COST REDUCTION IN A VALUE BASED WORLD: A SERVICE LINE APPROACH

William Downey MD Sanjeev Gulati MD

Leslie Doyle RN Noreen Kelly MD

Adam deJong Thomas Draper John Frederick MD Joseph McGinn MD

Jai Singh MD

Geoffrey Rose MD

Atrium Health Sanger Heart & Vascular Institute

BACKGROUND

Healthcare continues to shift from procedural-based reimbursement to a system focused on cost, quality and outcomes. Due to its contribution margin, the cardiovascular service line (CVSL) is a highly visible target for reimbursement changes. Strategies to improve operational efficiencies within the CVSL to reduce cost, length of stay and readmission rates, while maintaining high quality and excellent patient outcomes, remains a tocus.

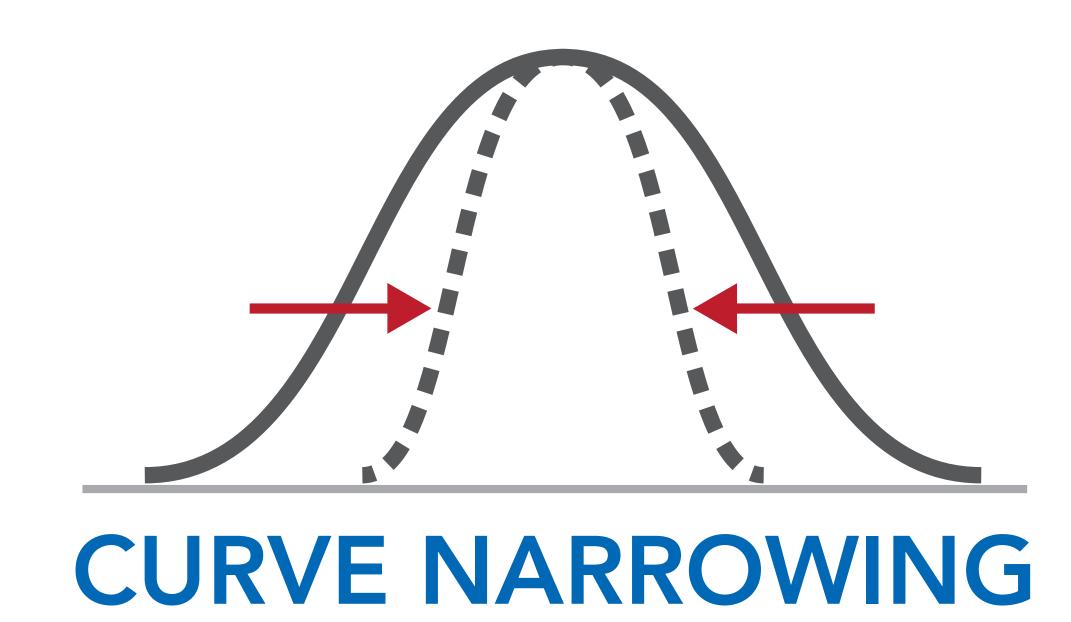
METHODS

Poster design and printing by Blazon Productions, LLC

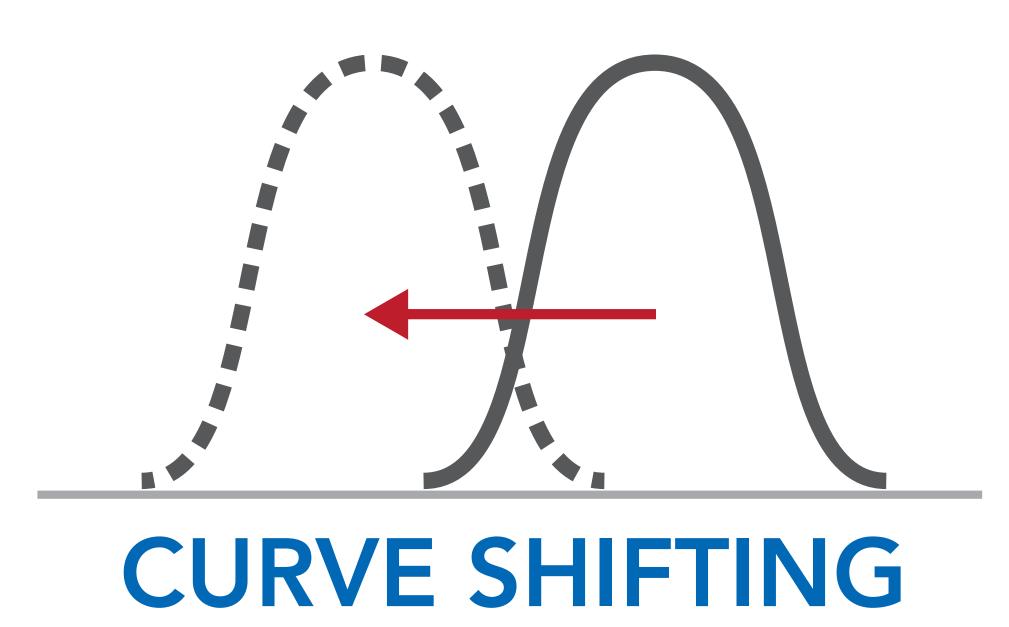
Clinical Optimization is a multidisciplinary, physician-led initiative designed to reduce cost, while maintaining or improving quality, through best practices and standardized care. The CVSL was divided into three multidisciplinary work groups: Cardiothoracic Surgery, Vascular Surgery and Invasive Cardiology. Clinical cost data was analyzed and compared to known benchmarks to identify cost-saving opportunity. Two categories of savings were created to reduce costs per case: Curve Shifters- negotiating lower prices for supplies, and Curve Narrowers- reducing variation in clinical practice. The workgroups identified and executed price negotiation strategies to lower acquisition costs or supply consolidation. Additionally, they developed standard protocols and/or guidelines to decrease variation among facilities and providers to eliminate waste and decrease costs.

AFFORDABILITY

Deliver effectiveness and efficiency by practicing to the highest clinical standards

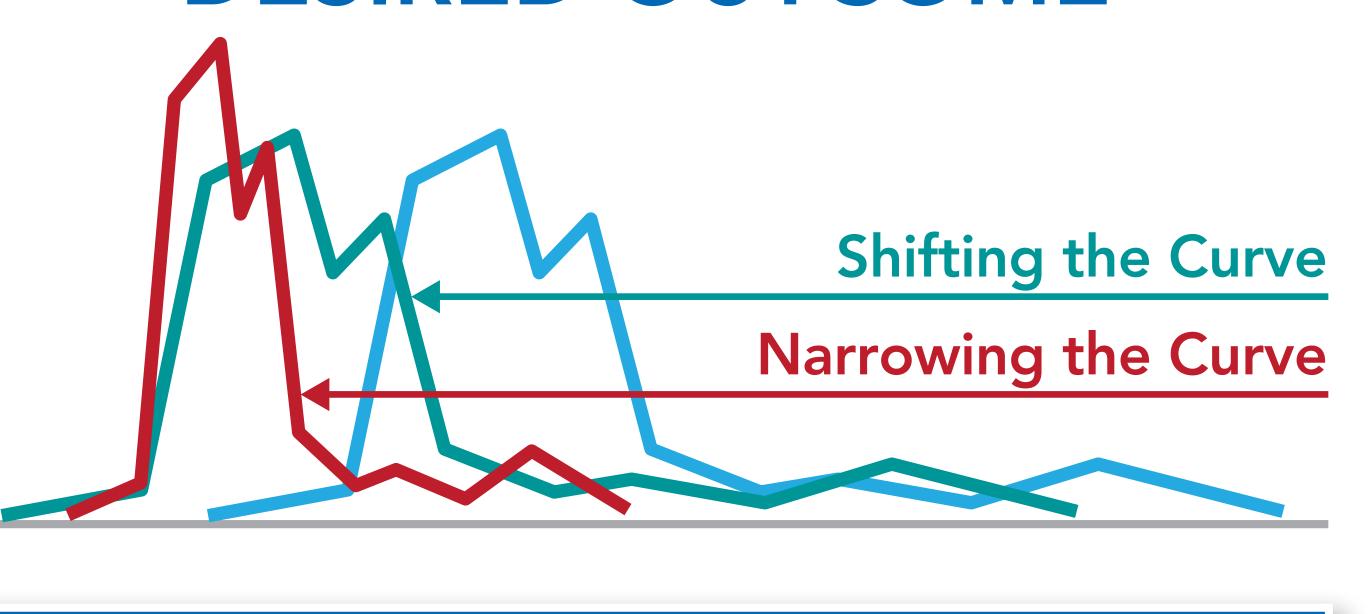


Standardizing clinical practice to decrease variation, narrowing the cost per case by reducing outliers



Negotiating contracts and supplies, therefore reducing average cost per case

CLINICAL OPTIMIZATION— DESIRED OUTCOME

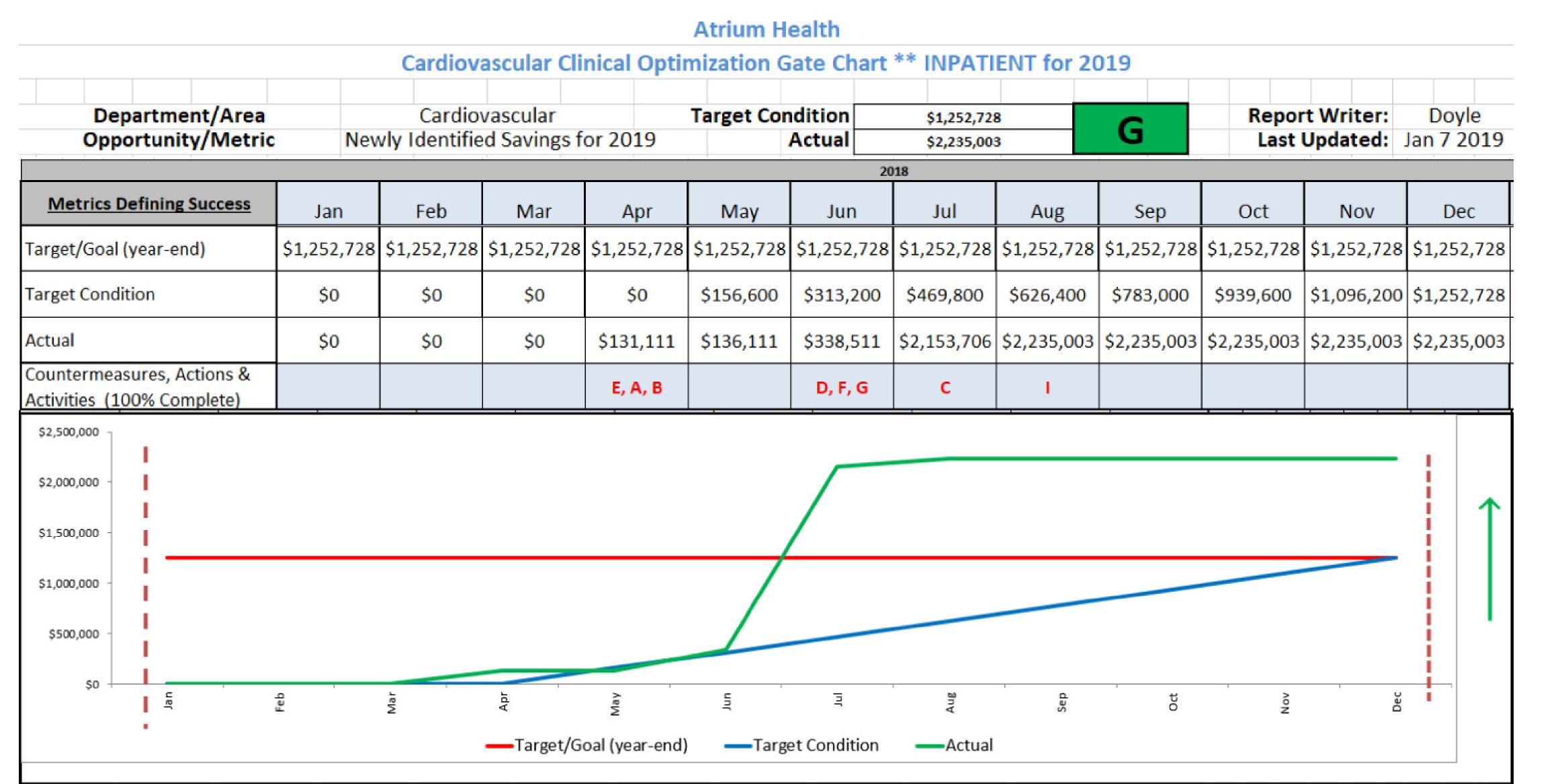




SAMPLE CURVE NARROWING INITIATIVES

Subgroup	Initiative	Description	Initial Savings	Quality Implication
Electrophysiology	Medication Substitution	Substituted Dobutamine for Isoproterenol in ablations	\$380,000	No change in diagnostic performance as assessed by EP physicians
Interventional Cardiology	Bivalirudin/Heparin Guidelines	Established guidelines for utilizing Heparin vs Bivalirudin in low/med risk patients	\$1,500,000	No increase in bleeding complication rate, no stent thrombosis
	Utilization of Aspiration Thrombectomy Catheters	Decreased utilization of aspiration thrombectomy catheters	\$250,000	No benefit demonstrated in multiple randomized trials
CT Surgery	Use of Rigid Sternal Fixation Device	Decreased use based on established guidelines	\$350,000	No increase in sternal wound dehiscence
Vascular Surgery	Catheter Substitution	Substituted less expensive catheter in low/med risk patients	\$260,000	Equal performance as assessed by vascular physicians

CARDIAC CLINICAL OPTIMIZATION GATE CHART





RESULTS

From 2015 to 2018, the CVSL realized \$11.2M in newly identified savings. Curve shifting initiatives, including renegotiated contracts, vendor changes and bulk buy discounts, resulted in \$9M in savings. Curve narrowing initiatives, including changes in clinical practice or product offerings, saved \$2.6M.

CONCLUSIONS

Despite challenges associated with the declining reimbursement and increased quality demands associated with value-based care, Curve Shifting and Curve Narrowing cost-containment strategies can be achieved through a focused, multi-disciplinary, physician-led team process. These improvements in cost can come without an impact on quality or outcomes.

CLINICAL IMPLICATION

With physician-led initiatives, significant CVSL cost savings can be attained without erosion of clinical quality.