

IIHMR UNIVERSITY, JAIPUR
EVENT OUTCOME REPORT
Master Class Episode 32

“Master Class Episode 32”
Topic: - Epidemiological approach for data analysis. Unearthing the story within to make data meaningful – A primer”
Date: 9 th June 2021 from 03.00 PM to 04:00 PM
Venue: - IIHMR University, Jaipur
Speaker: - Dr. Guru Rajesh Jammy, Director Research and Project Director (NISCHIT & BOLSTER), Share India
Number of participants: - 70
Introduction: - This session featured: Dr. Guru Rajesh Jammy, Director Research and Project Director (NISCHIT & BOLSTER), Share India, India. The event was moderated by Dr. Dharendra Kumar, Dean – Institute of Health Management Research, IIHMR University, Jaipur and the Session was welcomed by Dr. P.R. Sodani, President, IIHMR University, Jaipur.
<p>Objective:</p> <p>The primary objective of this topic is to introduce learners and professionals to the core principles and practices of epidemiological thinking and demonstrate how these can be applied to analyze health data meaningfully, uncover hidden trends, and derive insights that inform public health action, policy, and research.</p>
<p>Salient Novel Points Covered:</p> <p>Storytelling Through Data</p> <ul style="list-style-type: none"> • Moves beyond traditional statistical reporting by framing data as a narrative about population health. • Encourages discovering the “who, what, when, where, and why” behind health patterns. <p>Humanizing Numbers</p> <ul style="list-style-type: none"> • Translates data into real-world impact by connecting statistics to human lives, behaviors, and communities. • Focuses on uncovering underlying health disparities, trends, and causes through interpretation. <p>Epidemiological Thinking as a Mindset</p> <ul style="list-style-type: none"> • Promotes a way of thinking, not just a method—emphasizing cause-effect reasoning, risk assessment, and context. • Helps build curiosity-driven analysis where the focus is on “what is the data trying to tell us?” <p>Emphasis on Population-Level Insights</p> <ul style="list-style-type: none"> • Shifts the focus from individual cases to population health trends and social determinants of health. • Encourages identification of patterns that can guide public health interventions and resource planning.

Role:

The epidemiological approach plays a foundational and transformative role in health data analysis. It goes beyond simply crunching numbers—it aims to reveal patterns, uncover causes, and derive insights that inform public health decisions and save lives.

1. Acts as a Scientific Framework for Analysis
 - Provides a structured way to examine distribution and determinants of health events in populations.
 - Helps answer critical public health questions like *who is affected, where, when, and why?*
2. Transforms Raw Data into Meaningful Narratives
 - Converts large, unstructured datasets into coherent, insightful health stories.
 - Enables health professionals to identify underlying patterns, trends, and root causes of health problems.
3. Facilitates Evidence-Based Decision-Making
 - Offers a basis for designing health interventions, allocating resources, and setting priorities.
 - Supports policy formulation by providing credible, data-driven insights.
4. Connects Data with Real-World Context
 - Ensures analysis is contextualized with social, environmental, and behavioural factors.
 - Avoids misleading conclusions by considering bias, confounders, and effect modifiers.

Challenges and Opportunities:**Challenges**

1. Complexity of Real-World Data
 - Epidemiological data often come with inconsistencies, missing values, biases, and confounding factors.
 - Requires advanced knowledge to clean, validate, and interpret such data meaningfully.
2. Misinterpretation of Causality
 - A major challenge is confusing correlation with causation.
 - Proper analysis requires a strong grasp of study design, risk factors, and statistical rigor to draw valid conclusions.
3. Limited Data Accessibility
 - Especially in low-resource settings, there may be insufficient access to quality health data, limiting the scope of analysis.
4. Communication Gap
 - Translating technical findings into clear, compelling narratives for the public or decision-makers is difficult.
 - Miscommunication can lead to misinformed policies or public distrust.

Opportunities

1. Growing Demand for Data-Driven Public Health
 - Policymakers, NGOs, and governments increasingly rely on epidemiological insights to shape health strategies.
 - Opens a wide range of roles in research, policy, consulting, and analytics.
2. Integration with Big Data and AI
 - Opportunity to use machine learning and AI tools alongside epidemiology to detect patterns faster and more accurately.

- Big data from EHRs, wearables, and mHealth apps enrich analysis potential.

3. Telling Impactful Health Stories

- The "storytelling" aspect allows communicators to humanize data, making it relatable and useful to a broader audience.
- Strengthens advocacy, awareness campaigns, and health education.

4. Enhancing Disease Surveillance and Response

- Provides tools to identify outbreaks early, assess risk factors, and guide timely interventions.
- A critical pillar in pandemic preparedness and response.

Q &A and Interactive Discussion:

An interactive session on - Epidemiological approach for data analysis. Unearthing the story within to make data meaningful – A primer” was engaging, informative, and participatory to keep the audience involved while delivering valuable insights.

Future Scope:

The future of the epidemiological approach to data analysis lies at the intersection of technology, public health needs, and storytelling. As health systems become more data-driven and globally interconnected, this approach will become increasingly vital across sectors.

Driving Precision Public Health
Expansion Through Big Data and AI
Central Role in Global Health Preparedness



Epidemiological approach for data analysis. Unearthing the story within to make data meaningful – A primer

📅 Wednesday, Jun 09, 2021

🕒 03:00 PM to 04:00 PM (INDIA) 🇮🇳



SPEAKER
Dr. Guru Rajesh Jammy
Director Research and Project Director
(NISCHIT & BOLSTER),
SHARE India



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President
IIHMR University, Jaipur



MODERATOR
Dr. Dharendra Kumar
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