative teaching and learning methods, including seminars, journal clubs, collaborative learning, group discussions, assignments, hands-on computer training, field projects, and visits to organizations of public health and hospital relevance. Learning is further enriched through film reviews, poster-making, debates, practicums, and internships.
- A significant emphasis is placed on student-driven learning, encouraging self-study, critical thinking, and proactive engagement throughout the course.

### **8.5 Field / Institutional Visits**

- Field engagement constitutes a vital component of the teaching and learning framework. It is embedded across academic semesters, internships, and dissertation work to provide students with practical exposure and contextual understanding of public health systems. The field training and project components are structured around problem-based learning approaches, encompassing visits to government health institutions, non-governmental and community-based organisations; CSR foundations, private and corporate hospitals, industries, as well as facilities and communities focused on water, sanitation, and development initiatives.

### **8.6.library**

- The on-campus library serves as a comprehensive knowledge hub, offering access to a wide collection of printed and digital resources. It provides books, journals, periodicals, and online databases to support the academic and research needs of students and faculty. The library's collection includes resources covering diverse domains such as epidemiology, biostatistics, social and behavioural sciences, environmental and occupational health, health policy and health systems, monitoring and evaluation, project management, public health, management, and hospital administration, along with subscriptions to reputed electronic journals and databases.



## **9. Attendance and Conduct**

- Minimum 75% attendance in all courses is mandatory.
- Adherence to Code of Conduct and professional ethics as per PHFI-IPHS (Deemed to be University) regulations.
- Academic integrity violations will be addressed per UGC (Prevention of Plagiarism) Regulations, 2022.

### **9.1 Leave of Absence**

Students can seek leave for below mentioned reasons, according to laid down instructions:

#### **9.1.1 Medical Reasons**

Lack of mandated attendance due to medical reasons will be considered provided submission of certificate by the medical professional to the Office of Registrar. In addition, lack of mandated attendance due to any other significant reason as certified by the competent authorities will be considered after its submission to the office of Registrar. The Medical leave will be computed equivalent to 10% of total teaching days in a semester.

#### **9.1.2 Deemed Attendance**

- Students who lose their attendance for reasons such as representing the university in academic, cultural or sports events outside or within the university will be given 'deemed attendance' equal to the number of lectures they missed provided prior permission from the respective course/module coordinator(s) has been obtained and certificate of participation from organisers of such events/activities are produced. Permission for securing deemed attendance for more than 10% of total credit hours in a course in a semester must be approved by the Registrar/Director of the University as well or any other authority the Director delegates this responsibility. It is the responsibility of the student to furnish proof of approval of 'deemed attendance' to the administration immediately after the respective activity for which deemed attendance is claimed is over and certainly, before cumulative attendance is declared for the respective semester.
- The students who are sponsored and also an employee of a Central or State Government or an employee of any government agency have to follow their respective service rules in addition to norms laid by PHFI – IPHS (Deemed to be University) regarding their leave eligibility. Statements of days of attendance may be obtained from the office of the Registrar through a formal application from the respective student.
- The minimum number of lectures, tutorials, seminars and practicals which a student shall be required to attend for eligibility to appear at the examination shall ordinarily be not less than 75% of the total number of lectures, tutorials, seminars and practicals.

## 10. Evaluation and Assessment

### 10.1. Evaluation

The evaluation system comprises both formative and summative assessments using the following methods:

- Theory and practical examinations
- Assignments and seminars
- Projects and community exposure
- Discussion on case studies
- Dissertation

### 10.2 Marking and Grading System

Each credit will be evaluated for 50 marks, out of which internal assessment will carry 40% weightage and end semester assessment will carry 60% weightage.

Credit wise distribution of marks will be as follows:

Credits	Internal assessment (40% weightage)	End semester assessment (60% weightage)	Total marks
1	20	30	50
2	40	60	100
3	60	90	150
4	80	120	200
5	100	150	250

Performance in each course will be evaluated and graded according to the 10-point grading system recommended by UGC. Based on performance, each student shall be awarded a final grade at the end of the semester for each course. The grades obtained by the students shall be finalized as follows.

A student obtaining Grade F shall be considered failed and will be required to reappear in the examination. The passing marks scored in the previous exam shall be carried forward to the subsequent semester in which the student has appeared for a supplementary examination.

Percentage of Marks	Description	Letter Grade	Grade Point
90-100	Outstanding	O	10
79-90	Excellent	A+	9
75-79	Very Good	A	8
70-74	Good	B+	7
60-69	Above	B	6
50-59	Average	C	5
40-49	Pass	P	4
<40	Fail	F	0
Absent	-	Ab	0

### 10.2.1 Computation of Semester Grade Point Average (SGPA)

The SGPA is the ratio of the sum of the product of the number of credits with the grade points scored by a student in all the courses taken by a student and the sum of the number of credits of all the courses undergone by a student, i.e.

$SGPA = \frac{\sum (C_i \times G_i)}{\sum C_i}$  Where  $C_i$  is the number of credits of the  $i$ th course and  $G_i$  is the grade point scored by the student in the  $i$ th course

Example of SGPA Computation

$$SGPA = \frac{C_1G_1 + C_2G_2 + C_3G_3}{C_1 + C_2 + C_3}$$

$$= \frac{27+24+40}{12}$$

$$= 7.58$$

Modules	Grade	Credit (s) (C)	Grade Point (G)	Credit Point [Credit (C) * Grade(G)]
1	A+	3(C1)	9(G1)	27
2	B	4(C2)	6(G2)	24
3	A	5(C3)	8(G3)	40

## 10.2.2 Computation of Cumulative Grade Point Average (CGPA)

CGPA is indicated in final grade in mark card/ transcript showing grades of all 4 semesters and their courses. CGPA reflects the failed status in case of fail till the courses are passed. The Cumulative Grade Point Average (CGPA) is also calculated in the same manner taking into account all the courses undergone by a student over all the semesters of a programme, i.e.

$$CGPA = \sum (C_i \times S_i) / \sum C_i$$

Where  $S_i$  is the SGPA of the semester and  $C_i$  is the total number of credits in that semester.

Semester 1	Semester 2	Semester 3	Semester 4
SGPA: 7.6	SGPA: 6.5	SGPA: 7.8	SGPA: 5.6
Credits: 20	Credits: 20	Credits: 20	Credits: 20

$$\begin{aligned} CGPA &= C1 \times SGPA1 + C2 \times SGPA2 + C3 \times SGPA3 + C4 \times SGPA4 / C1 + C2 + C3 + C4 \\ &= 7.6 \times 20 + 6.5 \times 20 + 7.8 \times 20 + 5.6 \times 20 / 20 + 20 + 20 + 20 \\ &= 6.875 \end{aligned}$$

**CGPA = 6.9**

The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

### Promotion criteria

A student shall be allowed to enter into next semester despite backlog in any module/s. Such students need to appear in Supplementary Examination and clear the backlog.

### Passing criteria

A student shall be declared successful or 'passed' in a semester, if s/he secures a  $GP \geq 4$  ('P' grade or above) in every course in that semester (i.e. when the student gets an  $SGPA \geq 4$  at the end of that particular semester); and s/he shall be declared successful or 'passed' in the entire post-graduate programme, only when s/he gets a  $CGPA \geq 4.00$  for the award of the degree as required. A student should obtain pass marks ( $\geq 40\%$ ) in both internal and external assessment to pass the course.

### Grade card

A grade card will be issued to each student indicating her/ his performance in all courses taken in that semester and also indicating the grades and SGPA.

### Transcripts

After successful completion of the entire Programme of the study, a transcript containing performance of all semesters and academic years will be issued as a final record. The Grade Sheet shall indicate full information on the grades obtained in all courses including those in first and subsequent attempts. Duplicate transcripts will also be issued if required after the payment of requisite fee. Partial transcript will also be issued up to any point of study to any student on request and by paying the stipulated fee in force.



### **10.3 Re-evaluation**

In case of a difference of perception regarding the marks obtained in the end semester examination, a student may apply for re-evaluation within 15 days of publication of the result. A copy of the form is available in the Annexure-1. The revaluation can be applied once for one or more than one course by paying a revaluation fee of Rs.2000/- per course. Re-evaluation can only be requested for the end-semester examination. The re-evaluation process includes a blinded evaluation of the answer sheet by an independent subject expert and re-totalling. The result of the re-evaluation shall be declared within four weeks of receipt of clearance of fees from the Accounts sections. Request to see any other student's answer book is not permitted.

### **10.4.Re-examination / Supplementary Examination**

Students who fail in each module/s or were absent at the time of semester end examination for a valid and permissible reason shall be given the opportunity to appear for a supplementary examination. The authority of the approval for the same will be with the Office of the Registrar. A supplementary examination will be organised within two months of the declaration of the results. A fee of Rs. 2000 /- shall be charged to students applying for the supplementary examinations for each paper on each attempt. Re-examination requests shall not be entertained for candidates who have secured pass marks, with an objective to improve her/his marks.

In each course, a student can appear up to a total of three times, including the scheduled semester end examination for each course. The Office of the Registrar will issue notifications for supplementary examinations to the students at least two weeks before the proposed supplementary exam. Students will have to apply with applicable fees and appear for the examination on the date as per schedule. Students who have failed the scheduled semester-end examination and subsequently pass the supplementary examination will receive the mark sheet with the attempt. However, students appearing for the first time in any exam will be marked as first attempt.

### **10.5.Unfair means**

Any unfair means caught during the examination will disallow the student from completing the examination of the concerned course in which he/she was caught. The answer sheet will not be considered for evaluation. The invigilator on duty for the respective exam will report the same to the Controller of Examination, Deputy Controller of Examination, and/or the Registrar. Depending on the severity, further action shall be taken based on the recommendation from the competent committee constituted by the Director.

Malpractices constituting Unfair means include:

Copying from fellow students

Use of Mobile or any other technological aid during the examination

Helping other students to indulge in aforesaid or any other malpractices

Students caught copying in examination halls (Chits / Hinders on clothes / Table/body surface/ piece of paper)

Wilful and deliberate indulging in activities that seriously affect the performance/concentration of other students and

- Not allowing the invigilation team to perform a designated process of invigilation
- Stealing/misplacing Blank or written answer sheets
- Deviating from the approved instruction as shared in advance and printed on the Answer sheet.

## **11. Internship and Dissertation**

### **11.1. Internship**

- At the end of the second semester, students are required to do 2 months of supervised internship (One month in government sector and one month in NGO/CSR foundations) related to public health or related fields. Your respective mentor will facilitate this activity, but it is the responsibility of students to identify their internships. There will be a faculty mentor/mentor at the institute for each student to coordinate, monitor and guide the progress of the student during the period of the internship. The students will also be supervised by a supervisor from the respective internship agency. Students are expected to learn public health and managerial skills during the internship and apply learning from theoretical courses in a practical situation. An area of work would be developed by the student with support from faculty mentors and supervisor from the internship agency. The internship will be evaluated based on assessments made by the supervisor at the internship agency and faculty mentor and assessing the internship report submitted by respective students. A presentation by students may also form a part of the evaluation.

#### **11.1.1 Evaluation of Internship**

The internship will be evaluated by the supervisor at the internship agency, faculty mentor and panel of faculty members at PHFI – IPHS (Deemed to be University). A formal presentation (to a committee constituted by the Office of the Registrar) and the internship report duly signed by the Faculty Mentor need to be submitted by the student for evaluation.

The pattern of evaluation is as follows: Grading for Internship– Total 100 marks

- 2 faculty member review committee= 20 marks
- Assessment by External Mentor= 40 marks
- Institutional Mentor= 40 marks

### **11.2. Dissertation**

- A research project and dissertation are compulsory for MPH students. This is intended to provide the students an opportunity to plan and design a study, prepare research tools, collect data in the field, analyse the data and write up the research under the guidance of a faculty as soon as the completion of core courses in the second semester. The tentative timeline of the student presentations on their dissertations is given below. Each participant, working under close guidance of a faculty advisor, will develop a major project as part of the course work. The dissertation research will be carried out over a period of 3 months, including writing dissertation in the 4th semester. The participant will be supervised by a faculty advisor. The experience has three primary components: a protocol, a written project report / dissertation, and a viva voce / oral presentation. The participant will also be evaluated concurrently on the study protocol, while the study is in progress and terminally on the report. The protocol will be framed between the student and the faculty advisor. The protocol will be formally designed, and the draft will be submitted for technical and ethical reviews.

The review will be conducted by a formally designated committee for this process and will perform technical and ethical reviews of the proposal. Necessary changes if any will be conveyed to the participant who can be requested to resubmit to a repeat review till the approval is obtained. The study plan after approval will be executed by the participant during the allotted three months of project work. Any difficulties that arise during the project will be reported and suggestions sought from the faculty advisor.

The internship and dissertation committee shall facilitate and coordinate for the entire process of internship and dissertation as per the guidelines. The orientation session for internship/dissertation shall be arranged for the students before the start of their internship and dissertation. The guidelines for internship and dissertation along with the detailed timeline of milestones to be achieved during their internship and dissertation period will be provided to the students, faculty mentor and local mentor.

### **11.2.1 Evaluation of Dissertation for MPH Program**

The dissertation will be evaluated by the faculty mentor and panel of experts for dissertation. The evaluation will be structured and objective criteria will be set to grade the Dissertation.

Grading for Dissertation – Total 1000 marks

- Panel of Experts (Viva Voce) = 400 marks
- Assessment on written final report by Faculty Mentor = 400 marks
- Assessment on submitted proposal by Faculty Mentor = 200 marks

## **12. Award of Degree**

The degree will be awarded to students who have successfully completed all requirements of their program of study and produced a no dues certificate duly signed by all the relevant sections/ authorities.

## **13. Placements**

A dedicated faculty will head a placement Cell, and the committee will also comprise other faculty members, Admin & Academic staff and students. The placement cell supports students in getting placed on completion of the degree program by co-ordinating with potential recruiters, public health organisations, Development partners etc. A placement brochure will be prepared for the entire batch and shared with all concerned to facilitate recruitment. Students also need to explore the opportunities proactively; the placement cell facilitates the essential documents required to facilitate placement to potential recruiters.

Once selected by an organisation and the student accepts the offer, he/she is expected to join the organisation. Once placed, s/he will not be considered for any other interview as organised by the placement cell. The student is advised to avoid any formal professional engagement until the process of submission of the dissertation report is complete. Written approval of submission of the report to the Guide will be required to allow the student any formal engagement/recruitment.

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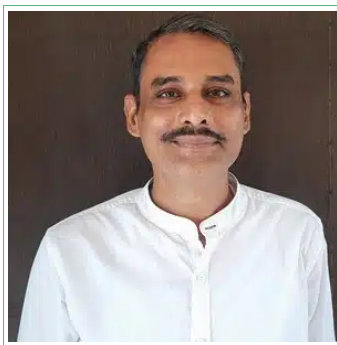


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# **Module Syllabus**

## **Semester I**

### **Principles and Practice of Public Health**

Discussions about Public Health aspects and experiences of students

Lectures on Epidemic of HIV/AIDS and Public health responses; Elimination of Polio in India, Public health definition and Key terms, and A public health approach, Core functions and essential services of Public Health, Stakeholder roles in Public Health and Determining and influencing the Public's health, History of Public Health, Demographics and Health indicators in India, Surveillance in India, Universal Health coverage in India Health care systems across the world brief, International Health Regulations, Global Health Policy, MDGs / SDGs, Intersectoral coordination for health, ICDS scheme, Eradication of Smallpox in India, Public health innovations in India; Social determinants of Health: Visit to Families in a resettlement colony and visit to Primary Health Center (PHC) Student presentations on Health priorities in India, Evolution of public health in India, Health care system in India, Health regulations and Acts in India, Human resource in Public health in India- Issues, Health system determinants of Health, Health status and determinants in a resettlement colony.

### **Social & Behavioural Sciences in Health**

Introduction to and scope of social & behavioural sciences; social determinants of health A historical analysis of morbidity, mortality, birth rates from the beginning of the last century; society, social structure; film appreciation; social stratification and social inequality; caste, class and gender; roots, dimensions and magnitude of inequity in health look at important health indicators across caste in NFHS data (or) gender differentials in NFHS data; social change; industrialization, urbanization, social mobility, implications on health of individual and groups; disparities in urban health – health situation of urban poor; economics and health; health and development, globalization and health; equity, indices of equity, socio-economic classifications; power, authority, bureaucracy, state and government, decentralization, context of policy making in developing countries; decentralization under NRHM – role of PRI vis-à-vis doctors, culture, norms, values, role, status, identity; cultural & social barriers for behaviour change – female age at marriage or low female age at marriage – cause, consequences and differentials; socio-economic and cultural determinants of child malnutrition in India; case finding and case holding in TB; an understanding from social and behavioural science perspective; medical pluralism, professional and folk systems of medicine position of alternative medical systems in Indian Public Health.

Health seeking for neonatal and childhood morbidities; socio-cultural determinants of care seeking for delivery; institutionalization of medicine, professionalization in medicine, professional ethics and medical practice; health as commodity, medicine as ideology; social and behavioural aspects of epidemiology; community organization, psychological processes – principles of perception and learning, motivation, attitude etc. theories and models to understand individual behaviour; health behaviour and the ecological models, psychological process – 2-attitude, personality and motivation; role of attitude, prejudice, stereotypes, stigma in care seeking and care giving – social and behavioural issues in control and prevention of HIV/AIDS; stress and coping behaviour; coping strategies – progressive muscular relaxation; cognitive imagery techniques, measurement of stress through a psychometric test.



# Epidemiology

## Dynamics of Disease Transmission

- Applications of epidemiology
- Natural history of disease
- Levels of prevention
- Measuring the occurrence of disease – morbidity and mortality
- Measures of frequency – incidence and prevalence
- Measures of association– risk, odds, OR, RR, AR and AR%
- Hills criterion: from association to causation Study designs– Observational and experimental studies; cross sectional, case control, cohort and randomised controlled trials
- Screening concepts
- Assessing validity and reliability of diagnostic and screening tests –Sensitivity, specificity, Positive Productive Value (PPV) and Negative Productive Value (NPV)
- Deriving inferences from epidemiologic studies
- Conceptual understanding of Bias, confounding, and interaction

## Concepts behind Surveillance

- Investigation of an outbreak
- Epidemic and types of epidemics
- Critical appraisal of epidemiological studies
- Using epidemiology to evaluate health services
- Introduction to standardization
- Introduction to infectious disease epidemiology
- Introduction to Non communicable diseases epidemiology
- Introduction to Nutritional epidemiology of India
- Identifying the roles of genetic and environmental factors in disease causation
- Questionnaire design, survey design and conducting research in epidemiological studies

# Biostatistics& Data Management

## Introduction to Biostatistics

- What is biostatistics? Why learn Biostatistics? Relevance of biostatistics in the field of public health.
- Understand the use and abuse of statistics in day-to day life, in magazines, books, articles, etc.
- Elementary concepts, types of variables, measurement scales, types of data, data classification, relationship between variables etc.
- Datapresentation: Tabular and Graphical presentation

## Descriptive Statistics

- What is Descriptive Statistics? How, where and Why use this in public health?
- Measures of central tendency (arithmetic mean, geometric mean, harmonic mean, mode, median) and usage of these measures in daily life.
- Measures of dispersion (range, interquartile range, standard deviation, variance, coefficient of variance), Measures of skewness and kurtosis and correct usage of these measures in different situations.
- Frequency distribution, cumulative frequency distribution, quartiles, quintiles,percentiles

## Probability and Probability Distributions

- Introduction to probability: Basic terminology, theoretical and subjective probability.
- Additional rule, multiplication rule, conditional probability, joint probability, marginal probability
- Bayes Theorem: Inverse Probability, Sensitivity and Specificity, ROC curve and discuss applicability in real life
- Discrete and continuous random variables.
- Probability distribution function, cumulative distribution function.
- Discrete Distribution: Binomial and Poisson distribution, Continuous distribution: Uniform and Normal distribution and usage of these distribution in public health
- Properties of normal distribution, area under normal curve, z score, probability tables, quantile-quantile plots(Q-Q) plots
- Sampling Distributions and Estimation
- Defining sample and population, parameter and statistic, why sample and how to collect a sample.
- Concept of standard error and sampling error, Small sampling distribution
- Sampling distribution for mean: Single sample mean and difference between two sample means.
- Sampling distribution of proportion: Single sample proportion and difference between two sample proportions.
- Central limit theorem, parametric estimation – point / interval estimation, confidence intervals, point and interval estimation
- Sampling Technique and Sample Size Determination:
- Sampling design, Needs of a sample, Steps in sampling design
- Types of sampling designs: Probability and non-probability sampling, Advantages and disadvantages of sampling
- Sample size determination and Power analysis, why sample size is important
- How low power can affect study results, factors which influence the power of statistical tests.
- Data Management:
- Data loading from and to different formats
- Data capture by developing interactive questionnaires in excel /epi-info (entering, editing, updating and sorting data, importing and exporting data, manipulating data using formulae).
- Maintaining database structures, data verification and validation, data checks, range checks, consistency checks, check for duplicates, data calculation
- Hypothesis Testing
- Need for hypothesis testing, defining null and alternative hypothesis. • Type I/II error. p value, level of significance, z statistic, rejection and acceptance region.
- Parametric Test: One sample / two sample tests, z test, independent t/ paired t, one-tailed/two tailed tests of significance and needs in daily life.
- Non-parametric tests: single sample test, sign test, run test, median test, Mann-Whitney U test, Wilcoxon signed rank test, Wilcoxon rank sum test, Kolmogorov-Smirnov Test and where do they apply?

## **Analysis of Variance**

Theory of ANOVA: Essentials of ANOVA, global test for significance F statistic.

ANOVA table, single factor ANOVA, multiple comparison tests and adjusted p values, two factor ANOVA.

ANOVA concepts and interpretation, repeated measures ANOVA concepts usage

Kruskal-Wallis is one-way analysis of variance by ranks, Friedman test for repeated observations

## **Categorical Data Analysis**

- Describing and interpreting contingency tables
- Comparing two proportions using chi-square, testing independence in two-way contingency tables, 2x2 contingency tables, kx2 contingency tables, Testing independence in multiway tables

## **Correlation and Regression**

- Correlation: correlation concepts and use, types of correlation, correlation analysis using interval, ordinal and categorical data, correlation analysis.
- Introduction to linear regression, regression model, assumption, Principle of least squares, line of best fit
- Regression diagnostics, coefficient of determination, residual analysis, lack of fit test
- Model adequacy, confidence intervals and hypothesis testing
- Multiple linear regression model, model transformation
- Model prediction, leverage, influence and outliers, model violations and model adequacy

## **Health Systems & Policy**

Introduction and course overview; Introducing Health Policy – definitions of policy, the policy life cycle, policy triangle, basis of health policy, types of health policies levels of policy making for health, national health policy; Health superstructure key institutions – treatment of health in the constitution, hierarchies of key institutions involved in making and executing decisions and their respective roles at national, state, district and primary level, regulatory institutions, major health programmes, introduction to major international organizations and donors, their roles vis-à-vis national health; Health services overview – curative and preventive services, primary, secondary and tertiary services, public health service delivery system in India – rural and urban functions, staffing and administration of different levels of health care institutions, private health care industry;

Foundations of health policy making – disease burdens, health needs, right to health, types of equity, evidence-based health, cost benefit and cost effectiveness, administrative efficiency; theories of policy process – types of scale of policy, the policy triangle of actors, contexts, content and process, policy actors and actor interests, distributions of power in society as they bear on health; elitist models, vulnerable groups, rational and incremental models of policy making top-down and bottom-up approaches; health services lab – equity, access and quality – types of equity in health service, significance of equity, how can equity be improved, types of access to health, measures to improve access, meanings of quality in health services, different perspectives, quality enhancement – fund flows, financing mechanisms, government private and donor spending; contemporary situation, health insurance; situation, models, approaches, national health accounts, financing models; health financing;

Policy analysis – applying the policy triangle, defining a policy issue and reviewing the literature for process and contexts, mapping the actors; simple stakeholder matrix for a policy issue, with respective type of involvement, extent of influence, shifts in position; analysing policy – different policy issues will be allocated to different groups, which they will be asked to analyse using a known framework (policy triangle) and prepare a presentation; comparative health systems – health care delivery models, financing systems, extent of state and private role, cost of health care, elements of a brief reviewing the knowledge, focusing the message presentation of findings, writing a policy brief; national health policies and programmes – treatment of health in constitutions, national health policy, AYUSH, policy, legal

Framework for health, major health programmes under the MoH&FW, National rural and urban health missions, guest lecture by a representative of a prominent government health department, emphasis on policy processes; human resources in health – definitions and role of health, workforce, levels and structure of health workforce; global and national; migration of health workforce – internal and external; issues in health workforce, absenteeism, incentives, training and retraining, private sector and health – private sector in health care delivery, the private sector in related areas – health technology, pharmaceuticals, health insurance, regulatory measures and implementation gaps, prominent civil society organizations in health, and their roles. structural adjustment, decentralization, integration, topical reform initiatives, NRHM, SAP; regulating private health sector; health sector reforms; public private partnerships - PPP concept, PPPs at level of service delivery, PPPs in health financing and industry, examples of PPPs in contemporary health, PPPs for health / civil society and health; pharmaceuticals and health sector – drug spending pattern in India, market structure and production priorities, R&D in drug market, pharmaceutical policies; primary health

Original declarations and modifications, historical processes, principles of PHC, local, national and global dimensions, PHC today; international health agreements – international laws, trade agreements impacting on health, health treaties, covenants and international declarations, international health actors and processes – major donors in India and globally, international health governance and priorities, policy transfer, international health – journal club discussion on a major international health policy issue of contemporary relevance such as anti-retroviral drug production and TRIPS the 10/90 gap, global tobacco control, etc., planning for health – introduction, planning process, project cycle management, systems approach to project planning, planning a health service, planning health services for an administrative unit (city / block / PHC), key considerations, operational issues, planning for health, health information systems – Introduction, types of health information, sources of information, census, applying information, implementation of health plans, Monitoring & Evaluation of systems, designing health programme – the framework for designing a programme, good vs. bad programmes, epidemiology to determine the need of the program, program goals, programme structuring, utilizing research, health technologies – types of technology in health, demand and supply gaps, cost and quality issues, emerging issues and new technology; globalization and health – global health inequities, what is globalization? Intellectual property rights, implications on access to medicines in developing countries, GATS – general agreements on trade in services – globalization and health – implications for disease patterns implementing a health programme – implementation issues in programme design (man, material and money) public vs. private services, addressing vulnerable populations, meeting requirements of donors, designing a health programme – monitoring and evaluation of a programme, mid-course correction / modification, national health policy, contemporary themes in national health – NRHM / NUHM,

recent health, typical themes in health policy, student evaluation; governance in health – planning for large populations, oversight, priority setting, accountability, performance, assessing success, a prominent guest lecturer in the field will be invited.

Health care environment and organizational stakeholders, governance, vision, mission, values and goals, management and working in teams.

- Managerial decisionmaking – managing and working in teams, management styles
- Introduction to project cycle management (PCM), project cycle management tools,
- Managing implementation – PCM tools
- Logistics management PCM tools
- Quality assurance in health projects
- Measuring performance and quality assurance
- Budgeting and financial management and HR in health organization
- Managerial expectations and employee performance, Demand and supply of health care
- Factors affecting health and Economic evaluation
- Revenue generation and pooling, health care markets

## **SEMESTER-II**

### **Demography and Population Sciences**

Introduction to demography and its data sources

- Definition and scope; relation with other disciplines, Basic measures and concepts Sources of data in demography viz., census of India, sample registration system, National Family Health Survey, District level health Surveys, National Sample Survey and other surveys, Nature and use of demographic data for policy making

Composition, structure and growth of population

- Sex ratio, age dependency ratio, population pyramid, rate and growth of population, Natural Increase, linear, geometric and exponential growth rate, Demographic Transition, Demographic Dividend, dwindling sex ratio in India: Implications to our society, Calculation: Composition, structure and growth of population

Fertility measures

- Concepts, calculation, scenario: Crude birth rate, general fertility rate, age specific fertility rate, total fertility rate, gross reproduction rate, net reproductive rate, child-women ratio, proximate determinants of fertility; viz., percentage of women in Union, Percentage of women in breastfeeding, contraceptive prevalence rate, abortion rate and changing fertility scenario in India, Fertility and Religion in India

Mortality measures

- Concepts, calculation, scenario: Crude death rate, age specific death rate, cause specific death rate, measures of infant & child mortality, maternal mortality ratio and changing mortality scenario in India, Impact of HIV/AIDS on demographic profile

Migration and health

- Measuring migration, Immigration or immigrations rate and emigration or out migration rate, Net Migration Rate, Migration selectivity, demographic, educational and economic, causes of migration, relevance of push and pull factors, migration and health, Migration and rapid urbanization: Impact on health and environment



### Life tables

- Definition and use of Life tables, construction of life tables, Population projection: different methods, ageing of population: Is it an issue in India?

### India's population policy

- Evolution of population policies in India and National, Population Policy links with other policies: NHP, NRHM Population programme in India: History of different approaches and its linkages with politics

### Group project

- Students will take one particular topic in demography like fertility/mortality/migration issues in India / state: analyse, interpret data and present the findings

## Health Economics & Health financing

**Objectives:** The course is intended to give the basic knowledge on principles health economics and how it does play a role in evaluation of health technologies. To impart knowledge about allocation of resources for different activities of health system

**Course Outline:** Introduction to Health Economics, Health and Human Development, Choice Theory, Demand for Health and Health Care, Elasticity of Demand and Applications, Health Production Functions, Health care Market, Market Failure, Cost of production and Applications, Health and Poverty, Basic concepts of National Income and Measurement, Health Equity Analysis, Health financing and Functions, Financing Health in India Issues and Challenges, Health insurance, Types of Health Insurance, Publicly Funded Health Insurance Programmes and its role in India, Payment Methods, Public Budget and Basic Concepts, Estimation of Government Health Expenditure, Concept of National Health Accounts and its Application in Health Systems, Economic Evaluation Methods and Applications, Health Technology Assessment (HTA), Universal Health Coverage, Sustainable Development Goals and Health, Ayushman Bharat Pradhan Mantri Jan Arogya Yojana.

### Suggested reading

- David Wonderling, Reinhold Gruen, N. B. (2005). Title : Introduction to Health Economics. Open University Press.
- Pablo Gottret, G. S. (2006). Title: Health Financing Revisited A Practitioner's Guide. The World Bank.
- Marc J. Roberts, William Hsiao, P. B. & M. R. R. (2008). Title: Getting Health Sector Reforms Right: A Guide to Improving Performance and Equity. OUP.
- Mcpake, B. C. N. (2008). Title : Health Economics An international perspective. (2nd ed.). Routledge.
- Michael F. Drummond, Mark J. Sculpher, George W. Torrance, B. J. O. B. & G. L. S. (2005). Title: Methods For The Economic Evaluation of Health Care Programmes (Third Edit).
- Drummond M et al. Methods of Economic Evaluation of Health Care Programmes, 3<sup>rd</sup> edition.
- The Oxford Textbook of Global Public Health, 6th Edition, Oxford Publisher

## Public Health Nutrition

**Objectives:** The course will provide knowledge regarding concepts and principles of Public Health Nutrition. This course will enable students to plan, implement and evaluate Nutrition Education Programs in the community.

**Course Outline:** Introduction to public health nutrition: concepts, purpose, application, dietary guidelines and recommendations; Global burden of malnutrition – Concept of undernutrition, over nutrition and micronutrient deficiency; prevalence, trends, nutrition transition, global and national targets; Nutritional needs of Children, Adolescents and Women, Nutritional assessment at community level: anthropometry, bio-chemical parameters, clinical signs and symptoms, dietary intake; communicable and non-communicable diseases; Nutrition education and communication: principles, planning and implementation; Food and nutrition safety and security: concepts, nutrition policy and program

### **Suggested reading**

- Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur
- Gopalan and Sastri. Nutritive Value of Indian Foods With Diet

## **Environmental and Occupational Health (Climate change, One health, Disaster Preparedness)**

- Introduction to the environmental burden of disease in India and Globally, basic concepts like environmental health; ecology; toxicology, environmental health economics; the inconvenient truth; estimating exposure, dose, response and outcome, definition, exposure assessment, dose response relationship, toxicological paradigm, analysis of human exposure, estimating exposure, dose, response and outcome, water pollution; types of pollution; major sources, water quality standards, water supply and treatment; indoor and outdoor air pollution; human and man-made sources, health effects, control measures, water quality analysis, solid waste management, biomedical waste, air quality monitoring, noise pollution, ventilation, light, housing; sources of noise pollution, mitigating factors and tolerance levels, health effects, housing and health, housing for migrant and low-income populations; radiation, meteorological environment, principles of radiation physics, measurement, risks, control and management, the management of biomedical waste in a hospital setting, globalization and its impact on the environment, climate change, bioterrorism, detailed discussion and debate on global warming and its impact in India, estimating the tolerance level of noise, land use, depletion of natural resources, toxic substances analysis, environmental impact assessment, definition, objectives principles and steps in carrying out the assessment, GIS, environmental disasters, food safety and sanitation, common food borne diseases hazards, food preservation, food and drug administration act, food testing for chemicals, environmental legislations in India, air pollution act, noise pollution act, water pollution control act, etc.. Critical analysis of the implementation of the EH legislation.

Environmental health economics – concept and its relevance to environmental health programs in India, genetically modified food, pesticides, introduction to the burden of occupational health, definition, concepts, industrial health, industrial medicine and occupational health, history, occupational health hazards, diseases due to temperature, heat exhaustion, heat cramps, heat stroke, cold related hazards, acclimatization, personal protective measures. Asbestosis, coal workers lung diseases, silicosis, byssinosis, Bhopal gas tragedy after 25 years and its trends, metal exposures diseases – health effects of exposure to uranium, mercury, lead, coal mine workers; cotton industry workers; gender, women and work, women and occupational health, exposures to organic and inorganic chemicals, diseases associated with hydrocarbons and other solvents, occupational health services; introduction; health screening procedures; demos of equipment, OHS: Identifying hazards at workplace – risk assessment and communication, making the society green – walknature trail (coordinating with centre for environmental education); risk assessment and communication Occupational health services – surveillance systems (Periodic medical examination); ergonomics and work site health promotion; occupational health legislations in India and its real implementation, identifying hazards – textile industry, hospital, hotels, institutes, IT offices, etc.. Introduction to medical entomology – mosquito; sand fly; fleas; insecticides; ticks and itch mites etc., life history and its impact on the environment; role of health professionals as a responsible citizen, risk assessment and communication, review of the course and wrapup.

#### Disaster Preparedness and management

- To sensitize the student on India's vulnerability to disasters, to help them understand the disaster management cycle, to impart information on the aftermath of disasters, to equip the student the skills required to plan preparedness activities including rapid surveys
- Importance of this course in the larger discourse on public health and pandemic preparedness, historical perspective of disasters and its management
- India's vulnerability to disasters, major disasters in the last 3-5 years, administrative structure
- role of international organizations. · Extent of damage in a disaster situation (infrastructure, human resources, services, communication; how survival of relief workers is threatened)
- acute illnesses (epidemics); Chronic illnesses; Health needs of women; Health needs of children; Effect on health services;
- Rapid assessment/ surveys,
- Mass casualty – preparedness and management
- Hospital evacuation;
- Media management & communication;
- Vulnerable populations and ethics;
- Long term implications of disaster, psychosocial aspects · Self-preservation
- Disease surveillance & response
- Coordination of relief activities; logistics; & communication ·
- Preparation for presentation of preparedness plan

### **Digital Health and Health Information Systems**

- Detailed syllabus/contents:
- Introduction to Digital Transformation in Public Health: Understanding the concept and importance of digital transformation in the public health sector.

- Key Concepts in Digital Health: Overview of digital health and health informatics
- Overview of Digital Public Health Initiatives: Global and national digital public health initiatives and their impact.
- Case Studies on Digital Health Implementations: Successful case studies from around the world showcasing digital health implementations.
- Emerging Technologies in Public Health: understanding artificial intelligence, and big data.
- Tools and Platforms for Digital Public Health: Introduction to digital public health tools and platforms with hands-on practice.

## **Public Health Management and Project Planning**

- Overview of M&E – Introduction, Overview of M&E, M&E Plans;
- Frameworks – Conceptual; Log Frame; Results Framework; M&E Framework
- M&E case studies-1 - Nutrition program case study
- M&E case studies-2 - Balance scorecard case study
- Developing objectives and indicators
- Objectives and Indicators
- Non-routine sources and their quality
- Objectives and Indicators
- HMIS/other data sources and its quality
- HMIS Lab
- HMIS – Using the PRISM tool
- HMIS – PRISM tool
- Evaluating data quality
- Data quality
- Assessing M&E systems
- Impact evaluation - Overview
- Study designs

## **Research Methods (Quantitative and Qualitative)**

- Introduction to research methods – theory and main streams – definition of research, background on the theoretical basis of research methods (different roots and ideologies), definition and qualitative and quantitative research including differences, strengths, weaknesses and application
- Overview of literature review – importance and relevance of literature reviews, identification of resources for conducting reviews, preparation of a brief literature review document for the given topic of study
- Problem statement and formulation of research objectives – problem description, features of well-framed research objectives and hypothesis, framing aim, objectives and research questions for a study with a discussion of how these may vary for quantitative and qualitative research, framing the research concept and defining variables, making a conceptual framework for the study, meaning of variables, and identification of various variables that need to be incorporated in the study. Finalization of specific research objectives for the research project that has been chosen.
- Development of a conceptual framework for the study

- Ethics in research – values and codes of practice, principles of informed consent, confidentiality and responsibilities to research participants, responsibilities to oneself and co-workers, ethical dilemmas and conflicts, critical discussion of ethics in research
- Development of informed consent forms
- Reliability and validity – the meaning and importance of reliability and validity in research, differences between validity and reliability, types of reliability and validity explained in the context of quantitative and qualitative research
- Overview of study design
- Location of the study and sampling for a quantitative study – choice of appropriate location for a research study, review of concepts in sampling, sample size and power, description and application of various sampling techniques in the context of designing a survey.
- Types of survey methods and recruitment of subjects for research – choosing a location of the given study topic, choosing sample technique and determining sample size for the study
- Quantitative tools for data collection – description of various quantitative data collection tools, questionnaire design, bias and concept of piloting
- Designing a questionnaire for the chosen topic
- Data collection plan and data management
- Data collection for survey
- Discussion on problems faced during data collection and transcription and develop a plan for quantitative analysis
- Introduction to qualitative research in public health – understanding differences from Quantitative research, contribution of qualitative research in health
- Introduction to reflexivity and Discussion of different approaches such as ethnography, action research, PRA.
- Sampling and subject recruitment in qualitative research - Choosing a location, defining sample and sample size for a qualitative study, understanding differences between a qualitative and quantitative sample, recruitment of study participants
- Data collection techniques in qualitative research:
- Overview Introduction to different techniques for data collection: e.g. case interviews, focus group discussions, observational techniques, documentary evidence.
- Documentary evidence use of existing sources, public records, personal documents, methodological issues in using documentary evidence Data collection techniques in qualitative research –
- Observation Participant and non- participant observations, Ethnography and participant observations, overt and covert roles.
- Data collection techniques in qualitative research

## **Interviews**

Interview techniques: developing skills of interviewing, cultural factors and interviewing, private/public accounts, social differences in interviews, elite interviewing, and key informant interviews.

Data collection techniques in qualitative research - D. Focus group discussion - Different kinds of group interviews, focus groups, natural groups, developing appropriate methods for the setting. Show examples of FGD guides to the class.

Conduct one FGD in the class and discuss the FGD. FGD to be recorded.



- Qualitative data- transcription and cleaning - (Manage and store collected data, bearing in mind issues of record identification, confidentiality, etc.)
- Data analysis in qualitative research (Theoretical basis) - Principles of different approaches in analysis, Thematic content analysis, Grounded theory, Rigour in analysis, other analysis, Validity, generalizability and transferability. - Note- this course does not cover qualitative data analysis in detail.
- Report writing and class presentations - Different sections of the research report in a standard format, (students to be shown research papers and how these have been structured). Students to be exposed to the basics of giving a presentation on a research topic.
- Research methods in Public Health and allied disciplines -Collaborating across disciplines and institutions, linking research methods with epidemiology, different methods for different questions, trans-disciplinary work, communicating across disciplines.

## **Ethics in research & public health laws**

### **Ethics**

- Introduction and basic principles
- Course overview, objectives
- Brief historical overview of ethics
- Basic moral theory, universal and relative ethics
- Fundamental bioethical principles
- Introduction to key readings
- Ethical foundations of public health
- Equity (types of equities and inequities)
- Justice (types of justice and injustice)
- Utilitarianism and population rights approaches
- Individual rights perspectives
- Rights and duties
- Relational ethics: trust, respect, process

### **Health and human rights**

- Health as a human right
- Principles: Availability, Accessibility, Acceptability, Quality
- Stigma and discrimination - Special groups: women, children, the disabled, migrants, indigenous populations, minorities.

### **Individual vs population health**

- Case s t u d y: (e.g. Tobacco control, family planning, vaccination programmes, mass Treatments / chemoprophylaxis, mandatory HIV testing) Professional ethics, Rights and duties (of employers, employees, donors and financers, recipients of services)
- Professional respect and due process
- Professional codes and laws
- Ethical decision-making in public health

## Research ethics – 1

- Principles of research ethics
- Purposes and ideals of health research
- History of research ethics
- Natural research ethics
- Social research ethics
- Rights and duties (of participants, researchers and donors)

## Research ethics – 2

- Research procedures and practices (fieldwork ethics, consent, confidentiality and anonymity)
- IRB requirements - Publication ethics (Attribution, authorship acknowledgment, citation, plagiarism)
- Ethical Debates
- Case study: clinical research in developing countries

## Public Health Laws

- What are rights? Is there a right to public health?
- Duties of Government and the public health authority as per law
- National Health Law: Legal system in India and interaction between the Courts, Legislators and regulatory authorities
- Rights and Duties of Patients and Health Care Providers & Redressal Mechanisms
- Legal status of Public Health Management during Disaster, public health emergencies & epidemics.
- Notifiable Diseases and Locally Endemic Diseases – Legal requirements
- Environment health legislations
- Legislations for women empowerment and health
- Special Provisions for groups with special health needs

## I. International conventions / treaties and regulations related to public health

## II. International Health Regulations

## III. Universal Declaration of Human Rights

## IV. Emergency Public Health Law

## V. Legislation related to Quality of Professional Education and Services;

## VI. Legislation related to Census, Birth and Death

## VII. Legislation related to Biotechnology & Patenting

## Legislation related to Tobacco and Drug Control

## X. The Transplantation of Human Organs Act 1994

## X. The Prevention of Food Adulteration Act 1959

## XI. The Protection of Human Rights Act 1993

## XII. Legislation for Women Empowerment and Health

## XIII. Legislation for Child Protection and Health

## XIV. Legislation related to the Welfare Rehabilitation of Disadvantaged

## XV. Occupational Health & Legislation

## XVI. Environment Health Legislations

## **Semester-III**

### **Health Communication & Health Promotion**

**Objective:** By the end of this elective module, students will be equipped with the knowledge and skills to design, implement, and evaluate effective health communication strategies and promotional campaigns. They will also understand the use of mass media, digital tools, and behaviour change communication to address public health challenges across diverse populations.

#### **Mass Communication and Public Health**

**Objective:** The course will explore the use of mass media in shaping public health awareness and behaviours, and provide practical tools to develop impactful health communication strategies for diverse audiences.

**Course Outline:** Introduction to Mass Communication Theories: Agenda Setting, Two-Step Flow, Diffusion of Innovations, History and Evolution of Health Communication in India, Role of Mass Media (TV, Radio, Print) in Health Promotion, Case Studies: Polio Campaign, Family Planning Messaging, COVID-19 IEC, Role of Government and Private Media in Health Communication, Health Journalism: Ethics, Challenges, and Opportunities, Use of Folk Media and Community Radio in Rural Health Communication, Crisis and Risk Communication in Public Health, Evaluating the Impact of Mass Media Campaigns.

#### **Suggestive Reading:**

- Mass Communication and Health by Charles K. Atkin & Lawrence Wallack (Published by SAGE Publications)
- Public Communication Campaigns by Ronald E. Rice & Charles K. Atkin (Published by SAGE Publications)
- Health Communication: From Theory to Practice by Renata Schiavo (Published by Jossey-Bass)

#### **Communication Strategies for Public Health**

**Objective:** The aim of this course is to develop students' abilities to craft and evaluate strategic public health messages and campaigns, using behavioural and social change communication approaches.

**Course Outline:** Basics of Health Communication: Sender, Message, Channel, Receiver, Feedback, Audience Segmentation and Behaviour Change Communication (BCC), Social and Behaviour Change Communication (SBCC) Frameworks, Culturally Appropriate and Context-Specific Communication, IEC Materials: Planning, Designing, and Testing, Interpersonal Communication and Advocacy in Public Health, Participatory Approaches to Communication, Role of Influencers and Community Leaders, Monitoring and Evaluation of Health Communication Strategies, Ethics in Health Communication.

#### **Suggestive Reading:**

- Strategic Communication in Public Health and Development Campaigns by Nova Corcoran (Published by Routledge)
- Health Communication: Strategies for Developing Global Health Programs by Nova Corcoran (Published by Routledge)
- Essentials of Public Health Communication by Claudia Parvanta et al. (Published by Jones & Bartlett Learning)

## Designing and Implementing a Public Health Communication Campaign

Objective: This course will provide hands-on experience in the design, planning, execution, and assessment of public health communication campaigns, using real-life case studies and participatory methods.

Course Outline: Phases of Campaign Design: Planning, Pretesting, Implementation, Evaluation, Setting SMART Objectives for Health Campaigns, Message Development: Clear, Culturally Sensitive, Action-Oriented, Choosing the Right Media Mix: Traditional and Digital Platforms, Campaign Branding and Storytelling, Health Literacy and Readability Considerations, Partnerships and Stakeholder Engagement in Campaigns, Budgeting and Resource Allocation, Examples of Successful Health Campaigns in India, Use of Pre- and Post-Campaign Surveys and Analytics.

Suggestive Reading:

Designing Health Messages by Edward Maibach & Roxanne Parrott (Published by SAGE Publications)

Planning Health Promotion Programs by L. Kay Bartholomew Eldredge et al. (Published by Jossey-Bass)

Theory at a Glance: A Guide for Health Promotion Practice by National Cancer Institute (Published by U.S. Department of Health and Human Services)

mHealth and Web-based Health Communication Strategies

Objective: The course is designed to introduce students to the growing field of digital health, enabling them to design, implement, and evaluate mobile and web-based interventions for improving public health communication and access to services.

Course Outline: Introduction to mHealth: Definition, Evolution, and Relevance in India, Types of mHealth Tools: SMS Alerts, IVRS, Mobile Apps, Telemedicine, Use of WhatsApp, YouTube, and Social Media for Public Health Messaging, Mobile Health Campaigns in Maternal and Child Health, NCDs, and Infectious Diseases, User-Centered Design for mHealth Applications, Digital Health Communication during Pandemics (e.g., COVID-19 apps, Aarogya Setu), Ethics and Privacy in Digital Health, Evaluation Metrics: Reach, Engagement, Behavior Change, Government Initiatives: eSanjeevani, MCTS, Health Portal India.

Suggestive Reading:

mHealth: Transforming Healthcare by Donna Malvey & Donna J. Slovensky (Published by Springer)

Digital Health: Scaling Healthcare to the World by Homero Rivas & Katarzyna Wac (Published by Springer)

Mobile Technologies for Every Library by Ann Whitney Gleason (Published by Rowman & Littlefield)

## **National Health Programs (MCH, NCD, NTEP, NVBDCP, HIV etc.)**

- Systems approach
- Aims, goals, targets and objectives - Input, process, output, outcome and impact
- Health Care Delivery System in India - Organization of Health Services in Rural & Urban areas;
- Role of Private Sector and Civil Society
- AYUSH
- Informal Providers

- Informal Providers
- Health care delivery systems in developed countries – Lessons for India
- Health Care Delivery System in India; Organization of services; Role of various sectors: Public and private; modern and traditional Role of Civil Society; Health care delivery systems in developed countries – Lessons for India; National Health Programmes; Evaluation of a health programme

#### National Health Programmes in India

- National Vector-borne disease control programme – malaria, lymphatic filariasis, kala-azar, Japanese encephalitis, dengue fever / dengue haemorrhaging fever, chikungunya fever,
- National Leprosy Eradication Programme – NLEP
- Revised National Tuberculosis Control Programme – RNTCP
- National AIDS Control Programme – NACP
- National programme for control of blindness – NPCB
- Iodine Deficiency disorder programme – IDDP
- Universal Immunization Programme – UIP
- Reproductive and Child Health Programme – RCH
- Janani Suraksha Yojana – JSY
- National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular diseases, and stroke (NPCDCS)

#### Integrated Disease Surveillance Project (IDSP) Nutrition Programmes:

- Vitamin A Prophylaxis Programme
- Prophylaxis against nutritional anaemia
- Iodine Deficiency Disorders control programme
- Special nutrition programme / Balvadi nutrition programme
- ICDS programme
- Mid-day meal programme / scheme

### **Health Technology Assessment**

- Introduction to HTA and role of HTA in health systems:
- Definitions, principles, history, and the role of HTA in health policy and decision-making.
- Economic evaluation:
- Methods for assessing cost-effectiveness, cost-benefit, and budget impact of health technologies.
- Systematic reviews and meta-analysis:
- Conducting a systematic literature search, and critically appraising evidence.
- Clinical evidence:
- Integrating and assessing clinical evidence on the safety, efficacy, and health-related quality of life of health technologies.
- Ethical aspects in HTA



## **Seminars on emerging issues in Public Health; Gender, vulnerable population)**

- Emerging Infectious Diseases
- Diseases due to new agents; human monkey pox, new types of diarrhoeal diseases, legionnaires disease; Ebola haemorrhage fever, AIDS, Hanta virus, Creutzfeldt-Jakob disease, hepatitis-E, severe acute respiratory syndrome, hepatitis C, zikavirus.
- Diseases due to known variants of Pathogens Re-emerging Infectious Diseases. Malaria, Kala-azar, dengue fever, plague, Control of emerging and re-emerging diseases.

### **ELECTIVES**

#### **Advanced Epidemiology, Biostatistics & Data Management**

##### **Advanced Epidemiology**

**Objective:** This course will provide advanced knowledge of epidemiological methods, enabling students to design and analyse complex studies, interpret findings, and apply epidemiologic evidence to inform health decisions and policies.

**Course Outline:** Directed acyclic graphs and conceptual framework, Confounding bias and methods to reduce confounding, Selection bias, Information bias, Interaction, effect modifiers, strategy to address confounding, MH ratio, Stratification and adjustment, Measures of validity and reliability, Nested study designs, Advanced designs in clinical trial, Systematic reviews and meta-analysis, Sensitivity analysis, publication bias, Communicating results of epidemiological studies,

Epidemiology and management of Vector Borne Diseases, Health measures following disasters, various public data sources: CRS, SRS, Census, NFHS, DLHS, HMIS, MCTS, etc, use of epidemiology to evaluate health services, Epidemiological approach to evaluate screening programs, Epidemiology and public policy.

##### **Suggestive Reading:**

1. Epidemiology: Advanced Study and Practices by Tony Andrew (Published by Hayle Medical)
2. Modern Epidemiology by Kenneth J. Rothman, Sander Greenland & Timothy L. Lash (Published by Wolters Kluwer)
3. Epidemiology: Beyond the Basics by Moyses Szklo & F. Javier Nieto (Published by Jones & Bartlett Learning)
4. Epidemiology: An Introduction by Kenneth J. Rothman (Published by Oxford University Press)

##### **Advanced Biostatistics & Data Management**

Applied regression analysis (linear, linear and logistic), survival analysis, design and analysis of sample surveys, design and analysis of clinical trials, systematic reviews and meta-analysis, longitudinal data analysis

**Objective:** The course is designed to build expertise in advanced statistical techniques including regression modelling, survival analysis, and multivariate analysis, and to apply them in health research and policy evaluation.

**Course Outline:** Introduction to regression, Logistic regression, Odds and adjusted Odds computation in regression, Maximum likelihood techniques and its statistical inference,

Modelling strategy, Binary and Multivariate logistic regression, Assessing goodness of fit, Ordinal logistic regression, Logistic regression for co-related data, GEE, Linear regression, GLM, R square, Variation inflation factor, Computational program for regression, ROC, multilevel modelling, Time series analysis, Data imputation. Introduction to Survival analysis, Kaplan–Meier Survival Curves and the Log–Rank Test, The Cox Proportional Hazards Model and Its Characteristics, Stratified Cox Procedure, Extension of the Cox Proportional Hazards Model for Time-Dependent Variables, Recurrent Event Survival Analysis, Parametric survival model.

Suggestive Reading:

1. Biostatistics: A Foundation for Analysis in the Health Sciences by Wayne W. Daniel & Chad L. Cross (Published by Wiley)
2. Applied Longitudinal Analysis by Garrett M. Fitzmaurice, Nan M. Laird & James H. Ware (Published by Wiley)
3. Design and Analysis of Clinical Trials by Shein-Chung Chow & Jen-Pei Liu (Published by Wiley)
4. Fundamentals of Biostatistics by Bernard Rosner (Published by Cengage Learning)

## NCD Epidemiology

- Disease burden of NCDs in India (cardiovascular, respiratory, cancer, diabetes, mental health)
- Conceptual knowledge behind DALY and QALY
- Controlling for confounding and effect modification and dealing with bias in NCD
- Life course epidemiology
- Critical appraisal of NCD epidemiological studies
- Designing and analysing NCD epidemiological studies

**Background:** Non-communicable diseases (NCDs) are chronic conditions, which typically progress slowly and, are not transmitted from person to person. The rising prevalence of NCDs in younger and younger populations poses challenges related to diminished quality of life, productivity, and functioning in society, and a high burden on health systems. They include conditions such as cardiovascular diseases, cancers, chronic respiratory diseases, and diabetes. Mental, neurological and substance use disorders are also considered to be NCDs themselves and are closely linked to other NCDs such as diabetes mellitus and cancer. Injuries, both intentional and unintentional, of multifactorial causation, are associated with varied adverse outcomes, including long-term psychosocial trauma, temporary / permanent disability, and death. Effective prevention (primordial, primary, secondary and tertiary) and control measures to address NCDs are a public health priority. This course explores the scope and epidemiology, surveillance, management, and health system strengthening related to NCDs.

Program specific objectives:

To enable the student to

- Describe the natural history of NCDs in general, and specific NCDs
- Understand the causation of injuries
- Understand the impact of NCDs on health, well-being, productivity, and quality of life
- Explore prevention (primordial, primary, secondary, and tertiary) and management of NCDs
- Employ research concepts and techniques to understand the population burden of NCDs

- Be cognisant of the landscape of healthcare in India and understand the recourse for NCDI management
- Appraise NCDI data and health programmes
- Design and evaluate interventions to address NCDIs

## **Curriculum/contents:**

### **Unit I: Basic concepts in NCDI**

- Causation and association
- Risks
- Risk assessment for NCDIs
- Life course approach
- Healthy ageing
- Levels of prevention
- Health promotion
- Treatment and management (cf. communicable diseases)
- Metrics: incidence, prevalence, rates, DALYs, and QALYs

### **Unit II: Understanding specific NCDIs**

- CVD
- Diabetes mellitus
- Cancer
- COPD
- CKD
- Mental illnesses
- Visual, hearing, learning, musculoskeletal impairment
- Neurodegenerative disorders
- Reproductive system disorders
- Nutritional disorders
- Autoimmune diseases
- Injuries – RTI, burns, bites, drowning, lightning, violence

### **Addressing NCDIs – management**

- Comorbidity and multimorbidity
  - Basic requirements at individual, community, and policy and provision levels
  - Sustainable Development Goals
  - Systems of medicine – medical pluralism
  - The landscape of healthcare in India
  - Advocacy for NCDI prevention and management
  - Care pathways
1. Pharmaceutical and non-pharmaceutical management
  2. Palliative care
  3. Genome mapping and personalised medicine

### **National Health Programmes Related to NCDIs & NCD Policy Exercise**

- NP-NCD
- National Mental Health Programme
- National Programme for the Health Care of the Elderly
- National Programme for Control of Blindness & Visual Impairment
- National Programme for Prevention and Management of Trauma and Burn Injuries

- National Oral Health Program
- National Tobacco Control Programme
- Poshan Abhiyan
- Anaemia Mukht Bharat
- National Iodine Deficiency Disorders Control Programme
- National programme for Prevention & Management of Trauma & Burn Injuries (NPPMT&BI)
- National Rabies Control Programme
- NCDI management in health system crises

### **NCDIs - Programme Planning, Implementation & Evaluation**

- Community needs assessment
- Development and prioritisation of interventions for prevention and control
- Package of Essential Non-communicable (PEN) Disease Interventions for Primary Health Care
- Data dissemination
- Evidence-policy translation

### **Pedagogy:**

- Lectures
- Documentaries and feature films
- Field visits
- Journal club
- Individual and group projects on identifying, preventing, and managing NCDIs

### **Assessment structure:**

Internal: Class participation, individual and group assignments (9 in total)

External: Examinations (theory, practical, project, viva)

### **Career pathway after program completion:**

- Research positions in academic institutions, private health organisations, pharmaceutical organisations, NGOs, and government departments
- Epidemiologist/nutritionist/health counsellor/trainer positions
- Doctoral studies

### **Reading material:**

- Non-communicable Diseases: A Compendium. 2023. Nick Banatvala and Pascal Bovet (eds) Routledge, London and New York. Available at: <https://www.taylorfrancis.com/books/oa-edit/10.4324/9781003306689/non-communicable-diseases-nick-banatvala-pascal-bovet>
- Kishore, J., 2022. National health programs of India. 14th ed.
- McQueen, D., 2017. Global handbook on noncommunicable diseases and health promotion. [Place of publication not identified]: Springer-Verlag New York.
- Mike Rayner., Kremlin Wickramasinghe., Julianne Williams., Karen McColl. and Shanthi Mendis., n.d. An Introduction to Population-level Prevention of Non-Communicable

- Narain Jai Prakash and Kumar Rajesh, 2016. Textbook of Chronic Non communicable Diseases: The Health Challenge of 21st Century. Jaypee Brothers Medical Publisher (P) Ltd.
- Willett, W., 2012. Nutritional epidemiology. 3rd ed. New York: Oxford University Press.
- CDC, 2022. CDC Program Evaluation Steps. [online] Cdc.gov. Available at: <https://www.cdc.gov/eval/steps/index.htm>
- Issel, L., Wells, R. and Williams, M., 2021. Health program planning and evaluation. 5th ed.
- Park, K., 2021. Park's textbook of preventive and social medicine. 26th ed.
- Jennie Naidoo, Jane Wills, 2000. Health Promotion: Foundations for Practice. Baillière Tindall, 2000
- Health Promotion: A Practical Guide to Effective Communication, 2021. Cambridge University Press. Merryn McClintock (ed)
- Online resources:
- National Health Portal of India: Provides comprehensive information on health topics, health policies, and government health programs in India.
- Ministry of Health and Family Welfare (MoHFW): Offers access to various reports, guidelines, and publications on public health in India.
- Public Health Foundation of India (PHFI): Provides research papers, policy briefs, and other resources on public health.
- Coursera and edX: Offer courses from Indian and international universities on public health, healthcare management, and health policy.
- PubMed: A free resource for accessing a vast database of biomedical literature, including studies relevant to India.
- Reports and guidelines:
- National Health Policy Documents: Published by the Ministry of Health and Family Welfare, Government of India.
- National Health Mission (NHM) Reports: Provides detailed information on health programs and outcomes in India.
- WHO India Reports: Comprehensive reports on health issues and policies specific to India.

## **Public Health Disability**

### **Unit I. Introduction: Disability, Public health and Development**

- What is Disability?
- Disability Facts and FYIs, Both Globally and Within India
- Public Health Approaches to Disability- Interdisciplinary Nature of Public health
- Principles of Planning: Programme Planning Cycle
- Social and Psychological Experience of disability
- Types of Stigma, Poverty Disability Cycle, Disability Stigma, etc.

### **Unit II. Defining Disability**

- ICF and Medical Model of Disability
- Social Model of Disability
- Human Rights and Disability- Inclusionment Theory/ UN Convention on the Rights of persons with Disabilities.
- Panel Discussion on Models of Disability



### Unit III. Disability Epidemiology

- Introduction to Epidemiology
- Introduction to Basic Statistics and their application to disability studies
- Assessing and Diagnosing Disability
- Disability Surveys, Survey Designs, and Examples of Survey Data
- Disability Statistics and Demographics
- Determinants of Disability and Preventable Disability
- Developing preventative strategies for avoidable disabling conditions in own areas
- Disability Disparities- return discussion of disability and poverty cycle

### Unit IV. - Managing Disability

- Introduction to the Community Based Rehabilitation Matrix
- Convergence of CBR with public health approach
- Public Resources and Services for the Disabled, Disability Policy
- Public and Private Interaction in providing Disabled Services
- Human Rights and Advocacy for the Disabled- A look at how policy affect benefits and concessions for the disabled
- Inclusion Programs for the Disabled; Partnerships for disability rights and employment
- Disability in context- from grassroots movements to policy change.
- SWOT analysis on disability services and rights for the disabled for a particular country/region/locality

### Unit V. Research in Disability

- Disability Theories- Comparison of Research completed using these theories
- Selected Topics in Disability: Sociology of Disability
- Selected Topics in Disability: Anthropology of Disability
- Developing a Plan for Disability at district/unit level using the planning cycle- identifying the problem and determining the objectives
- Developing a plan...- Prioritization and monitoring tool
- Service Learning Visits and Presentations
- Discussion on Service-Learning Visits- What was learned and how can we apply this after course is finished

## **Public Health Surveillance**

Introduction to Surveillance – Definition and history of surveillance and purposes of surveillance; Basic concepts in surveillance – acute and chronic disease surveillance, active and passive surveillance and sentinel surveillance; Establishment of a surveillance system – potential sources of data; challenges in surveillance programs for developing countries; health problems of public health importance to be under surveillance, devising appropriate case definitions for surveillance, inter and intra-sectoral coordination in surveillance program, establishment of a reporting format, analysis and dissemination of surveillance data; Evaluation of a surveillance system; National programs for surveillance: NSPCD to IDSP; Integration and IDSP; Staffing and organizational set up under IDSP; diseases under surveillance in IDSP and reporting units; MIS under IDSP – reporting formats at different levels and data handling under IDSP; Partnerships in IDSP – forging and managing partnerships; Outbreak – Diagnosis and follow up action under IDSP – Prediction of outbreaks and time trends of diseases; diagnosing an outbreak; outbreak response; NCD Surveillance in IDSP; Need for NCD Surveillance and survey conduction; Use of information technology in IDSP.

# Advanced Public Health Nutrition

## Advanced human nutrition & Nutritional epidemiology

**Objective:** The course will provide in-depth knowledge of human nutrition across the life span and equip students with epidemiological tools to assess nutritional status, interpret dietary data, and evaluate nutrition-related public health interventions.

**Course Outline:** Introduction to science of Nutrition, Body composition, Macronutrients, Micronutrients, Water and electrolyte balance, Food groups and menu planning, Nutrigenomics and Nutri-genetics, Nutrition in Pregnancy and Lactation, Nutrition in Infancy, Nutrition in Childhood, Nutrition in Adolescence, Nutrition in Adulthood, Geriatric Nutrition, Nutrition and communicable diseases, Nutrition and Infection, Nutrition and diarrheal diseases, Nutrition and Vector borne diseases- Malaria, Dengue, Chikungunya, Nutrition and Tuberculosis, Human Immunodeficiency Virus Infection and Nutrition, Food based approaches to address communicable diseases Nutritional Management of Non-communicable diseases, Diabetes – epidemiology, risk factors, nutritional management, Management of cardiovascular diseases – epidemiology, nutrition management, Nutrition and Cancer – epidemiology, role of diet in cancer prevention, Nutrition related Obesity-prevalence, epidemiology, nutrition management, Role of nutrition factors in control and prevention of osteoporosis, Health promotion – Approaches for prevention and control of non-communicable diseases, Food based approaches to address non-communicable diseases.

### **Suggestive Reading:**

- Advanced Human Nutrition by Denis M. Medeiros & Robert E.C. Wildman (Published by Jones & Bartlett Learning)
- Nutrition Epidemiology by Walter Willett (Published by Oxford University Press)
- Modern Nutrition in Health and Disease by A. Catharine Ross et al. (Published by Wolters Kluwer)
- Community Nutrition: Planning Health Promotion and Disease Prevention by Marie A. Boyle (Published by Jones & Bartlett Learning)

### **Determinants of nutrition**

**Objective:** The course is designed to enable students to explore the multifaceted determinants of nutrition, including biological, cultural, socioeconomic, and environmental factors, and analyse their impact on population health.

**Course Outline:** Definition and historical aspect, Research methods that can be applied to nutrition, Evaluation tools in nutritional epidemiology: Direct methods and indirect methods, Food systems and food environment, Issues in assessing nutritional studies, Introduction to Anthropology, Anthropology of food and nutrition, Perceiving own Body and its impacts on health and nutrition, Cultural perspective of child nutrition, Ethno-Nutrition, Anthropological Methods and approaches in Nutrition, Social determinants of nutrition, Gender and Nutrition, Household and community level determinants, Introduction to WASH & Disease Burden, Challenges of Implementation of water & sanitation, Programmatic Approaches for implementation of WASH, Social & Behaviour Change Communications for WASH, WASH Technology Choice, Community Management of WASH, Gender in WASH, Basics of undernutrition and WASH & Linking nutritional outcomes with the WASH environment, WASH & Nutrition strategy and programming, Multi-stakeholder Approach and integrating activities at different levels, Monitoring and evaluation of integrated interventions.

### Suggestive Reading:

1. Nutrition Revolution: Influencing the Social & Medical Determinants of Nutrition by Alan Christianson (Published by Independently Published)
2. Nutrition and Health: A Handbook for Dietitians and Nutritionists by Helen M. Barker (Published by Routledge)
3. Nutrition and Health in Developing Countries by Richard D. Semba & Martin W. Bloem (Published by Humana Press)
4. Nutrition and Physical Degeneration by Weston A. Price (Published by Price-Pottenger Nutrition Foundation)

### Food Systems and Safety

**Objective:** The aim of the course is to help students understand the interconnected components of food systems, from production to consumption, and apply concepts of food safety, hygiene, and quality control within a public health framework.

**Course Outline:** Drivers of sustainable food systems, Agriculture Production and Policies, Agriculture nutrition linkages, Globalization, Indian Tax System & Tax structure of Food Products, Food labelling-principles and impact on health and nutrition, Introduction: basic concepts, Approaches and determinants of food and nutritional security, Measuring food and nutrition security, Climate Change and food security, Food and nutritional securities in emergency situation: case studies, Introduction to Food safety, Food Safety and Public Health, Food safety issues and challenges in the developing world, Climate change and Food security, Understanding food safety hazards and difference from additives, food borne illnesses, Based on nature of hazard – Physical, chemical and Biological, Antimicrobial resistance, Based on the food system (food supply chain), Food quality testing, Outbreak investigation, Food safety control and regulatory systems, Food quality/safety control system and laws in India, Standards and guidelines, Voluntary standards, Hazard analysis and critical control point system (HACCP), Global food safety networking initiatives.

### Suggestive Reading:

1. Food Safety Handbook: A Practical Guide for Building a Robust Food Safety Management System by International Finance Corporation (Published by World Bank)
2. Food Safety: Theory and Practice by Paul L. Knechtges (Published by Jones & Bartlett Learning)
3. Food Safety Management: A Practical Guide for the Food Industry by Yasmine Motarjemi & Huub Lelieveld (Published by Academic Press)
4. Food Safety: Contaminants and Toxins by J.P.F. D'Mello (Published by CABI)

### Nutrition Policies and Programmes

**Objective:** This course aims to familiarize students with the development, implementation, and evaluation of national and global nutrition policies and programmes, emphasizing their role in combating malnutrition and promoting food security.

**Course Outline:** Global Policies, strategies and plans relevant to nutrition - Evidence informed action, inter-sectoral nature of nutrition policies, policy interventions to address, Nutrition Challenge and Food System Solutions – linkages between food system, food environment and diet quality, National Nutrition Strategy (2017)- key features, targets and interventions, Poshan Abhiyaan- targets, implementation mechanism and coverage, Nutrition relevant policies, Role of agriculture, income generation, other developmental policies in addressing food and nutrition security, Science, need and development of fortification and supplementation strategies, Nutrition Programming, Centrally supported nutrition programmes

objectives, coverage, intervention package and implementation structure, Nutrition sensitive programmes, State of Odisha Initiatives to address nutrition challenges, Need for convergence- leveraging agriculture for nutrition– Horticulture, fisheries, crop diversification etc.

### Suggestive Reading

- Nutrition in Public Health: Principles, Policies, and Practice by Arlene Spark, Lauren Dinour & Janel Obenchain (Published by CRC Press)
- Public Health Nutrition: From Principles to Practice by Mark Lawrence & Tony Worsley (Published by Open University Press)
- Nutrition Policy in Public Health by Frank T. P. K. Ng & Michael J. Gibney (Published by Oxford University Press)
- Community Nutrition: Planning Health Promotion and Disease Prevention by Marie A. Boyle (Published by Jones & Bartlett Learning)

## Health Systems Policy and Management

**Objective:** By the end of this module, students will be able to critically analyse the structure and functioning of global health care systems, with a particular focus on health financing mechanisms, policy formulation and review processes, and effective models of health service delivery and management.

### Global Health Care System

**Objective:** By the end of this module, students will be able to critically analyse the structure and functioning of global health care systems, with a particular focus on health financing mechanisms, policy formulation and review processes, and effective models of health service delivery and management.

**Course Outline:** Introduction to Global Health Systems, Determinants of Global Health, Global Burden of Disease: Communicable and Non Communicable Diseases, Evolution of health systems across the world, Comparative health systems: High-income vs. low/middle-income countries, Universal Health Coverage (UHC), Health System Frameworks and Functions, WHO Health Systems Framework, Governance, service delivery, financing, and health workforce, Health system performance assessment, Global Health Actors and Agencies, Role of WHO, UNICEF, World Bank, GAVI, Global Fund, and NGOs, International health regulations (IHR) and global health diplomacy, Health System Strengthening, Health policy reforms in different countries, Innovations in global health (eHealth, mHealth, AI, etc.), Challenges in fragile and conflict-affected settings, Global Burden of Disease and Health Priorities, Epidemiological transitions, Non-communicable vs. communicable diseases, Health equity and social determinants of health.

### Suggestive Reading:

- Global Health: An introduction to current and future trends. Kevin McCracken and David R. Philipps. 2012.
- Introduction to Global Health by Kathryn H. Jacobsen (Published by Jones & Bartlett Learning)
- Global Health Governance by Sophie Harman (Published by Routledge)

## Advanced Health Economics and Financing

**Objective:** This module aims to equip students with advanced knowledge of economic theories and tools relevant to public health, including cost-effectiveness analysis, economic evaluation of health interventions, and financing mechanisms such as health insurance models, public-private partnerships, and government spending.

**Course Outline:** Demand and supply of health care, Cost-benefit, cost-effectiveness, and cost-utility analysis, Health externalities and market failures, Health Care Financing Models (Tax-based, Insurance-based, Out-of-pocket), Health Insurance and Risk Pooling Mechanisms, National Health Accounts (NHA) and Budgeting, Public-Private Partnerships in Health Financing, Health Sector Reforms and Fiscal Decentralization, Equity and Efficiency in Health Financing, Economic Impact of Health Interventions, Global Health Financing (GAVI, GFATM, World Bank, etc.)

### Suggestive Reading:

- Health Economics by Jay Bhattacharya, Timothy Hyde, and Peter Tu
- Financing Health Care in India by M. Govinda Rao & Mita Choudhury (Published by Cambridge University Press)
- The Economics of Health and Health Care by Sherman Folland, Allen C. Goodman & Miron Stano (Published by Routledge)
- Health Care Finance and the Mechanics of Insurance and Reimbursement by Michael K. Harrington (Published by Jones & Bartlett Learning)

### Health Policy Planning and Review

**Objective:** This course will provide knowledge regarding the principles and processes of health policy formulation, implementation, and evaluation. Students will gain the skills to analyse policy documents, apply policy analysis frameworks, assess stakeholder influence, and review national and international health policies with an emphasis on equity, evidence, and governance.

**Course Outline:** Introduction to Health Policy: Concepts and Frameworks, Health Policy Cycle: Formulation to Evaluation, Stakeholder Analysis and Policy Advocacy, Policy Instruments and Implementation Tools, Policy Analysis and Evidence-informed Decision Making, Priority Setting in Health Policy, Legal and Ethical Aspects of Health Policy, National Health Policies and Programs (India and Global Examples), Health Impact Assessment, Strategic Planning and Policy Review Techniques, Monitoring and Evaluation of Health Policies, Role of Civil Society and Media in Health Policy.

### Suggestive Reading:

- Making Health Policy by Buse, Kent, Nicholas Mays & Gill Walt (Published by McGraw-Hill Education)
- Public Policymaking in India by R.V.Vaidyanatha Ayyar (Published by Pearson Education India)
- Health Policy in India by R. Ramasubban & Michael R. Reich (Published by Harvard Center for Population and Development Studies)
- Global Health Policy by Carol Holtz (Published by Jones & Bartlett Learning)



## Health Service Delivery and Management

**Objective:** This module will enable students to understand the organization and delivery of health services across primary, secondary, and tertiary levels. Students will develop managerial competencies in planning, resource allocation, quality assurance, human resource management, and supervision of public health programs, along with the ability to analyse challenges and propose solutions for effective and efficient health service delivery.

**Course Outline:** Overview of Health Service Delivery Systems, Levels of Care: Primary, Secondary, and Tertiary, Essential Health Services and Packages, Management Principles in Health Care, Quality of Care and Patient Safety, Supply Chain Management in Health Services, Human Resource Management in Health Systems, Referral Mechanisms and Continuum of Care, Facility Management and Infrastructure Planning, Use of Health Information Systems for Service Delivery, Health Systems Strengthening Strategies, Innovations and Best Practices in Service Delivery.

### **Suggestive Reading:**

- Health Services Management by Sharon B. Buchbinder & Nancy H. Shanks (Published by Jones & Bartlett Learning)
- Managing Health Services by Nick Goodwin, Gill Harvey & Deborah Chambers (Published by Open University Press)
- Health Care Operations Management by James R. Langabeer & Jeffrey Helton (Published by Jones & Bartlett Learning)
- Strategic Healthcare Management by Stephen Walston (Published by Health Administration Press)

## Maternal & Child Health

**Objectives:** This course is designed to build knowledge of maternal, child, adolescent and reproductive health comprehensively. The students will be trained in burdens of morbidities and mortalities during these periods of life. They will be able to identify various interventions in maternal and child health and their impacts.

**Course Outline:** Burden of RCH issues and Evolution of RCH programmes in India - approaches, current strategies and targets. Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs), Reproductive, Maternal, New-born, Child and Adolescent Health (RMNCH+A), Management of RCH Programmes, Programme Implementation Plan in RCH, Community processes under RCH. Innovations in service delivery, Framework for evaluation of services, India New-born action plan, Family planning services: Evolution in India, methods of family planning, unmet need of family planning, barriers to family planning services, felt needs, quality indicators of family planning services in India

### **Suggested reading**

- Park Textbook of Preventive and Social Medicine, 24th Edition, Banarasi Das Bhanot Publisher, Jabalpur
- Banerjee B. D.K. Taneja's Health policies and programmes in India. Jaypee Brothers Medical Publishers; Fifteenth edition

## Community Mental Health

- Introduction to Mental Health & Public Health: Definitions, historical context within public health, burden of disease.
- Mental Health across the lifespan: Developmental stages and age-specific mental health conditions - childhood, adolescence, adulthood, old age
- Epidemiology of Mental Disorders: Prevalence/ risk factors, DALLYS
- Mental Health services: Structures of services, primary to tertiary care, accessibility, barriers
- Global Mental Health: MH GAP, Mental Health Action plan (WHO), SDG's, Global mental Health movement
- Community Mental Health models: What kind of models exist, Gaps
- Mental Health promotion and prevention: Universal, selective, indicated prevention models, school-based programs, workplace mental Health, role of media
- Mental Health policy and legislation: National mental Health policies, Mental health care act, suicide prevention national strategy
- Substance abuse: Prevalence, treatment models
- Mental Health in Humanitarian settings: Mental health post disasters, in conflict areas, among refugee populations -Models of treatment, psychological first aid, PTSD and trauma focused care
- Social determinants of health: Impact of poverty, social support, neighbourhoods, stigma and discrimination, cultural perspectives
- Monitoring and Evaluation of MH Programs: Theory of Change v/s logic models, evaluation frameworks, screening v/s diagnostic tools, reporting

## Tribal Health and Vulnerable Population

**Objective:** The course will provide a comprehensive understanding of societal structures, cultural beliefs, and behaviours, with a special focus on tribal communities and Particularly Vulnerable Tribal Groups (PVTGs). It will explore the diverse barriers and challenges these populations face in accessing health care and discuss strategies for effective mitigation and inclusive health service delivery.

## Medical Anthropology

**Objective:** The course is designed to provide a foundation in anthropological approaches to health and illness, enabling students to analyse cultural beliefs, social structures, and traditional practices that influence health behaviours and outcomes.

Course Outline: Theoretical Foundations of Medical Anthropology: Functionalism, Structuralism, Symbolic Interactionism, Cross-cultural Concepts of Health, Illness, and Healing, Disease vs. Illness: Understanding Subjective Experience, Cultural Epidemiology and Social Medicine, Anthropology of Biomedicine: Standardization and its Discontents, The Role of Rituals, Religion, and Belief in Healing, Globalization and Medical Systems: Medical Tourism, Pharmaceuticals, and Bioprospecting, Anthropology of Infectious Diseases and Epidemics (e.g., COVID-19, HIV), Mental Health and Culture, Gender and the Body: Reproductive Health and Women's Health Practices, Medical Ethics and Cultural Relativism, Medical Anthropology and Public Health: Integrative Approaches.

### **Suggestive Reading:**

- Pathologies of Power: Health, Human Rights, and the New War on the Poor by Paul Farmer (Published by University of California Press)
- Mountains Beyond Mountains: The Quest of Dr. Paul Farmer, a Man Who Would Cure the World by Tracy Kidder (Published by Random House)
- Medical Anthropology: A Biocultural Approach by Andrea S. Wiley & John S. Allen (Published by Oxford University Press)

### **Health Needs of Tribal and PVTGs**

**Objective:** The aim of the course is to sensitize students to the specific health challenges of tribal and Particularly Vulnerable Tribal Groups (PVTGs), and to develop culturally appropriate, equity-focused public health responses.

**Course Outline:** Understanding the Constitutional and Legal Framework for Tribal Health, Cultural Competency in Tribal Health Service Delivery, Role of Nutrition, Forest Dependence, and Food Insecurity, Malaria, Tuberculosis, and NCDs in Tribal Regions, Mental Health in Tribal Contexts, Adolescent Health and Education among PVTGs, Reproductive and Sexual Health Awareness and Gaps, Land, Displacement, and its Health Impacts, Health Infrastructure in Scheduled Areas: Functioning of Sub-centers and PHCs, Tribal Health Innovations and Mobile Clinics, Community Participation in Tribal Health Programs, Evaluation of Tribal Health Action Plans (THAPs), Role of NGOs and Civil Society in Tribal Health.

### **Suggestive Reading:**

- Tribal Health and Medicines by A.B. Chaudhuri (Published by Inter-India Publications)
- Health and Development of Tribal Communities in India by A.K. Kalla & P.C. Joshi (Published by B.R. Publishing Corporation)
- Health Status of Tribal Women in India by Asha Bhende (Published by Himalaya Publishing House)
- Accelerated Development of Particularly Vulnerable Tribal Groups (PVTGs) by Ministry of Tribal Affairs, Government of India (Published by Government of India)

### **Barriers to Health Access and Mitigation**

**Objective:** The course will provide students with tools to identify, examine, and address various barriers to health care access, and to design actionable strategies for improving health equity and service delivery.

**Course Outline:** Typologies of Barriers: Structural, Societal, Policy-Driven, and Psychosocial, Accessibility for Differently-Abled and Elderly, Religious and Cultural Barriers to Maternal and Child Health, Health Insurance Penetration and Utilization Gaps, Challenges in Health Service Utilization in Conflict and Remote Areas, Stigma and Discrimination in Health Access (e.g., HIV, Mental Illness), Strategies for Reducing Financial Hardship: RSBY, PMJAY, State Schemes, Role of Civil Society and Community Health Workers, Accountability Mechanisms:

Accountability Mechanisms: Social Audits, Citizen Report Cards, Role of Health Literacy and Behavior Change Communication, Community-Based Participatory Approaches, Innovations in Access: Telemedicine, mHealth, Outreach Camps, Public-Private Partnerships for Expanding Reach.

#### Suggestive Reading:

- Barriers to Health Equity in the United States of America: Can They Be Overcome? by Daniel E. Dawes (Published by Springer)
- Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care by Institute of Medicine (Published by National Academies Press)
- The Health Gap: The Challenge of an Unequal World by Michael Marmot (Published by Bloomsbury Publishing)
- Closing the Health Gap: A Practical Guide to Reducing Health Disparities by Michael A. Stoto & Melissa A. Clark (Published by Oxford University Press)

#### Health of Other Vulnerable Populations (Urban Poor and Other Special Groups)

Objective: The aim of the course is to develop an understanding of the social determinants affecting health among vulnerable groups such as the urban poor, elderly, migrants, and persons with disabilities, and to promote inclusive public health approaches.

Course Outline: Epidemiological Profile of Urban Slums, Environmental Health Risks in Urban Settings (Air Pollution, Waste Management), Urban Primary Health Centres and NUHM: Structure and Function, Health Services for Street Children and Orphaned Youth, Gender-based Violence and Access to Health Services, LGBTQ+ Health and Rights-Based Approaches, Mental Health Services for Urban Poor and Homeless, Substance Abuse in Urban Poor Communities, Health Care Access for Migrants: Legal, Social, and Language Barriers, Role of Community-Based Organizations and Urban Health Workers, Urban Health Information Systems and Data Gaps, Policy Frameworks: National Urban Health Mission, SDGs, Successful Models: Mohalla Clinics, Arogya Kendra's, Urban ASHAs, Innovations in Service Delivery: e-Clinics, Health ATMs, Integrated Referral Systems.

#### Suggestive Reading:

- Barriers to Health Equity in the United States of America: Can They Be Overcome? by Daniel E. Dawes (Published by Springer)
- Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care by Institute of Medicine (Published by National Academies Press)
- The Health Gap: The Challenge of an Unequal World by Michael Marmot (Published by Bloomsbury Publishing)
- Closing the Health Gap: A Practical Guide to Reducing Health Disparities by Michael A. Stoto & Melissa A. Clark (Published by Oxford University Press)

## **Semester - IV**

### **Dissertation**

A dissertation is compulsory for the students of Master of Public Health to provide the students an opportunity to plan and design a study, prepare research tools, collect, analyse the data and write up the research under the guidance of a faculty in the fourth semester.

- Design of the Study
- Study Tool Development
- Data collection and field work
- Data analysis and Interim presentation
- Report writing and submission
- Dissertation defence

The dissertation report should be prepared according to the guidance given by the concerned guide/institute and university guidelines.

#### **Ethical Clearance of the research proposal**

The student research proposal must be cleared by ethical Review Committee of the Institute/University/College.

#### **Evaluation of Dissertation**

The dissertation should be evaluated by two external examiners. The average grade given by the two examiners shall be taken as the final grade of the dissertation.

#### **Re-evaluation of dissertation**

In case of failure in dissertation, the comments of the external examiners should be incorporated in consultation with the guide and the dissertation resubmitted within a period of 6 months after the declaration of the result along with the required fees.



## Faculty

**Dr Rajan Shukla, Professor and Dean Public health practice and Community Engagement**



**Qualification:** MBBS (GMC), MPH(UoM, USA), DPH (GMC)

**Brief Write up on profile / Short Bio:**

Dr Shukla has over 30 years of experience, starting from emergency clinical care, health program management, teaching and training, Health Program evaluation, Health system strengthening, public health research, Public Health surveillance, designing and implementing integrated health programs for strengthening health systems. He is a medical professional turned public health specialist, dedicated towards empowering communities and health systems in adopting new scientific evidence to local context, using local resources to address the public health challenges, improve population health outcomes and promote social development. Health is both an input and outcome of development and hence needs to be addressed as the main determinant of social development. He works on reducing inequities by empowering marginalized communities to access high quality health care services and providing supportive environment to practice healthy behaviour as a means to promote sustainable social development.

a) **Areas of Expertise:** Maternal and Child Health, Eye Health, Public health surveillance, Health system, Project Management, Monitoring Evaluation and Learning, Health policy, Health insurance Health Economics

b) **Email:** [rajan.shukla@iiphh.org](mailto:rajan.shukla@iiphh.org)

c) **Contact details:** [Rishab242@gmail.com](mailto:Rishab242@gmail.com)

d) **LinkedIn Profile:** [www.linkedin.com/in/dr-rajan-shukla-6b9a0512](https://www.linkedin.com/in/dr-rajan-shukla-6b9a0512)

e) **Twitter ID:** [Rajan4healthSys](https://twitter.com/rajan4HealthSys) handle @rajan4HealthSys

f) **Orcid ID:** <https://orcid.org/0000-0002-1958-7396>

**Areas of interest:** Health system strengthening, Maternal and Child Health including nutrition, Eye Health, Public Health surveillance, emergency preparedness, Program Evaluation, Health program designing and implementation

**Publications:** Over 30 publications

**Current Research activities / Projects:** ECD, Cancer Screening, public health management cadre strengthening, IHR 2005 implementation monitoring strengthening in SEARO region

**Teaching / Academic Involvement:** Health Policy and program Management, Health Economics, Health Systems, MCH, Public Health surveillance

## Dr . Shailaja Tetali - Professor, Officiating Dean Research & Policy Support



Qualifications- MBBS, MPH, MMS (Karolinska Sweden), PhD (LSHTM)

Brief profile /Short Bio:

Shailaja has been with PHFI since 2009. She is a medical doctor trained at Sree Ramachandra Medical College Chennai, and has a Double Masters- MPH from Sree Chitra Tirunal Institute Trivandrum, and Masters in Medical Sciences from Karolinska Institute, Sweden.

Her PhD in injury epidemiology from LSHTM (UK) was through the Wellcome Trust Fellowship. Her interests are to explore the public health impacts of transportation choices, especially on injuries, physical activity and air pollution. She continues to work on safe and sustainable mobility and injury Epidemiology, arising from everyday journeys to work, school and other anthropogenic activities. She also leads teaching, curriculum development, short term trainings and student mentoring.

a) Areas of Expertise: Injury and disability prevention; environment and occupational health; Operations Research in health; Monitoring & Evaluation; Disaster management and preparedness

b) Email ID: [Shailaja.t@iiphh.org](mailto:Shailaja.t@iiphh.org)

c) LinkedIn Profile: <https://www.linkedin.com/in/shailaja-tetali-984b2a46/>

d) orcid ID: 0000-0001-7006-6935

Areas of interest: Injury and disability prevention; environment and occupational health; Operations Research in health; Monitoring & Evaluation; Disaster management and preparedness; Blood safety; Infection Control & Patient Safety

Awards and Honors:

2022 Indian Development Foundation Award for Injury prevention efforts

2020 Global Road Safety Leadership Fellow, USA

2017 Australia Awards Fellowship (Department of Foreign Affairs and Trade), Melbourne, Australia

2016 Wellcome Trust PHFI PhD Fellowship Award, UK

2015 Best Poster Presentation Award, PHFI Research Symposium, India

2015 AusAID award in injury prevention, Brisbane, Australia

2014 Harold Gunsen International Award for Blood Safety, Japan

Publications: [https://scholar.google.com/scholar?hl=en&as\\_sdt=0%2C5&q=shailaja+Tetali&og=sh](https://scholar.google.com/scholar?hl=en&as_sdt=0%2C5&q=shailaja+Tetali&og=sh)

Current Research activities / Projects:

Shailaja has worked in over 40 projects as PI /Co-PI and has 42 publications and 3 book chapters and print media write-ups.

Teaching / Academic Involvement: Teaches MPH, PG Diploma in Public Health Management, short courses in Environmental health, Disaster preparedness, Research Methods, Injury prevention & Disability. She is actively involved in student supervision -1 PhD (ongoing), 40 Masters/ Diploma theses

## Dr. Raghupathy Anchala - Professor, Dean Academics



**Qualification:** MBBS (AFMC, Pune);

Diploma in Tuberculosis and Chest Diseases - DTCD (BJMC, University of Pune);

MPH with specialisation in infectious diseases and microbiology (GSPH, University of Pittsburgh, USA);

PhD in Public Health and Primary Care (Cambridge, UK)

### **Brief Write up on profile / Short Bio:**

Raghu is a Public Health and Primary Care expert and a Chest Physician with a passionate interest in teaching sound epidemiological concepts/methods and research methods to students. He has a proven track record in implementation and operational research. Adept in Program Management and establishing industry and academia collaborations, he has been instrumental in driving the MPH program and placement of numerous students pursuing MPH in various NGOs and CSR Foundations.

His current research revolves around multimorbid NCDs in urban slums and rural areas, cascade of care pathways for people suffering from hypertension and diabetes, clinical decision support systems for people suffering with NCDs at primary care level and operational /implementation research in Tuberculosis.

a) **Areas of Expertise:** Epidemiology, NCDs, primary care, implementation research, operations research, health system strengthening, clinical decision support systems for managing NCDs at primary care.

b) **Email ID:** [raghupathy.a@iiphh.org](mailto:raghupathy.a@iiphh.org)

c) **Contact details:** 9618010188

d) **LinkedIn Profile:** <https://www.linkedin.com/in/raghupathyanchala1publichealth/>

e) **Twitter ID:** @docraghu8

f) **Orcid ID:** <https://orcid.org/0000-0003-4733-211X>

**Areas of interest:** Multimorbidity, implementation research, operations research, health system strengthening, clinical decision support systems

### **Awards and Honour's:**

1. Emerging Leader, World Heart Federation - 2015

2. Recipient of Wellcome Trust – PHFI PhD Research Fellowship and Cambridge Commonwealth Trust

Scholarship, 2010 to 2013

3. Recipient of Future Faculty Fellowship and AITRP (AIDS International Training Program: Fogarty Fellowship) from PHFI and University of Pittsburgh respectively in 2007 and 2008 to pursue Masters in Public Health at Graduate School of Public Health (GSPH), University of Pittsburgh (USA).

“OUTSTANDING STUDENT AWARD”, Masters level, 2008 – University of Pittsburgh, award given for academic excellence in MPH course based on GPA (3.99 out of 4), and practicum on ‘Comparison of bronchodilatory and reversibility effects of Salbutamol versus Ipratropium among varying severity scales of Bronchial Asthma and COPD’

5. Life Member Indian Chest Society and National College of Chest Physicians – India

6. Member – European Respiratory Society and European Society of Cardiology

7. Distinction in Biochemistry and Otorhinolaryngology during MBBS

8. University of Poona Topper in I MBBS

Publications:

Pubmed: <https://pubmed.ncbi.nlm.nih.gov/?term=raghupathy+anchala>

Scopus:

<https://www.scopus.com/authid/detail.uri?authorId=53163188000>

ORCID: <https://orcid.org/0000-0003-4733-211X>

Current Research activities / Projects: ‘ Cascade of Care for Multimorbidity in urban slums of Pune Home based pulmonary rehabilitation in stable Interstitial Lung disease patients.

Teaching / Academic Involvement: Epidemiology basic and advanced modules, NCD and ID epidemiology, research methods

### **Dr. Josyula K. Lakshmi, Professor**



Qualification: BHMS, MS, PhD

Brief Write up on profile / Short Bio:

Dr Josyula K. Lakshmi has a Bachelor's degree in Homoeopathic Medicine and Surgery, a Master of Science in Health Promotion, and a PhD in Health Promotion and Disease Prevention, and Gerontology. She has engaged in research, teaching, training, and student-mentoring in health promotion; environmental health; health governance; the workforce engaged in traditional, complementary and alternative medicine; road safety; communication; physical activity; nutrition; research methods and ethics; and ageing. Her study findings, analyses, and commentaries have been published in peer-reviewed academic journals, books, technical and general interest periodicals, and blogs. She has presented at numerous conferences, and participated as a resource person at training workshops and symposia.

Areas of Expertise: Health Promotion & Disease Prevention; Gerontology; Women's Health; Planetary Health

b) Email ID: [jklakshmi@iiphh.org](mailto:jklakshmi@iiphh.org), [jklakshmiipph@gmail.com](mailto:jklakshmiipph@gmail.com)

c) Contact details: +91-9618261526

d) LinkedIn Profile: Sirshendu Chaudhuri

(Link: <https://www.linkedin.com/in/josyula-k-lakshmi>)

e) Twitter ID: @JKLakshmi164849

f) orcid ID: 0000-0002-9141-7324

Areas of interest: Health governance and equity: medical pluralism; health promotion: environmental health, communication, physical activity, nutrition, ageing, injury prevention, women's health; ethics in public health research and practice

Awards and Honours:

1. Second place: PHFI short film competition (2014)
2. Indo-US Science and Technology Forum Post-doctoral research fellowship, 2012
3. First prize ('individual' category): ITaP Green Week Podcast Contest on environment-friendly ideas (2008)
4. Dr. Donald L. Corrigan Health and Kinesiology Award (2006)
5. Ross Fellowship (2003 - 2004)
6. F.N. Andrews Fellowship (1999 - 2001)
7. Gold Medal and citation as "Best student in the areas of Medicine, Dentistry, Veterinary Medicine, and Agricultural Sciences" (1997) – awarded by Prasanthi Society, Hyderabad, India
8. Gold Medal – Bachelor in Homoeopathic Medicine and Surgery (1996) – awarded by the University of Health Sciences, Andhra Pradesh, India
9. Dr. N.V. Srinivasa Rao memorial prizes: Homoeopathic Materia Medica & Homoeopathic Philosophy (1996).

Publications (20 latest):

1. Ojji D. B., Salam A., Sani M. U., Ogah O. S., Schutte A. E., Huffman M. D., Pant R., Ghosh A., Dhurjati R., Lakshmi Josyula K., Ripiye N. R., Orji I. A., Kana S. A., Abdussalam T., Olawumi A. L., Alfa I. M., Orimolade O. A., Ajayi M. O., Rodgers A. Low-Dose Triple-Pill vs Standard-Care Protocols for Hypertension Treatment in Nigeria: A Randomized Clinical Trial. JAMA. 2024;(-):[Epub ahead of print]. <https://www.ncbi.nlm.nih.gov/pubmed/39215620>
2. Yashdeep Gupta, Deksha Kapoor, Josyula K. Lakshmi, Devarsetty Praveen, Joseph A Santos, Laurent Billot, et al. Antenatal oral glucose tolerance test abnormalities in the prediction of future risk of postpartum diabetes in women with gestational diabetes: Results from the LIVING study. Journal of Diabetes. 06 May 2024. <https://doi.org/10.1111/1753-0407.13559>
3. Simone Pettigrew, Michelle I. Jongenelis, Josyula K. Lakshmi, Claire Johnson, Palak Mahajan, D. Praveen, Rachita Gupta. Developing and testing front -of-pack nutrition labels in India: An experimental study. Food Quality and Preference, 112: 105025. ISSN: 0950-3293. <https://doi.org/10.1016/j.foodqual.2023.105025>
4. Gupta Y, Kapoor D, Lakshmi JK, Praveen D, Santos JA, Billot L, et al.; LIVING Collaborative Group. The incidence and risk factors of postpartum diabetes in women from Bangladesh, India and Sri Lanka (South Asia) with prior gestational diabetes mellitus: Results from the LIVING study. Diabetes Res Clin Pract. 2023 Aug 31;204:110893. doi: 10.1016/j.diabres.2023.110893. Epub ahead of print. PMID: 37657646.
5. S. Daarwin Subramanee, Kingsley Agho, Josyula Lakshmi, Md. Nazmul Huda, Rohina Joshi, and Blessing Akombi-Inyang. Child Marriage in South Asia: A Systematic Review. Int. J. Environ. Res. Public Health 2022, 19, 15138. <https://doi.org/10.3390/ijerph192215138>
- Kibuchi, E., Barua, P., Chumo, I., Teixeira de Siqueira Filha, N., Phillips-Howard, P., Mithu, M., Kabaria, C., Quayyum, Z., Whittaker, L., Dean, L., Forsyth, R., Selim, T., Aktar, B., Sai, V., Garimella, S., Saidu, S., Gandhi, I., Josyula, L. K., Mberu, B., Elsey, H., Leyland A.H, and Gray, L. (2022). Effects of social determinants on children's health in informal settlements in Bangladesh and Kenya through an intersectionality lens: a study protocol. BMJ Open, 12(6), e056494. <https://doi.org/10.1136/bmjopen-2021-056494>



6. Bintu Mansaray, Laura Dean, Phil Tubb, Kunhi Lakshmi Josyula, Linet Okoth, Ivy Chumo, et al. (2022) Implications of COVID-19 for safeguarding in international development research: learning, action and reflection from a research hub. *BMJ Global Health* 2022;7:e008122. doi:10.1136/ bmjgh-2021-008122
7. Nikhil Tandon, Yashdeep Gupta, Deksha Kapoor, Josyula K. Lakshmi, Devarsetty Praveen, Amritendu Bhattacharya, et al., for the LIVING Collaborative Group. Effects of a Lifestyle Intervention to Prevent Deterioration in Glycemic Status Among South Asian Women With Recent Gestational Diabetes A Randomized Clinical Trial. *JAMA Network Open*. 2022;5(3): e220773. doi:10.1001/jamanetworkopen.2022.0773
8. Josyula, LK, Murthy, S, Karampudi, H, and Garimella, S (2021) Isolation in COVID, and COVID in Isolation—Exacerbated Shortfalls in Provision for Women's Health and Well-Being Among Marginalized Urban Communities in India. *Frontiers in Global Women's Health*. <https://doi.org/10.3389/fgwh.2021.769292>
10. Josyula K. Lakshmi, Shailaja Tetali, Dane Moran, Shirin Wadhwaniya, Shivam Gupta, Gururaj Gopalakrishna, and Adnan A. Hyder. Traffic, training, and turnover: Experiences of research personnel in collecting road safety data in Hyderabad, India. *WHO South-East Asia Journal of Public Health* 2021; 10:47-52.
11. Tewari A, Praveen D, Madhira P, Lakshmi JK, Joshi R, Kokku SB, et al. (2020) Feasibility of a Lifestyle Intervention Program for Prevention of Diabetes Among Women With Prior Gestational Diabetes Mellitus (LIVING Study) in South Asia: A Formative Research Study. *Frontiers in Global Women's Health*, 1:587607. doi: 10.3389/fgwh.2020.587607
12. Janani Shanthosh, Deksha Kapoor, Lakshmi K Josyula, Anushka Patel, Yashdeep Gupta, Nikhil Tandon, et al. (2020) Protocol for process evaluation of a randomised controlled trial of a Lifestyle InterVention IN Gestational Diabetes (LIVING) in India, Bangladesh, and Sri Lanka. *BMJ Open*;10:e037774. doi: 10.1136/bmjopen-2020-037774
13. Josyula K. Lakshmi, Radhika Shrivastav, Kiran Saluja, Monika Arora (2020) Evaluation of a school-based tobacco control intervention in India. *Health Education Journal* 2020: 79(7): 775-787. <https://doi.org/10.1177/0017896920927452>
14. [The ARISE Hub] Aktar B, Alam W, Ali S, et al. (2020) How to prevent and address safeguarding concerns in global health research programmes: practice, process and positionality in marginalised spaces. *BMJ Global Health* 2020;5:e002253. doi:10.1136 bmjgh-2019-002253
15. Yashdeep Gupta, Deksha Kapoor, Lakshmi K Josyula, Devarsetty Praveen, Aliya Naheed, Ankush K Desai, et al. (2019) A lifestyle intervention programme for the prevention of type 2 diabetes mellitus among South Asian women with gestational diabetes mellitus [LIVING study] – Protocol for a randomised trial. *Diabetic Medicine*, 36(2):243-251. doi: 10.1111/dme.13850.
16. Srinivas P. L. N. Patnaik, Lakshmi K. Josyula, Rashmi Pant (2018) Socioeconomic correlates of anemia awareness in adolescent schoolgirls: Insights from a district in India. *Journal of Health Management*, 20(3): 1–10.
17. Wadhwaniya S, Gupta S, Mitra S, Tetali S, Josyula LK, Gururaj G, Hyder AA (2017) A comparison of observed and self-reported helmet use and associated factors among motorcyclists in Hyderabad city, India. *Public Health*, 144: S62 - S69.
18. Sheikh K, Josyula LK, Zhang X, Bigdeli M, Ahmed SM. Governing the mixed health workforce: learning from Asian experiences. *BMJ Global Health* 2017;2: e000267. doi:10.1136/ bmjgh-2016- 000267



19. K. Lakshmi Josyula, Kabir Sheikh, Devaki Nambiar, Venkatesh V. Narayan, T.N. Sathyanarayana, John D. H. Porter. "Getting the water-carrier to light the lamps": Discrepant role perceptions of traditional, complementary, and alternative medical practitioners in government health facilities in India. Social Science and Medicine, Vol 166: 214-222. <http://dx.doi.org/10.1016/j.socscimed.2016.08.038>

J. K. Lakshmi. Delhi Medical Council ruling on cross-system practice by practitioners of AYUSH.

National Medical Journal of India, Vol 29 (2): p114.

Current Research activities / Projects:

NCD Equity; SAHELI (Team Science projection early hysterectomy); SAHI MHM (intervention on sustainable menstrual hygiene management)

Teaching / Academic Involvement:

MPH: Social and Behavioural Sciences in Health; Environmental and Occupational Health; Research Methods; Gender and Vulnerable Populations

Training: Disaster Preparedness and Management

### **Dr. Sirshendu Chaudhuri, Associate Professor**



**Qualification:** MBBS, DPH, MD (Community Medicine)

#### **Brief Write up on profile / Short Bio:**

Dr Sirshendu Chaudhuri (MD, DPH) is working as an Associate Professor, IIPH- Hyderabad. He is passionate about teaching and involved in institutional research activities. Previously he has served ICMR National Institute of Epidemiology, Chennai; Apollo Institute of Medical Sciences and Research, Chittoor, AP; Christian Medical College, Vellore; and Government of West Bengal. His areas of research interests include- Core Epidemiology, Primary Health care, Public Health Surveillance, Maternal and Child Health, Non-Communicable diseases, Capacity building in Public Health, Big data analysis, and research ethics. He has over 50 publications in national and international journals. He is An Editorial Board member of PLOS Global Public Health journal. He is the Member Secretary of the Institutional Ethics Committee, IIPHH.

a) **Areas of Expertise:** Epidemiology, Public Health Surveillance, Primary Health care, Maternal and Child Health

b) **Email ID:** [sirshendu@iiphh.org](mailto:sirshendu@iiphh.org)

c) **Contact details:** 040-4900 6000 (Extension 6009)

d) **LinkedIn Profile:** Sirshendu Chaudhuri (Link <https://www.linkedin.com/in/sirshendu-chaudhuri>)

e) **Twitter ID:** [@sirshendusisu](https://twitter.com/sirshendusisu)

f) **orcid ID:** 0000-0002-7375-7851

**Areas of interest:**

Epidemiology, Public Health Surveillance, Primary Health care, Maternal and Child Health, Big data analysis,

Publications: Over 45 publications

**Current Research activities / Projects:**

Operations Research and Capacity Building (ORCB) in eyecare; by Seva Foundation;  
Research and training mentorship to MediCity Institute of Medical Sciences, by MIMS-SHARE India; Audit of Andhra Pradesh Health System; by the Comptroller Auditor General of India; Evaluation of 'Analysis of Human Resources of Health for Health System Strengthening and Primary Health Care Delivery' in Telangana; Delphi Project to develop consensus on gall bladder carcinoma epidemiology and management; E2E Research fellowship; by Pfizer; Comprehensive study on strengthening the Public Health Management Cadres at the PHC-level, Divisional-level, and District-level in Andhra Pradesh, India; by Government of Andhra Pradesh

**Teaching / Academic Involvement:**

Faculty for MPH and PGDPHM course. Course coordinator for MPH and PGDPHM

**Dr. Nirupama. A. Y, Senior Lecturer**



M.B.B.S, M.D (Community Medicine), Diploma in HIV and Family Education (IGNOU)

**Brief Write up on profile /Short Bio:**

Dr. Nirupama is a dedicated public health professional, specializing in research, teaching, and administration. With a focus on non-communicable diseases and mental health among adolescents, she has made significant strides in understanding and improving health outcomes in this demographic. Her interest lies in navigating various aspects of public health, including health systems strengthening, telemedicine, occupational health, and healthcare utilization. Driven by her passion for teaching, she aims to mould future public health enthusiasts while striving to make a lasting impact through her research endeavours. With a commitment to research excellence and a desire to create positive change, she is poised to continue her impactful contributions to the field of public health.

- a) **Areas of Expertise:** 1. Epidemiology 2. Non-communicable diseases
- b) **Email ID:** [Nirupama.ay@iiph.org](mailto:Nirupama.ay@iiph.org)
- c) **Contact details:**
- d) **Mobile:** +918547090430
- e) **LinkedIn Profile:** <https://www.linkedin.com/in/nirupama-a-y-142a1a1ab/>
- f) **X ID:** @nirupama\_a\_y
- g) **ORCID-ID:** <https://orcid.org/0000-0002-0548-3078>

**Areas of interest:**

- 1. Adolescent health- focus on mental health
- 2. Non-communicable diseases- focus on life course epidemiology
- 3. Health system strengthening and healthcare utilization.

4. Telemedicine

5. Public health nutrition Bioethics

Publications

Over 25 papers in national and international peer-reviewed journals, with 7 research paper presentations at national and international conferences.

Areas of interest:

Epidemiology, Public Health Surveillance, Primary Health care, Maternal and Child Health, Big data analysis,

Publications: Over 45 publications

Current Research activities / Projects:

Operations Research and Capacity Building (ORCB) in eyecare; by Seva Foundation;

Research and training mentorship to MediCity Institute of Medical Sciences, by MIMS-SHARE

India; Audit of Andhra Pradesh Health System; by the Comptroller Auditor General of India;

Evaluation of 'Analysis of Human Resources of Health for Health System Strengthening and

Primary Health Care Delivery' in Telangana; Delphi Project to develop consensus on gall

bladder carcinoma epidemiology and management; E2E Research fellowship; by Pfizer;

Comprehensive study on strengthening the Public Health Management Cadres at the PHC-

level, Divisional-level, and District-level in Andhra Pradesh, India; by Government of Andhra

Pradesh

Teaching / Academic Involvement:

Faculty for MPH and PGDPHM course. Course coordinator for MPH and PGDPHM

Current Research Activities /Projects

1. Project coordinator for WHO-SEARO initiatives focusing on health system strengthening and emergency preparedness, including the evaluation of IHR monitoring tools during the COVID-19 pandemic.

2. Co-PI for the Health Technology Assessment India project, collaborating with DHR-HTA In to establish a regional resources hub at IIPH-Hyderabad.

3. Involved in capacity-building initiatives for the public healthcare sector in Telangana & Andhra Pradesh, piloting interventions based on nurturing care framework for early childhood development in collaboration with UNICEF(AcECD).

4. Contributing as a team member for operational research capacity building for SEVA partners in India & Nepal, focusing on technical expertise, report development, and research & training implementation.

5. Leading the E2E Clinical Research Fellowship Program, funded by Pfizer, overseeing clinical research and evidence generation in oncology, infectious diseases, and dermatology, while ensuring project coordination, stakeholder liaison, and report development.

6. Participating as a team member in clinical research and evidence-generation efforts with MIMS-SHARE India, providing technical expertise and supporting report development, research, and training implementation.

Teaching / Academic Involvement

1. Teaching faculty in modules of Introduction to Public Health, Health Policy Planning and Management, Epidemiology, Environmental and Occupational Health, Public Health Nutrition, Logistic Planning and Drug Distribution, and National Health Programs for PGDPHM and MPH courses.

2. Module coordinator and teaching faculty for Public Health Nutrition, Non-Communicable Diseases, and National Health & Nutrition Programs.

3. Mentored PGDPHM and MPH candidates in their dissertations.

## Dr. Varun Agiwal, Senior Lecturer



Ph.D. (Statistics): Central University of Rajasthan, Ajmer, Rajasthan, India

M.Sc. (Statistics): Central University of Rajasthan, Ajmer, Rajasthan, India

B.Sc. (Mathematics): Maharshi Dayanand Saraswati University, Ajmer, Rajasthan, India

### **Brief Write up on profile / Short Bio:**

Dr. Varun Agiwal is working as a Senior Lecturer at the Indian Institute of Public Health, Hyderabad. Before this role, he held a position as a Statistical cum Lecturer at Jawaharlal Nehru Medical College in Ajmer. With a teaching background spanning four years, Dr. Agiwal specializes in instructing on subjects such as biostatistics, demography, and related topics. He utilizes various statistical software including MS-Excel, STATA, Epi-Info, and R, to enhance the learning experience.

a) **Areas of Expertise:** Health-based biostatistics, big data analytics, statistical modelling, and time series analysis.

b) **Email ID:** [varun.agiwal@iiphh.org](mailto:varun.agiwal@iiphh.org)

c) **Contact details:** 91-8619356695

d) **LinkedIn Profile:** <https://www.linkedin.com/in/varun-agiwal-35278168/>

**orcid ID:** 0000-0003-1955-8832

### **Areas of interest:**

Data modelling, Big data analytics, and predictive model

**Awards and Honors:** Awarded two times international travel grant,

**Publications:** 50

Current Research activities / Projects:

1. Operational Research in Capacity Building (ORCB)-SEVA.
2. Indian Health Outcomes, Public Health & Economics (IHOPE)-LVPEI & IIM-Ahmedabad.
3. Midi City-Institute of Medical Sciences.
4. Experience to Evidence (E2E) - Pfizer

Teaching / Academic Involvement:

The teaching cover descriptive statistics, probability theory, statistical inference, regression analysis, and experimental design. The teaching plan also focus on expanding students' knowledge and skills in advanced statistical methods. I serve as the Examiner Coordinator and contribute to various committees, including Academic, Library, Ethics, Grievance Redressal, Souvenir and Progress Reports, and Journal Club.

## Ms.Subhashini Sivasankaran- Lecturer



**Qualification :** MTech, PG Dip Clinical Data Management

### **Brief Write up on profile /Short Bio:**

Subhashini has a Master's in Bio-Pharmaceutical technology and is a certified Base and Advanced SAS programmer. Before joining IIPHH she held notable positions in various sectors including academia, insurance, banking, and research. Her previous roles include serving as a Guest Lecturer at SRM School of Public Health, a senior specialist in insurance data analytics at Thomson

Reuters's Truven Health Analytics, an Associate Manager in the Risk Analytics department at Scope International, and as a Data Manager at Madras Diabetes Research Foundation.

a) **Areas of Expertise:** Computational Statistics and Database Management

b) **Email ID:** [Subhashini.s@iiphh.org](mailto:Subhashini.s@iiphh.org)

c) **Contact details :** 9500062412

**Areas of interest:** Health Data management and analysis using various tools

### **Awards and Honors:**

1. The 'Beyond and Above' Excellence Award by Thomson Reuters
2. Received the Endowment Scholarship during PG Diploma in Clinical Data Management to attend a Course in FDA Regulations & SAS conducted by Cranfield University, London through video conferencing.
3. Presented a paper titled "Protein Engineering Staphylokinase – Hirudin" in National level technical symposium, organized by Department of Biotechnology, held at Bharath Institute and won SECOND PRIZE.

### **Publications:**

Addressing healthcare needs of people living below the poverty line: A rapid assessment of the Andhra Pradesh Health Insurance Scheme - The National Medical Journal Of India Vol. 24, No. 6, 2011 Authors: M.Rao, S.S.Ramachandra, S.Bandyopadhyay, A.Chandran, R.Shidhaye, S.Tamisettnarayana, A.Thippaiah, Sitamma M., M. Sunil George, V. Singh, S. Sivasankaran, S. I.Bangdiwala

Prevalence of diabetes and prediabetes (impaired fasting glucose and/or impaired glucose tolerance) in urban and rural India: Phase I results of the Indian Council of Medical Research-India

DIABetes (ICMR-INDIAB) study Received: 3 June 2011 / Accepted: 28 July 2011 © Springer-Verlag 2011 Authors: R. M. Anjana, R. Pradeepa, M. Deepa, M.Datta, V. Sudha, R. Unnikrishnan, A. Bhansali, S. R. Joshi, P. P. Joshi, C. S. Yajnik, V. K. Dhandhanai, L. M. Nath, A. K. Das, P. V. Rao, S. V. Madhu, D. K. Shukla, T. Kaur, M. Priya, E.Nirmal, S.J.Parvathi, S. Subhashini, R. Subashini, M. K. Ali, V.Mohan, on behalf of the ICMR-INDIAB Collaborative StudyGroup.

Use of a Large Diabetes Electronic Medical Record System in India: Clinical and Research Applications - Journal of Diabetes Science and Technology. Volume 5, Issue 3, May 2011 © Diabetes Technology Society. Authors: Rajendra Pradeepa, M.Sc., Ph.D., Anbalagan Viknesh Prabu, M.B.B.S.,

Saravanan Jebarani, D.C.S.E., Sivasankaran Subhashini, M.Tech., and Viswanathan Mohan, M.D., Ph.D., D.Sc., FRCP

Glycemic Index of a few Indian rice varieties – International Journal of Food Science and Nutrition V 2011 Authors: Shobana S, Kokila A, Lakshmi Priya N, Subhashini S, Ramya Bai M, Malleshi NG, Sudha V, Mohan

Diabetes in Asian Indians-How much is preventable? Ten-year follow-up of the Chennai Urban Rural Epidemiology Study (CURES-142) - Diabetes Research and Clinical Practice Volume 109, Issue 2, August 2015 Authors: Anjana RM, Sudha V, Nair DH, Lakshmipriya N, Deepa M, Pradeepa R, Shanthirani CS, Subhashini S, Malik V, Unnikrishnan R, Binu VS, Patel SA, Hu FB, Mohan V

Reliability and validity of a new physical activity questionnaire for India -International Journal of Behavioral Nutrition and Physical Activity (IJBNPA) Published online 2015 March Authors: Ranjit Mohan Anjana, Vasudevan Sudha, Nagarajan Lakshmipriya, Sivasankaran Subhashini, Rajendra Pradeepa, Loganathan Geetha, Mookambika Ramya Bai, Rajagopal Gayathri, Mohan Deepa, Ranjit

Unnikrishnan, Valsalakumari Sreekumaran Nair Binu, Anura V Kurpad, and Viswanathan Mohan

Teaching / Academic Involvement: Teaching management for the MPH batches

### **Ms.Gracy Andrew - Head – Training**



**Qualification :** MA , Clinical Psychology Diploma in Online Counselling and Therapy (Registered at ACTO, UK)

#### **Brief Write up on profile /Short Bio:**

Gracy Andrew, A Clinical Psychologist by training comes with 25+ years of experience in the area of youth health. From 2012-2022 Gracy served as WorldBeing India's Vice President and Country Director in India, playing a key role in launching, expanding, and supervising WorldBeing's programs on Emotional Resilience and research efforts in India and Kenya. Before joining WorldBeing in 2012, Gracy was with Sangath Society, a renowned leader in the field of mental

health since its inception in 1996. At Sangath she worked in various capacities including as program head of the adolescent program for several years and as Executive Director for two years. An experienced qualitative researcher, Gracy has worked as a consultant to many organizations. She is co-author of several publications in India and globally.



She also has been involved in developing various interventions and training programs for youth in the areas of mental health and adolescent health. Gracy has contributed to training resources at the national level in India including the RKSK, and Ayushman Bharath program. In 2019 she was appointed as a member of the World Health Organization's guidance development group for promotional programs on global adolescent mental health. More recently in 2023, she was commissioned to support development of an integrated school health program at the MoHFW.

a) Areas of Expertise: Mental Health, Training, Qualitative research,

b) Email ID: [gracy.a@iiphh.org](mailto:gracy.a@iiphh.org)

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d) LinkedIn Profile: <https://www.linkedin.com/in/gracy-andrew-5032683b/>

#### **Areas of interest:**

Mental Health, Adolescent & Youth Health , Qualitative Research, Training development.

#### **Publications :**

·Leventhal, KS., Cooper, PL., DeMaria, LM., Priyam, P., Shankar. H., Andrew, G. and Leventhal S. Promoting Wellbeing and Empowerment via Youth First: Exploring Psychosocial Outcomes of a School-Based Resilience Intervention in Bihar, India. *Front. Psychiatry* (2022)

·Andrew, G., Leventhal, K., Demaria, L., Toussaint, L.L., Tiwari, A. and Leventhal, S. The Self-Help Group Resilience Project: Developing and Piloting a Resilience Intervention in Bihar, India. *Journal of Social Intervention: Theory and Practice*, 31(2), pp.40-60 (2022).

·Sachs, L.K., Andrew, G., Collins C S., DeMaria L., Shanker H. and Leventhal S. Training School Teachers to Promote Mental and Social Well-Being in Low- and Middle-Income Countries: Lessons to facilitate scale-up from a Participatory Action Research Trial of Youth First in India. *International journal of Emotional Education, Special Issue Volume 10, Number 2*, (2018).

·Andrew, G., Sachs, K. and Leventhal, S. Resilience-Based Approaches to Life Skills Education among Youth in India: Results of Three Program Trials. Paper submitted to the Assam, India (2016).

·Leventhal, K., DeMaria, L., Gillham, J., Andrew, G., et al. Psychosocial Resilience Curriculum Provides the "Missing Piece" to Boost Adolescent Physical Health: A Randomized Controlled Trial of Girls First in India. *Social Science & Medicine* 161 (2016) 37-46.

·Leventhal, K., Gillham, J., DeMaria, L., Andrew, G., et al. Building Psychosocial Assets and Wellbeing Among Adolescent Girls: A Randomized Controlled Trial. *Journal of Adolescence*, 45 (2015) 284-295.

·Sachs, K., Andrew, G., Leventhal, S., Gillham, J. and Vélez, C. Risk and Protective Factors for Adjustment Problems Among Adolescent Girls in India. Paper Presented at Western Psychological Association Annual Convention, Reno, NV (2013).

·Shinde, S., Andrew, G., et al. The Impact of a Lay Counsellor Led Collaborative Care Intervention for Common Mental Disorders in Public and Private Primary Care: A Qualitative Evaluation Nested in the MANAS Trial in Goa, India, *Social Science and Medicine* 88 (2013), 48-55.

Current Research activities / Projects: Developing short courses at IIPH-H

*“Health care is vital to all of us some of the time,  
but public health is vital to all of us all of the time”*

**-C. Everett Koop**



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or

contact us at 040 2400 6000 / +91 72070 63322

