

www.biome.io

REALIZING THE POTENTIAL OF JUST CULTURE FOR CARDIOVASCULAR EXCELLENCE

Many cardiovascular (CV) programs that are thriving in today's increasingly difficult landscape are working to foster a "just culture"—a workplace environment in which employees feel comfortable speaking up when they see or make mistakes, and where errors are treated first and foremost as opportunities for improving workflows and patient safety protocols.

Recent developments in analytical technologies have helped ambitious programs facilitate the adoption of just culture without a substantial drain on limited resources. The technology helps shift blame away from clinicians and other employees by accurately identifying the root causes of safety lapses. When used alongside comprehensive Performance Improvement (PI) strategies, the new tools encourage continuous improvement, make cost-efficient care second nature, and help prepare hospitals to navigate the challenges that lie ahead.

THE CASE FOR ADOPTING A JUST CULTURE

Hospitals currently face a host of difficulties: declining reimbursements, increasingly complex comorbidities, rising inflation, competition with outpatient surgery centers, and difficulties retaining and recruiting clinicians. The rising prevalence of CV disease also underscores the need to enhance care processes across patient groups. Industry leaders looking to excel in these conditions are making just culture an essential part of their CV programs' blueprints.



"When employees are confident in a reliable system that accurately identifies failures, they are more likely to report errors. This information is then used to refine or redirect PI initiatives, creating a positive feedback loop, and driving low-effort, continual improvement"



For over 10 years, we've been partnering with ambitious cardiovascular centers who want to maximize clinical, financial, and operational performance across their CV service line.

Our mission is to provide health systems with leading solutions that enable robust performance improvement projects and optimize the value of care delivered.

Rakan Khaki, MPH Chief Operations Officer Biome Analytics

These programs understand that a punitive approach to medical errors is not effective in reducing future failures of patient safety. Recognizing that errors are usually manifestations of systemic flaws, rather than individual missteps, they make concrete changes to increase "psychological safety" (PS) for their employees—a measure of how comfortable team members feel about speaking up about errors. PS is key to PI initiatives because it helps allow leadership to maintain an accurate idea of what is happening in the hospital. Just as important, employees working in a just culture are more likely to want to contribute to the worthy task of improving patient outcomes. This engagement, in turn, augments productivity, encourages a team mentality centered around excellence and mitigates burnout.

FOSTERING A JUST CULTURE: A NEW APPROACH

Healthcare leaders agree that punitive response to error is a top patient safety issue. For this reason, many hospitals are trying to instill psychological safety among their staff. However, practical implementation of this concept often proves difficult. Recent studies show that many hospitals trying to promote psychological safety still frequently rely on punitive measures. 5

Innovative CV programs are using a two-pronged approach to foster a just culture and to make sure it sticks: 1) They're integrating technology capable of accurately identifying systemic causes of patient safety failures, and 2) They're using this technology as the basis for a new approach to PI that emphasizes evidence-based solutions and continuous improvement.

Part of the reason hospitals find it difficult to foster a just culture is that their analytical capabilities are limited. They spend millions of dollars collecting data only to find that reports are too delayed, can't pinpoint problems accurately enough, and lack financial insight. As a result, all the effort poured into collection yields minimal improvement. The key to reversing this narrative lies in a number of recent advancements to machine learning, which allow analysts to integrate a wide range of data streams and precisely identify practices that are leading to inefficient practices and patient safety failures. These tools enable leadership to see beyond individual culpability and discern fundamental root-cause defects in value, thereby targeting interventions that are not only financially viable, but also catalyze meaningful change.

Early adopters of this technology—including some of the nation's top CV centers—found that it not only helped improve outcomes and reduce costs, but also led to positive shifts in workplace culture. When employees are confident in a reliable system that accurately identifies failures, they are more likely to trust leadership enough to report errors. This information is then used to refine or redirect PI initiatives, creating a positive feedback loop, and driving low-effort, continual improvement. These programs also noted that easy access to accurate and up-to-date performance data boosted clinician performance and encouraged collaboration.



LEVERAGING EXPERIENCED PARTNERS

Prominent cardiovascular centers depend on experienced partners to help them create the groundwork for a just culture. Biome Analytics has over a decade of experience working closely with both clinicians and leadership to address preventable medical errors, improve clinical outcomes, reduce the cost of care, and cultivate a healthier workplace culture.

Biome supports a natural transition to a just culture by alleviating the need to assign blame for failures within processes. Instead, cutting-edge technology exposes faults in system workflows that are the true culprits, and ranks these opportunities by projected clinical improvement, cost savings, and time-to-value. The technology redirects leaders' and employees' attention away from individual blame and toward the important task of figuring out how to create real and measurable change. Biome also employs this technology to generate equitable benchmarking data, enabling clinicians to assess their performance relative to peers in similar institutions, which in turn encourages improvement and camaraderie among care teams.

Biome's technology is just one facet of support in the transition to a just culture. Over the years, our team of CV PI experts have developed a number of concrete strategies to help CV programs build a cooperative structure in their service line, shifting employees' focus toward value and improvement. By providing a lingua franca for both leadership and clinicians, Biome's solution facilitates seamless communication, shared goals, and greater institutional alignment. Finally, our client services team has extensive experience planning and running effective PI. We collaborate closely with hospital leadership to establish ambitious yet achievable goals and a robust roadmap for achieving them expediently. Moreover, we stand ready to make real-time adjustments based on new data, employee feedback, and patient insights.

When team members start to believe that their hospital is geared toward improvement, the result is a real sense of safety and ownership in their institution's patient care outcomes. Once a hospital has begun fostering a just culture in this way, continuous, low-input clinical improvement can quickly become the norm. In today's difficult landscape, this transformation is an essential part of any ambitious CV program's blueprint for the future.

ABOUT BIOME

For over a decade, clients have relied on Biome's proprietary machine learning, human-enabled technology, and community-driven knowledge network to activate their data assets, engage physicians, and accelerate performance improvement. The UCSF Digital Health awards recently recognized Biome as a "Top 10 Best Patient Cost Savings" solution.



- 1. Brborović O, Brborović H, Nola IA, Milošević M. Culture of Blame—An Ongoing Burden for Doctors and Patient Safety. Int J Environ Res Public Health. 2019;16(23):4826. doi:10.3390/ijerph16234826
- 2. Murray JS, Clifford J, Larson S, Lee JK, Sculli GL. Implementing Just Culture to Improve Patient Safety. Military Medicine. 2023;188(7-8):1596-1599. doi:10.1093/milmed/usac115
- 3. Schaufeli WB, Salanova M, González-romá V, Bakker AB. The Measurement of Engagement and Burnout: A Two Sample Confirmatory Factor Analytic Approach. Journal of Happiness Studies. 2002;3(1):71-92. doi:10.1023/A:1015630930326
- 4. Hospital Survey on Patient Safety Culture: 2018 User Database Report. Published online May 2, 2018. Accessed June 28, 2023. https://psnet.ahrq.gov/issue/hospital-survey-patient-safety-culture-2018-user-database-report
- 5. Edwards MT. An assessment of the impact of just culture on quality and safety in US hospitals. An Assessment of the Impact of Just Culture on Quality and Safety in US Hospitals. 2018;33(5):502.
- 6. Paradiso L. Rebuilding trust in just culture. Nurs Manage. 2022;53(11):6-14. doi:10.1097/01.NUMA.0000891456.44611.10

