

APPENDIX A: A MODEL FOR APPLYING REFORM TO YOUR OWN ORGANIZATION

Care redesign is a complicated task that requires a great deal of exploratory evaluation to identify priorities, feasibility, and sustainability. When administrators, clinicians, and other stakeholders are deciding whether or not to pursue care redesign they need have a robust understanding of how it will change the financial inflows and outflows of business activities. For example, extending clinic hours might cost a practice additional employee salary costs, but will decrease hospitalization costs because patients could walk into the clinic instead of the ER. A more fundamental question is how the totality of upfront redesign costs can be financed—a per member per month contribution, a bundle payment, etc. Figure 1 below is a starting point for clinical leaders working through the complex process of sustainable care redesign. It is a model that organizations can use when having conversations with payers about the costs and possible savings associated with the care redesign initiatives.

The left side of this simple and sample cost-benefit model accounts for the major upfront costs associated with the three year care redesign program and the its annual running costs—staff required to coordinate between the redesign program and normal business operations, for example. The right side of the model captures the ER and hospitalization costs the program seeks to reduce over the 3 years. These costs are then used to calculate total savings the redesign program. Those savings can then be used to fund the care redesign and incentives stakeholder buy-in.

Total startup cost for a care redesign might range from hundreds of thousands to the millions. Analyzing the relevant costing associated with care redesign, whether it be developing a clinical pathway or accounting for the retraining of clinical and administrative staff, is a critical step to ensure sustainability and feasibility.

Before this model can realistically be built, however, an organization must gather some basic data to assist in making the business case to a payer of why they should invest in your program. The questions in Figure 2 will help a practice obtain an understanding of baseline costs and a rigorous estimate of additional costs and savings will help frame and guide negotiations with payers.

FIGURE 1 Sample Cost-Benefit Model

Upfront Care Redesign Costs		Average Cost of ER Visits	
Program and clinical staff	\$600,000	Cost of ER Visit	\$1,200
Clinical pathways development	\$2,000,000	Annual rate of ER visits per 10,000	4000
Technology	\$175,000	Total Annual ER Costs	\$4,800,000
Extended hours clinic	\$100,000		
Total Upfront Costs	\$2,875,000	Average Cost of Hospitalization	
		Per diem cost of hospitalization	\$2,000
Annual Redesign Running Costs	\$1,142,857	Average length of hospital stay	4.8
		Cost of hospitalization	\$9,600
TOTAL PROGRAM COST OVER 3 YEARS	\$6,303,571	Annual rate of hospitalization per 10000	1130
		Total Annual Hospitalization Cost	\$10,848,000
		Total Cost Over 3 Years	\$46,944,000
		Savings Over 3 Years From:	
		20% reduction in ER visits (noncompound)	\$2,880,000
		30% reduction in hospitalization (noncompound)	\$9,763,200
		TOTAL PROGRAM SAVINGS OVER 3 YEARS	\$12,643,200

NOTES: Note: The upfront care redesign cost estimates come from the COME HOME grant cost categories, and are adjusted based on the number of clinics grant monies were distributed to, among other factors. The annual redesign running costs are an approximation based on NMCC's COME HOME total amount and scaled to a practice size of 10,000. The benefits—cost of ED visit, hospitalization costs, days spent in hospital, and total ED visits and hospitalizations—are national averages from the CDC and Kaiser Family Foundation.

FIGURE 2 Sample Business Case Questions for Organizations

Care Redesign	Questions	Data Source
Market Analysis		
Patient Demographics and Services	Can the care redesign (clinical pathways, etc.) be applied across my entire patient population regardless of disease type or will the redesign need to be stratified by risk or other measure?	Strategic planning
	What is the average cost per patient over a 30, 90, 180 day window?	Charge data
	Which patients are most at risk to be hospitalized/visit the ER?	Risk stratification using claims data and patient records
	At what rate is the population I serve hospitalized/visiting the ER?	Claims data
	How much does an average hospitalization/ER visit cost? How much of that care could have been provided in a different setting?	Charge data
	What is the average length of stay?	Claims data, patient records
Payer Market and Costs	What are your patient payer demographics (i.e. Medicare, Medicaid, IHS, private payer)?	Claims data
	What current costs are not adequately covered by payers?	Budget analysis
	How much do costs vary between payers and is care redesign sensitive of that variance?	Claims data
	What is the relationship with the local hospital? How can services be coordinated to reduce service duplicated and ensure proper coordination?	Strategic planning
Care Redesign Framework Questions		
Site of Care Reforms	Will newer technologies (electronic health records, smart devices, automated telephone systems, etc.) be required to service patients? How much will this cost?	Estimate from EHR provider
Reforms	Will newer technologies (electronic health records, smart devices, automated telephone systems, etc.) be required to service patients? How much will this cost?	Estimate from EHR provider
	Will any services be consolidated into one location?	Claims data
	Will the physical building need to be upgraded? How much does that cost?	Contractor estimate
	How much of the redesign startup costs will not be reimbursed?	Strategic planning
	Will the redesign change medical supply costs?	Claims data
	Will the redesign change my hours of operation and therefore change the cost of rent and utilities?	Building estimate
Team Approaches to Care	Will care redesign shift employee responsibilities? Will you need to retrain or hire new administrative, program, or clinical staff?	Employee capacity and salary data
	How do the number of staff hours and rates change based on providing extended hours?	Salary data
	How will a phone triage system impact the volume of care delivered or diverted?	Claims forecasting
	How much additional patient education will be provided? What are the costs for materials, staff time, etc.?	Materials costs and salary data
Improved Decision Support	How much does it cost to develop a clinical pathway program (reimbursement for physicians, database support, technology costs)?	Salary data, technology costs
	How often does the pathway need to get updated?	Strategic planning
	How will your revenue/operating costs change given new clinical pathways that change the volume of services (PET, CT, mammography, etc.) provided?	Claims data
	How do pathways impact the pharmacy costs and how does that impact the margin earned on drug costs?	Drug cost data
Collecting and Using Data	How much does the EMR cost to implement?	Estimate from EMR company
	How much are monthly or yearly update/maintain fees for the EMR?	Estimate from EMR company
	How much does it cost to train your staff on the EMR?	Salary data
	Do I need to hire support to analyze claims and other data?	Salary estimate
	How will you evaluate your clinical and financial models? Do you need to outsource this?	Strategic planning