

# Navigating the Maze: Barriers to Value-Based Care in Radiology



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## Introduction

- As healthcare systems globally shift towards more patient-centered models, the field of radiology is confronted with the challenge of aligning its practices with the principles of value-based care (VBC).
- Brady et al., in their multi-society expert statement, articulate the critical need for radiology to evolve from traditional volume-based metrics, which prioritize quantity over quality, to a value-based approach that emphasizes patient outcomes without escalating costs<sup>1</sup>.
- The existing educational infrastructure may not fully prepare radiologists and other healthcare professionals for the nuanced requirements of VBC, leading to a cultural resistance against its adoption<sup>2</sup>.
- Regulatory and systemic challenges further complicate the seamless integration of VBC principles into existing healthcare frameworks<sup>3</sup>.
- The misalignment of performance metrics with the objectives of VBC and the potential increase in workload highlight the complexity of this transition<sup>4,5</sup>.
- Addressing these multifaceted challenges requires a coordinated effort that includes policy reforms, strategic investments in technology and education, and a cultural shift towards embracing patient-centered care.

## Methods

- Utilizing databases such as PubMed and Google Scholar, a thorough literature search was conducted.
- The search, spanning from 2015 to 2023, involved keywords like "value-based care," "radiology," "barriers in radiology," and "patient-centric models in radiology."
- A supplemental search was carried out using Google to capture broader insights, including grey literature.
- The analysis focused on identifying and understanding the interrelated barriers to VBC in radiology.

## Results

The investigation revealed a complex network of interdependent barriers (Figure 1):

- Technological advancements are often stifled by financial constraints, while educational gaps contribute to cultural resistance against VBC practices.
- Regulatory hurdles further complicate system integration and adaptation to patient-centric models.
- Performance measurement challenges emerge due to misaligned metrics, and the anticipated increase in workload under VBC exacerbates existing financial and technological limitations.

## Discussion

Figure 1 is designed to offer a glimpse into the dynamic interplay between various factors, rather than an exhaustive exploration of all influences within VBC. For instance, performance measurement challenges and patient-centric adaptations can be influenced by all other depicted barriers.

Our discussion emphasizes that while the figure captures key elements of VBC in radiology, it is inherently limited by the vast scope and evolving nature of VBC. It is an invitation to consider how each component, while significant on its own, is part of a larger, interconnected system where changes in one area will invariably affect the others. This interconnectedness necessitates a strategic, integrated approach to reform, with an emphasis on adaptability and continuous learning to navigate the VBC landscape effectively.

## Conclusion

The journey towards VBC in radiology is complex and multifaceted. Successfully transitioning to VBC in radiology requires addressing these interconnected challenges through a holistic view. These include policy reforms, investments in technology and education, and a cultural shift towards patient-centered care. Embracing these changes can lead to improvements in patient outcomes, efficiency, and the overall value contribution of radiology in healthcare. As the field of radiology continues to evolve with the advancing tide of VBC, it must also adapt to the continuous feedback loop of change, where each barrier overcome can lead to new insights and strategies for improvement.

Future research should continue to expand upon these relationships, exploring hidden variables and additional barriers, to fully understand and navigate the shift to VBC in radiology.

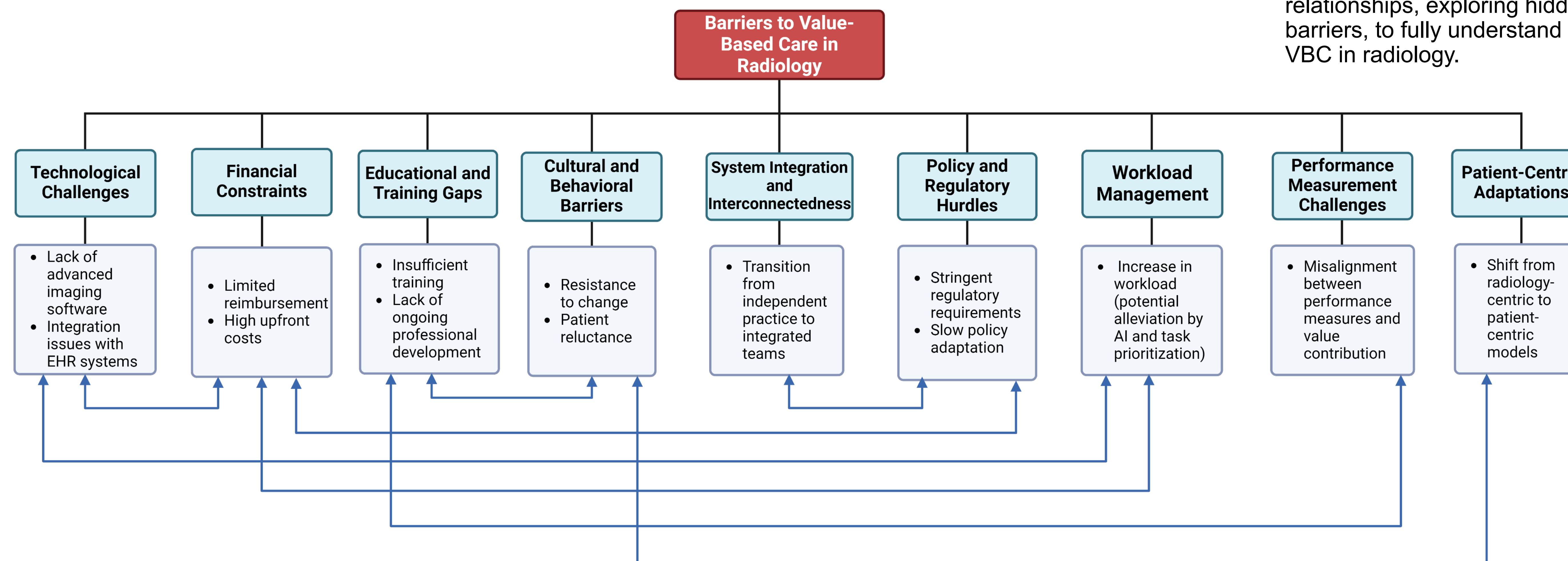


Figure 1. Illustration of barriers to value-based care in radiology. The arrows depict how the factors directly influence each other. *Designed by Biorender.*

## References

