OUR TAKE

Efficiently prioritize care variation reduction opportunities

Three ways to rank order CVR cost savings opportunities

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Size your CVR cost savings opportunity with dramatically less effort

Care variation reduction (CVR) is an opportunity for organizations to net multi-million dollar cost savings while safeguarding quality. Unlocking the CVR cost savings potential starts with prioritizing the right clinical conditions for care standardization. However, one of the most common pitfalls organizations fall into is spending too much time and energy identifying which care variation to go after.

The good news is that there are efficient ways to prioritize CVR opportunities, so organizations can reserve capacity for the harder work of reducing care variation—not just identifying it.

Advisory Board

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The conventional wisdom

Prioritizing which internal variation to standardize is essential to any care variation reduction (CVR) effort. There are usually five steps in a typical CVR opportunity assessment:

1. Group patients by condition and risk level.
2. Identify performance gaps for each group, often based on quality outcomes like readmissions, complications, mortality, or length of stay.
3. Rank order conditions by the size of performance opportunity and select a subset of conditions with the greatest running room.
4. Pinpoint where the variation is: between facilities, or units, or clinicians.
5. Conduct a root cause analysis to determine the drivers of the variation (e.g., specific tests, cost centers, etc.).

Five steps commonly used to prioritize CVR initiatives

1 Group patient populations	2 Identify gap to benchmark	3 Rank order opportunities	4 Identify internal variation	5 Determine root causes
MS-DRG A	MS-DRG A	MS-DRG C	MS-DRG C	MS-DRG C
MS-DRG B	MS-DRG C	MS-DRG A	• Clinicians • Service lines • Units • Facilities • Cost buckets	• Ordering an unnecessary test • Failing to administer meds on time
MS-DRG C	MS-DRG D	MS-DRG F		
MS-DRG D	MS-DRG F	MS-DRG D		
MS-DRG E				
MS-DRG F				

Source: Physician Executive Council interviews and analysis.

Our take

While the typical prioritization process is defensible in theory, in practice it tends to fall short in two ways:

1. **The process focuses only on quality and fails to consider potential cost savings.** As a result, many organizations spend significant time and energy standardizing care that does not unlock anticipated cost savings.

2. **Organizations spend a disproportionate amount of time on the prioritization process.** The net effect is that clinicians exhaust themselves just deciding *what* conditions to standardize and don't have the requisite bandwidth for the more labor-intensive work of determining *how* to actually reduce that variation.

To net significant cost savings from CVR, clinical executives need a way to identify system-level CVR opportunities with dramatically less effort. The reality is that most organizations' greatest CVR opportunity falls within the same group of usual suspects (e.g., AMI, COPD, sepsis, stroke, etc.) and over the course of a long-term CVR strategy, most organizations will standardize all of the top 30 conditions for CVR nationally—making the crux of effective prioritization less about identifying *what* an organization should prioritize and more about *when* and in what sequence. To do so, organizations should focus on opportunities that meet three criteria: conditions that have cost savings potential, safeguard or improve quality, and are feasible to execute against.

Source: Physician Executive Council interviews and analysis.

Three approaches to efficiently prioritize CVR opportunities

There are three approaches to more efficient CVR prioritization. Each option takes into account both cost savings and quality improvement opportunities.

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“The easy button”

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Hard cost targets

Source: Physician Executive Council interviews and analysis.

01 "The easy button"

The first prioritization option is to use Advisory Board's national-level cost savings data to identify CVR opportunities. If you struggle to access good cost data, or just want national prescriptive advice, this is the "easy button" approach.

By analyzing more than 20 million patient discharges (from over 450 hospitals), Advisory Board has quantified the potential of care variation reduction (CVR) to generate critically needed cost savings—while also improving care quality. What makes our analysis unique is that we based our cost benchmarks on top quality performers. (We have additional information on our methodology on pg. 8, but the key takeaway is that we measured quality based on an index of mortality, complications, readmissions, and length of stay).

The rank-ordered list of the top 30 CVR cost savings opportunities nationally is shown on the following page. The third column shows the cost savings that can be achieved if an average performing hospital improves to top-quartile quality performance.[1] The final column shows the savings opportunity per patient—so you can adjust your estimated savings according to your facility's volumes.

As you decided where to invest first, keep in mind that it's not necessary to work down the list in rank order. Most organizations will end up tackling almost all of these conditions eventually. We recommend starting with conditions where you have the greatest provider buy-in and relevant expertise—even if they are at the bottom of this list. It's important to earn some early "CVR wins" to generate goodwill, prove the potential of CVR, and build organizational muscle for CVR.

1. We defined a "high-performing cohort" as the group of hospitals in the top quartile for performance based on the Crimson Continuum of Care (CCC) Quality Index Score. CCC's proprietary Quality Index Score was built on four key quality metrics, weighted highest to lowest in the following order: 1. Mortality rate 2. Readmission rate 3. Complication rate 4. Average length of stay (LOS).

Source: Physician Executive Council interviews and analysis.

The care variation reduction shortlist

Top 30 CVR savings opportunities nationally	Est. national savings opportunity	Avg. savings per hospital[1]	Cost gap per patient
1. Septicemia & disseminated infections	$3,891M	$1,868K	$3,057
2. Percutaneous cardiovascular procedures without AMI	$1,294M	$697K	$6,079
3. Heart failure	$1,266M	$610K	$1,634
4. Major small and large bowel procedures	$1,227M	$592K	$4,364
5. Dorsal and lumbar fusion except for curvature of back	$1,128M	$587K	$4,926
6. Cesarean delivery	$1,120M	$608K	$949
7. Vaginal delivery	$1,115M	$594K	$516
8. Craniotomy except for trauma	$1,072M	$641K	$10,385
9. CVA and precerebral occlusion with infarct	$1,043M	$504K	$2,519
10. Neonate, normal newborn, neonate with other problem	$1,024M	$560K	$340
11. Knee joint replacement	$856M	$418K	$1,495
12. Respiratory system diagnosis with ventilator +96 hours	$688M	$332K	$13,445
13. Other pneumonia	$659M	$316K	$1,226
14. Schizophrenia	$655M	$340K	$2,600
15. Chronic obstructive pulmonary disease	$648M	$312K	$1,181
16. Percutaneous cardiovascular procedures with AMI	$626M	$353K	$2,276
17. Renal failure	$610M	$294K	$1,541
18. Hip joint replacement	$606M	$296K	$1,433
19. Pulmonary edema and respiratory failure	$598M	$288K	$1,976
20. Extracranial vascular procedures	$581M	$298K	$5,014
21. Major depressive disorders and unspecified psychoses	$552M	$270K	$1,486
22. Cardiac valve procedures without cardiac cath	$497M	$396K	$8,055
23. Bipolar disorder	$468M	$243K	$1,667
24. Cervical spinal fusion and other back/neck procedures excluding disc excision/decompression	$461M	$235K	$2,908
25. Rehabilitation	$389M	$443K	$2,485
26. Coronary bypass with cardiac cath or percutaneous cardiac procedure	$371M	$286K	$4,703
27. Cardiac valve procedures with cardiac catheterization	$356M	$284K	$20,589
28. Coronary bypass without cardiac cath or percutaneous cardiac procedure	$343M	$270K	$4,641
29. Kidney transplant	$94M	$449K	$6,667
30. Extensive 3rd degree burns with skin graft	$35M	$279K	$33,120

1. For a single facility, based on Advisory Board's proprietary analysis of 468 hospitals.

Source: Physician Executive Council interviews and analysis.

Our methodology for sizing CVR opportunity

Here is additional information on the methodology for our cost savings projections.

The analysis hinged on a comparison of quality and cost performance of "top-quality" hospitals to typical hospitals. Top quality hospitals were defined as those in the top quartile on a quality index score that included: mortality, complications, readmissions, and length of stay. Charge data was used to generate cost benchmarks. Proprietary Advisory Board algorithms were used to define charge-to-cost ratios at the individual cost-center level for every facility.

We compared cost and quality performance at the APR-DRG[1] level, with each APR-DRG divided into four severity groupings. Hospitals needed to have at least 8 cases to be included in the analysis for a given APR-DRG severity combination. The final analysis included 983 APR-DRG severity-specific groups, since not all hospitals met minimum case volume requirements.

This analysis determined the potential cost savings generated from improving quality, and also examined whether a correlation exists between high quality, low costs, and low variation in care.

CVR opportunity analysis highlights

Principal cohort:

- 468 general hospitals
- 20.2M patients
- Min. of 100 licensed beds
- At least 8 cases in each APR-DRG severity group

Key strengths:

- Benchmark group determined by quality outcomes not cost
- Comparison conducted at the APR-DRG severity level
- All-payer data rather than Medicare-only population

Limitations:

- Costs estimated using hospital-specific cost-to-charge ratios
- Data adjustments cannot account for all clinical, demographic, and operational differences between organizations

For additional information on our analysis, please see Advisory Board's CVR Opportunity Analysis Methodology linked on the resource landing page.

1. All Patients Refined Diagnosis Related Groups.

Source: Physician Executive Council interviews and analysis.

02 Balanced prioritization criteria

The second prioritization approach is to use a custom list of balanced criteria that gives meaningful weight to both cost and quality. While this option is slightly more time- and resource-intensive than the “easy button” approach, it won’t overextend your organization’s bandwidth if you approach it strategically.

Select a set of criteria to filter CVR opportunities

First, you need the right set of criteria that collectively factor in cost, quality, and ease of execution. The goal is to choose opportunities that will: net significant cost savings, be at worst be quality neutral and at best improve quality, and have the ‘do-ability’ factor (e.g., clinician engagement, available capacity, etc.).

Below are some sample prioritization criteria. We recommend picking at least one option in each category to meet the triple aim.

Cost

- ❑ Cost per case
- ❑ Variation in cost per case
- ❑ Gap to benchmark (e.g. for utilization, cost per case)

Quality

- ❑ Number/volume of patients impacted
- ❑ Gap to benchmark (for readmissions, mortality, complications, or other quality metric)

Ease of execution

- ❑ Physician engagement level
- ❑ Availability of physician champion(s)
- ❑ Level of effort/change required to standardize

For additional support on metric selection, see the CVR Prioritization Criteria Picklist on **advisory.com**

Physician Executive Council interviews and analysis..

Weigh cost criteria against other prioritization criteria

The second step is appropriately weighting the chosen prioritization criteria.

Some organizations introduce cost criteria by modestly weighing it between 10% and 30% of the overall criteria. Other organizations that have more aggressive cost savings targets weigh cost as high as 50%. There's no right or wrong answer—it largely depends on your organization's CVR ambition and cost savings goals. The key is to have a weighting that the entire executive team can get behind.

Apply cost criteria as your first filter

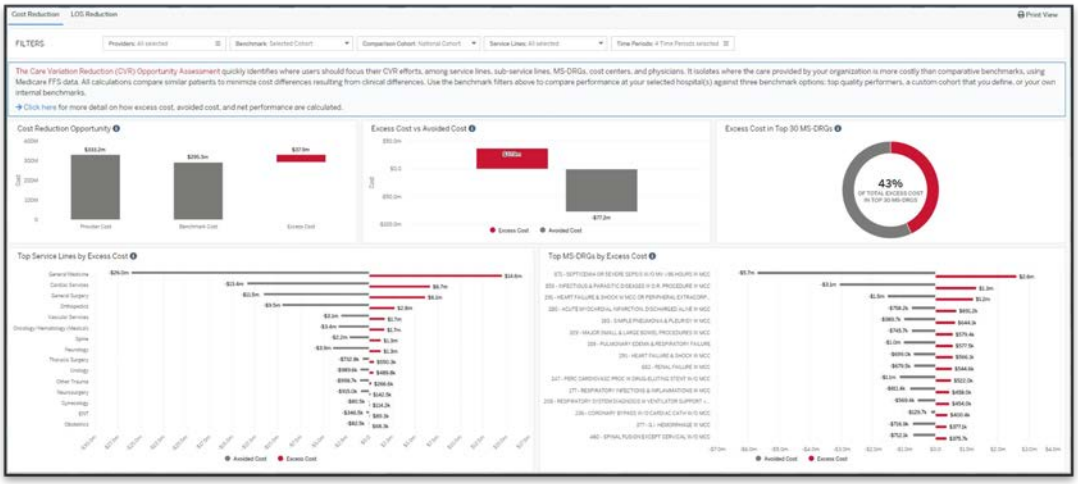
The final—and perhaps most important—consideration for this approach is the order in which you apply the criteria you've selected. We highly recommend using the cost criteria as the first filter for an initial cut of CVR opportunities. Then, further narrow the list with the quality and ease of execution filters you've chosen.

There are two main benefits of using cost as the first filter of CVR opportunities. First, it guarantees that your final list of conditions will net significant cost savings. Second, screening by cost opportunity before engaging clinicians sets clinicians up well to focus on the quality opportunity.

Source: Physician Executive Council interviews and analysis.

While some organizations have the analytic capabilities to do the initial cost cut of CVR opportunities themselves, many tell us it is the most time-consuming step of prioritization. It can be challenging to gather consistent cost data across every facility and every service line. To help, we've created a tool that does the initial cost cut for you in seconds: The CVR Opportunity Assessment.

The Care Variation Reduction (CVR) Opportunity Assessment



Using your organization's Medicare Fee for Service data, The CVR Opportunity Assessment will:

- Identify excess costs and excess days at your selected hospital(s), which translates to the potential cost savings and LOS reduction opportunity from reducing care variation.
- Identify the primary service lines, MS-DRGs, and cost centers that are driving those opportunities—and rank order them.
- Compare your organizations' costs to custom benchmarking groups—including national performance, your own internal performance, a custom benchmarking group that you create yourself within the tool, and top-quality performers.

To size your organization's CVR cost savings opportunity, access the CVR Opportunity Assessment.

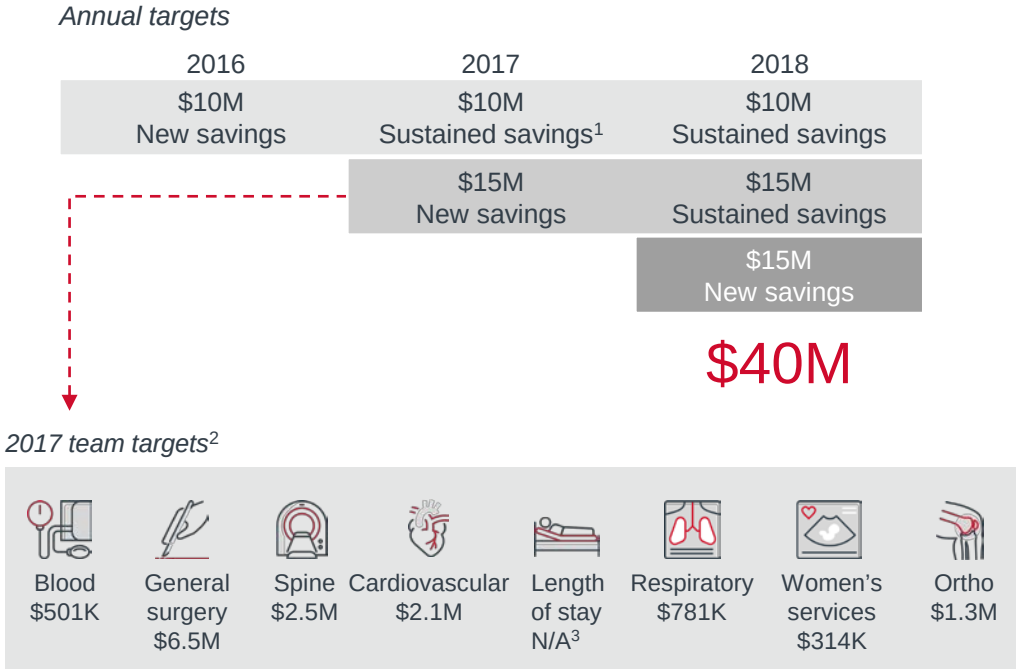
Source: Physician Executive Council interviews and analysis.

03 Hard cost targets

The final prioritization approach is setting hard cost savings targets for clinicians to achieve within their designated service area. This method is worth considering if your clinicians won't respond positively to system leaders setting CVR priorities based on costs.

For example, Atrium Health's system leaders don't dictate the conditions each service line must standardize. Instead, they review cost opportunity analyses with service line leaders to set a global CVR cost-reduction goal. The service line leaders then decide on the specific CVR initiatives best suited to achieve the cost goal.

Atrium breaks clinical optimization goal into smaller targets



1. 1) Sustained savings are targets captured in the prior year that are maintained in subsequent years.
2. 2) 2017 individual team targets do not equal $15 million because cost savings are expected to trickle down to other service lines and generate additional savings.

Source: Atrium Health , Charlotte, NC; Physician Executive Council interviews and analysis.

Parting thoughts

No matter which approach you choose to prioritize your CVR opportunities, it's likely to lead you to a list of usual suspect conditions (e.g., AMI, COPD, sepsis, stroke, etc.), making the prioritization question less *what* you should prioritize and more about *when* and *how fast.* The answer to that question depends on the resources and organizational commitment you have to fuel a scaled CVR effort.

The key to successfully scaling CVR and unlocking significant cost savings is alignment between your cost goals and level of organizational commitment to CVR. Many organizations set highly aspirational system-level goals for CVR, but fail to put the organizational muscle required to reach the size of their goal behind it. At best, this disconnect between ambition and organizational commitment causes organizations to fall short of their goal; at worst, it leads to inefficiencies and wasted time.

The reality is there is no right or wrong way to approach re-aligning your CVR ambition. Ultimately, you need a level of organizational commitment that will support the size of your CVR goal. Some organizations that have identified a commitment gap might be in a position to close it now. Others might need to take a different approach and adjust their cost savings goal itself—either by editing the quantitative number they are aiming for, or the timeline they are going to take to get there.

For further support, please access our additional care variation reduction resources on the next page.

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