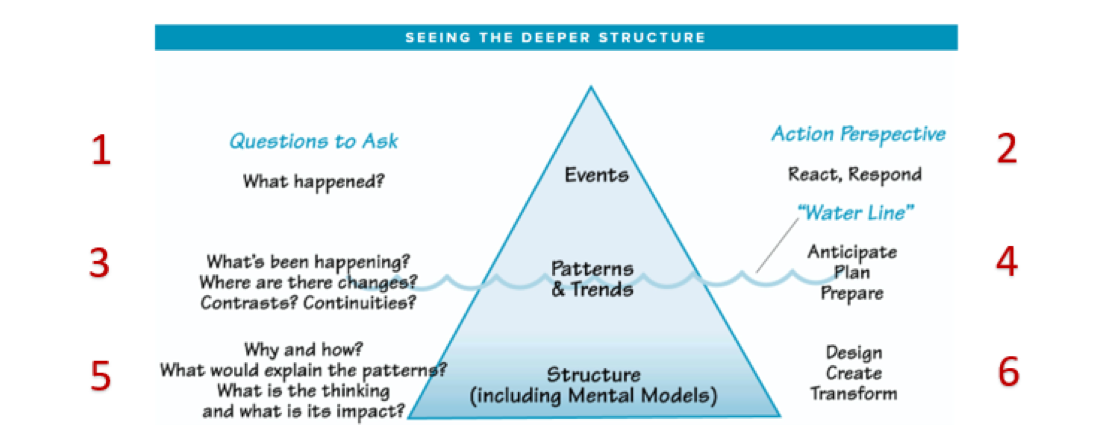
**WGU's Four-Step Tool** (based on "[Six Steps to Thinking Systemically](https://thesystemsthinker.com/six-steps-to-thinking-systemically/)" by Michael Goodman and Richard Karash)

**STEP 1: Complete an Iceberg Tool for this case study.**

*The Iceberg Tool is a way to see how the structure (that is, the background of the case) ties together the individual events and the patterns and trends that emerge from recurring events. Using the Iceberg Tool allows you to see the basic facts and interconnections, an important first step.*

**Iceberg Tool to Understand Patterns and Structure**

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Iceberg tool shows events at the top, patterns and trends at the water line, structure near the bottom and less visible.

**Questions to Ask**

1. What are the key events in this case study?  
   According to the report on **Case Study 2**, James Memorial Hospital has adopted robots to perform specialized tasks with the intention of cutting costs and labor. Robot & AI technology is gaining new popularity and can now perform non-patient care tasks, including cleaning, sanitization, meal delivery, and kitchen help. The hospital is saving costs but is also experiencing a fall in patient admissions. One of the main concerns is that patients can interpret automated robotics as the reduction of the quality of care. George Jimenez, the CEO, attempts to calm the concern of patients by saying that automation, in fact, will not damage healthcare services.
2. What patterns do you notice in the key events of this case study?  
   The hospital is introducing AI-driven automation with the goal of cutting costs. When it comes to using robots in hospitals, the general public has a problem. Because of this, some critical and concerned patients start to change or avoid the hospital. The administration primarily concentrates on cost reduction measures, but they face resistance and backlash from potential and existing patients.
3. What structure(s) explain the patterns of events in this case study?

The main structural point of the case study is cost-cutting by importing AI robotics to replace labor.

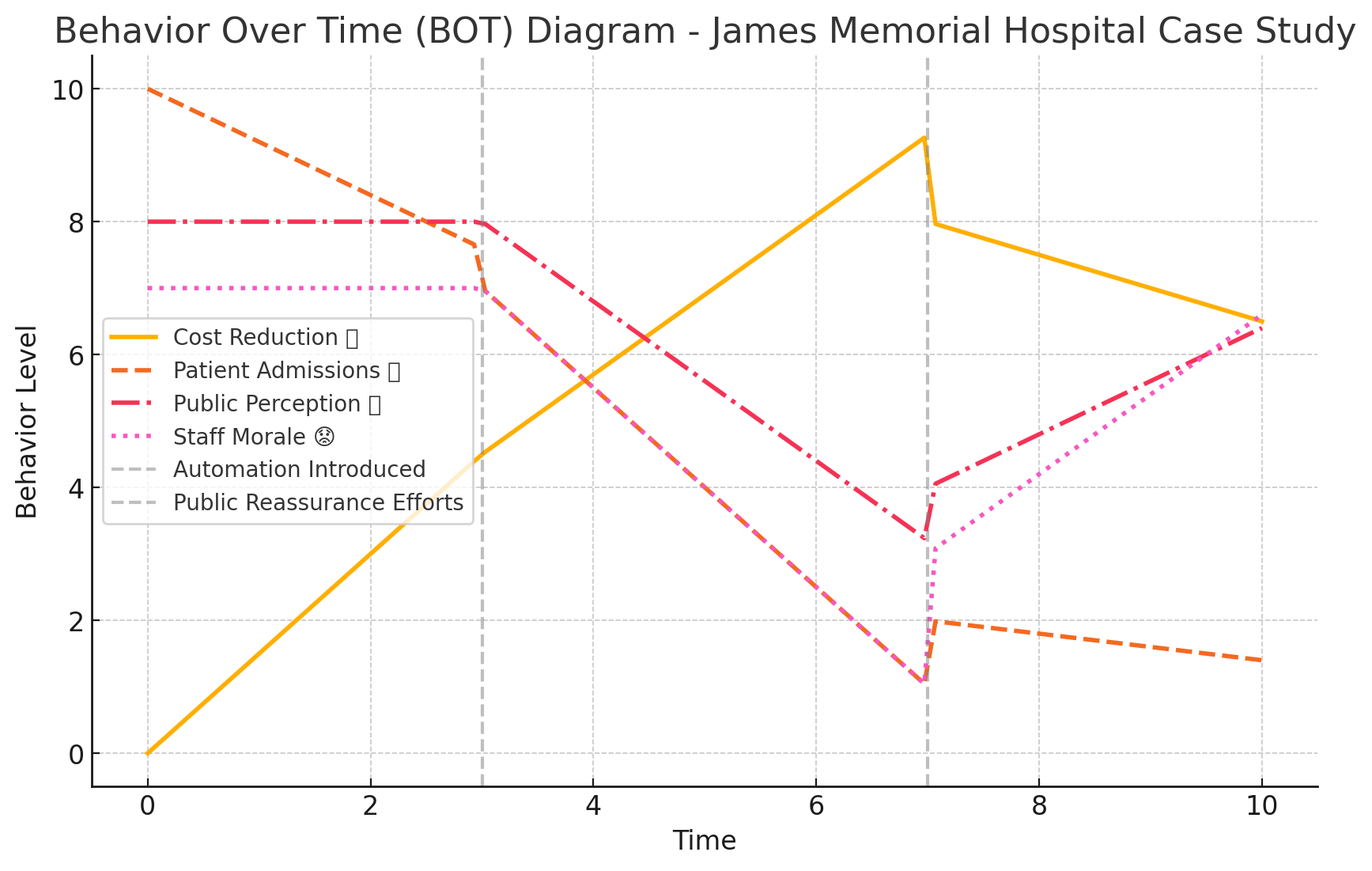
The perceived threat of replacing humans with AI robots in patient care tasks leads to reduced trust in the hospital among the patients. Regardless of the passive resistance or active, the unprecedented move of replacing humans with AI robots is inevitable, which seems unclear to the patients, further isolating the potential patients from the hospital.

In addition, the fear of job losses and concerns about patient experience contribute to negative perceptions of the hospital among prospective employees and existing workers.

Ultimately, the consistent theme is a lack of clear communication regarding the benefits of automation and its consequences for patients and workers.

**STEP 2: Draw “Behavior Over Time” Diagrams.** (Use as many blank BOT graphs as necessary, given the case study)

*The BOT diagram helps you identify how human behavior plays out over a specific time period; here, the time is the period in which the case study occurred. It is best to group similar events or patterns together in a diagram; for example, you might create one BOT diagram showing the actions of different team members (all actions) and another for the investments made in marketing campaigns and the resulting return on those investments (all money).*



Patient trust in hospitals decreases over time as AI adoption increases.

Cost savings increase, but patient volume declines, making the AI move questionable for financial benefits.

Hospital reputation decreases as fewer patients visit the hospital, further reducing trust and morale.

Behavior Over Time diagram; the x-axis is labeled “time”; the y-axis is labeled "behavior."

**STEP 3: Select the systems archetype that best fits the case study.** You may refer to Section 2, Lesson 2.1.

*The value of the eight systems archetypes is that they represent common problems within systems. If you can find an archetype that fits the system and the problem(s) you are confronting, you can use established ideas for dealing with the problem(s).*

*Examine each archetype carefully, comparing its causal loop diagram and text description with the given case study to see which one is the best fit.*

1. Which archetype did you select?  
   I chose the Shifting the Burden, which is appropriate for the Case Study.
2. Why does this archetype best fit the given case study? Explain how its causal loop diagram and text description match up with the facts of the case study.

The hospital tries to address rising operational costs by moving to AI automation instead of improving operational efficiency in other less disruptive manner. The perceived short-term solution of adding AI Robots creates an unintended or opposite consequence, such as loss of patient trust and the overall reputation of the hospital. Over-reliance on AI Robots may shift the burden away from humane patient care, leading to a potential decline in hospital reputation. Instead of addressing fundamental causes of inefficient operations, the hospital tries to solve them using a short-term fix that results in unintended long-term issues.

1. What is the main problem that needs to be addressed in this case study?  
   The main problem to be addressed is the patient concerns about AI automation that would be negatively impacting the humane quality of nursing care. The public perception of AI robots replacing traditional human care providers and the potential decline in patient trust lead to hospital reputation and competitiveness.

**STEP 4: Generate a solution to the problem.**

*Systems thinking is a mindset and a process focused on identifying and solving problems. Without problems, there is little need to think systemically. In this step, you consider a full range of possible solutions and select the best one.*

1. What solution do you propose for the problem in this case study?  
   My personal solution would be to implement a hybrid model where AI automation enhances, along with, rather than replaces, human interaction. The management should launch a public awareness campaign to properly create awareness among the patients on how robots assist, rather than replace, the traditional human staff. The hospital management should involve hospital staff and patient ombudsman groups in designing automation policies to ensure quality care remains untampered. The hospital should also provide staff training programs to integrate AI robotics effectively without losing the human touch and Monitor patient satisfaction reviews accordingly.
2. What are the strengths of this solution?  
   This solution blends savings and security. It balances cost reduction while maintaining patients’ trust.  
   It also ensures that the patients feel satisfied and comfortable with the AI automation as it retains the human aspect of care and also aligns with the long-term industry trends of moving to AI and Automation without the jerky immediate backlash from the patients and public in general.  
   Furthermore, it engages the staff with AI robotics and thus reduces the resistance to a full change.
3. What are the challenges of this solution?  
   Although this solution is much better than the original one, it still requires some overhead investment in training and public relations which is a genuine challenge.  
   It may take some time to rebuild the patients’ trust over this hybrid move but all trust is not lost.  
   It also needs a continuous assessment and improvement strategy by staying in touch with the patients and the staff while making them get used to the new AI assisted human care system.

1. What other alternatives did you consider **AND** why is your selected solution superior to each of them?  
   I considered 2 scenarios both of which I had to reject.  
   1) Full Automation & AI Expansion - I rejected this because it would worsen the public resistance issue rather than build upon it.  
   2) Reverting to Traditional Operations - I rejected this idea because it overlooks and ignores the immediate financial necessity of operational cost reduction in order to survive the rising costs to maintain and preserve the hospital.
2. What do you project the impact of your proposed solution will be on the overall system described in this case study?  
   My proposition would improve the public perception of AI Automation deployment along with human assistance, which would be conveyed to the patients through a transparent black-and-white type of communication and hands-on education. It would also balance out the cost reduction with improved and maintain the already existing patients’ trust and satisfaction ratings of the hospital overall.  
   It would also increase the hospital’s competitiveness without compromising service quality while also reducing the operation costs in the long term.  
   It would also result in a sustainable long-term adaptation of AI Automation, especially when the patients are more than comfortable getting used to the technological advancements in healthcare and interactions with the robots in general.