The Value Proposition: Lean Management in Healthcare

Program Overview

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**Required Materials:**

* **Cases from HBR Coursepack:** <https://hbsp.harvard.edu/import/785546>
* **Book:** *On the Mend: Revolutionizing Healthcare to Save Lives and Transform the Industry*. John Toussaint. Available on Amazon

**Session 1: Introduction to Lean Management in Health Care**

* Lesson 1: Introduction to Lean
* Lesson 2: Lean in Healthcare
* Lesson 3: The Value Proposition
* Lesson 4: The 8 Wastes

**Session Summary**:

In this first session, participants are introduced to lean management, value and its application in the health care setting. Participants will learn about the course and how we will approach collaborative learning in both synchronous and asynchronous ways. Participants will learn about lean management as a methodology, it’s history and the principles of lean thinking. Participants also learn about the 8 wastes of healthcare

**Learning Objectives**:

After completing this session, participants will be able to:

* Explain course structure, learning objectives and approach
* Define lean management
* Summarize the history of lean management
* Apply five principles of lean thinking
* Define the 8 Wastes of Lean Management

**Session 2: The Prepare Phase: Project Management as an Essential Lean Tool**

* Lesson 1: Project Management Overview and the PM Triangle
* Lesson2: SIPOC Diagrams and the Stages of Team Development
* Lesson 3: Stakeholder Analysis
* Lesson 4: Gantt Charts and Project Timelines
* Lesson 5: RACI Charts

**Session Summary**:

Effective project management is the foundation to successfully applying the lean methodology given that much of the benefits of lean are gleaned through successful projects. In this session, participants will learn how project management skills support successful lean projects in the health care setting. Participants will learn key project management tools, such as stakeholder analysis, Gantt charts, S.I.P.O.C diagrams and RACI charts. All of these tools build a solid foundation for the launch of lean theory.

**Learning Objectives**:

After completing this session, participants will be able to:

* Define the term Stakeholder
* Explore Stakeholder Analysis
* Define and apply the Project Management Triangle
* Identify tips for effective project management
* Develop a Gantt chart using project management techniques
* Explore tools for effective meetings
* Create and interpret a S.I.P.O.C chart
* Define and create a RACI chart

**Session 3: Introduction to Problem Solving: the A3 Method**

* Lesson 1: Introduction to Problem Solving
* Lesson 2: Introduction to the A3
* Lesson 3: Problem Statements
* Lesson 4: A3: Scope and Current Conditions

**Session Summary:**

What is a problem? How do we fix them? Well, that depends entirely on the background information you have available to you. There are many problem solving methods used throughout health care. However, lean management specifically leverages A3 problem solving. In this session, participants will learn how to define a problem and about the A3 approach. Participants will be able to identify the sections of the A3 and contents/approach associated with each section. This introduction will serve as the groundwork for subsequent sessions, the purpose of which will be to take a deep dive into each section

**Learning Objectives:**

After completing this session, participants will be able to:

* Identify appropriate problem solving methods based on available cause and solution information
* Define a problem
* Craft an effective problem statement
* Define A3 thinking
* Define the sections on an A3 template

**Session 4: TAKT Time and other Operational Statistics**

**Session Summary:**

In this session, participants will learn about key statistics that help in assessment of the current state, including TAKT time, cycle time, and lead time. Participants will not only learn the various measurement definitions, but how they apply to problem solving.

**Learning Objectives:**

After completing this session, participants will be able to:

* Define the Gemba
* Define and calculate TAKT time
* Define and calculate cycle time
* Define and calculate lead time
* Apply process measurements to help solve problems

**Session 5: Process Mapping**

* Lesson 1: Process Mapping
* Lesson 2: Process Map Example

**Session Summary:**

Understanding the current state and how processes currently work is the foundation to diagnosing a problem and how to fix it. With that in mind, the assessment phase of lean begins with a fundamental understanding of process flow. In this session, participants will learn about process mapping and how to build a meaningful process map.

**Learning Objectives:**

After completing this session, participants will be able to:

* Define “process”
* Define process maps
* Prepare process maps
* Prepare cross-functional process maps

**Session 6: Value Stream Mapping**

* Lesson 1: Value Stream Mapping
* Lesson 2: STEMI to Balloon Time Value Stream Map
* Lesson 3: The Ideal and Future States

**Session Summary:**

While process mapping provides a detailed illustration of the steps within a process, lean management seeks to increase value across multiple processes. Value Stream Maps help to link multiple processes together. In this session, participants will learn to define and identify components of a value steam map. Participants will also learn how to develop a value stream map.

**Learning Objectives:**

After completing this session, participants will be able to:

* Explore Value Stream Thinking
* Design and prepare Value Stream Map
* Explore the difference between Value Stream and Process Maps

**Session 7: Spaghetti Diagrams**

**Session Summary:**

Spaghetti diagrams are another useful tool in assessing the current state. In this session, participants will learn about spaghetti diagrams, how to create them and when they are most useful.

**Learning Objectives:**

After completing this session, participants will be able to:

* Define “spaghetti diagram”
* Identify the components of a spaghetti diagram and when they are most useful
* Create a spaghetti diagram

**Session 8: The Voice of the Customer**

* Lesson 1: Introduction
* Lesson 2: Measuring Patient Experience in Hospitals

**Session Summary:**

The customer’s voice is essential to building processes that create value. This session will define the customer in health care, how to gather customer feedback and apply it to process improvement.

**Learning Objectives:**

After completing this session, participants will be able to:

* Define the importance of customer voice in health care
* Define patient experience metrics in health care
* Understand how to collect the voice of the customer

**Session 9: Diagnosing the Problem with Root Cause Analysis**

**Session Summary:**

Root Cause Analysis is perhaps one of the most important steps in working towards improvement using lean. In this session, participants will learn about the components of a Root Cause Analysis and how to execute one from start to finish.

**Learning Objectives:**

After completing this session, participants will be able to:

* Identify the components of a Root Cause Analysis
* Develop and Cause and Effect diagram
* Learn the importance of asking “Why”
* Perform “5 Whys”

**Session 10: Failure Mode Effect Analysis (FMEA)**

**Session Summary:**

As participants begin to think about countermeasures and ways to solve the problem statement, FMEA is a tool that helps ensure countermeasures are successful. In this session, participants will learn about the FMEA tool and how to complete it.

**Learning Objectives:**

After completing this session, participants will be able to:

* Define Failure Modes Effect Analysis
* Develop a Failure Modes Effect Analysis

**Session 11: Data Collection and Analysis in Lean**

**Session Summary:**

While much of the data collection and assessment to date in this program has been qualitative, quantitative data is the backbone to defining and measuring success. In this session, participants will learn about the various ways to collect, analyze, and display quality improvement data. Participants will also learn how to develop a data collection plan.

**Learning Objectives:**

After completing this session, participants will be able to:

* Define tools to support data collection
* Identify various data display methods including run charts
* Develop a data collection plan

**Session 12: Treating the Problem: Kaizen, PDSA, 5S, Standard Work and Mistake Proofing**

* Lesson 1: PDSA and Standard Work
* Lesson 2: 5S and Mistake Proofing
* Lesson 3: Total Productive Maintenance, Just in Time, and Pull/Flow Systems, Kanban

**Session Summary:**

After completing the Root Cause Analysis above, participants are now ready to begin the next step in the lean methodology: developing countermeasures to treat the problem. In this session, participants will learn a variety of lean-based methods/solutions used to address the ultimate root cause of the problem at hand.

**Learning Objectives:**

After completing this session, participants will be able to:

* Define and execute PDSA
* Define and execute Kaizen Events
* Define and implement Mistake Proofing (Poke Yoke)
* Define and implement Standard Work
* Define and implement 5S
* Define and implement Total Productive Maintenance
* Define and implement Just-in-Time and Pull/Flow systems
* Define and Apply Kanban

**Session 13: The Kano Model**

**Summary:**

In this session, participants will learn about the Kano model and how to apply it within health care. Participants will also use the Kano Model as a building block for making recommendations.

**Learning Objectives:**

After completing this session, participants will be able to:

* Define the Kano Model
* Implement tenets of the Kano model in the health care setting

**Session 14: Choosing Countermeasures and Developing Recommendations**

* Lesson 1: SMART Goals and Decision Analysis
* Lesson 2: Prioritization Matrix and Scorecard
* Lesson 3: Simon Sinek’s Golden Circle
* Lesson 4: Understanding Triggers

**Summary:**

Decisions, decisions, decisions! As we explore in previous sessions, there are so many lean tools that can be used to reduce waste. In this session, participants will learn effective ways to identify optimal solutions and how to craft recommendations to obtain stakeholder buy-in.

**Learning Objectives:**

After completing this session, participants will be able to:

* Define best practices for implementing recommendations
* Define and perform decision analysis
* Define and perform Prioritization Matrix
* Define what drives behaviors
* Identify 3 types of triggers and how they apply
* Apply Simon Sinek’s Golden Circle

**Session 15: Sustaining Success**

Summary:

In this session, participants will learn the 9 steps that help sustain success in lean healthcare.

**Learning Objectives:**

After completing this session, participants will be able to:

* Identify 9 steps to start a lean revolution
* Learn tools to support long term success and ongoing improvement

**Live Sessions 1-4**

Each live session will last one hour and will focus on case discussion of a pre-read, lean management-related case which can be obtained from HBR. Questions will be provided to help guide thinking and discussion.

Cases can be purchased from: <https://hbsp.harvard.edu/import/785546>

Discussion will also

**Live Session 1: Discussion: IHI Going Lean in Healthcare**

**Discussion Questions:**

* Identify waste described in Myrtle Bellis’ care at Appleton Medical Center (On the Mend Chapter 2
* Summarize the Collaborative Care inpatient care model that was designed at Thedacare in 2007. Please include discussion of the changing roles of pharmacists and nurses. In your opinion, what is the one most impactful tenet of the redesign in improving value for the patient?
* Describe how Thedacare moved away from the shame and blame approach to errors. In a sentence or two, define just culture.
* Compare and contrast the implementation of lean thinking at Virginia Mason and Thedacare. What strategy do you favor and why?
* Please define the concept of “trystorming”. Write a sentence or two on your thoughts/reflections on this concept as it applies to your both your personal life and healthcare.

**Live Session 2: Case Discussion: “Decoding the DNA of the Toyota Production System”**

**Discussion Questions:**

* Please discuss the four rules of TPS.
* Reflect specifically on rule 1 and define the term “cookbook medicine”. Describe barriers to establishing standard work in healthcare. Also discuss an example of where standard work has been successful in healthcare.
* According to Chapter 5 in On the Mend, what are strategies that support continuous improvement and sustainability?
* What do you think of patients and family members joining improvement teams as in the case of MaryJenne Schaffmeyer joining Labor & Delivery improvement team.

**Live Session 3: Case Discussion: “Mobile C.A.R.E”**

**Discussion Questions**

* Based on the information presented in the case, write a problem statement for Mobile C.A.R.E
* Using a Stakeholder Map and identify key stakeholders
* Using a process or value stream map, identify key aspects of the Mobile C.A.R.E operational model
* Identify 2-3 key opportunities for improvement based on the process or value stream map you created above and associated “countermeasures” or solutions that will help improve operational flow for Mobile C.A.R.E.

**Live Session 4: Case Discussion: “Dana-Farber Cancer Institute”**

**Discussion Questions**

* Based on the information presented in the case, write a problem statement for Dana-Farber
* Perform a full Root Cause Analysis (Fishbone Diagram and 5 Whys) for the problem identified above
* Based on your analysis of the case and synthesis of the problem(s) faced by Dana Farber Cancer Institute, craft a goal statement for the organization
* Based on your analysis of the case, identify 2-3 recommendations using countermeasures discussed in class or in readings that will help address your problem statement and achieve the goals you outlined above. Explain why. Rank these 2-3 goals based on “ease of implementation” and “impact” in an attempt to identify which recommendation is most ideal.