MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

BIG DATA IN HEALTHCARE (MANAGEMENT & SECURITY)

"Harness Big Data to Improve Healthcare Outcomes, Operational Efficiency, and Data Security."

Schedule

Venue	Fees
In-House	ASK FOR THE QUOTATION

► **Available delivery methods:** Face-to-Face & Online Training, In-House Training

Introduction

The healthcare industry is experiencing an exponential growth in data—from electronic health records (EHRs) and genomics to wearable sensors and patient portals. Managing and securing this vast and complex data landscape is essential for improving patient care, enabling personalized medicine, and protecting patient privacy. This course equips healthcare managers, IT professionals, and data officers with the knowledge and tools to manage, analyze, and secure big data in healthcare environments.

Objectives

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

- Understand the architecture and sources of big data in healthcare
- Develop strategies for data collection, storage, integration, and governance
- Apply big data analytics to enhance clinical, operational, and financial outcomes
- Implement robust security frameworks to protect sensitive health data
- Ensure compliance with HIPAA, GDPR, and other data privacy laws

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Why Attend

With growing cyber threats and demand for data-driven decision-making, this course helps you develop a dual capability: managing large-scale health data and protecting it. Gain both technical insight and strategic direction to modernize your organization’s data practices.

Target Audience

- Healthcare IT Managers & Data Officers
- Hospital Administrators & Clinical Informatics Specialists
- Data Privacy & Security Professionals
- Public Health Analysts & Policy Makers
- HealthTech Developers & Systems Integrators

Individual Benefits

- Acquire in-demand skills in big data technologies applied to healthcare
- Strengthen your understanding of data protection and healthcare compliance
- Learn to bridge clinical knowledge with data science techniques
- Advance your role in digital transformation within your healthcare organization

Organizational Benefits

- Improve patient care through predictive analytics and data insights
- Strengthen cybersecurity and reduce data breach risks
- Increase operational efficiency through better data integration
- Support personalized medicine and population health initiatives

Instructional Methodology

- Case studies of data-driven healthcare initiatives
- Hands-on practice with anonymized health data sets
- Live demonstrations of data security tools and dashboards
- Group workshops on governance and risk planning

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Course Outline

DETAILED 5-DAY COURSE OUTLINE (CUSTOMIZABLE)

Training Hours: 7:30 AM – 3:30 PM

Daily Format: 3–4 Learning Modules | Coffee Breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Foundations of Big Data in Healthcare

Module 1: Introduction to Big Data & Its Role in Healthcare (07:30 – 09:30)

Module 2: Key Sources: EHRs, Imaging, Wearables, Genomics, Claims (09:45 – 11:15)

Module 3: Data Characteristics: Volume, Velocity, Variety, Veracity (11:30 – 01:00)

Module 4: Workshop: Mapping Your Organization’s Data Landscape (02:00 – 03:30)

Day 2: Big Data Architecture & Tools

Module 1: Overview of Big Data Technologies (Hadoop, Spark, NoSQL) (07:30 – 09:30)

Module 2: Data Warehousing and Interoperability in Healthcare (09:45 – 11:15)

Module 3: Cloud-Based Storage Solutions & HIPAA Considerations (11:30 – 01:00)

Module 4: Demo: Setting Up a Simple Big Data Pipeline (02:00 – 03:30)

Day 3: Data Analytics & Clinical Applications

Module 1: Types of Analytics: Descriptive, Predictive, Prescriptive (07:30 – 09:30)

Module 2: Applications in Clinical Decision Support & Population Health (09:45 – 11:15)

Module 3: AI & Machine Learning in Patient Risk Stratification (11:30 – 01:00)

Module 4: Case Study: Reducing Hospital Readmissions Using Predictive Analytics (02:00 – 03:30)

Day 4: Data Governance, Ethics & Compliance

Module 1: Building a Data Governance Framework (07:30 – 09:30)

Module 2: Consent Management, Anonymization & Data Ownership (09:45 – 11:15)

Module 3: Legal & Ethical Issues in Health Data Use (11:30 – 01:00)

Module 4: Workshop: Drafting a Data Privacy Policy (02:00 – 03:30)

Day 5: Securing Big Data in Healthcare

Module 1: Threat Landscape: Ransomware, Insider Risk, Third-Party Access (07:30 – 09:30)

Module 2: Security Strategies: Encryption, Access Controls, Monitoring (09:45 – 11:15)

Module 3: Regulatory Frameworks: HIPAA, GDPR, ISO 27799 (11:30 – 01:00)

Module 4: Final Group Exercise & Certificate Presentation (02:00 – 03:30)

Certification

Participants will receive a **Certificate in Big Data Management & Security in Healthcare** upon successful completion of the course and final assessment. This certifies capability in leveraging big data while maintaining high standards of privacy and protection in healthcare.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

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