Look to the past to improve our future: Improving quality, safety and equity through community and patient engagement

Received (in revised form): 18th November, 2022

Knitasha V. Washington

President and CEO, ATW Health Solutions, USA

Knitasha V. Washington, DHA, MHA, FACHE, brings more than 25 years of experience as a multidimensional healthcare leader focused on quality improvement, safety and health equity. Her career has spanned roles in healthcare administration, managed care, quality management, disparities research and policy. In these roles, she serves as a change agent driving organisational performance improvement, quality and safety improvement, as well as advising on health policy matters, and leadership contributing to large-scale national public health campaigns. Dr Washington has international health professional training and experience with extensive knowledge of strategies to advance innovation and improve outcomes through community engagement, patient engagement and stakeholder alignment. As a health equity practitioner and social science researcher her skill and expertise bridge population health methodologies with the applied science of health services delivery to improve quality, safety and equity outcomes. In 2014, she founded ATW Health Solutions, a US Small Business Administration (SBA) 8(a), Women-Owned Small Business (WOSB) healthcare advisory and consulting firm based in Chicago, Illinois. ATW Health Solutions has earned national recognition for its work partnering locally and nationally with public and privately held organisations and government agencies to transform healthcare delivery systems from ordinary to best-in-class.

ATW Health Solutions, 1132 S. Wabash Suite 604, Chicago, IL 60605, USA
Tel: +1 312 858 6800; E-mail: kwashington@atwhealth.com

Kellie Goodson

Chief Experience and Engagement Officer, ATW Health Solutions, USA

Kellie Goodson, MS, CPXP, is a thought leader in the areas of health equity and person/patient and family engagement (PFE) in healthcare quality and safety improvement. She has worked with multiple health systems to improve patient outcomes using the lens of health disparities identification and resolution paired with the tenets of quality improvement and patient engagement. At ATW Health Solutions, Kellie leads efforts to include patient voices in healthcare improvement efforts, helping organisations understand how to build partnerships with patients, families and community members to transform healthcare delivery and outcomes. Previously, Kellie co-led national Affinity Groups for the topics of PFE and health equity for the Centers for Medicare and Medicaid Services and has served on national committees for the National Quality Forum and the Institute for Patient- and Family-Centered Care.

ATW Health Solutions, 1132 S. Wabash Suite 604, Chicago, IL 60605, USA
Tel: +1 312 858 6800; E-mail: kellie.goodson@atwhealth.com

Lee Thompson

Principal Technical Assistance Consultant, American Institutes for Research, USA

Lee Thompson, MS, is a principal technical assistance consultant in heath programme at the American Institutes for Research. Her primary responsibilities include leading healthcare research, technical assistance and outreach and dissemination projects. Drawing on more than 20 years of experience, she has expertise in engaging a variety of stakeholders, including healthcare leaders and professionals, healthcare researchers, payers, and patients and families, in healthcare research and quality improvement initiatives. She was the project director for the Person and Family Engagement Contract for the CMS-funded Partnership for Patients initiative.

American Institutes for Research, 1400 Crystal Drive, 10th Floor, Arlington, VA 22202, USA
Tel: +1 202 403 5000; E-mail: lthompson@air.org

Tanya Lord

Chief Innovations Officer, ATW Health Solutions, USA

Tanya Lord, PhD, MPH, is trained in qualitative study methodology and has designed, implemented and analysed a multitude of studies and associated surveys using the qualitative methodologies in which she is trained. As a patient safety professional in the patient and family engagement field, she expanded her skills into human-centred design and other qualitative methods to creatively and effectively bring the voice of lived experience, whether patients, families or professionals, into the design, implementation and evaluation of healthcare improvement at all levels. Dr Lord has used qualitative methods to evaluate the patient experience with patient portals and newly implemented Electronic Medical Records. Dr Lord has extensive experience using and adapting qualitative study strategies with surveys, focus groups and semi-structured interviews with diverse populations of patients and professionals.

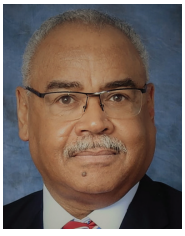
ATW Health Solutions, 1132 S. Wabash Suite 604, Chicago, IL 60605, USA
Tel: +1 312 858 6800; E-mail: Tanya.Lord@ATWHealth.com

Brittny Bratcher-Rasmus

Program Manager, ATW Health Solutions, USA

Brittny Bratcher-Rasmus, PhD, CHES, is a public health practitioner with ten years of experience leading corporate, local and federal health programmes specialising in health equity training and curriculum development. At ATW Health Solutions, Dr Bratcher-Rasmus is a program manager managing health programmes that enhance tools and resources to eliminate health disparities, promote quality improvement and increase health equity using data-driven results in various populations. Prior to her role at ATW, Dr Bratcher-Rasmus served for over six years as an Outreach Specialist for Medicare beneficiary healthcare services at a contracted Beneficiary & Family Center Care Quality Improvement Organization (BFCC-QIO) for the Centers for Medicare and Medicaid Services (CMS).

ATW Health Solutions, 1132 S. Wabash Suite 604, Chicago, IL 60605, USA
Tel: +1 312 858 6800; E-mail: Brittny.B.Rasmus@ATWHealth.com



Ronald Wyatt

Former Senior Fellow and Vice-President, Institute for Healthcare Improvement/Patient Safety Officer for MCIC Vermont, USA

Dr Ronald Wyatt, MD, MHA, is the former vice president and patient safety officer for MCIC Vermont, a major risk retention group based in New York City and was a senior fellow at the Institute for Healthcare Improvement (IHI). Prior to joining MCIC Vermont, Dr Wyatt was formerly chief quality and patient safety officer at Cook County Health in Chicago, Illinois and former chief of patient safety and quality for the Hamad Medical Corporation in Doha, Qatar. Dr Wyatt was the first patient safety officer at the Joint Commission. He served as medical director in the Patient Safety Analysis Center, Defense Health Agency/Military Health System Defense Health Agency, Falls Church, Virginia. He is former co-chair of the Institute for Healthcare Improvement (IHI) Equity Advisory Group and is faculty for the IHI Pursuing Equity initiative. Dr Wyatt is a facilitator for the ACGME Equity Matters Collaborative and serves as faculty for the IHI Pursuing Equity initiative. Dr Wyatt is a credentialed course instructor in the School of Health Professions at the University of Alabama, Birmingham. He is co-course director in the Keystone Program at the Northwestern University Feinberg School of Medicine's master's degree in patient safety, Chicago, Illinois. Dr Wyatt holds an honorary Doctor of Medical Sciences from the Morehouse School of Medicine and is a graduate of the University of Alabama Birmingham School of Medicine. While a resident in training, at St. Louis University Group of Hospitals, he served as the first African American chief medical resident, in 1987–1988. He is a board-certified Internist and practiced medicine for over 20 years, in St. Louis Missouri and Huntsville, Alabama. He earned the master's degree (executive program) in health administration from the University of Alabama Birmingham School of Health Professions.

Achieving Healthcare Equity, 30472 Ono North Loop West Orange Beach Alabama 36561, USA
Tel: +1 251-289-0528; E-mail: ronald.m.wyatt@gmail.com

Abstract Healthcare administrators must ensure delivery of care that is high quality, safe and produces equitable outcomes while balancing business, workforce and community needs. To meet these challenges while guiding their organisations through COVID-19 recovery, administrators can look to a strategy with a strong track record for success: engaging patients, families and communities. This paper focuses on evidence, experience and best practices for improving quality, safety and equity by engaging people, patients, families and communities. Effective patient and family engagement (PFE) and community engagement strategies draw on research and experience across a wide variety of efforts, from nationwide federal programmes such as the Centers for Medicare and Medicaid Services Partnership for Patients initiative to health system- and neighbourhood-level programmes. Research demonstrates that commitment to PFE leads to measurable improvements in quality and safety. Experience shows that engagement, when practiced with attention to diversity, equity and inclusion, can reduce health disparities. Engagement best practices include: making engagement a strategic priority, embedding patients and families with diverse perspectives into improvement efforts, supporting continuous learning by adapting engagement efforts over time, benchmarking progress and measuring disparities. To continue the advances begun before the pandemic, healthcare administrators and leaders must redouble engagement efforts and implement best practices. Administrators can meet the many challenges of the moment by returning to the proven strategy of engaging patients, families and communities to drive integrated quality, safety and equity efforts.

KEYWORDS: quality, safety, equity, patient and family engagement, community engagement, improvement, high-reliability organisation, HRO

INTRODUCTION

The task of every healthcare administrator is to ensure that the hospitals and clinics they oversee consistently provide high-quality care to all patients while balancing business, workforce and community needs. Accomplishing this task has always been a major challenge, no time more so than the past several years as hospitals and health systems mobilised in response to the COVID-19 pandemic. From C-suites (or home offices) to intensive care units and laboratories, people working at every level of the healthcare system met the COVID-19 crisis with extraordinary speed, innovation and persistence. Leaders marshalled resources and supported staff to enable this response, while also working through crisis standards of care for patients' many medical needs, not only COVID-19 treatment. Almost overnight, every challenge present before the pandemic became much more difficult, including preventing patient harm, addressing provider burnout and delivering better care with fewer financial resources.[1] Leading healthcare systems through these challenges was made all the more difficult amid social upheaval due to the murders of George Floyd, Breonna Taylor and Jacob Blake and politicisation of science and public health measures.[2]

As the gradual transition from the crisis phase of pandemic response to a long period of recovery occurs, healthcare system leaders, innovators and policymakers are assessing lessons learned[3] and beginning to envision future possibilities for American healthcare.[4,5] Front and centre among these lessons is the importance of health equity. The stark racial and ethnic disparities in rates of COVID-19 infection, hospitalisation, death and vaccination during the pandemic have

highlighted the imperative for health equity to be a top priority.[6–9] Although for years the 'forgotten aim'[10] in quality improvement efforts, equity is an essential element of quality, as defined by the seminal *Crossing the Quality Chasm* report (2001).[11] Healthcare's recent focus on equity adds to the urgency to restart national efforts to improve quality and safety.

Health system leaders who feel this urgency have developed equity strategies, including designating chief health equity officers charged with addressing health disparities within the populations they serve. Others have yet to address health equity in the midst of juggling competing priorities to lead their organisations to a 'new normal'. However, unless and until all health system leaders approach quality, safety and equity as three equal pillars within an integrated improvement strategy, systems and systemic barriers that have historically perpetuated inequities will continue to be reinforced. Advancing health equity requires recognition that there is no quality or safety without equity and healthcare leaders must prioritise delivering care that is high quality and safe for everyone.

While the challenges that healthcare leaders face are innumerable, there is good news. Evidence and more than a decade of experience point to effective strategies for improving quality, safety and equity. Quality improvement efforts in the decade prior to the pandemic showed significant gains in patient safety[12] and demonstrated that patient, family and community engagement advance quality, safety and equity.[13,14]

As health systems move from the COVID-19 crisis to recovery, they — and patients — will benefit from the learnings and proven methods implemented before the pandemic. Getting back to what works, including engaging diverse patients, families and community members throughout integrated quality, safety and equity efforts, can accelerate improvements. This paper highlights some of the most important evidence-based engagement strategies that healthcare leaders and administrators can draw on to create an integrated improvement strategy with quality, safety and equity as three equal pillars.

CONTINUATION OF QUALITY AND SAFETY GAINS BEGUN BEFORE THE PANDEMIC

A recent analysis across more than 3,000 hospitals showed that between 2010 and 2019, observed rates of patient safety events decreased significantly among nearly 250,000 patients hospitalised for acute myocardial infarction, heart failure, pneumonia and major surgical procedures.[15] Patients' relative risk of adverse events remained significantly lower in 2019 compared to 2010 even when adjusting for patient and hospital characteristics. The authors note that this decline in observed patient safety events coincided with the Centers for Medicare & Medicaid Services (CMS) Partnership for Patients programme that focused on hospital safety, patient engagement and eliminating disparities, among other national quality improvement efforts, although the study did not seek to link adverse event rates to these improvement efforts. This analysis highlights the success of widespread and sustained quality improvement and patient safety efforts prior to the pandemic.

PFE is essential to improvement efforts

Experience across more than 4,000 hospitals in the CMS Partnership for Patients programme showed that engaging patients and families throughout quality and safety efforts improved outcomes and patient experience. Patient, or person, and family engagement (PFE) was an important component of the Partnership for Patients model that demonstrated engagement as a framework that went beyond the work of

patient experience and patient satisfaction. PFE fosters partnerships between healthcare leaders, professionals, patients and families to drive clinical outcomes. At its essence, PFE means patients and families are partners in defining, designing, participating in and assessing the care practices and systems that serve them.[16] This assures that practices and systems provide patient- and family-centred care: care that is respectful of and responsive to individual patient preferences, needs and values. PFE occurs at the point of care, at the organisational level and at policy, governance and community levels.[17] Comprehensive quality, safety and equity strategies require PFE at each of these levels. Collaborative engagement with patients and families representing the communities a health system serves ensures that patients' values guide all clinical decisions and communities' needs and priorities drive genuine transformation in attitudes, behaviour and practice.

Within the Partnership for Patients programme, CMS assessed hospitals' engagement efforts using five metrics[18] that focused on engagement at the point of care, in organisational-level policies and protocols and in governance. These metrics assessed hospitals' efforts to prepare patients for planned admissions, include patients in shift-change huddles and bedside rounding, integrate PFE into hospital management operations (eg hiring a dedicated PFE leader), integrate patients and families into advisory committees or councils, and include them on hospitals' governing Boards. Hospitals participating in Partnership for Patients made major gains in implementing PFE practices as measured by these metrics. For example, rates of PFE implementation among participating hospitals increased from between 18 and 34 per cent across the five metrics in January 2017 to between 52 and 84 per cent across the metrics in November 2018.[19]

CMS points to nationwide gains in patient safety during the Partnership for Patients programme implementation as evidence of the programme's success.[20] The Agency for Healthcare Research and Quality (AHRQ) reported a 17 per cent reduction in hospital-acquired conditions such as pressure ulcers and central-line associated blood-stream infections between 2010 and 2014.[21] This decline coincided with the initial phase of the Partnership for Patients programme, which began in 2011. AHRQ estimated that between 2010 and 2014 this improvement resulted in 2.1m fewer patient harms, 87,000 fewer deaths and approximately US$20bn in cost-savings.[22,23] These improvements continued in subsequent years as CMS continued to adapt the programme, with an estimated 910,000 fewer hospital-acquired conditions, 20,700 fewer hospital deaths and US$7.7bn fewer healthcare costs between 2014 and 2017.[24] As noted previously, more recent analyses confirm these improvements in hospital care quality and safety and expands the analysis through 2019.[25]

Research likewise shows that a commitment to PFE leads to measurable improvements in quality and safety. Work within the Vizient Hospital Improvement Innovation Network, or HIIN, demonstrated that when PFE is fully implemented within an organisation, PFE correlates with improvements in clinical outcomes. In 2017, the Patients First project showed a correlation between 98 hospitals' scores on a weighted PFE scoring system and better outcomes on 30-day potentially unplanned readmissions and falls with injury.[26] The weighted scoring system assessed the depth, breadth and intensity of implementation of each of the essential elements of PFE measured by the CMS Partnership for Patients metrics.[27]

More recent experience within a large academic health system with multiple facilities serving rural and urban populations showed that implementing the Integrated PFE Index Assessment, a benchmarking

tool that quantifies PFE implementation and recommends areas for improvement, underscored the opportunities to leverage PFE in continuous improvement efforts. Across more than a dozen hospital campuses within this health system, CEOs, quality and safety officers, medical and nursing directors, and patient experience leaders recognise the importance of PFE, but implementing engagement practices and tracking and measuring how engagement contributes to overall quality, safety and equity goals were not well understood. Measuring PFE implementation is helping these leaders recognise how, for example, engaging patients and families in care planning through inpatient staff rounding and shared decision making can prevent patient safety events like falls and medication errors. Another hospital in this system revised their Sickle Cell Disease treatment guidance after learning through integrated community engagement and equity efforts that stereotypes about patients with Sickle Cell Disease often led to poorly managed pain for this predominantly black population.

A 2018 analysis of 110 hospitals in the state of New York found that hospitals with high-performing Patient and Family Advisory Councils (PFACs), a mechanism for integrating patients and families into organisational management and operations, had statistically significant lower rates of pressure ulcers, sepsis and septic shock, and 30-day hospital-wide readmissions, compared to hospitals with lower-performing PFACs.[28] High-performing PFACs were defined as those scoring in the top 50 per cent of all hospitals within the study on measures of PFAC orientation, committee participation and evaluation. Hospitals with any PFAC (whether high- or low-performing) had better quality and safety outcomes than those with no PFAC. Presence of a PFAC, and especially high-performing PFACs, was also associated with higher Hospital Consumer Assessment of Healthcare Providers Survey scores.

PFE has played an important role in improvement efforts within ambulatory care settings as well as in hospitals. For example, the CMS Transforming Clinical Practices initiative emphasised PFE as an important improvement strategy for the more than 140,000 primary care and specialist providers participating in this four-year effort to prepare ambulatory care practices to successfully participate in value-based payment arrangements.[29]

Engaging to advance equity

Although data on health disparities in the US abound,[30] attention towards addressing those disparities as part of quality and safety improvement efforts has been more limited until recent years. National standards for culturally and linguistically appropriate services provide further guidance demonstrating that diversity, equity and inclusion are essential for delivering[31] high-quality care. These standards include engaging patients, families and the broader communities that health systems serve to understand their diverse needs and values and designing services that align with what matters most to communities. Experience with early phases of the Partnership for Patients programme underscored the importance of PFE as part of health equity efforts, spurring CMS to provide additional guidance on how to apply PFE best practices in ways that work towards more equitable health outcomes.[32]

Community engagement, when practiced with attention to diversity, equity and inclusion, can reduce health disparities and begin addressing long-standing health inequities. Rush University Medical Center in Chicago has demonstrated this through a health equity strategy that emphasises listening to, partnering with and investing in communities[33] as an important component of efforts to improve health outcomes. University of Chicago Medicine also prioritises community engagement

throughout its delivery system, including more than a decade of collaboration with community, ethnic- and faith-based groups to address wide disparities in cancer care among Chicago's most underserved neighbourhoods[34] and extensive community investment and partnership initiatives spanning maternal health, violence recovery and COVID-19 care programmes.[35] The Atrium Health Community Immunity for All programme, recognised by the American Hospital Association in 2021 with the Carolyn Boone Lewis Equity of Care Award,[36] eliminated gaps in COVID-19 testing for African American, black, Hispanic and Latinx community members. Major elements of the programme included collaborations between the health system and 150 community partner organisations and engaging Atrium Health staff and community members as ambassadors who promoted COVID-19 vaccination with their peers.[37]

Experience with the Community Engagement in Early Recognition and Immediate Action in Stroke (CEERIAS) study offers another example[38] of closing health disparities gaps through sustained engagement efforts. Begun in 2014 to address racial disparities in stroke outcomes within Chicago neighbourhoods with majority black populations, this project engaged community members to design and share information within their neighbourhoods about signs, symptoms and local treatment options for stroke. Over three years, the effort significantly increased the use of emergency medical services for suspected stroke within the intervention neighbourhoods, compared to control neighbourhoods. In 2020–2021, a follow-up study (2CEERIAS) adapted this successful community engagement approach to rely primarily on virtual methods during the pandemic.[39] Even after research support ended, community members continue to educate family and neighbours about stroke preparedness more than eight years after the initial study began.

The weight of this experience and evidence shows that engaging patients, families and communities is an essential part of efforts to improve quality and safety while advancing equity.

GETTING BACK TO WHAT WORKS

To continue the advances begun before the pandemic, healthcare leaders and administrators must redouble engagement efforts and continue, reboot or implement best practices that experience and evidence show to be effective at improving quality, safety and equity of healthcare. Thankfully, both federal organisations[40–42] and philanthropic[43–45] funders have supported development of resources outlining engagement best practice.

Six practices common across these resource guides that are crucial for driving success are outlined as follows.

Manage engagement efforts as a strategic priority with board oversight

Aligning engagement with organisational mission, vision and values drives behaviour across the organisation when leaders integrate engagement throughout personnel management, such as hiring, organisational socialisation and staff performance evaluations.[46] Integrating engagement into organisational development and governance is equally important.[47] Developing and sustaining (or reviving) a PFE programme requires strategic investment to ensure adequate staff time, skills development, organisational socialisation and sustained support for patient and family advisers (PFAs). PFAs are patients and family members who work together with healthcare professionals to improve healthcare by sharing their insights about the experience of care and offering suggestions for improvement.[48] To connect PFE with community engagement, leaders and staff supporting engagement efforts must commit

to seeking out and building relationships with PFAs who bring diverse lived experiences and can represent communities who experience disparities in health outcomes.[49]

Embed PFAs with diverse perspectives into improvement efforts that integrate quality, safety and equity goals

PFE is an equity strategy when health systems build authentic partnerships with patients, families and community members who represent marginalised populations, such as racial and ethnic minorities, persons with disabilities and people who identify as LGBTQ.[50] Marginalised populations have a greater likelihood of negative health outcomes because of social and economic disadvantages arising from systemic racism and exclusionary policies. To tackle long-standing health inequities that stem from systemic and intertwined health, social and economic disadvantages, health systems must build trust and work collaboratively with communities who experience these inequities. An important first step is inviting people who represent communities that experience the poorest quality and safety outcomes to share their priorities. Health systems must listen and build trust, then create opportunities for these community representatives to co-create with leaders, staff and clinicians solutions tailored to their communities' needs and priorities. This includes engaging community members as PFAs in strategic planning and including them within quality improvement advisory groups such as PFACs. Engaging PFAs across the lifecycle of improvement efforts best positions them to contribute meaningfully and avoids delays or rework that often arise when patients and families are not included in early design phases.[51]

Support continuous learning by adapting engagement efforts over time to meet evolving organisational and patient needs

As the past several years have shown, the ability to quickly adapt to changing needs is vital to health systems' success. Identifying and sharing lessons learned as part of engagement efforts build organisational capacity for rapid adaptation to a wide variety of pressures and crises,[52] as became so evident during the pandemic. For example, some health systems that pivoted PFACs to virtual formats found this format lowered barriers to engagement and created opportunities for patients and families to improve vaccination campaigns, pandemic visitation policies and communication related to COVID-19 care.[53] Regular, informal check-ins with PFAs throughout their engagement builds trust, surfaces areas for improving engagement practices and can identify quality, safety or equity concerns ripe for improvement efforts. Creating opportunities for patients and families to speak about the impact they feel as a result of improvement and PFE efforts connects the investments in these practices to the goal of improving lives.

Benchmark progress to guide action

While PFE is a dynamic process built on relationships and teamwork, experience with Partnership for Patients and related efforts has shown that it is possible — and beneficial — to measure engagement efforts. Measures such as the five CMS PFE metrics, or the Integrated PFE Index Assessment tool that expanded on these metrics, provide benchmarks to quantify implementation of evidence-based PFE practices.[54] Benchmarking PFE efforts to best practices allows health systems to identify areas for further integrating PFE and quality improvement efforts and provides essential data for demonstrating the connection

between engagement efforts and quality, safety and equity gains.[55] As increasing numbers of health systems deepen their engagement efforts, health systems will also benefit from understanding how their efforts compare to peer institutions, such as among critical access hospitals or urban medical centres. Furthermore, clearly and consistently communicating how engagement efforts — benchmarked to best practices — are leading to improved outcomes and patient experience can solidify support for continued PFE efforts among staff, board members and PFAs. When measuring PFE, it is important to engage patients and families who bring racial, ethnic and cultural diversity in the process of making sense of data and planning actions to address areas needing improvement.[56]

Measure disparities and assess community needs

The mandate today is clear: quality and safety efforts must address long-standing health disparities. Efforts to advance equity must begin with a clear understanding of disparities. This means health systems must examine their own data to identify gaps in care quality, safety and outcomes by race, ethnicity, language, age, insurance status and other demographic and social factors.[57] Collecting information from patients about their race, ethnicity and language preferences (known as REAL data) and sexual orientation and gender identity (known as SOGI data) is an important first step, as are stratifying outcomes by these characteristics and choosing comparators that will highlight rather than obscure disparities.[58] Understanding social needs within communities served, such as access to affordable food and housing, is likewise important so that health systems can identify where partnerships with local social service providers will best address unmet health and social needs.

Designing data collection processes and interpreting data in partnership with patients, families and communities are essential to ensure that data reflects communities' cultures and provides a complete view of their diverse experiences. Growing recognition of the importance of patient-, family- and community-driven data is driving the adoption of PFE throughout healthcare research and quality measurement efforts.[59–61] Vital to community-centred data use are partnerships with patients and families representing diverse communities. These require long-term commitment to build trust and develop culturally competent engagement skills among staff and leaders.

Integrate engagement and equity with principles of high-reliability organisations

High reliability is another framework often implemented by organisations striving to improve quality and safety.[62,63] To succeed in creating a culture that strives for failure-free operations amid extraordinary complexity and the potential for catastrophic errors, HROs must centre their focus on patients and fully integrate health equity. It is therefore crucial that any healthcare system that is committed to becoming an high-reliability organisation (HRO) commits to achieving health equity. This means the organisational strategic plan should include, explicitly, addressing patient engagement and not merely patient experience as well as health inequity and its root causes. These root causes include implicit bias, structural racism, mistrust and leadership commitment.

Addressing inequity, in an HRO, requires collective mindfulness by leadership and a preoccupation with failure. This means messaging a bold aim such as 'zero inequity' and giving continuous attention to the ways in which inequities arise. In health systems, the HRO principle of sensitivity to operations means asking how root causes of

inequity operate in a system. Sensitivity to operations also demands that organisations collect and stratify REAL and SOGI data. The HRO principle of deference to expertise means that the system leadership seeks out and engages internal and external partners to better understand signals of inequity. The HRO principle of reluctance to simplify guides systems to invest in engagement to better understand and address what matters most to people and their communities. This is particularly important because in an HRO, a culture of safety must be implemented. A culture of safety includes establishing psychological safety, learning from failure and reporting episodes of bias, racism and cultural microaggressions. Lastly, when addressing inequity, the HRO principle of becoming a resilient system requires a focus on equity in all process improvement efforts, including using data to drive change, continuously monitoring for disparities, anticipating the unexpected and keeping the system is in a constant state of readiness. The same is so for patient engagement. Patient engagement is not equal to patient experience and patient satisfaction — it is far more extensive and valuable to quality and safety improvement efforts. Organisations must understand these differences and make the connection of their PFE work to quality, safety, equity and HRO activities.

CONCLUSION

A fundamental learning for improving quality, safety and health equity is activating a system for patient engagement; one that deepens and broadens the work of patient experience. To achieve results delivery systems must expand engagement and equity systems vs traditional patient experience efforts. Experience and evidence show that PFE and community engagement are essential strategies for improving quality and safety while advancing equity. While the intersection of the pandemic, health disparities, provider burnout and growing cost pressures presents health system leaders with unprecedented challenges, leaders can draw on an extensive bank of experience and evidence as they respond to these challenges. As a new normal emerges out of the COVID-19 crisis, it is essential that health system leaders and administrators return to the strategies that work: engaging patients, families and communities to drive an integrated improvement strategy founded on quality, safety and equity as three equal pillars.

References

1. Khullar, D., Bond, A. M., Schpero, W. L., (2020), 'COVID-19 and the financial health of US hospitals', *JAMA*, Vol. 323, No. 21, pp. 2127–2128, available at: https://jamanetwork.com/journals/jama/article-abstract/2765698 (accessed 28th July, 2022).
2. Moucheraud, C., Guo, H., Macinko, J., (2021), 'Trust in governments and health workers low globally, influencing attitudes toward health information, vaccines', *Health Affairs*, Vol. 40, No. 8, pp. 1215–1224, available at: https://www.healthaffairs.org/doi/10.1377/hlthaff.2020.02006 (accessed 28th July, 2022).
3. Lee, S. H. L., Nembhard, I. M., (2022), 'COVID-19 inspired creativity in health care: Lessons for management and policy', *Health Affairs Forefront*, 23rd June, available at: https://www.healthaffairs.org/do/10.1377/forefront.20220617.857677 (accessed 28th July, 2022).
4. Zimlichman, E., Nicklin, W., Aggarwal, R., Bates, D. W., (2021), 'Health care 2030: The coming transformation', *NEJM Catalyst*, 3rd March, available at: https://catalyst.nejm.org/doi/full/10.1056/CAT.20.0569 (accessed 28th July, 2022).
5. Harrison, M., (2021), '5 critical priorities for the U.S. Health Care System', *Harvard Business Review*, 15th December, available at: https://hbr.org/2021/12/5-critical-priorities-for-the-u-s-health-care-system (accessed 28th July, 2022).
6. Magesh, S., John, D., Li, W. T., *et al.*, (2021), 'Disparities in COVID-19 outcomes by race, ethnicity, and socioeconomic status', *JAMA Network Open*, Vol. 4, No. 11, pp. e2134147, available at: https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2785980 (accessed 28th July, 2022).
7. Mackey, K., Ayers, C. K., Kondo, K. K., *et al.*, (2021), 'Racial and ethnic disparities in COVID-19-related infections, hospitalizations, and deaths', *Annals of Internal Medicine*, March, available at: https://doi.org/10.7326/M20-6306 (accessed 28th July, 2022).
8. Hill, L., Artiga, S., (2022), 'COVID-19 cases and deaths by race/ethnicity: Current data and changes over time', *Kaiser Family Foundation*,

22nd February, available at: https://www.kff.org/coronavirus-covid-19/issue-brief/covid-19-cases-and-deaths-by-race-ethnicity-current-data-and-changes-over-time/#:~:text=In%20sum%2C%20these%20data%20show,across%20racial%20and%20ethnic%20groups (accessed 28th July, 2022).
9. Siegel, M., Critchfield-Jain, I., Boykin, M., Owens, A., Muratore, R., Nunn, T., Oh, J., (2021), 'Racial/ethnic disparities in state-level COVID-19 vaccination rates and their association with structural racism', *Journal of Racial and Ethnic Health Disparities*, 28th October, available at: https://link.springer.com/article/10.1007/s40615-021-01173-7 (accessed 28th July, 2022).
10. Wyatt, R., Laderman, M., Botwinick, L., Mate, K., Whittington, J., (2016), 'Achieving health equity: A guide for health care organizations', White Paper, Institute for Healthcare Improvement, available at: https://www.ihi.org/resources/Pages/IHIWhitePapers/Achieving-Health-Equity.aspx (accessed 28th July, 2022).
11. Institute of Medicine, (2001), 'Crossing the Quality Chasm: A New Health System for the 21st Century', National Academies Press, Washington, DC, available at: https://doi.org/10.17226/10027 (accessed 28th July, 2022).
12. Eldridge, N., Wang, Y., Metersky, M., *et al.*, (2022), 'Trends in adverse event rates in hospitalized patients, 2010-2019', *JAMA*, Vol. 328, No. 2, pp. 173–183, available at: https://jamanetwork.com/journals/jama/fullarticle/2794055 (accessed 28th July, 2022).
13. Prabhakaran, S., Richards, C. T., Kwon, S., *et al.*, (2020), 'A community-engaged stroke preparedness intervention in Chicago', *Journal of the American Heart Association*, Vol. 9, No. 18, available at: https://www.ahajournals.org/doi/epub/10.1161/JAHA.120.016344 (accessed 28th July, 2022).
14. Goodson, K., Washington, K.V., Olson-Lemer, K. A., Epting, G. J., (2018), 'Examining the relationship between high-performing person and family engagement hospitals and quality and safety performance', White Paper, Vizient (accessed 28th July, 2022).
15. Eldridge, Wang, Metersky, *et al.*, ref. 12 above.
16. Centers for Medicare and Medicaid Services. 'Person & Family Engagement Strategy: Sharing with our partners', available at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/Downloads/Person-and-Family-Engagement-Strategy-Summary.pdf (accessed 28th July, 2022).
17. Carman, K. L., Dardess, P., Maurer, M., Sofaer, S., Adams, K., Bechtel, C., Sweeney, J., (2013), 'Patient and family engagement: A framework for understanding the elements and developing interventions and policies', *Health Affairs*, Vol. 32, No. 2, pp. 223–231, available at: https://doi.org/10.1377/hlthaff.2012.1133 (accessed 1st August, 2022).
18. American Institutes for Research, (2017), 'PfP strategic vision roadmap for person and family engagement (PFE): Achieving the PFE metrics to improve patient safety and health equity', prepared for the Centers for Medicare and Medicaid Services, 19th October, available at: https://www.aha.org/sites/default/files/hiin/pfp-strategic-vision-roadmap.pdf (accessed 28th July, 2022).
19. Thompson, L., (2019), 'Person and Family Engagement (PFE) Metric Implementation: Progress, Impact, and Opportunities for Growth', Proceedings of 2019 CMS Quality Conference, 29th January, 2019, Washington, DC.
20. Centers for Medicare and Medicaid Services, (2022), 'Partnership for Patients', updated 19th May, 2022, available at: https://innovation.cms.gov/innovation-models/partnership-for-patients (accessed 28th July, 2022).
21. Agency for Healthcare Research and Quality, (2018), 'Saving lives and saving money: Hospital-acquired conditions update', updated January 2018, available at: https://www.ahrq.gov/hai/pfp/interimhacrate2014.html (accessed 28th July 2022).
22. *Ibid*.
23. Agency for Healthcare Research and Quality, (2020), 'AHRQ national scorecard on hospital-acquired conditions final results for 2014 through 2017', July, available at: https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/quality-patient-safety/pfp/Updated-hacreportFInal2017data.pdf (accessed 28th July, 2022).
24. *Ibid*.
25. Eldridge, Wang, Metersky, *et al.*, ref. 12 above.
26. Goodson, Washington, Olson-Lemer, Epting, ref. 14 above.
27. American Institutes for Research, ref. 18 above.
28. Institute for Patient- and Family-Centered Care, (2018), 'Strategically advancing patient and family advisory councils in New York state hospitals', prepared for the New York State Health Foundation, June, available at: https://nyhealthfoundation.org/wp-content/uploads/2018/06/strategically-advancing-patient-and-family-advisory-councils.pdf (accessed 28th July, 2022).
29. Transforming Clinical Practices Initiative, (n.d.), 'Change package in action', available at: https://innovation.cms.gov/files/x/tcpi-changepkg.pdf (accessed 1st August, 2022).
30. Agency for Healthcare Research and Quality, (2021), '2021 National healthcare quality and disparities report', updated January 2022, available at: https://www.ahrq.gov/research/findings/nhqrdr/nhqdr21/index.html (accessed 28th July, 2022).
31. Office of Minority Health, (2013), 'National standards for culturally and linguistically appropriate services in health and health care: A blueprint for advancing and sustaining CLAS policy and practice', US Department of Health and Human Services, April, available at: https://thinkculturalhealth.hhs.gov/assets/pdfs/EnhancedCLASStandardsBlueprint.pdf (accessed 28th July, 2022).
32. American Institutes for Research, (2017), 'How person and family engagement can help hospitals achieve equity in health care quality and safety: A supplemental resource for hospital improvement innovation networks', prepared for Centers for Medicare and Medicaid Services,.

33. Ansell, D. A., Oliver-Hightower, D., Goodman, L. J., Lateef, O. B., Johnson, T. J. L., (2021), 'Health equity as a system strategy: The Rush University Medical Center framework', *NEJM Catalyst Innovations in Care Delivery*, 21st April, available at: https://doi.org/10.1056/CAT.20.0674 (accessed 29th July, 2022).
34. University of Chicago Medicine, (n.d.), 'Office of community engagement and cancer health equity', available at: https://www.uchicagomedicine.org/cancer/education-outreach/community/community-engagement-cancer-health-equity (accessed 1st August, 2022).
35. University of Chicago Medicine, (2021), 'At the forefront of health equity: 2021 community benefit report', available at: https://www.uchicagomedicine.org/-/media/pdfs/adult-pdfs/community/community%20benefit%20report/community-benefit-report-brochure-2021 (accessed 1st August, 2022).
36. Atrium Health News, (2021), 'Atrium Health recognized nationally for commitment to health equity', 28th July, available at: https://atriumhealth.org/about-us/newsroom/news/2021/07/atrium-health-recognized-nationally-for-commitment-to-health-equity (accessed 29th July, 2022).
37. Atrium Health News, (2021), 'Atrium Health launches "Community Immunity for All" collaborative to vaccinate underserved communities', 21st January, available at: https://atriumhealth.org/about-us/newsroom/news/2021/01/atrium-health-launches-community-immunity-for-all-collaborative-to-vaccinate-underserved-communities (accessed 29th July, 2022).
38. Prabhakaran, Richards, Kwon, *et al.*, ref. 13 above.
39. Washington, K., (n.d.), '2CEERIAS — Phase II of Community Engagement for Early Stroke Recognition and Immediate Action in Stroke (CEERIAS) in the COVID-19 environment', Engagement award final summary report, available at: https://www.pcori.org/sites/default/files/EA-Washington055-Final-Summary-Report.pdf (accessed 29th July, 2022).
40. Goodson, K., Hatlie, M. J., Nahum, A., (2018), 'Person and family engagement-integrated quality and safety change package', White paper, Vizient
41. American Institutes for Research, ref. 18 above.
42. American Institutes for Research, ref. 32 above.
43. Institute for Patient- and Family-Centered Care, ref. 28 above.
44. Carman, K. L., Dardess, P., Maurer, M. E., Workman, T., Ganachari, D., Pathak-Sen, E., (2014), 'A roadmap for patient and family engagement in healthcare practice and research', prepared by the American Institutes for Research under a grant from the Gordon and Betty Moore Foundation, September, available at: https://www.air.org/sites/default/files/Roadmap-Patient-Family-Engagement.pdf (accessed 8th November, 2022).
45. Patient-Centered Outcomes Research Institute, (2015), 'PCORI Engagement Rubric', 12th October, available at: https://www.pcori.org/sites/default/files/Engagement-Rubric.pdf (accessed 8th November, 2022).
46. Goodson, Hatlie, Nahum, ref. 40 above.
47. American Institutes for Research, ref. 18 above.
48. Institute for Patient- and Family-Centered Care, ref. 28 above.
49. American Institutes for Research, ref. 32 above.
50. *Ibid*.
51. Goodson, Hatlie, Nahum, ref. 40 above.
52. *Ibid*.
53. American Hospital Association, (n.d.), 'PFACs supporting hospitals through COVID-19', Advancing Health Podcast, available at https://www.aha.org/advancing-health-podcast/2021-12-09-pfacs-supporting-hospitals-through-covid-19 (accessed 29th July, 2022).
54. American Institutes for Research, ref. 18 above.
55. National Quality Forum, (2020), 'NQP action team to co-design patient-centered health systems', National Quality Partners issue brief, July, available at: https://www.qualityforum.org/NQP_Action_Team_to_Co-Design_Patient-Centered_Health_Systems.aspx (accessed 29th July, 2022).
56. Washington, K.V., Schultz, E., Bradley, D., Durrah, H., Frazier, K., (n.d.), 'Theory of change for an equitable patient-centered measurement ecosystem that supports an advanced healthcare system', White paper, ATW Health Solutions, available at: https://static1.squarespace.com/static/5f4968d8810e964cd67aa832/t/60ede2cfe7c05a53525750cf/1626202979695/ATW+Health+Solutions+Equity+and+Patient+Centered+Measurement (accessed 29th July, 2022).
57. American Institutes for Research, ref. 32 above.
58. Thomas, A., Krevat, S., Ratwani, R., (2022), 'Policy changes to address racial/ethnic inequities in patient safety', *Health Affairs Forefront,* 25th February, available at: https://www.healthaffairs.org/do/10.1377/forefront.20220222.128111 (accessed 29th July, 2022).
59. Washington, Schultz, Bradley, Durrah, Frazier, ref. 56 above.
60. Rainmakers Strategic Solutions, (2022), 'Person and family engagement toolkit: A guide for measure developers', prepared for Centers for Medicare and Medicaid Services, April, available at: https://mmshub.cms.gov/sites/default/files/Guide-PFE-Toolkit.pdf (accessed 29th July, 2022).
61. Patient-Centered Outcomes Research Institute, (2018), 'The value of engagement: Engagement in research', updated 30th October, available at: https://www.pcori.org/engagement/value-engagement (accessed 29th July, 2022).
62. Weick, K. E., Sutcliffe, K. M., (2015), 'Managing the Unexpected: Sustained Performance in a Complex World', 3rd ed., 2nd September, John Wiley & Sons, Hoboken, NJ
63. Chassin, M. R., Loeb, J. M., (2011), 'The ongoing quality improvement journey: Next stop, high reliability', *Health Affairs*, Vol. 30, No. 4, pp. 559–568, available at: https://pubmed.ncbi.nlm.nih.gov/21471473/ (accessed 16th November, 2022).