



**International Institute  
of Health Management Research**



**ONLINE MANAGEMENT DEVELOPMENT PROGRAM (MDP)  
ON EXCEL FOR HEALTHCARE: EXPLORING WAYS TO  
HARNESS HEALTH DATA**

**JAN 8 – FEB 6, 2022  
SATURDAYS AND SUNDAYS (6:00 – 8:00 PM)**

**REGISTER NOW**

## The Institute

IIHMR is a premier institution dedicated towards transforming healthcare through research, training and education. IIHMR runs a full-time two-year Postgraduate Diploma in Hospital and Public Health Management enabling human resource professionals to make noteworthy contributions towards arena of healthcare globally. The institution is fully equipped with state of art facilities to take up Academic and Training programmes. It has an excellent combination of faculty with different backgrounds (Medical and non-medical) to take up Academics, Research and organize Management Development Programs in their respective specialties within and out of the campus. In this regard, IIHMR has been regularly engaged in organizing various Training / MDPs on Hospital Management, Public Health, Healthcare Management and Administration and Information Technology. As per the expertise available with the IIHMR, it can take up any of the customized trainings required by respective institutions depending on their training needs. In the recent past hospital management training programmes have been organized for Government of National Capital Territory, Delhi, Ministry of Health – Afghanistan, BRAC- Bangladesh, Ministry of Health- Sri Lanka, Ministry of Health and Sports, Myanmar, Ministry of Health and Welfare- Bhutan, Jigme Dorji Wangchuck National Referral Hospital- Bhutan and Ministry of Health- Maldives etc.

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### Rationale of the Course:

Basic data science/statistical techniques is essential in order to collect, compile, process and analyze, present data, and draw conclusions from the data at various levels in the health system. This course introduces to develop Excel Skills for use of data in planning health services, and programme/hospital management.

### Learning Objectives:

The objective of the course is to build Excel skills for analysis of data, developing understanding about various types of analysis which are used in health sector, and computing the required statistics for such analysis. Course will cover basic concepts of data management and analysis, use of Excel for analysis and interpretation of data.

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### Who can attend?

- Applicants with Graduate/Post-Graduate qualifications with relevant work experience in Development Sector/Public Health/Hospital.
- Applicants currently engaged in public health related activities such as health professionals working with National Health Mission (NHM) and directorates of health services at central, state, and district levels (Health Programs: - Integrated Disease Surveillance Project, National Vector Borne Disease Control Program, HIV/AIDS, Nutrition, Maternal and Child Health Programs etc.)
- Applicants who want to pursue career or currently working as Monitoring and Evaluation Specialist, Research Analyst/Manager, Program officer/Coordinator/Manager, Data Analyst/Business Analyst/IT Manager, Business Development Officer, in national and international development agencies, and non-profit organizations.
- Students pursuing Ph.D/ M.Phil/ Masters in hospital administration, Public Health, Health care IT Management, Social Science, etc., and faculties from academic and research institutions.

Participants should have a good written command of English and have high competence and comfort with computer and Internet use.

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### Outcome:

By the end of this course, participants will be able to:

- Use of essential and advance function of Excel for analysis of public health /Hospital data.
- Create data entry form and understand the importance of data cleaning and data validation for analyses the public health/hospital data.

- Present the data using appropriate tables and charts for preparing different report for thesis/ scientific paper/ project/MIS.
- Understand the data and Variable for analysing the health data.
- Analysis and interpretation of the health/hospital data using PIVOT command of Excel.
- Develop Dashboard using health/hospital data.
- Introduce participants to basic statistical technique that are essential to interpret health/hospital data.
- Understand and use of statistical test.

## COURSE CONTENT

DATE & TIME	COURSE CONTENT
<b>Day 1 (8 January, 22)</b>  <b>Saturday</b>	<b>Essential Function in Excel:-</b> Understanding Menu Options and Working with Data <ul style="list-style-type: none"> <li>• Data accessibility, Navigating, Formatting, View Options, Fill Handle, Copy &amp; Paste</li> <li>• Find &amp; Replace, Sort, Filter, Conditional formatting</li> </ul> Hands -on-practice session with health data sets
<b>Day 2 (9 January, 22)</b>  <b>Sunday</b>	<b>Moving beyond Basics: -</b> Performing Calculation and Working with Data <ul style="list-style-type: none"> <li>• Formulas, Reference, Calculate across sheets</li> <li>• Use of function of creating data entry software/form</li> <li>• Develop Microsoft form, google form</li> <li>• Data Validation and Data cleaning in data analysis</li> </ul> Hands -on-practice session with health data sets
<b>Day 3 (15 January, 22)</b>  <b>Saturday</b>	<b>Advance Function in Excel: -</b> <ul style="list-style-type: none"> <li>• Extracting &amp; Summarizing Data: -Linking workbooks, Date &amp; Text Functions, Count etc</li> <li>• VLOOKUP &amp; HLOOKUP Function</li> <li>• Logical Functions (AND/OR/IFS/NESTED IFS)</li> <li>• PIVOT Tables and Charts</li> <li>• Creating Dashboard</li> </ul> Hands -on-practice session with health data sets
<b>Day 4 (16 January, 22)</b>  <b>Sunday</b>	<b>Discussion on Excel:</b> <ul style="list-style-type: none"> <li>• Hands -on-practice session for creating PIVOT table and charts with health data sets</li> <li>• Homework assignments including hands-on computing exercises will be reviewed</li> <li>• Questions and Answer session (questions about the last 3 days lecture will be addressed)</li> </ul>

<b>Day 5 (22 January, 22)</b>  <b>Saturday</b>	<b>Data Analysis &amp; Data Management</b> <ul style="list-style-type: none"> <li>• Uses and techniques of data analysis, Advantages of data analysis</li> <li>• Data Analysis Process: 1. Defining questions/ indicator/variable 2. Establish measurement priorities 3. Collect data 4. Analyze the data 5. Interpret the results</li> <li>• Variable:- Quantitative and Qualitative Variables, exposure and outcome variables</li> <li>• Measurement:- Nominal Scale &amp; Ordinal Scale, Interval Scale</li> <li>• Common Measurement: Rate, Ratio and Proportion</li> <li>• Data &amp; Indicator</li> <li>• Creating database</li> </ul>
<b>Day 6 (23 January, 22)</b>  <b>Sunday</b>	<b>Data Presentation</b> <ul style="list-style-type: none"> <li>• Numerical: Frequency table and cross table</li> <li>• Graphical: Introduction to charts in Excel (Bar, Histogram, Pie, Line, Scatter Plots)</li> </ul> Hands -on-practice session with health data sets
<b>Day 7 (29 January, 22)</b>  <b>Saturday</b>	<b>Statistical Data Analysis using Excel (Part- I)</b> <ul style="list-style-type: none"> <li>• Descriptive Statistics:- measure of central tendency, measures of dispersion, and measure of shape (kurtosis &amp; skewness)</li> <li>• Arithmetic and exponential rate</li> </ul> Hands -on-practice session with health data sets
<b>Day 8 (30 January, 22)</b>  <b>Sunday</b>	<b>Statistical Data Analysis using Excel (Part- I)</b> <ul style="list-style-type: none"> <li>• Descriptive Statistics:- measure of central tendency, measures of dispersion, and measure of shape (kurtosis &amp; skewness)</li> <li>• Arithmetic and exponential rate</li> </ul> Hands -on-practice session with health data sets
<b>Day 9 (5 February, 22)</b>  <b>Saturday</b>	<b>Statistical Data Analysis using Excel (Part- III)</b> <ul style="list-style-type: none"> <li>• Inferential Statistics:- Non-Parametric Tests (Chi square test)</li> <li>• Correlation</li> </ul> Hands -on-practice session with health data sets
<b>Day 10 (6 February, 22)</b>  <b>Sunday</b>	<b>Statistical Data Analysis using Excel (Part- IV)</b> <ul style="list-style-type: none"> <li>• Bi-Variate &amp; Multi-variate linear regression</li> </ul> Hands -on-practice session with health data sets

### Course design & Duration

- 5 weekend (Saturdays and Sundays) program, from 6.00 PM to 8.00 PM.
- Interactive distance learning computer-based program, self-taught, complemented with online lectures, and a comprehensive list of reference materials.

### Pedagogy

- Online learning technique.
- Interactive online virtual lectures, hands-on practice sessions, assessments, and recommended readings and video.



- Participants will have to log in from their laptops/desktop computers.

## Evaluation

Participants will be evaluated at the end of each session using multiple choice questions.

## RESOURCE PERSON



Dr B. S. Singh is a Statistician, Demographer and Monitoring & Evaluation specialist. He is Masters (Statistics), Ph.D (Population Studies). He holds Certificate Course in Population Studies from International Institute for Population Sciences, Mumbai and Management Information Systems from Management Sciences for Health (MSH), Boston, Massachusetts, USA. He was associated with various small and large-scale survey such as NFHS/DHS, Longitudinal Aging Study in India (LASI), Study on Global Ageing and adult health (SAGE) supported by MoHFW, GoI, WHO, USAID etc. in the area of MNCH, Family Planning and Urban Health and conducted different research projects. He worked as Project Director in Health of the Urban Poor Project implemented by Rajasthan, Deputy General Manager (Research & Evaluation) in the SIFPSA, project supported by USAID, Assistant Director in MAMTA, New Delhi and Head-MIS & System in Deepak Foundation, Vadodara. He has published a book on "Methods for estimating demographic parameters at sub-national level". His main strength lies in both technical skills (quantitative data analysis) and organizational ability in planning and implementation, along with training and capacity building activities. He is oracle in analysis of data (using Excel, SPSS, R, Python and CS Pro).

Besides the above said, the resource persons from IIHMR Delhi will also be invited.

## COURSE FEE

The Course is free to attend for all. However, certificate can be obtained by payment of:

**INR 2000 + 18% GST** for Indian Participants

**USD 50 + 18% GST** for International Participants, after successfully completing the workshop.

**Registration Link :** [Online MDP on Excel for Healthcare: Exploring Ways to Harness Health Data](#)

## LAST DATE OF REGISTRATION

31st DECEMBER 2021

### For registration and queries, please contact:

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