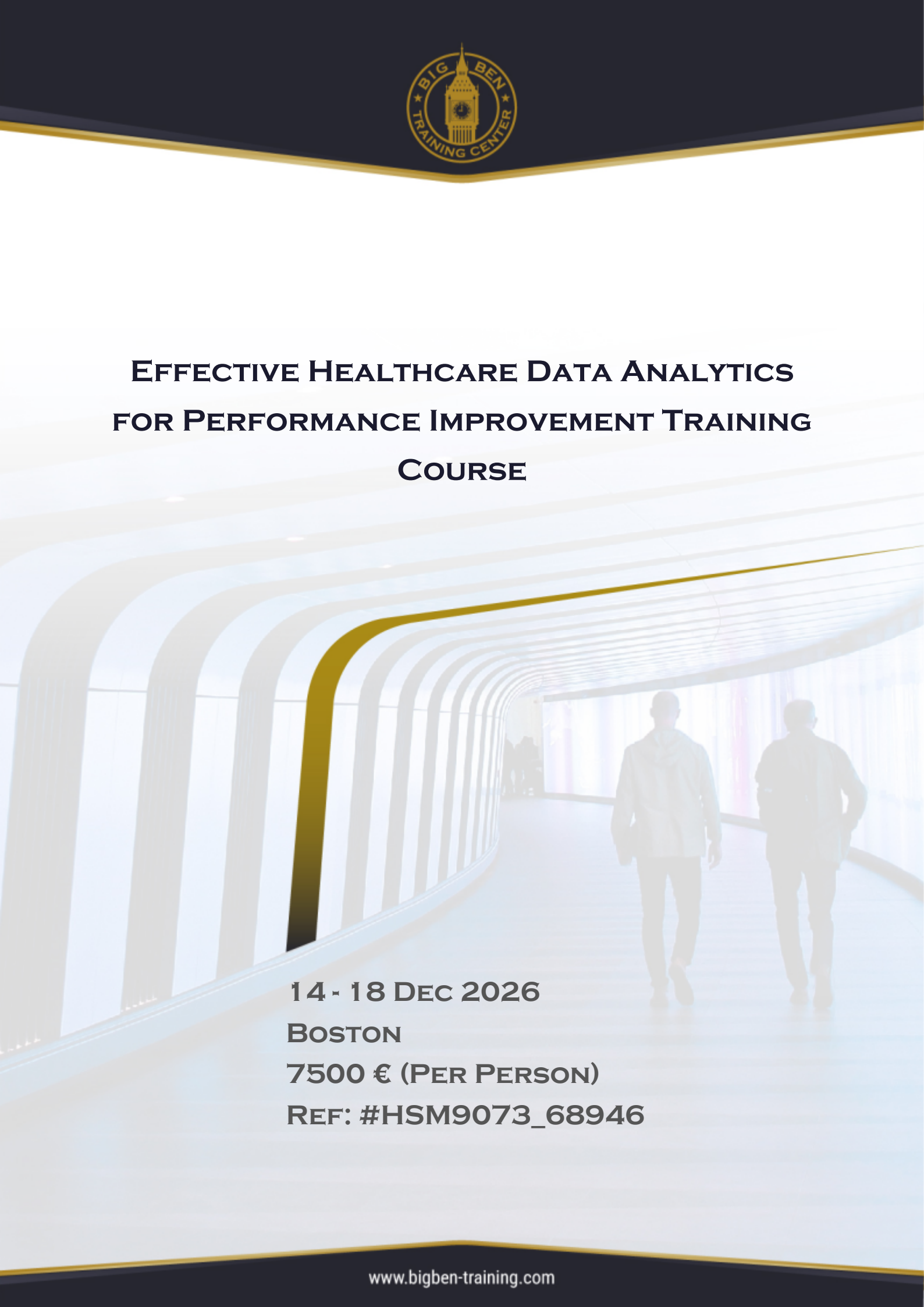
Effective Healthcare Data Analytics for Performance Improvement Training Course



14 - 18 Dec 2026

Boston

7500 € (Per Person)

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Course Introduction / Overview:

The healthcare industry generates a vast amount of data, but its true value is only unlocked through effective analysis. This training course is designed to equip healthcare professionals with the strategic knowledge and practical skills needed to use data to drive performance improvement and make informed decisions. Participants will explore everything from data collection and visualization to predictive modeling and quality reporting. The curriculum addresses the critical need to improve patient outcomes, reduce costs, and enhance operational efficiency through a data-driven approach. As noted by academic author Dr. T.R. O'Shea in his book "Health Analytics: A Guide to Unlocking the Value of Healthcare Data," a culture of data literacy is essential for modern healthcare leadership. BIG BEN Training Center is proud to offer a program that moves beyond basic statistics to focus on a holistic, problem-solving approach. You will learn how to identify key performance indicators, interpret complex datasets, and present findings in a clear and compelling way. This course empowers you to be a key driver of change, ensuring your organization can use its data to improve patient care and achieve its strategic goals.

Target Audience / This Training Course is Suitable for:

- Healthcare administrators and managers.
- Data analysts and business intelligence specialists.
- Quality improvement managers.
- Clinical directors and department heads.
- Health information management professionals.
- Researchers and public health officials.
- Strategic planners.

Target Sectors and Industries:

- Hospitals and medical centers.
- Health insurance companies.
- Government agencies and health departments.
- Pharmaceutical and medical device companies.
- Clinical research organizations.
- Outpatient clinics and specialist practices.
- Healthcare consulting firms.

Target Organizations Departments:

- Quality and performance improvement.
- Data analytics and business intelligence.
- Hospital administration.
- Finance and accounting.
- Clinical services.
- Strategic planning.
- Health information management.

Course Offerings:

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

- Collect and manage healthcare data for analysis.
- Use data to identify areas for performance improvement.
- Apply data visualization techniques to present complex information.
- Conduct basic statistical analysis for quality reporting.
- Implement predictive modeling for patient outcomes.
- Translate data insights into actionable strategies.
- Understand ethical considerations in healthcare data use.

Course Methodology:

This training course uses a blend of case studies and hands-on workshops. Participants will work in groups to analyze real-world healthcare datasets, addressing challenges like reducing readmission rates or improving patient flow. The curriculum includes workshops on using common data analysis software and creating clear data dashboards. Our instructors are seasoned data analysts with extensive experience in the healthcare sector who will provide practical insights and guidance. BIG BEN Training Center is committed to creating a collaborative and interactive environment where you can learn from your peers and practice new skills. The course is designed to be highly practical, ensuring that you leave with confidence and tools to use data to drive meaningful improvements in your organization.

Course Agenda (Course Units):

Unit One: The Foundation of Healthcare Data Analytics.

- Understanding the types of healthcare data.
- The importance of data quality and governance.
- The link between data and performance improvement.
- Key performance indicators (KPIs) in healthcare.
- Data-driven decision-making in a clinical context.
- The role of analytics in patient safety.
- Case study: using data to reduce hospital-acquired infections.

Unit Two: Data Collection and Management.

- Data sources in healthcare.
- Ensuring data privacy and security.
- Cleaning and preparing data for analysis.
- Database management and information systems.
- The role of electronic health records (EHRs).
- Data standards and interoperability.
- Workshop: a data cleaning exercise.

Unit Three: Data Visualization and Reporting.

- The principles of effective data visualization.
- Creating clear and compelling dashboards.
- Report on quality and performance metrics.
- Using data to tell a story.
- Communicating findings to non-technical audiences.
- Presenting data for executive leadership.
- Group project: a performance dashboard for a hospital unit.

Unit Four: Statistical Analysis and Predictive Modeling.

- Introduction to statistical analysis for healthcare.
- Common statistical tests and their applications.
- Predictive modeling for patient outcomes.
- Forecasting patient demand and resource needs.
- Using data to identify high-risk populations.
- The role of machine learning in healthcare.
- Discussion: the ethical use of predictive analytics.

Unit Five: Implementing a Data-Driven Culture.

- Building a culture of data literacy.
- Leading change with data.
- Overcoming barriers to data-driven decision-making.
- The future of healthcare analytics.
- Professional development for health data analysts.
- The role of leadership in driving improvement.
- Final presentation: a data-driven improvement plan.

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

How can healthcare organizations ensure that the increasing reliance on data analytics and algorithmic decision-making does not lead to biased outcomes that disadvantage certain patient populations?

What unique qualities does this course offer compared to other courses?

This training course stands out because it is exclusively focused on healthcare data analytics for performance improvement. Unlike a generic data science course, it provides a comprehensive framework for using data to solve the specific challenges of the healthcare industry. Our program emphasizes quality reporting, patient outcomes, and operational efficiency with real-world applications. We use hands-on workshops and case studies based on real healthcare data to give you the skills needed to effectively analyze and present information. This course is designed for professionals who want to move beyond spreadsheets and start using data to drive meaningful, evidence-based improvements in their organization.