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# Reducing the value/burden ratio: a key to high performance in value-based care

Patrick Runnels ,<sup>1</sup> Peter J Pronovost <sup>2,3</sup>

<sup>1</sup>Department of Psychiatry, Case Western Reserve University School of Medicine, Shaker Heights, Ohio, USA

<sup>2</sup>University Hospitals of Cleveland, Shaker Heights, Ohio, USA

<sup>3</sup>Anesthesiology and Critical Care Medicine, Case Western Reserve University School of Medicine, Cleveland, Ohio, USA

## Correspondence to

Dr Patrick Runnels;  
patrick.runnels1@uhhospitals.org

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The healthcare delivered in high-income countries is riddled with defects in value. One in 10 patients experiences harm when receiving medical care, while nearly 13% of health expenditures are spent managing that harm.<sup>1</sup> Half of patients with chronic disease are not on recommended therapy and suffer avoidable hospitalisations and ED visits, all while healthcare costs continue to increase as a percentage of GDP.<sup>2,3</sup>

Policymakers, health plans and health systems have responded to these challenges by working to improve value. While these efforts continue to mature, physicians are running up against the efficiency-thoroughness trade-off: to complete an increasing number of tasks in service of hitting quality metrics across their entire attributed population, they must decrease the time spent caring for each individual patient or increase the total amount of time they spend working. This paradox, however, is itself a product of how our systems are built and how healthcare culture is perpetuated. In this essay, we introduce the concept of the value/burden ratio, discuss why it is an urgent priority and propose a path forward for how it can be improved.

Physicians have seen the burden of their work steadily increase over the past several decades. They log substantial work hours—well beyond direct patient care—while reporting escalating levels of burnout.<sup>4</sup> When you add value-based quality metrics to the mix, the burden on physicians grows even further. As just one example, a recent analysis suggested that for primary care physicians to effectively manage every metric and close every gap in care would require them to do 27 hours of work in a 24-hour day.<sup>5</sup> Along with all the expectations, they had before, primary care providers participating in

just the Medicare Shared Savings Program are currently responsible for performance on patient experience scores, mental health screening, adherence to medications for specified conditions and a range of screenings, among others. While most measures make sense on their own, collectively, each new measure not only commits the provider to new workflows to ensure these things happen, it requires incorporation of new data infrastructure and new team members that did not use to exist. The burden placed on primary care physicians demoralises and dehumanises because the expectation is impossible to meet based on their current resources and workflows.

Increased burden is not isolated to primary care physicians; as other disciplines are pushed to incorporate a value-based perspective to their work, the same phenomenon surfaces. For instance, surgeries shown to provide little-to-no value<sup>6,7</sup> are often well reimbursed, leaving surgeons to wrestle with finding enough cases to fill their schedules (which are often key drivers of margins for their health systems) or continuing to provide low-value care. Meanwhile, autogenerated alerts in EMR in-baskets meant to help close gaps in care actually increase burnout across all disciplines.<sup>8</sup> In fact, loss of autonomy in general—even when in service of reducing variation and improving outcomes—increases physician burnout.<sup>4</sup>

The phrase *administrative harm*, introduced to the medical literature a little over a decade ago, describes the negative consequences of administrative decisions on patients, providers and organisations.<sup>9,10</sup> While transforming our health system is both a moral and financial imperative, the human cost of performing matters too. As policymakers, health

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plans and health systems focus on improving value, they must also consider the burdens imposed on physician culture and practice. Leaders ought to focus not simply on achieving the highest value, but on doing so as efficiently as possible, thereby increasing the ceiling for overall performance. They can achieve the highest value efficiency by maximising the *value/burden ratio*, which can be incorporated into the value equation as follows:

$$\text{Value} = \frac{\text{Quality}}{\text{Financial Cost} + \text{Human Cost (Excess Time} + \text{Reduced Job Satisfaction)}}$$

Burden represents the multitude of inputs that impact two broad variables—excess time and reduced job satisfaction—contributing to human cost, which have been added alongside the financial costs of the original equation. Because burdens vary according to magnitude, burdens of increasing magnitude will usually warrant more attention, but may come with greater investment of time or money. Furthermore, many potentially high value activities are not happening right now due to the burden associated with executing them, what we term *missed opportunities*. The burden of missed opportunities is captured in the equation through reduced quality or increased financial cost. When addressing missed opportunities, the impact on the two burden variables must be proactively contained or addressed, so that those actions do not diminish the ratio overall.

We choose the word burden to capture the range of costs incurred by shifting our focus to achieving value without changing workflows and cultures to adapt to this new strategy. That burden can include the amount of time needed to provide high-quality care, the number of clicks to complete a task, new technologies for improving value that are clumsy to use or integrate efficiently into workflows, the increased thoroughness of documentation, the negative emotions generated by rapid, chaotic change to achieve a result that feels unattainable, competing incentives or the perceived loss of autonomy. Importantly, however, burden—unlike the term provider experience—also captures the efficiency with which systems operate to achieve high-value care. As defined here, reducing burden increases the capacity to deliver high-value care by removing costs and diminishing impossible-to-achieve levels of human capital that many current processes or workflows ostensibly require.

Leaders endeavouring to deliver high-value care might feel trapped in their own, unresolvable double bind: asking more of clinicians to reduce harm and waste for patients adds burden and administrative harm to clinicians. However, double binds can be reconciled by reconfiguring systems to eliminate or minimise them. Double binds persist primarily when systems are beset by *cultural lock-in*—the inability to change in the face of clear threats.<sup>11</sup> That tendency afflicts leaders and clinicians in healthcare equally. Both are reluctant give up models with which they

are familiar and feel comfortable, often intuiting that deviating from known pathways will create pain and discomfort.

Reducing burden, then, is an adaptive challenge, one that does not have easy solutions and will require more than simple technical expertise to solve.<sup>12</sup> The current system creates pain, but change will also produce discomfort by challenging physicians' current role conceptualisations and sense of value. Leaders can follow a clear set of steps to effectively manage this adaptive challenge.

First, they should designate burden reduction as a distinct strategic initiative at the system level and identify mechanisms for tracking burden that are shared widely with frontline clinicians. We suggest that a combination of provider experience data paired with metrics characterising clinician utilisation of the EMR are good places to start. Second, they must acknowledge the suffering and discomfort that the current system inflicts and provide a compelling and hopeful picture of the future that pairs better patient outcomes with a good-quality life for clinicians. Leaders in healthcare far too often leverage a commanding leadership style to force compliance in the near-term rather than leveraging affiliative and visionary leadership styles necessary to foster the enduring trust and intrinsic motivation that drive results in the long term.<sup>13</sup>

Third, they must build deliberate space for teams to identify burdens and innovate solutions. This requires leaders to recognise innovation as necessary work worthy of investment rather than seeing clinicians' value entirely through the lens of productivity. Reducing burden starts by asking the following questions (in this order): (a) what tasks can stop; (b) what can be automated; (c) what can be assigned to a capable though less costly role; (d) what can be outsourced and (e) what stays sacred with clinicians. As competing answers to these questions emerge, the work of leaders is to encourage debate and consensus about how to resolve the divide, then using pilots to show that solutions will be generative for all involved. While health systems may vary in their approach, we divide the work out by clinical setting (eg, inpatient hospital or primary care), gather groups of 8–15 stakeholders from each setting to work together on defining the problems they and their patients face, then designing solutions that reduce overall burden. We use a *human-centred design* approach, which centres on creating the best experience for all users of a given product or process.<sup>14</sup>

A few examples from our system illustrate how this dimension of work might proceed. To reduce harm to patients in our intensive care units (ICUs), we declared that we would eliminate CLABSI infections. In pursuit of that goal, we leveraged data suggesting that developing checklists are the most powerful way to accomplish this objective.<sup>15</sup> We compiled a list of more than a dozen harms that patients suffer in ICUs, then started implementing standardised interventions for each of them. After addressing three behaviours,

two clinicians spoke up and communicated that they were overwhelmed and could not add even one more task, even as they acknowledged the work as beneficial to patients. Rather than scaling back and accepting harm or pushing forward and demanding compliance, leaders initiated a pause in adding new items to the checklist to honour the heightened stress, but challenged the ICU team to invest time reorganising workflows that could accommodate new items from the checklist without increasing provider burden.

Separately, our nearly 400 primary care physicians have performed admirably in achieving shared savings for the past 5 years in our Medicare Shared Savings Plan. Yet, leaders were well aware of rising job dissatisfaction. Borrowing from work done by the Mayo Institute, we gathered 12–13 primary care physicians to meet, define and describe their burdens, and share ideas, so the group could improve them.<sup>16</sup> To emphasise our commitment to reducing burden, we devoted one of our strategic objectives to minimising physician time outside the scheduled work day and maximising joy in the work they did, while retaining our steadfast commitment to achieving the highest value care for our patients. That work not only validated and energised frontline clinicians but also revealed that they had already been running dozens of microexperiments in their own practices to reduce their individual burden and were eager to share their innovations with the system. The work ahead of us is to pilot the most promising ones and scale those that produce the best results.

In both the above examples, clinician viewpoints varied. For example, some primary care physicians had very positive experiences with team-based work and distributing tasks to other clinicians, while others had been burned by low-functioning teams that ended up increasing burden. This led to divergent answers about the role of advanced practice nurses and physician assistants (APPs). We encouraged debate, then committed to running well-resourced pilots to resolve disagreements. Once they understood that they were in charge of building the solution, the team found consensus on the need for advance practice practitioners to be incorporated differently based on the specific needs and resources for each practice and designed two models for how to integrate them into their teams that would honour the different skills and career aspirations of the individual APPs.

We have only just begun to integrate burden reduction into our system-level strategic initiatives and have not identified any other systems that have done so. As such, we do not have a clear answer as to what an ideal value/burden ratio can and should be. If we consider burnout a reasonable proxy however, then the overall burden carried by physicians is already too high. If more systems lean into this work, metrics for tracking burden can be refined, reasonable benchmarks can be established, and perhaps most importantly, innovation to help reduce burden from its current state will

flourish in ways we have not yet imagined. Leaders would be wise to proactively address the adaptive challenge produced by burdens now in order to ensure the best possible performance in the future. Yet, reducing clinician burden is more than strategically necessary; it is an act of love that will be among the most powerful and inspiring statements a leader can make.

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#### ORCID iDs

Patrick Runnels <http://orcid.org/0009-0005-4710-117X>  
Peter J Pronovost <http://orcid.org/0000-0002-9740-3775>

#### REFERENCES

- 1 World Health Organization. Global patient safety report: 2024. Geneva World Health Organization; 2024. Available: <https://iris.who.int/bitstream/handle/10665/376928/9789240095458-eng.pdf?sequence=1>
- 2 Brown MT, Bussell JK. Medication Adherence: WHO Cares? *Mayo Clin Proc* 2011;86:304–14.
- 3 Kaiser family Foundation. Petersen-kff health system tracker. 2024. Available: <https://www.healthsystemtracker.org/chart-collection/health-spending-u-s-compare-countries/#Health%20expenditures%20as%20percent%20of%20GDP%201970-2022>
- 4 West CP, Dyrbye LN, Shanafelt TD. Physician burnout: contributors, consequences and solutions. *J Intern Med* 2018;283:516–29.
- 5 Porter J, Boyd C, Skandari MR, *et al*. Revisiting the Time Needed to Provide Adult Primary Care. *J Gen Intern Med* 2023;38:147–55.
- 6 AlAli KF. Unnecessary spine surgery: can we solve this ongoing conundrum? *Front Surg* 2023;10.
- 7 Riddle DL, Jiranek WA, Hayes CW. Use of a validated algorithm to judge the appropriateness of total knee arthroplasty in the United States: a multicenter longitudinal cohort study. *Arthritis Rheumatol* 2014;66:2134–43.
- 8 Tai-Seale M, Dillon EC, Yang Y, *et al*. Physicians' Well-Being Linked To In-Basket Messages Generated By Algorithms

- In Electronic Health Records. *Health Aff (Millwood)* 2019;38:1073–8.
- 9 Chang HJ, Liang MH. A piece of my mind. The quiet epidemic. *JAMA* 2011;306:1843–4.
  - 10 Burden M, Astik G, Auerbach A, *et al.* Identifying and Measuring Administrative Harms Experienced by Hospitalists and Administrative Leaders. *JAMA Intern Med* 2024;184:1014–23.
  - 11 Foster R, Kaplan S. Creative Destruction: Why Companies That Are Built to Last Underperform the Market--And How to Successfully Transform Them. 2001.
  - 12 Pronovost PJ. Navigating adaptive challenges in quality improvement: Table 1. *BMJ Qual Saf* 2011;20:560–3.
  - 13 Goleman D, Boyatzis R, McKee A. *Primal Leadership: Unleashing the Power of Emotional Intelligence*. Harvard Business School Press, 2002.
  - 14 Runnels P, Wobbe H, Lee K, *et al.* Designing for Value in Specialty Referrals: A New Framework for Eliminating Defects and Wicked Problems. *NEJM Catalyst* 2021;2.
  - 15 Pronovost P, Needham D, Berenholtz S, *et al.* An intervention to decrease catheter-related bloodstream infections in the ICU. *N Engl J Med* 2006;355:2725–32.
  - 16 Swensen S, Kabacene A, Shanafelt T. Physician-Organization Collaboration Reduces Physician Burnout and Promotes Engagement: The Mayo Clinic Experience. *J Healthc Manag* 2016;61:105–27.