ESAMI

ESAMI@50

Performance Improvement

African Center for Health Economics, and Governance (AfriCHEG)

Introduction

The **Eastern and Southern African Management Institute (ESAMI)** through **African Center for Health, Economics, and Governance (AfriCHEG)** offers a suite of executive short courses designed to strengthen health systems performance through advanced data analytics, artificial intelligence, and public financial management.

In an era of increasing demand for efficiency, accountability, and evidence-based decision-making, health systems require professionals who can not only analyze service delivery data but also track and optimize resource utilization. These programmes respond to this need by building capacity across the following areas:

Artificial Intelligence for Health Data Analysis

Leveraging data analysis and predictive insights to enhance clinical decision-making.

Public Expenditure Tracking (PET)

Strengthening financial accountability and resource efficiency within health systems.

Public Procurement for Health

Ensuring transparent and effective procurement practices.

Monitoring & Evaluation for Health Programmes

Building robust frameworks for performance measurement and programme improvement.

Together, the programmes strengthen reinforce both the clinical-data intelligence and the health financing governance functions, enabling the development of more resilient, efficient, and accountable health systems.

Artificial Intelligence for Health Data Analysis

Harnessing Artificial Intelligence for advanced Health Data Analysis, for Evidence-Based Decision-Making, and Stronger Health Systems.

Course Overview

Artificial Intelligence (AI) is increasingly transforming healthcare delivery, public health, and health research. Across the health sector, growing volumes of data from health facilities, surveillance systems, laboratories, electronic medical records, mobile health platforms, and research programmes present major opportunities for evidence generation and informed decision-making. However, transforming these large datasets into actionable intelligence requires new analytical approaches.

Course Goal

To strengthen participants' capacity to apply Artificial Intelligence tools and techniques in the analysis, interpretation, and use of health data for research, disease surveillance, programme management, and evidence-based decision-making within health systems.

Course Objectives

The objectives of the course are to:

- Explain the core concepts of Artificial Intelligence, machine learning, and health data science and their relevance to modern health systems.
- Identify and assess practical applications of AI in healthcare delivery, public health, and biomedical research.
- Prepare, clean, structure, and manage health datasets for AI analysis.
- Apply machine learning techniques to health data for descriptive, predictive, and classification analysis.
- Analyze trends, patterns, and health outcomes using AI-supported analytical methods.
- Use AI tools to support disease surveillance, forecasting, and early warning systems.
- Interpret AI generated outputs and translate analytical findings into actionable policy and operational decisions.
- Understand and apply ethical, legal, and governance framework governing the responsible use of in health data environment.
- Design practical strategies for integrating AI tools and insights into health programmes, research, and decision-making systems.

Course Content

- Foundations of Artificial Intelligence in Health
- Health Data Management and Preparation for AI Analysis
- AI and Machine Learning Methods for Health Data Analysis
- Practical Applications of AI in Public Health and Healthcare
- Ethics, Governance, Interpretation and Action

Target Participants

Public health professionals; Epidemiologists; Health and Medical researchers; Biostatisticians; Data analysts; M & E officers; Health information officers; Health economists; Clinical researchers; Ministry of Health technical staff; Disease surveillance officers; Programme managers; NGOs and development partner staff; University faculty and lecturers; Postgraduate students in health-related disciplines; Digital health and innovation specialists; Regulatory and compliance officers in health institutions; and Bureau of statistics officers

Basic Requirement: Personal laptop

Expected Learning Outcomes

At the end of the course, participants will be able to:

- Gain practical understanding of AI and its applications in health data analysis.
- Strengthen analytical skills for collecting, managing, and processing health datasets.
- Apply AI approaches to health programme data for meaningful analysis.
- Improve capacity to generate actionable insights that support health planning, programme management and decision-making
- Understand the responsible and ethical use of AI within health data environments.
- Build confidence to integrate AI into their workplace, research or institutional setting.
- Improve the ability to interpret and communicate AI-generated findings to diverse audiences, including policymakers and programme teams.
- Strengthen capacity to apply AI for disease surveillance, health forecasting, and early warning systems.
- Develop strategies for embedding AI-driven approaches into national health programmes, research institutions, and health information systems.
- Expand professional networks and contribute to a growing community of practice in AI for health across the region.

Certification:

ESAMI/AfriCHEG Certificate in Artificial Intelligence for Health Data Analysis

Dates and Training Duration:

14th - 18th December 2026 (5 Days)

Fee Structure:

USD 1,050 per participant

Venue:

Mombasa, Kenya

Public Expenditure Tracking for Health (PET-Health)

Strengthening Transparency, Efficiency, and Accountability in Health Financing through Public Expenditure Tracking

Course Overview

Public expenditure tracking is a critical tool for improving accountability, transparency, and efficiency in health financing systems. In many health systems, resources allocated to the health sector do not always translate into timely, adequate, and quality service delivery due to leakages, inefficiencies, delays, and misallocation of funds.

Course Goal

To build capacity of health and financial professionals to track, analyze, and evaluate public expenditure flows in the health sector for improved efficiency, transparency, and accountability.

Course Objectives

- Understand concepts of public financial management (PFM) in the health sector.
- Explain how health budgets are formulated, approved, disbursed, and executed.
- Apply Public Expenditure Tracking Survey (PETS) methodologies in health systems.
- Analyze budget allocation, release, and absorption rates in the health sector.
- Identify inefficiencies, leakages, and delays in health financing flows.
- Map financial flows from central government to counties, facilities, and programmes.
- Assess equity, efficiency, and transparency in health spending.
- Use data to inform policy decisions and improve health resource allocation.
- Develop expenditure tracking reports for advocacy and decision-making.

Course Content

- Foundations of Public Expenditure Management in Health
- Expenditure Tracking Tools and Budget Analysis Methods
- Budget Allocation, Absorption Rates and Efficiency Analysis
- Data Analysis and Interpretation in PETS
- Monitoring Expenditure Flows, Leakages and Misallocation
- Accountability, Reporting and Policy Use
- Budget Performance, Reporting and Decision-Making

Target Participants

This course is designed for Public Sector Finance Officers, Budget Analysts, Expenditure Controllers, Monitoring and Evaluation Specialists, Internal Auditors, Project and Program Managers, Planning and Policy Officers, Economists, Accounting Officers, Procurement Managers, and staff from Ministries, Departments, Agencies, County Governments, NGOs, and Development Partners involved in public financial management, expenditure oversight, and budget performance analysis.

Basic Requirement: Personal laptop

Expected Learning Outcomes

At the end of the course, participants will be able to:

- Understand health financing systems and budget flows
- Gain practical skills in expenditure tracking
- Identify inefficiencies in health resource allocation
- Produce expenditure tracking reports
- Strengthening capacity for accountability and governance in health financing
- Apply PETS tools in their institutions

Certification:

ESAMI/AfirCHEG Certificate in Public Expenditure Tracking for Health (PET-Health)

Dates and Training Duration:

9th - 11th November 2026 (5 Days)

Fee Structure:

USD 1,050 per participant

Venue:

Arusha - Tanzania

Public Procurement For Health

Strengthening Efficiency, Transparency, and Value for Money in Health Procurement Systems

Course Overview

Public procurement is a critical function in health systems, accounting for a significant share of public expenditure on medicines, medical supplies, infrastructure, and health services. Inefficiencies in procurement systems such as delays, weak supplier management, non-compliance, fraud risks, and poor contract management can severely affect the availability and quality of healthcare services.

Course Goal

To strengthen the capacity of health sector professionals in planning, managing, and evaluating procurement systems to ensure efficient, transparent, and value-for-money acquisition of health commodities and services.

Course Objectives

The objectives of the course are to:

- Understand the principles, legal frameworks, and policies governing public procurement in the health sector.
- Apply procurement planning tools for health commodities, equipment, and services.
- Manage tendering, bidding, evaluation, and contract award processes effectively.
- Strengthen supplier and vendor management systems in health procurement.
- Monitor procurement performance to ensure efficiency, transparency, and compliance.
- Apply value-for-money principles in procurement decisions.
- Identify and mitigate procurement risks, fraud, and corruption vulnerabilities.
- Improve procurement documentation, reporting, and audit compliance.

Course Content

- Foundations of Public Procurement in Health
- Procurement Planning and Needs Assessment
- Tendering, Evaluation, and Contracting
- Contract and Supplier Management
- Procurement Performance, Risk, and Value for Money

Target Participants

Procurement Officers, Supply Chain Managers, Procurement Planners, Hospital Administrators, Health Programme Managers, Budget and Finance Officers, Medical Stores Personnel, Ministry of Health officials, County Health Management Teams, Internal Auditors, Compliance Officers, and staff from NGOs and Development Partners involved in procurement and supply chain management of health commodities and services.

Basic Requirement: Personal laptop

Expected Learning Outcomes

At the end of the course, participants will be able to:

- Understand procurement systems in the health sector
- Gain practical skills in procurement planning and execution
- Improve capacity to manage tenders and contracts
- Strengthen supplier and performance monitoring systems
- Apply value-for-money principles in procurement decisions
- Reduce procurement inefficiencies and risks in their institutions

Certification:

ESAMI/AfriCHEG Certificate in Public Procurement for Health

Dates and Training Duration:

23rd - 27th November 2026 **(5 Days)**

Fee Structure:

USD 1,050 per participant

Venue:

Arusha, Tanzania

Monitoring and Evaluation for Health Programmes

Strengthening Results-Based Management, Performance Measurement, and Learning in Health Programmes through Monitoring, Evaluation, and Artificial Intelligence

Course Overview

Monitoring and Evaluation (M&E) is central to effective health programme planning, implementation, accountability, and continuous improvement. Strong M&E systems enable health programmes to track progress, measure performance, assess outcomes, and generate evidence to support decision-making and resource allocation.

With growing digitalisation in health systems and increasing availability of routine and real-time data, artificial intelligence (AI) is transforming how monitoring and evaluation functions are designed and implemented. AI-powered tools can automate data cleaning, improve analysis, predict emerging trends, identify programme risks, support real-time dashboards, and strengthen evidence based decision-making.

Course Goal

To strengthen participants' capacity to design, implement, and effectively utilise monitoring and evaluation systems enhanced by artificial intelligence for improved performance measurement, evidence generation, accountability, continuous learning, and informed decision-making in health programmes.

Course Objectives

The objectives of the course are to:

- Demonstrate a comprehensive understanding of the core principles, concepts, and established frameworks underpinning Monitoring and
- evaluation in health programmes.
  Design robust results-based M&E frameworks strategically aligned with
- programme goals and health priorities.
  Develop context-appropriate indicators, realistic targets, and
- comprehensive performance measurement plans for health programmes.
- Apply AI-supported tools in health data collection, cleaning, analysis, and
- visualisation.
  Analyse and interpret programme data using both conventional and AI-enabled methods.
- Utilize AI powered tools to detect emerging trends, predict risks, and
- generate actionable insights that support proactive and responsive health programme performance monitoring.
- Conduct evaluations and assess programme outcomes using evidence-based approaches.
  Prepare dashboards, reports, and visual summaries for communication with diverse stakeholders and audiences.
  Integrate M&E findings and AI-generated insights into programme learning cycles, adaptive management processes, and policy decisions.

Course Content

- Foundations of Monitoring and Evaluation in Health Programmes
- M&E Framework Design, Indicators and AI-Enabled Data Systems
- Data Collection, Data Quality and AI for Data Analysis
- Evaluation, Learning and Predictive Analytics
- Reporting, Dashboards, Visualization and Use of Findings

Target Participants

Monitoring and Evaluation Officers, Public Health Professionals, Programme Managers, Project Coordinators, Health Information Officers, Epidemiologists, Researchers, Data Analysts, Digital Health Specialists, Health Planning Officers, Ministry of Health Staff, County/Regional Health Management Teams, NGO and Development Partner Staff, Disease Hospital managers and professionals involved in health programme planning, implementation, reporting, performance monitoring, and learning and any other person interested in the course.

Basic Requirement: Personal laptop

Expected Learning Outcomes

At the end of the course, participants will be able to:

- Designing and implementing stronger M&E systems for health programmes
- Apply AI tools to strengthen data analysis and reporting
- Improve programme performance monitoring and learning
- Use predictive insights for strategic decision-making
- Strengthen reporting quality, transparency and accountability
- Increase use of data and evidence in planning and policy

Certification:

ESAMI/AfriCHEG Certificate in Monitoring and Evaluation for Health Programmes with Applications of Artificial Intelligence.

Dates and Training Duration:

14th - 19th December 2026 (6 Days)

Fee Structure:

USD 1,750 per participant

Venue:

Dubai, UAE

ESAMI Headquarters
Telephone: +255 762 928 728
+255 222 112 670
Email: esamicommunication@esami-africa.org
Website: www.esami-africa.org
Location: Njiro Hill, Arusha, Tanzania

Marketing & Business Development
Email: mbd@esami-africa.org
Mobile: +255 764 540 998

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