



2-DAY LIVE ONLINE
WORKSHOP ON
**HEALTH DATA
ANALYTICS**
@ IIHMR BANGALORE



In today's data-driven healthcare landscape, healthcare management professionals need to harness the power of health data analytics to drive impactful decision-making. Every second, an exponential amount of healthcare data is generated and mined for valuable insights. Today, approximately 30% of the world's data volume is being generated by the healthcare industry. By 2025, the compound annual growth rate of data for healthcare will reach 36%. That is 6% faster than manufacturing, 10% faster than financial services, and 11% faster than media & entertainment.

To address this critical need, we propose hosting a highly anticipated 2-day live online workshop on Health Data Analytics at the Institute of Health Management Research in Bangalore. This workshop aims to empower participants with the essential skills and knowledge required to navigate the complexities of health data, unleashing the true potential of analytics tools.

2-Day Live Online Workshop on Health Data Analytics

Training Report

1. Introduction

In today's data-driven healthcare landscape, healthcare management professionals need to harness the power of health data analytics to drive impactful decision making. Every second, an exponential amount of healthcare data is generated and mined for valuable insights. Today, approximately 30% of the world's data volume is being generated by the healthcare industry. By 2025, the compound annual growth rate of data for healthcare will reach 36%. That is 6% faster than manufacturing, 10% faster than financial services, and 11% faster than media & entertainment. To address this critical need, we propose hosting a highly anticipated 2-day live online workshop on Health Data Analytics at the Institute of Health Management Research in Bangalore. This workshop aims to empower participants with the essential skills and knowledge required to navigate the complexities of health data, unleashing the true potential of analytics tools.

Background and Objectives

Today, approximately 30% of the world's data volume is being generated by the healthcare industry. To address this critical need, we propose hosting a highly anticipated 2-day live online workshop on Health Data Analytics at the Institute of Health Management Research in Bangalore.

Objectives

- With our deep understanding of the healthcare industry and expertise in digital health, we are committed to fostering the growth and success of healthcare management professionals through transformative education and mentorship.
- By this program, we aim to provide an exceptional learning experience and equip participants with the skills necessary to thrive in the rapidly evolving world of health data analytics.

2. Program duration and venue:

2 days long program was conducted on 18th November,2023 and 19th November,2023.

3. Training Team

- a) Mr Niladri Majumder
Clinical Informatics Manager & Digital Health Advisor,
Government of Canada
- b) Dr Amit Thakker
Senior Digital Health Consultant
Govt of NSW, Australia

- c) **Dr. Rupa Vetrivel**
Epic consultant
St Joseph's healthcare hospital, Hamilton, Canada
- d) **Dr Fahad Mustafa Khan**
Senior Digital Health Consultant
Govt of NSW, Australia

4. Structure of the program:

- a. Program duration and venue- 2 days online training.
 - b. Mode of training delivery (Online/Offline)- Online
 - c. Evaluation/Assessment (Pre and Post)- No
 - d. Number of participants and profile- 10
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- 1. Bhupati Sunny
Sr. Software Engineer
Oracle Cerner.
 - 2. Veershetty Huduge
Senior Executive
Yasodha Hospital Hyderabad
 - 3. Nandini Dutta
Public Health & Quality Assurance Expert
IQVIA Consulting and Information Service Private Limited
 - 4. Dr. Koushik Muthu Raja
Deputy Medical Director
Sri Ramachandra medical College and research institute
 - 5. Mrs Kavita
Nursing Informatics Officer
GKNM Hospital Coimbatore
 - 6. Abhishek Puli
Student
Indian Institute of Public Health, Hyderabad
 - 7. Dr. Thipparapu Shankar
Student
Nizam's Institute of Medical Sciences, Hyderabad.
 - 8. Ebin M
Student
Institute of Health Management Research, Bangalore.
 - 9. Dr. Sarat
Student
Institute of Health Management Research, Bangalore
 - 10. Dr. Ragini
Student
Institute of Health Management Research, Bangalore

5.Topics covered on the respective days.

Day1:

Fundamentals of Healthcare Data

- Types of Healthcare Data.
- Healthcare Data Sources.
- Understand clinical data structures supported by electronic health records, clinical equipment, and other datasets.
- Define and differentiate business and clinical intelligence.
- Top use cases for health analytics applications.
- Define clinical care processes and how technology and decision support can be used to improve processes and workflow.

Understanding Clinical Intelligence

- Clinical dashboards for EMR users.
- Live demonstration of Epic EMR clinical dashboards & discussion around the use cases.

Healthcare Data & Interoperability Standards

- HL7
- FHIR

Healthcare Analytics Career Opportunities

- Key Roles in Healthcare Data Analytics.
- Competencies Required.
- Resume building/LinkedIn Setup Tips.
- No Code Data Science Toolsets.
- Setup PowerBI Account & MS Power BI Overview.

Day2:

Applications of Healthcare Analytics - AI, Machine Learning & Big Data

- Applications of AI in Healthcare.

The Healthcare Data Lifecycle & Analytics Tools/Techniques

- Describe the role of the data lifecycle in the collection, transformation, and storage of health data.
- Healthcare Data Model/s.

Healthcare Data Governance & Ethical/Regulatory Issues with Health Data

Building Healthcare Dashboards - Case Study

6 Training Method:

- a. Details about how participants were engaged, activities carried out to ensure learning.

7 Outcomes of the programs:

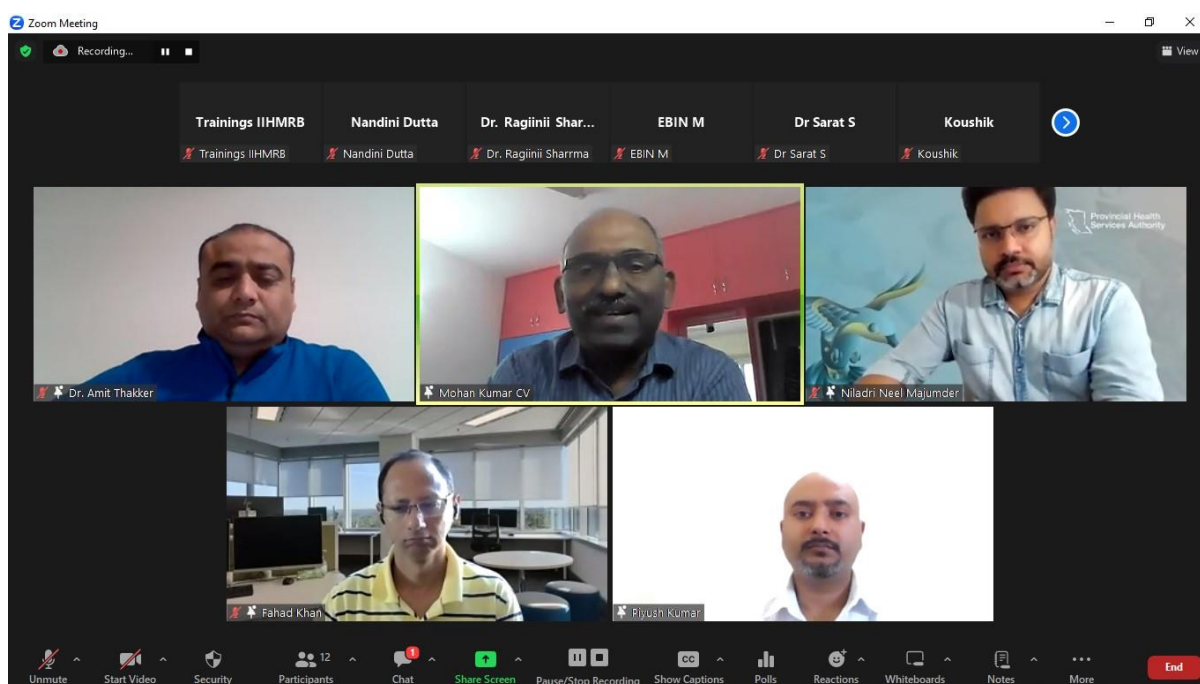
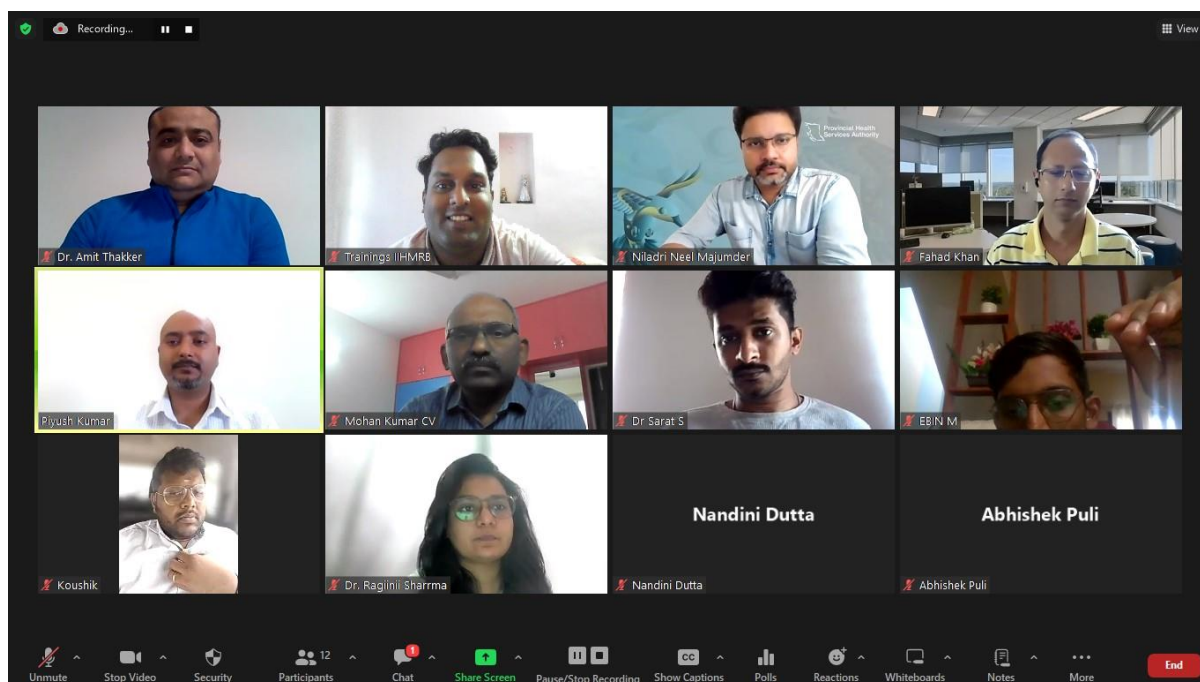
- Develop a solid foundation in health data analytics and its applications in healthcare management.
- Gain practical skills in utilizing tools and techniques for analysing health data.
- Understand the ethical and legal considerations associated with health data analytics.
- Acquire insights into the top use cases of health data analytics and their impact on healthcare outcomes.
- Enhance their career prospects in the digital health industry by becoming proficient in health data analytics.

8 Recommendations:

9 Glimse of Program.

The screenshot shows a Zoom meeting interface. At the top, a status bar indicates 'You are viewing Amit Thakker's screen' and 'View Options'. Below this, a row of participant video thumbnails is visible, including 'Trainings IIHMRB', 'Amit Thakker', 'Dr. Ragini Sharma', 'Rupa Vetrivel', 'Niladri Neel Majumder', and 'Piyush Kumar'. The main content area displays a presentation slide titled 'Introduction to Healthcare Data'. The slide features a central graphic with the heading 'WHY HEALTHCARE DATA IS DIFFICULT' and several interconnected cloud shapes containing terms like 'data format', 'regulations & requirements', 'data complexity', 'data definitions', 'data structure', and 'location'. To the right of the graphic is a 'LATE BINDING DATA WAREHOUSE' chart. The bottom of the screen shows the Zoom toolbar with icons for Unmute, Stop Video, Security, Participants, Chat, Share Screen, Pause/Stop Recording, Show Captions, Polls, Reactions, Whiteboards, Notes, and More. The system taskbar at the very bottom shows the Windows search bar and various application icons, with the time and date '09:39 18-11-2023' displayed on the right.

Centre for Learning and Development, IIHMR Bangalore
Training Report



Prepared by:

Approved by:
Mr. Piyush Kumar
Associate Dean (Trainings)
IIHMR Bangalore

10 Annexure: Session plan

Day 1 18th November,2023 (4 hours)		
9AM - 10 AM	Fundamentals of Healthcare Data - Types of Healthcare Data -Healthcare Data Sources - Understand clinical data structures supported by electronic health records, clinical equipment, and other datasets -Define and differentiate business and clinical intelligence. -Top use cases for health analytics applications -Define clinical care processes and how technology and decision support can be used to improve processes and workflow	Mr. Neel & Dr. Amit
10 AM - 11AM	Understanding Clinical Intelligence -Clinical dashboards for EMR users -Live demonstration of Epic EMR clinical dashboards & discussion around the use cases	Dr. Rupa
11AM - 12PM	Healthcare Data & Interoperability Standards - HL7 - FHIR	Dr. Amit
12PM- 1PM	Healthcare Analytics Career Opportunities - Key Roles in Healthcare Data Analytics - Competencies Required - Resume building/LinkedIn Setup Tips - No Code Data Science Toolsets - Setup PowerBI Account & MS Power BI Overview	Mr. Neel

Day 2 19th November,2023 (4 hours)		
9AM - 10 AM	Applications of Healthcare Analytics - AI, Machine Learning & Big Data - Applications of AI in Healthcare	Mr. Neel & Dr. Fahad
10 AM - 11AM	The Healthcare Data Lifecycle & Analytics Tools/Techniques -Describe the role of the data lifecycle in the collection, transformation, and storage of health data - Healthcare Data Model/s	Mr. Neel
11AM - 12PM	Healthcare Data Governance & Ethical/Regulatory Issues with Health Data	Dr. Amit
12PM- 1PM	Building Healthcare Dashboards - Case Study	Mr. Neel & Dr. Amit