MERCURY

Supply Chain Risk Management in Health Crises & Emergency Response

11 – 22 January 2027
Cape Town (South Africa)



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Ref: 16207_1069323 **Date:** 11 – 22 January 2027 **Location:** Cape Town (South Africa) **Fees:** 9500 Euro

Introduction:

Supply chain disruptions during health crises and emergency response situations pose significant risks to public health outcomes and logistical stability. This Supply Chain Risk Management in Health Crises and Emergency Response course equips professionals with strategic tools and methodologies to anticipate, mitigate, and respond to such disruptions.

The Supply Chain Risk Management in Health Crises and Emergency Response training course delves into resilience planning, inventory optimization, and emergency logistics frameworks. Learners will explore case studies from global pandemics, humanitarian crises, and natural disasters to understand real-world challenges and adaptive solutions.

This Supply Chain Risk Management in Health Crises and Emergency Response program emphasizes multi-stakeholder coordination, digital supply chain tools, and proactive risk management models. Participants will develop analytical thinking and decision-making abilities tailored to fast-changing, high-pressure environments. They will support public health system sustainability by strengthening critical response capabilities in supply chain operations.

Targeted Groups:

This Supply Chain Risk Management in Health Crises and Emergency Response training targets professionals seeking specialized knowledge and skills:

- Supply chain professionals in the health and humanitarian sectors.
- Emergency logistics and disaster relief coordinators.
- Health program managers and public health responders.
- Procurement and inventory officers in hospitals and NGOs.
- Risk management and contingency planning specialists.
- Professionals in international organizations and aid agencies.
- Logistics officers in military and civil protection services.
- Government and municipal public health planners.
- Policy advisors and regulatory affairs professionals.
- Consultants in global health and crisis management.

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Course Objectives:

Participants will achieve the following objectives by completing the Supply Chain Risk Management in Health Crises and Emergency Response course:

- Understand the dynamics of health supply chains in crisis contexts.
- Identify vulnerabilities and assess risk exposure points in real-time.
- Apply risk mapping and mitigation strategies effectively.
- Analyze emergency supply chain case studies and lessons learned.
- Formulate contingency and resilience plans for critical operations.
- Manage inventory and resource allocation under pressure.
- Integrate digital tools to enhance visibility and rapid response.
- Evaluate coordination mechanisms across multi-agency stakeholders.
- Design scalable supply chain responses for various emergencies.
- Interpret regulatory and logistical frameworks during global outbreaks.
- Communicate decisions effectively to internal and external stakeholders.
- Develop monitoring systems for supply chain performance in crises.

Targeted Competencies:

Participants will gain the following competencies during the Supply Chain Risk Management in Health Crises and Emergency Response program:

- Risk analysis and crisis scenario planning.
- Resilience-building in health supply chains.
- Agile decision-making under uncertainty.
- Emergency resource allocation and logistics control.
- Crisis communication and stakeholder coordination.
- Real-time supply chain data interpretation.
- Performance monitoring in unstable environments.
- Application of emergency procurement processes.
- Use of forecasting models in health crises.
- Ethical decision-making in high-stakes logistics.

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Course Content:

Unit 1: Fundamentals of Health Supply Chains in Crises:

- Overview of supply chain management in public health.
- Distinctions between routine and emergency logistics.
- Key elements of health supply chains in emergencies.
- The role of demand and supply uncertainty.
- Importance of adaptability and responsiveness.
- Critical vulnerabilities and bottlenecks.
- Humanitarian logistics vs. commercial logistics.
- Case examples from global emergencies.

Unit 2: Risk Identification and Assessment in Emergency Supply Chains:

- Defining risk in the supply chain context.
- Categories of supply chain risks in health crises.
- Conducting supply chain risk assessments.
- Tools for risk mapping and classification.
- Impact probability matrix design.
- Early warning indicators and dashboards.
- Supply chain risk registers and documentation.
- Institutional risk appetite considerations.

Unit 3: Supply Chain Resilience Strategies:

- Concepts of resilience vs. robustness.
- Inventory buffers and stockpiling strategies.
- Diversification of suppliers and logistics pathways.
- Strategic reserves and rotating stock systems.
- Local sourcing and manufacturing options.
- Pre-crisis planning frameworks.
- Integration of resilience into organizational SOPs.
- Metrics to assess resilience levels.

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Unit 4: Emergency Procurement and Contracting:

- Procurement under emergency regulations.
- Framework agreements and emergency contracting.
- Rapid tendering and direct contracting principles.
- Supplier vetting during crises.
- Ethical considerations in emergency procurement.
- Legal compliance under expedited procedures.
- Lessons from pandemic procurement challenges.
- Pre-approved vendor management systems.

Unit 5: Inventory Optimization and Last-Mile Distribution:

- Real-time inventory visibility and tracking.
- Cold chain and temperature-sensitive logistics.
- Inventory categorization during emergencies.
- Prioritization methods ABC, VED.
- Managing scarce medical supplies equitably.
- Distribution route planning under constraints.
- Reverse logistics and recalls.
- Integration of GIS and location intelligence tools.

Unit 6: Technology and Digital Tools for Risk Management:

- Use of ERP and digital platforms in emergencies.
- Blockchain and digital traceability.
- Real-time tracking and IoT integration.
- Big data for demand forecasting.
- Cloud-based coordination tools.
- Mobile apps for field-level reporting.
- AI-powered predictive modeling.
- Challenges in digital implementation in low-resource settings.

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Unit 7: Humanitarian Logistics and International Coordination:

- Role of global health organizations WHO, WFP, etc..
- Coordination with UN clusters and donors.
- Cross-border logistics in pandemics.
- Import/export regulation compliance.
- Joint logistics centers and humanitarian corridors.
- Building collaborative logistics platforms.
- Public-private partnerships in crisis response.
- Logistics frameworks in complex emergencies.

Unit 8: Performance Monitoring and Evaluation During Emergencies:

- Developing KPIs for emergency supply chains.
- Real-time data collection and analysis tools.
- Dynamic reporting formats for rapid decisions.
- Bottleneck identification and intervention.
- Feedback loops from field operations.
- Dashboards for supply chain visibility.
- Corrective action planning.
- Evaluating impact post-emergency.

Unit 9: Ethical, Legal, and Compliance Dimensions:

- Supply chain ethics in resource-constrained environments.
- Legal risks and accountability during crises.
- Anti-corruption and transparency mechanisms.
- Human rights in emergency logistics operations.
- Handling donations and unsolicited goods.
- Compliance with local and international norms.
- Reporting obligations and audit trails.
- Data privacy and digital security concerns.

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Unit 10: Real-World Case Studies and Lessons Learned:

- Case: COVID-19 global supply chain disruptions.
- Case: Ebola outbreak and logistics planning in West Africa.
- Case: Natural disasters and health logistics in Asia.
- Analysis of supply chain failure points.
- Strategic lessons in coordination and agility.
- Adaptive logistics innovations from the field.
- Best practices in public-private engagement.
- Participant-led discussions on local scenarios.

Final Insights & Key Takeaways:

Effective risk management in health crisis logistics is critical to saving lives and ensuring system continuity. Participants will leave this course with actionable frameworks, technical knowledge, and strategic insights applicable to real-world crisis environments. The integration of digital tools, forecasting, and coordination systems plays a vital role in emergency logistics. Strengthening supply chain agility and resilience ensures sustainable preparedness for future health emergencies.