Performance Improvement in Healthcare
Is Personalized Site Feedback Enough?

Ali R. Rahimi, MD, MPH

Healthcare is on a necessary course of continuous improvement. At the top of its list of priorities is improving the performance of how we manage our patients having chronic diseases, such as heart failure. Reflective within the epidemic of chronic diseases, heart failure is pervasive across sex, race, ethnicity, and geography. Thus, a heavy toll is placed across a wide spectrum of individuals, families, and communities.

A learning system is created to spread best practices across the line staff around select process and outcome metrics trended over time, with national best in class as the performance target. A balanced scorecard system is used to engage frontline staff around select process and outcome metrics trended over time, with national best in class as the performance target. A learning system is created to spread best practices across the organization. Formal PI infrastructure and oversight capabilities with strategic goals. Core processes have been mapped with a system for managing improvement and monitoring progress. A balanced scorecard system is used to engage frontline staff across select process and outcome metrics trended over time, with national best in class as the performance target. A learning system is created to spread best practices across the organization. Formal PI infrastructure and oversight capability exist across both macrolevels and mesolevels along with systems demonstrates the need for multiple capabilities to be available and working well to achieve optimal process and outcome results.2–6

Fundamental capabilities of a comprehensive PI system include leadership priority setting, systems approach to improvement, measurement capability, learning organization, improvement capability, and culture. In brief, the leadership team identifies, prioritizes, and aligns essential PI opportunities with strategic goals. Core processes have been mapped with a system for managing improvement and monitoring progress. A balanced scorecard system is used to engage frontline staff across select process and outcome metrics trended over time, with national best in class as the performance target. A learning system is created to spread best practices across the organization. Formal PI infrastructure and oversight capability exist across both macrolevels and mesolevels along with a uniform methodology for PI training. Finally, a culture that values engagement, accountability, and data integrity is developed and promoted from the executive to the frontline team level.2–6 All components are equally vital and necessary. The absence or poor development of even 1 capability will result in suboptimal outcomes.

The opinions expressed in this article are not necessarily those of the editors or of the American Heart Association.

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In this issue of Circulation: Cardiovascular Quality and Outcomes, the study by DeVore et al7 focuses on a strategy to improve heart failure outcomes via provision of personalized site performance feedback to a cohort of Get With The Guidelines-Heart Failure–participating hospitals. Through a cluster-randomized trial, they included 147 hospitals across 2 arms from October 2009 to March 2011. The control group of hospitals had access to the usual Get With The Guidelines-Heart Failure on-demand reports, quality improvement tools, and publicly available webinars. Conversely, the intervention group of hospitals, in addition to the above baseline access, actively received “pushed” out quarterly personalized quality improvement reports, tailored teleconferences, invitations to webinars, and specialized tool kits.7 In effect, this was an effort to develop a more effective PI measurement capability at the local hospital level.

Despite the laudable attempt on the part of study leaders and coordinators, the intervention group of hospitals did not demonstrate any clinically significant improvement in quality performance measures above and beyond the control group. Indeed, at baseline, the mean opportunity-based score (number of times a quality metric was performed divided by the total number of instances in which care processes were required) was lower in the intervention group of hospitals (56.6% versus 61.1%), suggesting a greater room for improvement, which was unfortunately not realized. Furthermore, even the lowest performers at baseline who received additional targeted phone calls and webinars failed to achieve any significant improvement.7

With our understanding of the requisite 6 capabilities of a high-performing PI system, the study findings may not be surprising. As the study authors mention, many hospital-based quality improvement programs have assisted with the care of patients with heart failure, including Get With The Guidelines-Heart Failure.8 Despite much effort, achieving uniform best in class cardiovascular care has been challenging for many healthcare systems leaving behind significant unwarranted variation and gaps in care.9–11 These missed opportunities are at a cost to the individual patient, greater community, and healthcare system. So what can we do differently and where do we start?

Studies done to account for potential confounders or associations for suboptimal guideline adherence traditionally focus on patient-specific characteristics (sociodemographic and past medical history), provider differences, and basic hospital characteristics (number of beds, geographic location, and clinical services offered).12,13 At this time in our research, we need to also better understand the variation along the 6 PI capabilities across different healthcare systems. Different stages of development or complete lack of

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any capability may significantly limit the potential effect for any PI intervention. This may have been the case in the current DeVore et al study. Examination and understanding of all 6 capabilities require a formal assessment. Indeed, there already has been work in the successful development and use of organizational PI self-assessment tools. Drawing from their experience, there is an opportunity to further research and promote the metrics used to assess components of each PI capability. Accounting for this added dimension will allow for better understanding of potential differences in outcomes or lack thereof that may lay at the healthcare PI system level.

For the purposes of this study, a good place to start is with elements of the measurement and culture capabilities as mentioned in their discussion. An ideal state for measurement capability includes data on process and outcomes metrics that are consistent, timely, and actionable. These data need to be both transparent and available from the executive leaders to the PI program directors cascaded all the way to frontline teams. In this study intervention, the personalized performance feedback reports were “pushed” quarterly to quality leaders. This begets at least 2 questions. First, were the reports timely and actionable? Certainly for lag metrics, such as readmission rates and mortality, quarterly reporting is reasonable given the relative lower frequency and smaller sample sizes. However, for the lead metrics, such as, angiotensin-converting enzyme inhibitor/angiotensin receptor blocker and β-blocker prescription, at discharge in patients with a left ventricular ejection fraction of <40%, provision of specific discharge instructions (activity level, diet, medications, follow-up appointment, weight monitoring, and symptom management), influenza or pneumococcal vaccine administration before discharge, and others in an ideal state could be provided on a weekly basis. Moving from an every 90-day reporting period to a 7-day schedule, even with low sample sizes, would provide for more immediate timely feedback. This in turn would allow an opportunity for actionable iterative changes to occur for their local process management, in line with a Six-Sigma method approach. This study provides further support to DeVore et al7 mentioning the possibility that their intervention may not have provided actionable information at a local level.

The second question centers on when the quality leaders received the reports, did they use a standard methodology including a balanced scorecard system to communicate with and engage frontline teams? Additional key elements include how the personalized performance data are visually presented and managed to the team, in concert with the use of timely team huddles and debriefing. DeVore et al7 appropriately call out that their intervention, provided information, and did not mandate behaviors. As stated, their intent was to allow for local innovation, which is both appropriate and necessary. Although this is partially based on an assumption that systems know how to use data, engage teams, innovate, and effectively operationalize the improved plan. This represents a critical area of variation across healthcare systems. It therefore highlights the need for providing a standard workflow around best practices in frontline engagement and data visual board management to assist in PI.

At this point, there begins to be overlap with the capability of organizational culture. Devore et al7 comment briefly that for future PI interventions, there should be a better understanding of the health systems readiness to act on performance feedback. Indeed, this turns out to be one indicator among many for the maturity of an organizations’ PI culture. A mature culture that will provide the necessary support for continuous improvement has several elements. System wide improvement is achieved and maintained when operational leaders along the continuum to their managers and frontline staff assume ownership of the PI intervention. Accountability at all levels in addition to frontline team engagement leads to promotion of a pull approach to understanding intervention goals, methods, and barriers. Routine leadership rounding allows for earlier recognition of opportunities for rapid improvement. In concert, the communication strategy between leaders and the frontline includes visual controls of improvement displayed through accessible posters or boards. When the sum of these elements come together, a PI culture is developed and maintained such that the frontline staff is then ready to be an engaged owner of the new PI intervention.

DeVore et al7 concluded correctly on an important lesson. Indeed, an intervention weighted heavily on the provision of performance feedback, even personalized and to the lowest of performers, will not in isolation generate clinically optimal improvement. As discussed in this editorial, in addition to refinement of the measurement capability, there are many other core PI capabilities that need to be understood, accounted for, developed, and maintained for a healthcare system to achieve continuous PI. This study is certainly a Plan-Do-Study-Act cycle in the right direction.

Disclosures
None.

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