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How To Build Sustainability Into the Innovation Process

By Tamra E. Minnier, RN, MSN, FACHE; Chief Quality Officer, University of Pittsburgh Medical Center; Member, Innovations Exchange Editorial Board

Sustainability is a crucial consideration when planning and implementing health care innovations, because without sustainability we will find ourselves solving the same problems over and over again. Quality improvement in health care is a relatively young discipline, and during the field's early development, we really didn't understand what it meant to sustain an innovation. Early efforts focused on persuading individual health care professionals to improve their personal performance. There was excitement about moving beyond punitive responses to poor performance, and about providing in-service training aimed at improving the quality of care and achieving better patient outcomes. It soon became clear, however, that individual diligence had to be combined with excellent systems for supporting quality improvement, and with methods for evaluating performance that would not be unduly burdensome.

The health care industry is still in its infancy in terms of understanding how to develop quality improvement systems that are sustainable. A key challenge is to dispel the notion that sustainability can be addressed adequately after implementing an innovation. We have learned that planning for sustainability is inseparable from the process of designing, testing, and implementing a solution. By building sustainability into the implementation process, we help ensure that a quality improvement project will achieve its goals over the long term. A sustainable innovation will take root and have an enduring impact, even after the initiative is no longer receiving special attention and extra resources.

Consider, for example, the problem of inadequate hand hygiene. As in many other health care organizations, our initial efforts at the University of Pittsburgh Medical Center focused on educating clinicians about the evidence that good hand hygiene would decrease the risk of health care–associated infections. We put up signs, we had infection control nurses educate clinicians about the importance of good hand hygiene, and we assigned a nurse to do random audits of hand-washing compliance. These efforts resulted in marginal, short-term improvements. So we took a step back and asked why the initiative didn't work. We saw that we needed to address a wider set of factors, such as getting the president of each hospital engaged in the effort and talking about it in critical forums. Also, it was not effective to have just one recognizable person doing the auditing, so we swapped auditors between hospitals and thereby obtained better data. In addition, we looked for practical ways to support behavior change, such as reliably refilling alcohol dispensers, stocking gloves in various sizes, and giving nurses a place to set down their clipboards while washing their hands before entering a patient's room. This comprehensive approach led to long-lasting improvements in hand hygiene.

Based on such experiences, my colleagues and I developed an educational program that helps selected staff develop the knowledge and tools required to plan and implement a quality improvement project that will yield lasting results.[1] A key aspect of this "Quality Improvement 101" curriculum is its focus on how to achieve sustainable change, i.e., to "hold the gains" achieved by an initiative. What follows is a summary of the factors that contribute to an innovation's sustainability, organized under the three main categories of staff, organization, and process.

Staff

- **Engagement.** Keep in mind that sustainable changes are not imposed but are done with staff involvement. When designing the change, encourage staff to express their ideas, and include their input in the plan. From the ideas generated and other observations, conduct small-scale tests of change to fine-tune

  the innovation and encourage a sense of staff ownership. Based on the test results, allow staff to determine whether the change is truly an improvement over the current approach. Be sure to share the test results, promote success stories, and offer recognition to staff members who contribute to success.
- **Education.** An innovation may require substantial staff education and implementation support to ensure that those involved understand what is required to achieve success. Training should be an iterative process rather than a "once and done" exercise. In addition to identifying and addressing gaps in knowledge and skill, be sure to consider behavioral and cultural factors that could lead to resistance to change. Education may involve a variety of learning opportunities, including regular staff meetings, competency checks, online collaboration tools, and internal newsletters.
- **Leadership.** Obtaining support from one or more local leaders is a critical factor for ensuring that an innovation will be successful and sustainable. An executive sponsor or physician champion helps build commitment to achieve the defined goal, inspires participants to get involved, and allows frontline personnel to dedicate the time needed to create, monitor, and improve care processes. Leaders can approve the hiring of new staff, secure the funding required to fully implement the innovation, lend support for accountability systems that promote change, and promote public recognition of the organization's successes. Finally, leaders can develop a succession plan that specifies who will continue the innovation effort in the future.

Organization

- **Infrastructure.** Look for opportunities to implement structures, technologies, and environmental factors that can "hardwire" the change by making it difficult or impossible to revert to the old way of doing things. Seek to identify and change unsuitable reward systems or other organizational barriers that may undermine the innovation. Develop policies and procedures that support the new way of working, build new requirements into job descriptions, put communication systems in place for sustaining the improved process, and make sure your organization has enough trained staff, facilities, and equipment to support the new process.
- **Culture.** Any effort to implement change in a sustainable way needs to be based on an understanding of the values embedded in various organizational cultures, such as those that are specific to corporate leadership, business units, and clinical departments. When considering whether an innovation fits in with the organization's overall culture, ask whether the improvement goals are clear, contribute to overall aims, and are shared across all levels. Here again, organizational leadership plays an important role by offering support for a "can do" culture that values positive change. Finally, individual employees play a crucial role in health care improvement by participating in change, resisting it, or simply ignoring it. It is important to involve key staff who willingly embrace change, strive for success, and support continuous improvement.

Process

- **Adaptability.** An organization's ability to adapt complex processes is an important factor in the success of an innovation. Adaptation that supports innovation may involve changes in overall organizational growth or changes in collateral processes. Above all, it is essential to understand the workflow of the problem that you are trying to solve and then to build the solution into the workflow. Quality improvement efforts often involve asking staff to add extra steps to a process, walk to a different location to obtain supplies, or do something else that is not part of normal workflow. It is crucial to provide compelling reasons for such changes and to incorporate them into workflows in a way that will support the innovation.
- **Measurement.** Collecting quality improvement data is just as important as taking vital signs in terms of contributing to better patient care. After implementing an innovation, constant vigilance is crucial, because although the intensity of the intervention may be gradually reduced, it is essential to maintain ongoing assessment of the results. By continually reviewing performance data, you can respond promptly to trends that point to suboptimal performance, and, if necessary, reevaluate the processes involved in the innovation. Be sure to review the data regularly with key stakeholders, including project sponsors and the frontline staff who do the work.
- **Value.** Successful innovation hinges on knowing precisely how the change will benefit your organization, and an innovation becomes sustainable only when it creates value for users. In defining why the innovation will matter to users, it is not sufficient to simply point to objective evidence showing the value of the innovation. It's important to consider exactly how staff perceive the innovation as better and to define its relative advantage in comparison with the previous approach. You can explore the impact of the change by encouraging staff to ask themselves, "How will my workday be different?" "What will I be able to stop doing?" and "What else can I devote time and attention to that I couldn't before?"

Sustainable innovation requires attention to all of these factors, because if one of them is not adequately addressed, a quality improvement effort may achieve only short-term gains. The importance of addressing sustainability in a comprehensive way—and doing so early in the innovation process—is illustrated by our recent effort at the University of Pittsburgh Medical Center to implement a new clinical pathway for patients undergoing hip replacement and knee replacement. We knew that we needed to hardwire the process in a way that would fit into the physician's workflow and approach to writing orders. After documenting the evidence about what would benefit patients and developing the clinical content, we set out to develop an easy-to-use electronic tool and to do so in a way that would address all of the key factors for sustainability. We started with strong leadership, considered the organizational culture, addressed potential barriers, examined the relevant work process, worked with physicians to refine the tool and embed it into clinical workflow, and selected effective measurement and evaluation methods. We have had nearly 100-percent compliance with the pathway. By following a comprehensive approach to innovation, we were able to launch the tool with confidence that physicians would embrace it at the outset and would continue using it over the long term for the benefit of patients.

About Tamra Minnier, RN, MSN, FACHE

Tamra E. Minnier is Chief Quality Officer for the University of Pittsburgh Medical Center (UPMC), an integrated delivery and financing system in Pittsburgh, PA. Quality and safety are driven by the Donald D. Wolff, Jr. Center for Quality, Safety, and Innovation at UPMC. She also is Executive Director of the Beckwith Institute, a foundation supporting innovation in care delivery and shared decisionmaking. Ms. Minnier is a fellow in the American College of Healthcare Executives. She is a board member of Joint Commission International (the international division of Joint Commission Resources), where she chairs the Human Resources and Compensation Committee and is a member of the Executive Committee. A nationally known speaker, Ms. Minnier has been published in *Newsweek*, *Journal of Nursing Administration*, *Modern Health Care, Healthcare Leaders*, Sigma Theta Tau's *Reflections on Nursing Leadership*, and many other journals.

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Footnotes

[1] Brownlee K, Minnier TE, Martin SC, et al. A paradigm shift toward systemwide quality improvement education: meeting the needs of a rapidly changing health care environment. Qual Manag Health Care. 2013;22(1):25-35. [PubMed]

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