



# Reducing Delays in VTE Care: A Performance-Driven Approach to Patient Outcomes

Vincent Gendusa, BS, RVT, RDMS, LSSGB; Steve Lindley, MS, MBA, LSSBB, CPHQ, FACHE; Brian Webb, MBA RT; Laura Rawlings, MSML, RDCS, RVT; Ramona Letourneau, MFin

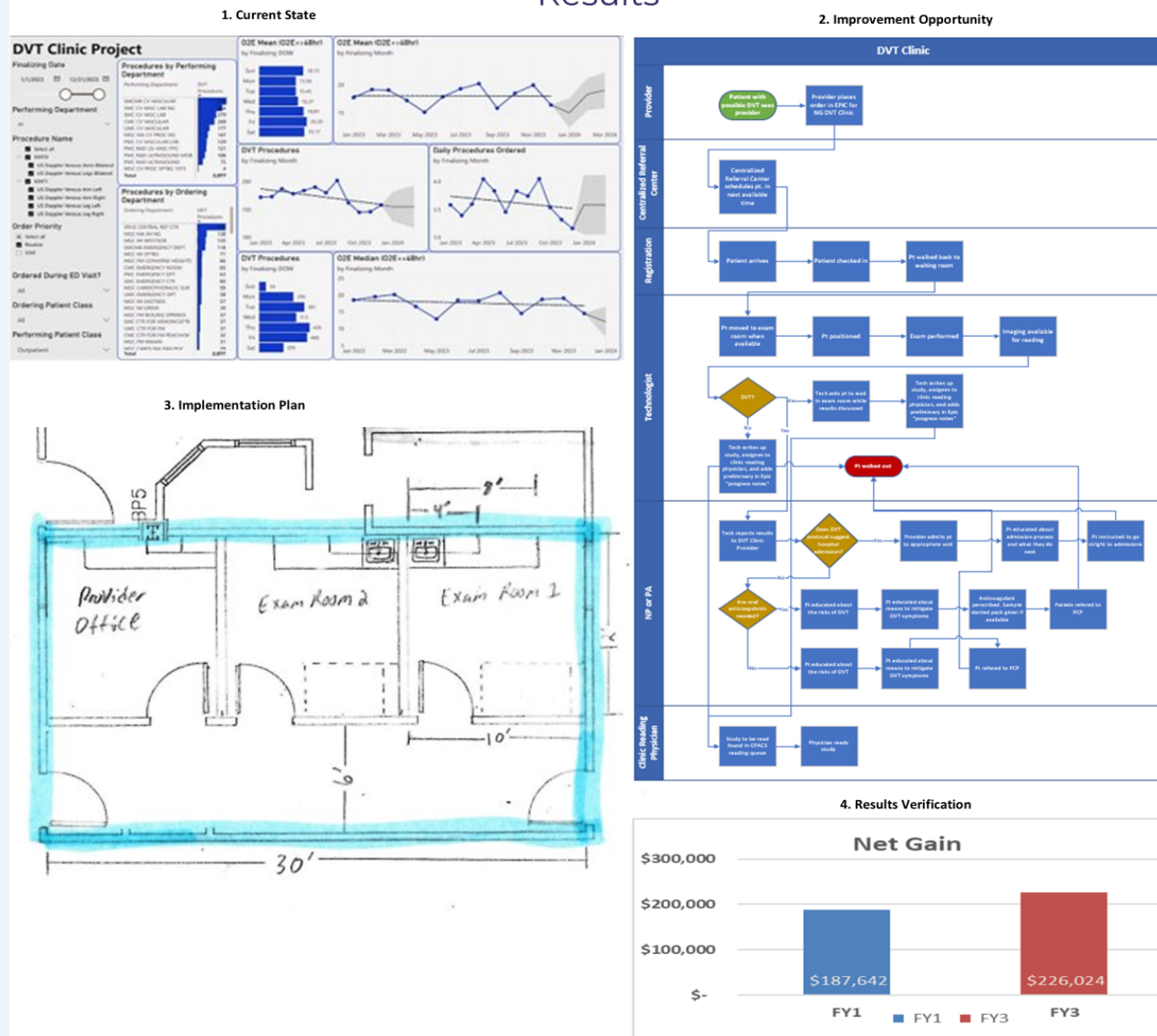
## Introduction

- Venous thromboembolism (VTE) affects 900,000 U.S. patients annually, contributing to 300,000 deaths.(2)
- VTE poses a significant risk to patients and places added strain on the healthcare systems that serve them.(1)
- Due to population growth in Spartanburg County (3,4) and increasing demand for vascular imaging, existing workflows have delayed critical venous studies, creating outpatient queues to six weeks.
- The creation of a DVT clinic may expedite the care of this patient population
- The objective of this project was to identify, assess, and determine the operational and financial demands of establishing a DVT clinic, market viability, and the initial design of the new service line.

## Methods

- Using the Design for Six Sigma (DFSS) methodology, this study evaluated the feasibility of a deep venous thrombosis (DVT) Clinic.
- Internal/external voice-of-the customer data were analyzed to ensure need of new service line.
- Measurements involved analyzing historic exam volumes to determine viability of existing service line remains with new service line creation.
- Historic STAT and EC venous ultrasound volumes were reviewed from Jan-Dec 2023 were analyzed.
- Qualifiers included outpatient venous orders with order-to-exam (O2E) time <48 hours, and EC venous orders placed between 11:00 P.M. and 6:59 a.m. with O2E <48 hrs.
- We ensured wait times for legacy/new service lines were minimized, and financial viability remained using a proforma analysis.
- A Proforma analysis was conducted and included startup costs, reimbursements, and operational expenses.

## Results



## Discussion

- The creation of a DVT Clinic is projected to reduce O2E times, improve patient access and achieve a net gain of \$187,642 in FY1.
- Sustaining results will require continuous monitoring of operational and financial metrics to optimize workflows and adapt to evolving patient volumes and system demands.
- A DVT clinic offers strategic relief to existing imaging delays and allows timely VTE care.
- Financial sustainability, improved patient access, and operational efficiency support system-wide benefits.
- This model may serve as a scalable solution for other growing regions.
- The additional means of care for these Patients could make O2E queue times more manageable at other locations in the system for routine exams.

## References

1. Raskob, G. E., Silverstein, R., Bratzler, D. W., Heit, J. A., & White, R. H. (2010). Surveillance for deep vein thrombosis and pulmonary embolism. *American Journal of Preventive Medicine*, 38(4), S502-S509
2. Ruppert, A., Lees, M., & Steinle, T. (2010). Clinical burden of venous thromboembolism. *Current Medical Research and Opinion*, 26(10), 2465-2473.
3. *Spartanburg County, SC population by year, race, & more.* USAFacts. (2024, January 17).
4. *Spartanburg County Area Performance Planning | SPARTANBURG COUNTY IS GROWING.* (n.d.).