

# Systems thinking and leadership

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In a system as complex as health care, 'systems' thinking allows the whole system and the relationships of the parts to be considered rather than just isolated functions. Health care is a shared resource with many interdependencies; for surgery these include anaesthesia, critical care, nursing and other specialties we work with to manage comorbid patients. If quality problems exist primarily because of systems problems, solutions are more likely in systems where relationships and integration are considered important and where emphasis is placed on HF such as communication, team building, conflict management, process management and education. Systems work best when there is a non-punitive culture and when they have leaders who understand the complexity of systems and foster a culture of continuous quality improvement. Those leaders should be visible at the front line and be champions of a supportive practice environment. Improvement in the quality of care does not occur by chance and a programme team, armed with just organisational and graphical tools, will not succeed in producing sustainable change. True change can only happen when supported and driven by front-line staff. The underlying, central and agreed principles must include the creation of value for the patient, a constancy of purpose and systems thinking. These should be enabled by the intentional actions of trained staff supported by humble leadership and respect for individuals. Such a culture and a sustained commitment of time, patience and resources. Health care as a sector has been slow to recognise the important contribution that the theory and practice of quality improvement are able to make in delivering better value care. The experience of a relatively small number of care organisations that have successfully done so, such as the Virginia Mason Medical Centre in Seattle, WA, is a challenge to others to invest in acquiring the necessary skills and capabilities. A recent report by the Academy of the Medical Royal Colleges of UK and Ireland (2016) has argued that quality improvement should be at the heart of medical training and that there is a pressing need to develop quality improvement learning across the continuum of medical education. Understanding how health systems can be improved and how evidence-based practice can be implemented in complex healthcare settings are important skills for surgeons to master. Summary box 15.5 Understanding quality improvement and its application in health care /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF /uni25CF Ham C, Berwick D, Dixon J. Improving quality in the English NHS – a strategy for action. The Kings Fund, 2016. Available from <http://www.kingsfund.org.uk/publications/quality-improvement> Hollnagel E, Wears RL, Braithwaite J. From Safety-I to Safety-II: A health - White Paper . The Resilient Health Care Net, 2015. Available from <https://www.england.nhs.uk/signuptosafety/wp-content/uploads/sites/16/2015/10/safety-1-safety-2-white-papr.pdf> Institute of Medicine. Crossing the quality chasm: a new health system for - the 21st century. Washington, DC: National Academies Press, 2001. Jones B, Vaux E, Olsson-Brown A. How to get started in quality improvement. BMJ 2019; 364 : k5408. - Kohn LT , Corrigan JM,

Donaldson MS (eds). *To err is human – building a safer health system*. Washington, DC: National Academies Press, 2000: 312. Langley GL, Moen R, Nolan KM et al. *The improvement guide: a practical approach to enhancing organizational performance*, 2nd edn. San Francisco: Jossey-Bass Publishers, 2009. National Advisory Group on the Safety of Patients in England. *A promise to learn – a commitment to act. Improving the safety of patients in England*. National Advisory Group on the Safety of Patients in England, 2013. Available from [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/226703/Berwick\\_Report.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/226703/Berwick_Report.pdf) NHS Scotland. Quality improvement hub. Available from <https://ihub.scot/improvement-resources> (accessed 2 September 2021). Slawomirski L, Auraaen A, Klazinga N. *The economics of patient safety: strengthening a value-based approach to reducing patient harm at national level*. OECD, 2017. Available from <https://www.oecd.org/els/health-systems/The-economics-of-patient-safety-March-2017.pdf> Thaler R, Sunstein C. *Nudge: improving decisions about health, wealth, and happiness*. New Haven, CT: Yale University Press, 2008.

The definition of quality improvement and its relationship to clinical audit  
The different kinds of quality measures  
The patient's surgical journey and its potential for improvement  
Examples of quality improvement pathways, organisational methodologies and tools  
What systems thinking is and its importance alongside leadership  
The requirement for more education and training in quality improvement

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