# Workshop on "Biostatistics and Research Methodology:We Must Know For Successful Research Protocols" (Feb 7-8, 2025)



## Organized by

## Department of Community Medicine Government Medical College & Hospital (GMCH) Chandigarh Funded by

The Anusandhan National Research Foundation (ANRF)/ Science and Engineering Research Board (SERB), Department of Science & Technology (DST), Govt. of India

# Invitation

#### **Dear Colleagues :**

#### **Greetings from Chandigarh!**

The Organizing Committee feels honored to invite you to participate in the two days Workshop on "Biostatistics and Research Methodology: We Must Know For Successful Research Protocols" organized by Department of Community Medicine, Government Medical College and Hospital (GMCH) Chandigarh in collaboration with The Anusandhan National Research Foundation (ANRF)/Science and Engineering Research Board (SERB), Department of Science and Technology, Government of India, to be organized during February 7-8, 2025.

## About GMCH Chandigarh:

Government Medical College and Hospital (GMCH) Chandigarh an institution of high repute is a prestigious medical institution providing an excellent academic and scientific environment.

#### **About Host Department:**

Department of Community Medicine GMCH is involved in teaching and training of UG and PG students, Medical Officers, Interns, Para-Medical Personnel and Consultants. The department is also involved in the MPH course for the Centre for Public Health, Panjab University Chandigarh. Department has undertaken several Research Projects and a series of Workshops/academic events funded by National and International Agencies: ICMR, DHR, DST, SERB, DST, NACO, UNAIDS, WHO.

# Introduction to Workshop:

Need for developing research skills and developing good clinical practice among biomedical researchers is always felt. Intensive workshop on Research Methodology and Biostatistics has been designed to make research methodology and statistical tools to participants for developing research skills of biomedical researchers. This workshop intends to provide them an extensive exposure to research methodology concerning formulation of research question, selecting appropriate study design, designing the research projects/studies, sample size, data management, statistical methods to analyze and to improve the participant's ability to interpret the findings of statistical results. Hands on experience will also be provided for sample size calculation data analysis using SPSS and SYSTAT packages.

# **Objectives:**

 To develop research skills of biomedical researchers providing them an extensive exposure to concerning research methodology for designing fundable research projects and thesis protocols.

- 2) To familiarize them with selection of research topics, appropriate study design, sample size, data management, statistical methods, data analysis and to interpret the findings of statistical results.
- 3) To provide hands on experience for sample size calculation and data analysis using SPSS and SYSTAT packages.

# **Expected Outcomes:**

- Participants are likely to be benefitted in addressing their bio-statistical queries concerning complexities in planning, designing of studies and analyzing study outcomes with appropriate statistical methods.
- This workshop will not only be beneficial for researchers in the field of epidemiology and public health but also for clinicians from varied disciplines of medical sciences.
- Young medical researchers/PG students will get opportunity to interact with experts in the field.
- It will be helpful in developing research skills of participants for writing good research protocols for potential funding and conducting research following good clinical practice and medical ethics.

### **Patron and Chairman**

Professor AK Attri,

**Director Principal** 

Government Medical College and Hospital, Chandigarh

# Co- Chairman

Dr N.K.Goel

Professor and Head

Department of Community Medicine

Government Medical College and Hospital, Chandigarh

## **Scientific Secretary**

Professor SS Lehl

Department of General Medicine,

Government Medical College and Hospital, Chandigarh



### **Organizing Secretary**

Dr Dinesh Kumar Walia Professor, Department of Community Medicine E-Block, Level-4, Room No 404 GMCH, Sector 32 , Chandigarh Phone: 9646121540, 0172-2665253-59 Extn 5412 E mail: dinesh.walia17@gmail.com, Alternative E mail: dinesh.walia@gmch.gov.in

# **Scientific Committee Members**

- Dr Sonia Puri Associate Professor, Department of Community Medicine GMCH, Sector 32, Chandigarh
- Dr Deepak Sharma

Assistant Professor, Department of Community Medicine, GMCH, Sector 32 , Chandigarh

## **Distinguished Faculty/Mentors:**

- Dr Abhaya Indrayan, Fellow NAMS, Biostatistics Consultant, Max Healthcare & President, Biostatistics Consortium, Adjunct Faculty, Public Health Foundation of India & Founder Head, Biostatistics, University College of Medical Sciences, Delhi,
- Professor Umesh Kapil, FAMS, Secretary, NAMS, President Epidemiology Foundation of India, Former Prof and Head, Department of Gastroenterology and Human Nutrition AIIMS New Delhi
- Dr S.N. Dwivedi, Professor of Biostatistics, International Centre for Health Research (ICHR) RD Gardi Medical College Ujjain Madhya Pradesh, President, Indian Society for Medical Statistics, Former Senior Professor, Department of Biostatistics All India Institute of Medical Sciences New Delhi.

#### Faculty from ICMR New Delhi

- Dr Ashoo Grover, Scientist F & Head, Implementation Research Division, Indian Council of Medical Research (ICMR), New Delhi.
- Dr Ravinder Singh, Scientist-D, Division of Non Communicable Diseases, ICMR, New Delhi.
- Dr. Atul Juneja , Former Scientist-F and I/c CTRI , NIRDHDS/NIMS New Delhi.

#### Faculty from AIIMS Jodhpur

• Dr PP Sharma, Additional Professor. Department of Community and Family Medicine, AIIMS Jodhpur.

#### Faculty from AIIMS Bilaspur

- Dr Meenal Madhukar Thakre Additional Professor, Department of Community and Family Medicine, AIIMS) Bilaspur (HP)
- Dr Navpreet Singh, Asstt Professor, Department of Community and Family Medicine, AIIMS) Bilaspur (HP)

#### Faculty from IGMC Shimla

 Dr Anmol Gupta Professor & Head, Department of Community Medicine, IGMC Shimla Himachal Pradesh (HP)

#### Faculty from MMIMS, Mullana Ambala

 Dr Anshu Mittal, Professor and Head, Department of Community Medicine MMIMS, Mullana Ambala

#### Faculty from Panjab University Chandigarh

 Dr Manoj Sharma, Associate Professor and Head/Coordinator, Centre of Public Health, Panjab University Chandigarh.

#### Faculty from GMCH, Chandigarh

- Dr Naveen K. Goel, Professor & Head, Department of Community Medicine.
- Dr SS Lehl, Professor Department of General Medicine.
- Dr. Deepak Chawla, Professor& Head, Department of Neonatology.
- Dr Suksham Jain, Professor, Department of Neonatology.
- Dr Rohit Jindal, Professor, Department of Orthopedics.
- Dr Sonia Puri, Asso. Professor, Department of Community Medicine.
- Dr. Dinesh Walia , Professor, Department of Community Medicine.
- Dr Meenu Kalia, Asstt Professor, Department of Community Medicine.
- Dr Deepak Sharma, Asstt Professor, Department of Community Medicine.
- Dr Ravi SR, Asstt Professor, Department of Community Medicine.

### **Topics of Discussion**

• Statistical Fallacies and Common Sources of Bias in Medical Studies.

•Qualities of Good Project Proposal.

Research Process for writing Successful Research Protocols

• Study Designs for Descriptive and Analytical Research.

• Designs of Randomized Clinical Trials (RCTs), Blinding, Randomization and Allocation Concealment.

• Sampling Strategies: Qualitative and Quantitative Sampling Strategies.

• Concepts and Ingredients for Sample Size Calculation.

•Hands-on Training : Sample Size Calculations for different types of studies using softwares.

• Evaluation of Diagnostic Tests and use of Bayes Rule in Clinical Decision Making.

•Linear Regression and Logistic Regression Models in Medical Research

• STROBE and CONSORT Guidelines of Reporting Outcomes

•Statistical Methods for Hypothesis in Medical Research.

Hands-on training : Using SPSS and SYSTAT for Managing Data
Files & Data Analysis

•From Theory to Practice: Patient Information Sheet & Consent Form with Discussion on Emerging Ethical Issues in Biomedical Research.



# **Participants:**

This symposium is restricted to 50 participants including 20 nominees of funding agency and host institution. Participants will include biomedical researchers/ Investigators of research projects/ young faculty members/ Post graduates (MD/MS/DNB) from various medical disciplines, Ph.D Students, M.Phil / PhD students, Scholars of Public health and Epidemiology, Students pursuing Master of Public Health (MPH) course and various other allied disciplines from medical colleges and other institutions who are actively involved in biomedical research. There will be maximum 50 participants including nominees of funding agencies and from host institution providing all required basic infrastructure for conducting this Workshop.

#### Venue:

Conference Hall, 7<sup>th</sup> Level , E-Block, Government Medical College and Hospital (GMCH),Sector 32, Chandigarh-160030 About Chandigarh:

Chandigarh "The City Beautiful" of India, nestling in the feet of the Shivalik Hills, is the capital of Punjab and Haryana and a Union Territory. Conceived and designed by Le Corbusier, the Swiss born French architect, Chandigarh is known as one of the best planned cities in the world. Chandigarh is about 260 Kms. North of New Delhi and is well connected by air, rail and road. It is conveniently reached by train from New Delhi. Besides other trains, there are four /five Vande Bharat & Shatabdi Trains from New Delhi with about three and half hours journey and one Jan Shatabdi. There are also daily flights of Air India, Go Air and Indigo etc. from Delhi to Chandigarh. There is regular frequent AC /Volvo and ordinary bus services available between Delhi and Chandigarh with journey time ranging from 5 -6 hours.

Wishing comfortable stay with academic accomplishments in a prestigious medical institution of City Beautiful of India

# **Details Regarding Registration /Nomination**

Applicants willing to participate in the Workshop are required to submit the Nominations/Registration with Covering Note with personal details: Name, Designations, Date of Birth, Institution, Contact Details (Address, Ph No , E mail etc) and showing reasons of their willingness to attend the Workshop as an attachment via E-mail to the Organizing Secretary. The previously announced last date of registration has been extended till 10<sup>th</sup> January 2025 keeping in view of winter vacations.

It is advised to submit registration/nomination early as number of seats in the present Workshop is limited. Selected participants will be required to pay registration fee of Rs 3000/ towards arrangement of working lunch/dinner during the workshop. Details of paying registration fee with Workshop bank account number will be shared to selected participants subsequently. Their registration will be confirmed only after successful payment of registration fee. They have to pay registration fee within three days after selection. Participants will be confirmed a place by Organizing Secretary by E-mail only. Participants have to make their own stay arrangements. Limited accommodation may be arranged in GMCH guest house at nominal rates at their own request on first come first served basis.

Note: Details of this Workshop will also be available shortly on GMCH Website: www.gmc.nic.in

For all correspondence/ further queries regarding registration, accommodation etc. please feel free to inquire from Organizing Secretary by mail or telephonically.

Details to be Provided in Nomination/Registration Form:

- Name:
- Gender:
- Designations:(Principal/Faculty/PG Student/Others please specify):
- Contact Details: (Address with Ph No, E mail etc):
- Professional Experience/Education :
- Nature of Work:
- Name of Institution/College:
- Reasons of willingness to attend the Workshop/Plan of implementation:
- Whether Applying Directly or Nominee:
- In case Nominee, details of Nomination :

