Datastat Research
Building Capacity in Training and Research

DATASTAT TRAINING IN

OFFICIAL COURSE PROSPECTUS

Center for Advanced Research & Professional Development

Nairobi Training Center • Global Virtual Academy • Corporate On-Site

PUBLIC HEALTH

Statistical Quality Control in Health Training Course

Comprehensive Course Syllabus, Practical Modules & Upcoming Schedules

PROGRAM SPECIFICATIONS & HIGHLIGHTS

DURATION
5 Days Practical Hands-on

DELIVERY MODES
In-Person Class & Live Virtual

CERTIFICATION
Accredited Certificate of Completion

INTAKES / DATES
Multiple Cohort Schedules Included

PREPARED FOR:

Valued Participant

Email: training@datastatresearch.org | Issued: November 21, 2026

Academic & Professional Training Year: 2026

DATASTAT TRAINING INSTITUTE
P.O. Box 102802-00101, Nairobi, Kenya
Training Centers: Nairobi • Mombasa • Kigali • Dubai • Live Virtual Academy
Tel: +254 724 527 104 | +254 734 969 612
Email: training@datastatresearch.org
www.datastatresearch.org

Statistical Quality Control in Health Training Course

Public Health • 5 Days Intensive • Accredited Certification

Course Overview

Statistical Quality Control in Health Training Course equips healthcare professionals with practical knowledge and modern statistical techniques to strengthen healthcare quality assurance systems and support continuous improvement initiatives across healthcare facilities.

Key Skills & Software Tools Covered

Process monitoring • Data quality control • Performance analysis • Error reduction strategies

Upcoming Training Schedules

Confirmed cohort intakes and venues. Both physical in-person classroom and live virtual online seats are available.

TRAINING DATES	LOCATION / VENUE	FORMAT / DURATION	INVESTMENT (FEE)
11 May 2026 – 15 May 2026	Nairobi	Classroom / 5d	**$1,500 USD / KES 110,000**
11 May 2026 – 15 May 2026	Kigali	Classroom / 5d	**$3,000 USD / KES 110,000**
11 May 2026 – 15 May 2026	Dubai	Classroom / 5d	**$5,000 USD / KES 110,000**
11 May 2026 – 15 May 2026	Cape Town	Classroom / 5d	**$4,500 USD / KES 110,000**
11 May 2026 – 15 May 2026	Addis Ababa	Classroom / 5d	**$3,000 USD / KES 110,000**
11 May 2026 – 15 May 2026	Singapore	Classroom / 5d	**$5,000 USD / KES 110,000**
11 May 2026 – 15 May 2026	Istanbul	Classroom / 5d	**$5,000 USD / KES 110,000**
11 May 2026 – 15 May 2026	Bangkok	Classroom / 5d	**$5,000 USD / KES 110,000**
11 May 2026 – 15 May 2026	Accra	Classroom / 5d	**$4,000 USD / KES 110,000**
18 May 2026 – 22 May 2026	Nairobi	Classroom / 5d	**$1,500 USD / KES 110,000**
18 May 2026 – 22 May 2026	Kigali	Classroom / 5d	**$3,000 USD / KES 110,000**
18 May 2026 – 22 May 2026	Dubai	Classroom / 5d	**$5,000 USD / KES 110,000**

* Corporate discounts and customized cohort scheduling are available for teams of 3 or more participants.

Course Curriculum & Modules

Statistical Quality Control in Health Training Course

Introduction

In today's data-driven healthcare environment, Statistical Quality Control (SQC) has become a critical pillar for achieving patient safety, healthcare excellence, operational efficiency, clinical governance, healthcare compliance, and evidence-based decision-making. Hospitals, laboratories, pharmaceutical institutions, public health organizations, and healthcare regulators are increasingly adopting quality improvement systems, healthcare analytics, Six Sigma methodologies, Lean healthcare strategies, risk management frameworks, and performance monitoring tools to minimize medical errors and improve patient outcomes. Statistical Quality Control in Health Training Course equips healthcare professionals with practical knowledge and modern statistical techniques to strengthen healthcare quality assurance systems and support continuous improvement initiatives across healthcare facilities.

The course focuses on modern trends including healthcare data analytics, AI-driven quality monitoring, healthcare accreditation standards, patient-centered care, KPI dashboards, predictive analytics, infection control monitoring, healthcare performance management, ISO standards in healthcare, and digital health transformation. Participants will gain practical skills in applying statistical tools for quality control, analyzing healthcare performance indicators, conducting root cause analysis, monitoring healthcare processes, and implementing corrective actions using internationally recognized quality frameworks. Real-world healthcare case studies and hands-on exercises ensure participants can immediately apply learned techniques in clinical and healthcare management settings.

Course Duration

5 days

Course Objectives

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

- Understand the principles of Statistical Quality Control (SQC) in healthcare systems.
- Apply healthcare data analytics techniques for performance improvement.
- Use control charts and statistical process control (SPC) for monitoring healthcare quality.
- Implement Lean Healthcare and Six Sigma methodologies to reduce clinical errors.
- Analyze Key Performance Indicators (KPIs) for healthcare quality management.
- Conduct root cause analysis and risk assessment in healthcare operations.
- Utilize predictive analytics and AI-driven healthcare monitoring tools.
- Improve patient safety and healthcare compliance through quality assurance frameworks.
- Measure and evaluate healthcare service delivery performance effectively.
- Apply evidence-based quality improvement strategies in hospitals and clinics.
- Develop continuous quality improvement (CQI) programs for healthcare organizations.
- Strengthen infection prevention and healthcare risk management systems using statistical methods.
- Design actionable healthcare quality dashboards and reporting systems for decision-making.

Target Audience

- Healthcare Quality Assurance Managers
- Hospital Administrators and Healthcare Executives
- Medical Laboratory Professionals
- Public Health Officers and Epidemiologists
- Nurses and Clinical Supervisors
- Healthcare Data Analysts and Health Information Officers
- Pharmaceutical and Biomedical Professionals
- Healthcare Accreditation and Compliance Officers

Course Modules

Module 1: Fundamentals of Statistical Quality Control in Healthcare

- Introduction to healthcare quality management
- Principles of Statistical Quality Control (SQC)
- Healthcare quality indicators and standards
- Basics of healthcare performance measurement
- Continuous Quality Improvement (CQI) concepts
- Case Study: Implementation of quality control systems in a tertiary hospital to reduce patient waiting times.

Module 2: Statistical Tools for Healthcare Quality Improvement

- Descriptive and inferential statistics
- Sampling techniques in healthcare
- Pareto analysis and histograms
- Cause-and-effect (Fishbone) diagrams
- Scatter plots and correlation analysis
- Case Study: Using Pareto analysis to identify causes of medication administration errors.

Module 3: Statistical Process Control (SPC) in Healthcare

- Introduction to SPC methodologies
- Control charts for healthcare monitoring
- Process capability analysis
- Variation analysis in healthcare services
- Monitoring clinical performance indicators
- Case Study: Application of control charts to monitor infection rates in intensive care units.

Module 4: Lean Healthcare and Six Sigma Applications

- Lean healthcare principles
- Six Sigma DMAIC methodology
- Waste reduction strategies in healthcare
- Process mapping and workflow optimization
- Error reduction in clinical operations
- Case Study: Reducing laboratory turnaround time using Lean Six Sigma techniques.

Module 5: Healthcare Risk Management and Patient Safety

- Patient safety frameworks
- Risk assessment methodologies
- Root Cause Analysis (RCA)
- Failure Mode and Effects Analysis (FMEA)
- Healthcare incident reporting systems
- Case Study: Root cause investigation of surgical safety incidents in a hospital setting.

Module 6: Healthcare Data Analytics and Digital Quality Systems

- Healthcare data management systems
- Predictive analytics in healthcare
- AI-driven quality monitoring tools
- Healthcare dashboards and KPI reporting
- Digital transformation in healthcare quality
- Case Study: Use of predictive analytics to reduce hospital readmission rates.

Module 7: Quality Assurance Standards and Healthcare Accreditation

- ISO standards in healthcare
- Healthcare accreditation requirements
- Clinical audit methodologies
- Compliance monitoring systems
- Regulatory quality frameworks
- Case Study: Preparing a healthcare facility for international accreditation compliance.

Module 8: Developing Sustainable Quality Improvement Programs

- Strategic healthcare quality planning
- Performance benchmarking techniques
- Developing quality improvement action plans
- Change management in healthcare
- Building a culture of continuous improvement
- Case Study: Designing a sustainable hospital-wide quality improvement program.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.
- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@datastatresearch.org or call +254724527104

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to DATASTAT CONSULTANCY LTD account, as indicated in the invoice so as to enable us prepare better for you.

Certification & Learning Methodology

- Hands-on practical delivery with real-world datasets, case studies, and lab exercises.
- Post-training mentorship, access to class resources, and customized follow-up support.
- Participants who successfully complete the course receive an accredited Datastat Certificate of Completion.

How to Enroll & Reserve Your Seat

1. Online Registration: Visit https://datastatresearch.org/courses/statistical-quality-control-in-health-training-course to register online.
2. Email Booking: Send participant details to training@datastatresearch.org for official invoice & reservation.
3. Support & Assistance: Inquire via phone +254 724 527 104 | +254 734 969 612.