

# **Factors Influencing the Sustainability of Results Following Lean Projects in Healthcare Environments**

**Stéphanie Desmeules and Denis Lagacé**  
**Department of Industrial Engineering**  
**Université du Québec à Trois-Rivières**  
**Québec, Canada**

## **Abstract**

Although Lean principles are known for improving productivity by eliminating waste, when implementing them in public sectors, difficulties in sustaining successes are found. One of the most underestimated challenges in the healthcare environment appears to be the integration of the Lean approach into everyday working life. Based on a literature review, four critical success factors of results sustainability have been identified. They have been used as a driver for a survey research methodology. These factors are: support from management, staff involvement, governance structure and the use of Lean tools. The statistical analysis of 140 completed surveys first shows that the organizational context does not directly have an effect on project sustainability. However, results confirm that a solid support from management and total staff involvement are crucial to avoid long-term project failure. Also, the correlation between Lean tools use, governance structure and project sustainability is significant, but not as strong. Through this analysis, recommendations have been developed in order to guide healthcare professionals and practitioners.

## **Keywords**

Lean healthcare, Lean sustainability, Lean principles

## **Biography**

**Stéphanie Desmeules** received a bachelor's degree in Mechanical Engineering from the Université du Québec à Chicoutimi (UQAC) in 2012. She is currently pursuing a Masters in Industrial Engineering with a focus on healthcare environment at the Université du Québec à Trois-Rivières (UQTR). She anticipates graduating in september 2013. Her specific research interests include Lean project sustainability and its related critical success factors. Over the past year, Stéphanie has had the opportunity to gain experience through helping many health practitioners and professionals with their Lean projects. She is involved in the activities of the IRISS Chair in UQTR.

**Denis Lagacé** is co-holder of the IRISS Chair and Full Professor with the UQTR Industrial Engineering department. The Chair is currently well known throughout the Quebec province for their services in Lean implementation and teaching programs. His current research interests include performance and innovation management. Denis has led various organizations through Lean implementation by teaching health practitioners and professionals. He has also been a speaker and lecturer at various Lean conferences in healthcare organizations.

