



# Health Catalyst University™ Detailed Program Catalog



## Nurturing a Data-Driven Culture

As the speed of change and the number of challenges continue to grow in healthcare, leaders increasingly recognize the urgency of using data and analytics to guide decisions and drive improvement. Yet, making data available isn't sufficient to achieve this goal. Leaders must nurture a data-driven culture where people correctly interpret and use data for decisions—and then execute their decisions within a proven improvement framework.

- ▶ Our analytics and improvement offerings are divided into two categories.
  - **Literacy Credential** or mastery of concepts | Learners have access to coursework to help them successfully pass a series of exams to earn a literacy credential.
  - **Practices Certification** or mastery of applying the concepts | After earning the Literacy Credential, learners complete a real-world project to demonstrate their ability to apply the concepts to earn a practices certification.

## Contents

- |  |  |
|--|--|
| <b>2</b> SpotCheck Knowledge Scans     | <b>21</b> Certification for <i>Improvement Teams</i> |
| <b>3</b> Literacy for <i>Leaders</i>   | <b>22</b> Executive Session                          |
| <b>10</b> Literacy for <i>Analysts</i> |  |

## SpotCheck Knowledge Scans | Online

SpotChecks are free assessments designed to identify knowledge, confidence, and misinformation, so you know where and how to best support your team members with their personal development needs.

### **SPOTCHECK: ANALYTICS AND IMPROVEMENT LITERACY FOR ANALYSTS**

This 25-question SpotCheck provides analysts with a glimpse into current knowledge across five competency areas critical to move from reactive report writing to proactively discovering insights that lead to meaningful improvements. The competency areas include healthcare data, healthcare operations, data analysis, data visualization, and process improvement.

### **SPOTCHECK: ANALYTICS AND IMPROVEMENT LITERACY FOR LEADERS**

This 25-question SpotCheck provides leaders with a glimpse into their current knowledge across five competency areas needed to translate data into business insights and improvement opportunities: healthcare data, healthcare operations, understanding and interpreting analysis, basic data visualization, and process improvement.

# Literacy for Leaders | Online

Every day, healthcare executives and managers swim in an ocean of data, dashboards, and reports. Beyond viewing the data, leaders need knowledge and skills tuned to the unique demands of data-informed healthcare improvement. This series of powerful learning experiences will enhance leaders' analytics literacy, enabling them to partner with analysts to transform insights into targeted improvement proposals.

## HEALTHCARE DATA

*3 modules | 3 CLUs*

Develop a basic understanding of the most common forms of data within healthcare, including terminologies, coding systems, groupers, and risk models. Effectively engage with available data and ultimately produce more meaningful insights for improvement.

### MEDICAL CODING AND CLINICAL TERMINOLOGY

- Recognize the basic structures of ICD, CPT, HCPCS, and NDC coding systems
- Describe how various coding systems are used
- Utilize available resources to look up meanings of codes used in healthcare data
- Understand the purpose of SNOMED CT, LOINC, and RxMed
- Describe how clinical terminology is used in healthcare data

### DIAGNOSIS RELATED GROUPS (DRGS), CASE MIX INDEX, AND RISK MODELS

- Describe the basic structure of a DRG
- Describe how DRGs are used
- Describe how a DRG payment model works
- Use DRGs to calculate a hospital's CMI
- Understand HCCs, DCCI, Elixhauser Comorbidity Index, LACE, and LACE+ Indices
- Describe how risk models are used to analyze mortality and readmission rates

### MEDICAL TERMINOLOGY

- Recognize commonly used numerical prefixes
- Identify the medical terms for the location of procedures or conditions
- Describe positional, directional, and basic anatomy medical terms
- Recall terms for conditions of the body and surgical procedures
- Recognize common medical abbreviations

## Cont. Literacy for Leaders | Online

### HEALTHCARE OPERATIONS

*4 modules | 5 CLUs*

Gain a general understanding of the healthcare industry, including the current policy environment, the most common payment and delivery models, revenue cycle and supply chain, and labor management.

#### CURRENT POLICY

- Identify healthcare regulatory organizations
- Recognize the metrics government regulators require healthcare providers to report
- Comprehend how value-based care impacts healthcare and drives policy

#### DELIVERY MODELS AND PAYMENT MODELS

- Explain the three most prevalent delivery models (ACOs, population health, and physical and behavioral health integration)
- Recognize and describe the four most prominent payment models (Fee-for-Service, Shared Savings, Bundled Payments, and Capitation)

### REVENUE CYCLE AND SUPPLY CHAIN

- Describe the process of healthcare billing
- Explain the use of revenue cycle metrics
- Recognize the similarities and differences between how the five main hospital types handle revenue
- Understand hospital supply management

### LABOR MANAGEMENT

- Explain labor management and occupancy
- Explain how nursing ratios, FTE staffing, and productivity ratios work in labor management
- Describe how licensed beds, staffed beds, and critical census are used to measure a hospital's maximum occupancy limit
- List how the daily census, occupancy rate, and patient dates are used to calculate occupancy
- Explain the importance of utilization statistics
- List the hospital areas where utilization is particularly important (ED and imaging)

# Cont. Literacy for Leaders | Online

## UNDERSTAND AND INTERPRET ANALYSIS

### 5 modules | 8 CLUs

Work with competent analysts to get the correct data, and then describe, analyze, and interpret it in a way that generates meaningful insights.

### EFFECTIVELY ACCESSING AND REQUESTING DATA

- Recognize best practices for collecting historical data
- Define statistical bias and its most common forms
- Differentiate between the three types of measures used in improvement work
- Recognize appropriate uses for common types of data visualizations

### DATA DESCRIPTION

- Recognize the common data distribution shapes
- Determine appropriate measures of central tendency and variability to describe data
- Calculate and compare measures of variability in a dataset
- Evaluate basic visualizations for key descriptive insights
- Evaluate outliers in single and multi-variable datasets

### DATA COMPARISON

- Evaluate basic visualizations for key comparative insights
- Understand the importance of using both central tendency and variability when comparing datasets
- Define the basic components of hypothesis tests
- Differentiate between statistical and clinical significance
- Apply a basic understanding of correlation coefficients ( $r$ )

### INTRODUCTION TO STATISTICAL PROCESS CONTROL

- Explain why SPC (control) charts are the preferred visualization for improvement work
- Recognize when SPC (control) charts can be appropriately used
- Recognize when SPC (control) charts cannot be appropriately used

### UNDERSTANDING VARIATION

- Recognize the importance of evaluating performance over time
- Differentiate between common cause variation and assignable cause variation
- Distinguish between stable and unstable processes
- Evaluate run and control charts for insights

## Cont. Literacy for Leaders | Online

### DATA VISUALIZATION BASICS

#### 1 module | 2 CLUs

Uncover how human beings consume visual information and recognize how to effectively design visualizations to take advantage of those tendencies.

#### DATA VISUALIZATION

- Comprehend how people consume visual data
- Understand and apply key design principles

### PROCESS IMPROVEMENT

#### 2 modules | 3 CLUs

Learn the foundational concepts, language, tools, and processes involved in improvement work.

#### PROCESS IMPROVEMENT CONCEPTS

- Define and differentiate common process improvement methods and methodologies
- Define common process improvement terminologies and concepts
- Explain the common roles needed to effect change
- Recognize the need to consider those affected by the change and understand how to involve them in the process
- Recognize the four layers of Governance
- Compare the components of the Three Systems and provide improvement effort examples for each component
- Define basic terminologies of the 7 Question Framework and compare it to other methodologies

#### PROCESS IMPROVEMENT CONCEPTS - CONTINUED

- Recognize the value and application of the 7 Question framework to all work
- Define the Healthcare Analytic Adoption Model, including its different levels

#### COMMON PITFALLS AND PROCESS IMPROVEMENT ANALYTICS

- Differentiate between common measurement roadblocks in healthcare
- Recognize symptoms of numerical illiteracy
- Identify common barriers to effecting change and understand why they are prevalent in healthcare
- Avoid reacting to single data points by understanding the value of examining data over time
- Recognize the need to continually monitor for sustained improvement
- Articulate the flaw in “punishing the outlier” issue
- Recognize the need to set appropriate baselines and use benchmarks
- Define and contrast outcome, process, and balance measures

## Cont. Literacy for Leaders | Online

### COMMUNICATION

*2 modules | 2 CLUs*

Develop the flexibility and adaptability in communication to ensure that information shared is information received. Recognize, consider, and adjust according to the audience and medium, increasing the effectiveness of written, oral, and consulting communication.

#### WRITTEN COMMUNICATION

- Understand how the audience affects written communication
- Be able to determine if communication should be an email or a meeting
- Understand how to identify unnecessary language and information in written communication
- Recognize what constitutes a clear deadline

#### ORAL COMMUNICATION

- Understand the role of questions in an oral presentation
- Articulate the value of using stories in your presentation
- Understand the role pace plays in effective oral communication
- Recognize the importance of concision in oral communication

### PROJECT MANAGEMENT

*2 modules | 1 CLU*

Gain the foundational skills crucial for every role within healthcare regardless of the type or size of the project.

#### GENERAL PROJECT MANAGEMENT CONCEPTS

- Describe the role project management plays in the success of client projects
- Explain the role that creating a timeline plays in the success of a project
- Describe the process of creating a project timeline
- Explain the role that regular, quality project updates play in the success of a project
- Identify the elements of a quality project update
- Explain how to establish a regular cadence and method for providing project updates

#### USING PROJECT MANAGEMENT TO COMPLETE A PROJECT

- Explain the role that managing action items plays in the success of a project
- Recognize and document action items
- Describe the importance of documenting action items
- Hold people accountable for their assigned action items
- Explain the role that managing expectations plays in the success of a project
- Manage team expectations



# Literacy for Analysts | Online

Analysts bring the most value to healthcare organizations when they can solve problems and become partners in clinical and operational improvement work. This requires an ability to contextualize and analyze the data to surface improvement opportunities—and then communicate those opportunities with their leaders. This analytics and literacy program provides analysts with the core competencies needed to move from reactive report writing to proactively discovering insights that lead to meaningful improvements.

## HEALTHCARE DATA

### 3 modules | 3 CLUs

Develop a basic understanding of the most common forms of data within healthcare. Effectively engage with available data and ultimately produce more meaningful insights for improvement.

#### MEDICAL CODING AND CLINICAL TERMINOLOGY

- Recognize the basic structures of ICD, CPT, HCPCS, and NDC coding systems
- Describe how various coding systems are used
- Utilize available resources to look up meanings of codes used in healthcare data
- Understand the purpose of SNOMED CT, LOINC, and RxMed
- Describe how clinical terminology is used

## DIAGNOSIS RELATED GROUPS (DRGs), CASE MIX INDEX, AND RISK MODELS

- Describe the basic structure of a DRG
- Describe how DRGs are used
- Describe how a DRG payment model works
- Use DRGs to calculate a hospital's CMI
- Understand HCCs, DCCI, Elixhauser Comorbidity Index, LACE, and LACE+ Indices
- Describe how risk models are used to analyze mortality and readmission rates

#### MEDICAL TERMINOLOGY

- Recognize commonly used numerical prefixes and medical abbreviations
- Identify the medical terms for the location of procedures or conditions
- Describe positional, directional, and basic anatomy medical terms
- Recall terms for conditions of the body and surgical procedures
-



## Cont. Literacy for Analysts | Online

### HEALTHCARE OPERATIONS

4 modules | 5 CLUs

Gain a general understanding of the healthcare industry, including the current policy environment, common payment and delivery models, revenue cycle and supply chain, and labor management.

#### CURRENT POLICY

- Identify healthcare regulatory organizations
- Recognize the metrics government regulators require healthcare providers to report
- Comprehend how value-based care impacts healthcare and drives policy

#### DELIVERY MODELS AND PAYMENT MODELS

- Explain the three most prevalent delivery models (ACOs, population health, etc.)
- Describe payment models (i.e., Fee-for-Service, Shared Savings, Bundled Payments, Capitation)

### REVENUE CYCLE AND SUPPLY CHAIN

- Describe the process of healthcare billing
- Explain the use of revenue cycle metrics
- Recognize the similarities and differences between how the five main hospital types handle revenue
- Understand hospital supply management

### LABOR MANAGEMENT

- Explain labor management and occupancy
- Explain how nursing ratios, FTE staffing, and productivity ratios work in labor management
- Describe how licensed beds, staffed beds, and critical census are used to measure a hospital's maximum occupancy limit
- List how the daily census, occupancy rate, and patient dates are used to calculate occupancy
- Explain the value of tracking utilization statistics
- List the hospital areas where utilization is particularly important (ED and imaging)

## Cont. Literacy for Analysts | Online

### DATA ANALYSIS

4 modules | 5 CLUs

Use industry best practices to perform basic comparative and descriptive analysis, and leverage run charts and statistical process control charts to understand variation.

#### GETTING THE RIGHT DATA

- Understand the impact of sample size on analysis
- Manage rates and frequencies within an analysis
- Utilize best practices for collecting historical data
- Choose appropriate chart type to use in data analysis
- Avoid statistical bias

#### DATA DESCRIPTION AND COMPARISON

- Recognize the common data distribution shapes
- Identify the common types of variation within a data distribution
- Identify outliers within a data set
- Recall the measures of central tendency and when to use them
- Use a control chart to identify system stability
- Interpret boxplots and bubble charts
- Understand how correlation impacts a data set

### INTRODUCTION TO STATISTICAL PROCESS CONTROL

- Explain why SPC (control) charts are the preferred visualization for improvement work
- Recognize when SPC (control) charts can be appropriately used
- Recognize when SPC (control) charts cannot be appropriately used

### UNDERSTANDING VARIATION WITH RUN AND CONTROL CHARTS

- Describe the difference between common cause and special cause variation
- Build run and control charts
- Utilize statistical rules to identify special cause variation on a run or control chart
- Interpret special cause variation using a run or control chart

### DATA VISUALIZATION

1 module | 2 CLUs

Uncover how human beings consume visual information and recognize how to effectively design visualizations to take advantage of those tendencies.

#### DATA VISUALIZATION

- Comprehend how people consume visual data
- Describe key design principles informed by that comprehension
- Describe the components of an effective design process to create your visualizations

## Cont. Literacy for Analysts | Online

### PROCESS IMPROVEMENT

*2 modules | 3 CLUs*

Learn common concepts, language, tools, and processes involved in improvement work.

#### PROCESS IMPROVEMENT CONCEPTS

- Define and differentiate common process improvement methods and methodologies, including the implications of each
- Define common process improvement terminologies and concepts
- Explain the common roles needed to effect change
- Recognize the need to consider those affected by the change and understand how to involve them in the process
- Recognize the four layers of Governance
- Compare the components of the Three Systems and provide improvement effort examples for each component
- Define basic terminologies of the 7 Question Framework and compare it to other methodologies
- Recognize the value and application of the 7 Question framework to all work
- Define the Healthcare Analytic Adoption Model, including the different levels of the model

### COMMON PITFALLS AND PROCESS IMPROVEMENT ANALYTICS

- Recognize and differentiate between common measurement roadblocks in healthcare
- Recognize common symptoms of numerical illiteracy
- Identify common barriers to effecting change and understand why they are prevalent in healthcare
- Avoid reacting to single data points by understanding the value of examining data over time
- Recognize the need to continually monitor for sustained improvement
- Articulate the flaw in “punishing the outlier” issue
- Recognize the need to set appropriate baselines and use benchmarks whenever possible
- Define and contrast outcome, process, and balance measures

## Cont. Literacy for Analysts | Online

### COMMUNICATION

#### 3 modules | 3 CLUs

Develop the flexibility and adaptability in communication to ensure that information shared is information received. Recognize, consider, and adjust according to the audience and medium, increasing the effectiveness of written, oral, and consulting communication.

#### WRITTEN COMMUNICATION

- Understand how the audience affects written communication
- Be able to determine if communication should be an email or a meeting
- Understand how to identify unnecessary language and information in written communication
- Recognize what constitutes a clear deadline

#### ORAL COMMUNICATION

- Understand the role of questions in an oral presentation
- Articulate the value of using stories in your presentation
- Understand the role pace plays in effective oral communication
- Recognize the importance of concision in oral communication

#### DEMO AND CONSULTING

- Understand the difference between audience and use case and their impacts on a demo
- Recognize when to respond to questions and when not to in a demo
- Understand your personal role in opening and maintaining dialogue throughout the consulting relationship
- Understand the characteristics of consulting questions

## Cont. Literacy for Analysts | Online

### PROJECT MANAGEMENT

*2 modules | 1 CLU*

Gain the foundational skills crucial for every role within healthcare regardless of the type or size of the project.

#### GENERAL PROJECT MANAGEMENT CONCEPTS

- Describe the role project management plays in the success of client projects
- Explain the role that creating a timeline plays in the success of a project
- Describe the process of creating a project timeline
- Explain the role that regular, quality project updates play in the success of a project
- Identify the elements of a quality project update
- Explain how to establish a regular cadence and method for providing project updates

#### USING PROJECT MANAGEMENT TO COMPLETE A PROJECT

- Explain the role that managing action items plays in the success of a project
- Recognize and document action items
- Describe the importance of documenting action items
- Hold people accountable for their assigned action items
- Explain the role that managing expectations plays in the success of a project
- Manage team expectations

## Cont. Literacy for Analysts | Online

### DATA MODELING

#### 3 modules | 3 CLUs

Effective data governance solutions begin with a deep understanding of the data. The basic principles of data modeling are essential before diving into the tools Health Catalyst offers that assist in analysis and visualization.

#### DATA WAREHOUSE MODELING TERMINOLOGIES

- Differentiate between data types and how they are used
- Define primary key, surrogate key, and foreign key, and know what makes a good key
- Read and interpret an entity relationship diagram (ERD)
- Recognize different types of joins and know when to use each
- Define grain in the context of data modeling and identify the grain represented in a given scenario or data set

#### DATA WAREHOUSE MODELING METHODOLOGIES

- Know what indexes are, what they are used for, and differentiate between non-clustered and clustered indexes
- Define table and view and know how each is used in SAMD
- Determine when you should use early vs. late binding
- Define data lake and data warehouse

#### DATA WAREHOUSE MODELING METHODOLOGIES - CONTINUED

- Differentiate between star schemas and third normal form schemas and define appropriate use case for each
- Know what normalization and denormalization mean

#### SAM FRAMEWORK ARCHITECTURE

- Know why we have SAM framework architecture (Health Catalyst's data model) and when to use it
- Know when to go back to a source mart to get data
- Define the following terms in the context of SAM framework architecture: events, rules, population, pre-metrics, metrics, summary metrics
- Categorize a piece of data in a given scenario as an event, rule, population, pre-metric, metric, or summary metric
- Know when you would use a reporting view and why it is there



## Cont. Literacy for Analysts | Online

### EXTRACT, TRANSFORM, LOAD (ETL)

#### 4 modules

Strong ETL processes ensure data integrity and increase efficiency when moving data by standardizing and automating procedures. It is essential to understand how ETL processes work and can be maintained.

#### EXTRACT

- Differentiate between local or cloud-based data sources
- Differentiate between data source types
- Determine when and how to connect to a source system or receive files
- Identify the scope of data to be extracted
- Describe change capture methodologies for incremental loads
- Recognize common file formats and naming conventions
- Identify how file names impact how the data should be loaded and archived

#### TRANSFORM

- Describe the process of denormalization
- List common transformations and their purpose
- Identify conditions that favor staging data
- Contrast the pros and cons of doing business logic in transforms vs. target systems vs. visualizations

#### LOAD

- Describe the steps for planning and preparing a data load
- Describe how indexes affect load performance and how to manage indexes when loading data
- Differentiate between load types and describe conditions when each is used

#### SUPPORT, MAINTENANCE, AND SECURITY

- Identify common load issues and associated remediation
- Recognize common maintenance issues and how they may impact loading
- Identify major functions of ETL development tools
- Recognize the importance and value of thorough ETL documentation and communication
- Recognize batch scheduling strategies and their impact in meeting Service Level Agreements (SLAs)



## Cont. Literacy for Analysts | Online

### SUBJECT AREA

#### MART DESIGNER (SAMD)

[Health Catalyst Platform Clients Only]

*3 modules | 2 CLUs*

SAMD is a tool that provides a simple visual user experience for creating and deploying custom data marts in the EDW. SAMD simplifies that process and reduces the amount of time to create SAMs from months to minutes.

#### INTRODUCTION TO SAMD

- Explain what the SAM Designer tool is, what it does, and what SAMs are used for
- Explain where SAM Designer and other Health Catalyst tools fit into the greater Health Catalyst data flow
- Differentiate between scenarios, problem statements, and data sets in which you would use a SAM vs another HC tool (IDEA, SMD, etc.)
- Define HC naming standards, know where to find the HC naming guide, and know when to use client standards if they contradict HC standards
- Define SAM Designer terms, why they are important, and how they relate to one another
- Describe how entities and bindings interact and apply entity standards for SAM Designer
- Define data type and know how to apply in SAMD

#### USING SAMD

- Build a SAM by creating entities and bindings
- Understand the options for entities and bindings
- Navigate a SAM by viewing the dependencies of entities and bindings
- Execute a SAM to generate data
- Understand the difference between a generic and a framework SAM
- Recognize and know how to fix common errors

#### SAMD FUNCTIONS AND DATA MODELING

- Describe the function of commonly used buttons in the top ribbon
- Recognize the steps in the SAM creation process
- Describe the function of the options of the bindings and entities detail page
- Describe how entities and bindings interact (one-to-one, one-to-many)
- Define primary keys, indexes, and null values appropriately
- Show the data flow of an existing SAM

## Cont. Literacy for Analysts | Online

### ATLAS

[Health Catalyst Platform Clients Only]

**2 modules | 1 CLU**

This web-based index of metadata enables data owners and stakeholders to securely access data and collaboratively standardize common definitions.

#### CONTEXTUAL KNOWLEDGE & TERMINOLOGY

- Understand the story of Atlas—what it is, why it is useful, and what it can do
- Recognize scenarios in which Atlas would appropriately be used
- Explain how Atlas and data marts are related
- Compare Atlas to other competitor software
- Define and explain common Atlas terminology

#### NAVIGATING AND USING ATLAS

- Search for data objects in Atlas
- Customize the Atlas Home page
- Use Atlas to analyze the impact of data changes
- Track data lineage to identify on what data measures depend
- Connect applications via the Analytics Catalog
- Manage updates to metadata, such as names and descriptions in fields, entities, measures, etc.
- Find the SQL and R code for specific bindings

### IDEA

[Health Catalyst Platform Clients Only]

**2 modules | 1 CLU**

Build and deploy custom web applications to collect data not captured in an EDW for critical reporting and analysis.

#### GENERAL INFORMATION AND TERMINOLOGIES

- Recognize what is IDEA and when to use it
- Distinguish IDEA from the alternatives
- Identify general data usage terminologies
- Describe how to acquire access
- Describe how IDEA lookup lists are used

#### APPLICATION AND DATA MIGRATION

- Access the IDEA application
- Build an IDEA application
- Recognize role types and security permissions
- Describe different ways to populate, import, and export the data
- Recognize solutions to common error messages

## Cont. Literacy for Analysts | Online

### DOS OPERATIONS CONSOLE

[Health Catalyst Platform Clients Only]

#### 3 modules

DOS Operations Console is a web-based tool that provides a flexible scheduling engine for data warehouse managers and data engineers to create jobs that load data the way they choose. Highly configurable job definitions allow users to choose which tables to load, how to validate the load, and opt to send notifications on the status of the load.

#### INTRO TO DOS OPERATIONS CONSOLE

- Describe the general information of Operations Console
- Recognize Operation Console terminologies
- Distinguish job-execution types

#### DEFINING AND EXECUTING JOBS

- Describe how each option of the Job Definition create/edit screen affects how a job loads
- Identify different options for job executions
- Describe scheduling options including various timeout settings and how they interact with Even-Driven Execution
- Describe the difference between Batch Sequencing and Even-Driven Execution

#### MONITORING THE HEALTH OF EDW AND DOS ADMINISTRATION

- Identify and fix common errors
- Recognize how to filter and navigate through execution
- Describe the purpose of the Configuration and System Health section of Operations Console

## Cont. Literacy for Analysts | Online

### SOURCE MART DESIGNER (SMD)

[Health Catalyst Platform Clients Only]

#### 2 modules

In the Health Catalyst architecture, source marts are at the ground-level that extract data directly from the source with minimal transformations. Source Mart Designer (SMD) is a tool for mapping source system tables and columns automatically to source marts, capturing metadata for every field, and storing them in a central repository.

#### FOUNDATIONS OF SM AND SMD

- Explain the role of source marts
- Define connections, entities, bindings, and indexes in the context of Source Mart Designer
- Connect SMD to the DOS Ecosystem

#### UPDATING AND TROUBLESHOOTING SMS

- Describe the procedures for creating a source mart
- Describe Health Catalyst's C4 review process
- Describe the procedures for making changes to a source mart
- Recognize the impact of source mart upgrades on downstream SAMs
- Recognize common SMD issues and troubleshooting them

## Cont. Literacy for Analysts | Online

### QLIKVIEW STANDARDS

#### 2 modules

QlikView is a handy tool for presenting analytic dashboards. At Health Catalyst, we use QlikView for much of our reporting. Understanding the standards HCAT team members follow when developing within QlikView ensure a consistent look and feel in HCAT QlikView applications.

#### PULLING IN DATA

- Describe dev and prod connection strings and environmental switch
- Know how to modify standard colors in the script
- Define data model strategies
- Apply Health Catalyst best practices for a standardized dev approach
- Know when to use variables, nested ifs, pick matches, triggers, and in-line tables
- Know how to conduct calculation of heavy data points and use concatenated keys

#### CREATING VISUALIZATIONS

- Recognize and describe how to test scenarios that might reveal a data deficiency
- Describe the different security models possible within the QlikView environment
- Explain single vs dual server set up
- Recognize and compare types of validation
- Define co-branding and know where to access images, icons, and logos
- Know how to edit chart properties to adhere to the Cashmere look and feel
- Describe when to use alternate states, triggers, calculation conditions, conditional show, and set analysis

# Certification for Improvement Teams | Virtual or Blended

In this analytics and literacy program, learners apply the principles and practices of Health Catalyst's Three Systems approach to achieve measurable improvements. This hands-on, team-based program leverages the 7 Guiding Questions framework to empower participants to lead a project as they learn. The virtual program is coach-supported and incorporates a flipped-classroom approach with 12 live, highly interactive virtual sessions over 22 weeks.

## UNDERSTAND THE PROBLEM

*3 weeks | 68 CLUs*

Recognize the need for quality as a business strategy for healthcare organizations. Using a combination of data analysis, improvement theory, and leadership principles, identify an improvement opportunity, and study both the system and the people within to create shared focus and understanding.

## KNOW WHERE YOU WANT TO BE

*2 weeks | 10 CLUs*

Use temporal data analysis and process analysis to understand the current stability and capability of the process and establish reasonable expectations for project outcomes.

## KNOW THE CAUSE OF THE PROBLEM

*5 weeks | 10 CLUs*

Engage with those who do the work to understand the true drivers of suboptimal process performance and avoid implementing ineffective solutions.

## KNOW WHAT AND HOW TO CHANGE

*3 weeks | 10 CLUs*

Use the results of the process analysis and root cause analysis to identify and prioritize possible tests of change. Engage with key stakeholders to gauge feasibility and desirability.

## APPLY AND MEASURE CHANGES

*2 weeks | 2 CLUs*

Leverage change management skills to implement a test of change into the system and capture the early results.

## DETERMINE IF THE CHANGES RESULTED IN AN IMPROVEMENT

*4 weeks | 7 CLUs*

Leverage statistical techniques against preliminary data to determine if the change has improved reliability, process performance, or both.

## SUSTAIN THE CHANGES

*3 weeks | 5 CLUs*

Ensure the long-term success of the project by preparing for future change iterations and transitioning ownership to key stakeholders.



## Executive Sessions | Live

### MAKING DECISIONS WITH DATA

This half-day activity will take learners through an immersive simulation, where they will gain empathy for the work that is required to translate data into improvement.

The electronic age of medicine provides healthcare systems with more data than ever before. But data alone does not bring insight nor improvement. Data must be interrogated, scrutinized, and ultimately translated into opportunities for improvement. To realize this promise of data, healthcare leaders must recognize the need for new skills, evolved processes, and more focused systems.

### PRIORITIZING IMPROVEMENT OPPORTUNITIES

This half-day activity will help learners effectively govern and direct the improvement work within their organizations.

As analysts translate data into insights that leaders then translate into proposals, executives fill the role of prioritizing, resourcing, and championing these proposals. They must balance these proposals with limited resources and ensure selected proposals align with the organization's goals and aims.