



## On the Radar

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### On the Radar

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### Reports

*Assessing the value of accreditation to health service organisations*  
Deeble Institute Evidence Brief No. 18  
Swiers R, Haddock R  
Canberra: Australian Healthcare and Hospitals Association; 2019. p. 20.

URL	<a href="https://ahha.asn.au/publication/health-policy-evidence-briefs/evidence-brief-no-18-assessing-value-accreditation-health">https://ahha.asn.au/publication/health-policy-evidence-briefs/evidence-brief-no-18-assessing-value-accreditation-health</a>
Notes	<p>This latest evidence brief from the Deeble Institute for Health Policy Research, Australian Healthcare and Hospitals Association examines the value and impact of accreditation in health care. This brief was developed at the Deeble Institute with the Australian Council on Healthcare Standards (ACHS) who are one of Australia's larger accreditation providers. This brief sought to assesses the value of accreditation to health service organisations against the health care quadruple aims of:</p> <ul style="list-style-type: none"> <li>• Improving the patient experience of care (including quality and satisfaction)</li> <li>• Improving the health of populations</li> <li>• Reducing the per capita cost of health care</li> <li>• Meaning in work</li> </ul> <p>The brief's authors advocate a research-based approach to developing a common narrative on what constitutes value, so that value relating to interventions such as accreditation can be more appropriately assessed.</p>

*Untapped potential: Investing in health and care data analytics*

Bardsley M, Steventon A, Fothergill G

London: The Health Foundation; 2019. p. 30.

URL	<a href="https://www.health.org.uk/publications/reports/untapped-potential-investing-in-health-and-care-data-analytics">https://www.health.org.uk/publications/reports/untapped-potential-investing-in-health-and-care-data-analytics</a>
Notes	<p>The Health Foundation in the UK has released this report that calls for more investment and more use of the vast amounts of data that are created by health systems. This report notes that it has been estimated that <b>30% of the entire world's stored data is generated in health care systems</b>. The report focuses on how we might better access and use that information in a learning health system that provides better health care. The report highlights nine key reasons why there should be more investment in analytical capability.</p> <ul style="list-style-type: none"> <li>• Clinicians can use the insights generated by skilled analysts to improve diagnosis and disease management.</li> <li>• National and local leaders can evaluate innovations and new models of care to find out if expected changes and benefits were realised.</li> <li>• Board members of organisations and systems can use analysis to inform changes to service delivery in complex organisations and care systems.</li> <li>• Local leaders can improve the way they manage, monitor and improve care quality day-to-day.</li> <li>• Senior decision makers can better measure and evaluate improvements and respond effectively to national incentives and regulation.</li> <li>• Managers can make complex decisions about allocating limited resources and setting priorities for care.</li> <li>• Local leaders will gain a better understanding of how patients flow through the system.</li> <li>• New digital tools can be developed and new data interpreted so clinicians and managers can better collaborate and use their insights to improve care.</li> <li>• Patients and the public will be able to better use and understand health care data.</li> </ul>

## Journal articles

*Machine Learning in Medicine*

Rajkomar A, Dean J, Kohane I

New England Journal of Medicine. 2019;380(14):1347-58.

DOI	<a href="https://doi.org/10.1056/NEJMra1814259">https://doi.org/10.1056/NEJMra1814259</a>
Notes	<p>Recent issues of <i>On the Radar</i> have had a number of items on artificial intelligence (AI) and machine learning. This review article in the <i>New England Journal of Medicine</i> seeks to provide an explanation of the state of machine learning in healthcare, its potential, how it could aid clinicians (and patients) with diagnosis, prognosis, treatment, etc., and the challenges the need to be negotiated. Behind the possible success of this approach is the value of big data that is then used by ‘deep learning’ guided by learning systems alert to bias with appropriate regulation, oversight and safe use.</p> <p>These arguments are likely to grow in coming years. For example, the current issue of <i>JAMA Internal Medicine</i> contains ‘Artificial Intelligence Algorithms for Medical Prediction Should Be Nonproprietary and Readily Available’ (<a href="https://doi.org/10.1001/jamainternmed.2019.0597">https://doi.org/10.1001/jamainternmed.2019.0597</a>), the Boston Consulting Group has published ‘Chasing Value as AI Transforms Health Care’</p>

	( <a href="https://www.bcg.com/en-au/publications/2019/chasing-value-as-ai-transforms-health-care.aspx">https://www.bcg.com/en-au/publications/2019/chasing-value-as-ai-transforms-health-care.aspx</a> ), and Digital Health Canada has posted the blog post 'Seven Emerging Themes in Digital Health for 2019' ( <a href="https://digitalhealthcanada.com/all-blog-posts/seven-emerging-themes-in-digital-health-for-2019/">https://digitalhealthcanada.com/all-blog-posts/seven-emerging-themes-in-digital-health-for-2019/</a> )
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*Reducing surgical mortality in Scotland by use of the WHO Surgical Safety Checklist*

Ramsay G, Haynes AB, Lipsitz SR, Solsky I, Leitch J, Gawande AA, et al

British Journal of Surgery. 2019 [epub].

DOI	<a href="http://doi.org/10.1002/bjs.11151">http://doi.org/10.1002/bjs.11151</a>
Notes	Much store has been set on checklists to improve the safety and quality of health care. This paper reinforces this with an analysis of the impact of the WHO Surgical Safety Checklist in Scotland. This paper reports on an interrupted time-series study of surgical mortality before, during, and after implementation of the checklist. The study covered all admissions to any acute hospital in Scotland between 2000 and 2014, i.e. more than 12 million hospital admissions, including nearly 7 million surgical procedures. The authors report that the rate of <b>surgical mortality declined more during checklist introduction than it had before or after implementation</b> , and that hospital mortality did not decline among nonsurgical patients during the same time interval. In 2000 the inpatient mortality in the surgical cohort was 0.76 per cent, and in 2014 it was 0.46 per cent, and the checklist was associated with a 36.6 (95 per cent c.i. -55.2 to -17.9) per cent relative reduction in mortality (P < 0.001).

*A Culture Of Openness Is Associated With Lower Mortality Rates*

Toffolutti V, Stuckler D

Health Affairs. 2019;38(5):844-50.

DOI	<a href="https://doi.org/10.1377/hlthaff.2018.05303">https://doi.org/10.1377/hlthaff.2018.05303</a>
Notes	Following a recent item that seemed to cast doubt on the importance of just culture comes this paper suggesting that an 'open culture' was associated with lower mortality. The study used data from 137 English acute trusts (or hospital systems) that were then analysed using multivariate regression models to test whether mortality rates, taken from the Summary Hospital-level Mortality Indicator, were lower in hospitals that had higher levels of openness among staff members, a measure derived from the NHS National Staff Survey. The authors found that <b>'a one-point increase in the standardized openness score was associated with a 6.48 percent reduction in hospital mortality rates'</b> . The authors argue that these findings 'offer empirical evidence to support further efforts to increase openness in the English hospital system, since doing so has improved health care quality.' Health is notoriously multi-factorial and complex and showing unequivocal causality and not just association is nigh on impossible.

*Qualified privilege legislation to support clinician quality assurance: balancing professional and public interests*

Ahern S, Hopper I, Loh E

Medical Journal of Australia. 2019;210(8):343-6.

DOI	<a href="https://doi.org/10.5694/mja2.50124">https://doi.org/10.5694/mja2.50124</a>
Notes	A thoughtful review of the protections under law that are provided to quality assurance activities such as surgical morbidity audits. The authors reflect on differences between UK and Australian law in the wake of the Bawa-Garba case which led to Dr Bawa-Garba being struck off the medical register. Dr Bawa-Garba's journal reflections following the death of a 6 year old boy from septic shock were part of her professional requirements and while not used in court, generated much concern regarding this practice.

	The authors conclude that there needs to be a <b>balance between qualified privilege and transparency regarding performance</b> which may be in the public interest. ‘The role of qualified privilege at all levels warrants review, particularly for national quality assurance and improvement activities. In particular, there should be an opportunity to consider whether the bodies that auspice large quality improvement activities should have the ability to report or disclose information relating to clinician performance of substantial concern.’
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*Value based competition in health care’s ethical drawbacks and the need for a values-driven approach*

Groenewoud AS, Westert GP, Kremer JAM

BMC Health Services Research. 2019;19(1):256.

DOI	<a href="https://doi.org/10.1186/s12913-019-4081-6">https://doi.org/10.1186/s12913-019-4081-6</a>
Notes	<p>With the debate around value (variously defined, including cost-effectiveness, appropriateness and what matters to a patient) there has attention to the <b>Value Based competition in Health Care</b> (VBHC) thinking. This piece reflects on the lack of ethics and ethical evaluation of the approach. The authors consider that ‘how a single-minded focus on VBHC may cause serious infringements upon at least four medical ethical principles:</p> <ol style="list-style-type: none"> <li>1. it tends to neglect patients’ personal values;</li> <li>2. it ignores the intrinsic value of the caring act;</li> <li>3. it disproportionately replaces trust in professionals with accountability, and</li> <li>4. it undermines solidarity.’</li> </ol> <p>From this, they proceed to call for a ‘<b>Values-Driven Health Care</b>’ (VDHC) approach that</p> <ol style="list-style-type: none"> <li>a) takes <b>patients’ personal values</b> as prescriptive and guiding;</li> <li>b) holds a value account that encompasses <b>health care’s intrinsic (gift) values</b>;</li> <li>c) is based upon <b>intelligent accountability</b> that supports trust in trustworthy professionals, and</li> <li>d) encourages <b>patients to raise their voices</b> for the shared good of health care.’</li> </ol>

*Quality improvement in surgery: introduction of the American College of Surgeons National Surgical Quality Improvement Program into New South Wales*

Richardson AJ, Cox MR, Shakeshaft AJ, Hodge B, Morgan G, Pang T, et al

ANZ Journal of Surgery. 2019;89(5):471-5.

DOI	<a href="https://doi.org/10.1111/ans.15117">https://doi.org/10.1111/ans.15117</a>
Notes	<p>Paper reporting on the (small scale) introduction of the American College of Surgeons (ACS) National Surgical Quality Improvement Program (NSQIP) in a collaborative formed by four hospitals in New South Wales. The collaborative collated ‘<b>reliable clinical data</b>’ for analysis and developed <b>risk-adjusted reports</b> that were <b>returned to the hospitals</b>. The reports identified that the NSW Collaborative were outliers for the following causes of morbidity: urinary tract infections, surgical site infections, pneumonia and 30-day readmissions. The authors report that now that it has been demonstrated the NSQIP can be adapted to the Australian context there is a plan to o ‘expand the programme to 25 hospitals in NSW over the next 2 years that would capture more than 75% of the surgical activity in NSW public hospitals.’</p> <p>This sort of feedback and quality improvement activity using reliable clinical data and feeding back to clinicians, facilities and the ‘system’, including patients, is similar to that envisaged for (and exemplified by some) clinical quality registries. In studying <b>outliers</b> it is also worth bearing in mind that <b>positive outliers</b> can be worth learning from and not solely looking for lesser performance.</p>

*Can we import improvements from industry to healthcare?*

Macrae C, Stewart K

BMJ. 2019;364:l1039.

DOI	<a href="https://doi.org/10.1136/bmj.l1039">https://doi.org/10.1136/bmj.l1039</a>
Notes	<p>Exhortations for healthcare to improve by drawing on other industries (with the airline and nuclear power often cited) are not uncommon. This piece is a mild corrective to some of those enthusiasms, noting that ‘Recounting oversimplified improvement examples from other industries (often aviation) can provoke considerable frustration and scepticism among clinicians exposed to the unique challenges and everyday complexities of trying to improve healthcare. Patients are not aeroplanes, and hospitals are not production lines.’ But, as the authors observes ‘many successful efforts to improve the quality and safety of healthcare have taken inspiration from other industries’ and the article reviews some of these successes.</p> <p>Some of the key points include:</p> <ul style="list-style-type: none"><li>• need for a sophisticated understanding of the contextual, practical, and structural differences (and similarities) between settings.</li><li>• need to pay close attention to the cultural and organisational arrangements that support the particular improvement intervention</li><li>• need to be based on a process of careful adaptation and intelligent reinvention, not simply importing and applying a readymade tool.</li><li>• the importance of having appropriate organisational systems, resources, and culture in place to support the systematic application of improvement methods.</li></ul>

*Advances in stroke medicine*

Campbell BCV

Medical Journal of Australia. 2019;210(8):367-74.

DOI	<a href="https://doi.org/10.5694/mja2.50137">https://doi.org/10.5694/mja2.50137</a>
Notes	<p>Reperfusion therapies in stroke have revolutionised care of stroke and can drastically change the outcomes of disease. The author discusses the <b>evidence and benefits of thrombolysis</b> and the more recent development of <b>thrombectomy</b>. The system’s ability to achieve the highly co-ordinated care required to achieve optimal timely and life-saving outcomes continue to lag behind the opportunities.</p>

*Health Affairs*

Volume: 38, Number: 5 (May 2019)

URL	<a href="https://www.healthaffairs.org/toc/hlthaff/38/5">https://www.healthaffairs.org/toc/hlthaff/38/5</a>
Notes	<p>A new issue of <i>Health Affairs</i> has been published with the themes ‘Social Determinants, Children &amp; More’. Articles in this issue of <i>Health Affairs</i> include:</p> <ul style="list-style-type: none"><li>• <b>Preventing Sepsis</b> By Reimagining Systems And Engaging Patients(Charlotte Huff)</li><li>• <b>The Culture Of Health In Early Care And Education:</b> Workers’ Wages, Health, And Job Characteristics (Jennifer J Otten, Victoria A Bradford, Bert Stover, Heather D Hill, Cynthia Osborne, Katherine Getts, and Noah Seixas)</li><li>• <b>Infants Exposed To Homelessness:</b> Health, Health Care Use, And Health Spending From Birth To Age Six (Robin E Clark, Linda Weinreb, Julie M Flahive, and Robert W Seifert)</li><li>• <b>Family Resilience And Connection Promote Flourishing Among US Children,</b> Even Amid Adversity (Christina D Bethell, Narangerel Gombojav, and Robert C Whitaker)</li></ul>

- **Uncertainty About DACA** May Undermine Its Positive Impact On Health For Recipients And Their Children (Caitlin Patler, Erin Hamilton, Kelsey Meagher, and Robin Savinar)
- New Evidence Of The **Nexus Between Neighborhood Violence, Perceptions Of Danger, And Child Health** (Dylan B Jackson, Chad Posick, and Michael G Vaughn)
- Twenty Years Of **School-Based Health Care** Growth And Expansion (Hayley E Love, John Schlitt, Samira Soleimanpour, N Panchal, and C Behr)
- **Loss Of SNAP** Is Associated With Food Insecurity And Poor Health In Working Families With Young Children (Stephanie Ettinger de Cuba, Mariana Chilton, Allison Bovell-Ammon, Molly Knowles, Sharon M Coleman, M M Black, J T Cook, D B Cutts, P H Casey, T C Heeren, and D A Frank)
- Medicaid **Investments To Address Social Needs** In Oregon And California (Hugh Alderwick, Carlyn M Hood-Ronick, and Laura M Gottlieb)
- Limited **Medigap Consumer Protections** Are Associated With Higher Reenrollment In Medicare Advantage Plans (David J Meyers, Amal N Trivedi, and Vincent Mor)
- Why Do Accountable Care Organizations Leave The **Medicare Shared Savings Program?** (William K Bleser, Robert S Saunders, David B Muhlestein, and Mark McClellan)
- Using External Reference Pricing In Medicare Part D To Reduce **Drug Price Differentials** With Other Countries (So-Yeon Kang, Michael J DiStefano, Mariana P Socal, and Gerard F Anderson)
- An Insurer's Program To Incentivize **Generic Oncology Drugs** Did Not Alter Treatment Patterns Or Spending On Care (Laura Yasaitis, Atul Gupta, Craig Newcomb, Era Kim, Lee Newcomer, and Justin Bekelman)
- **Zero-Premium Health Insurance** Plans Became More Prevalent In Federal Marketplaces In 2018 (Douglas Keith Branham and Thomas DeLeire)
- **Insurance-Based Disparities In Access, Utilization, And Financial Strain** For Adults With Psychological Distress (Ryan M McKenna, Jessie Kemmick Pintor, and Mir M Ali)
- **China's Health Expenditure** Projections To 2035: Future Trajectory And The Estimated Impact Of Reforms (Tiemin Zhai, John Goss, Tania Dmytraczenko, Yuhui Zhang, Jinjing Li, and Peipei Chai)
- A **Culture Of Openness Is Associated With Lower Mortality Rates** Among 137 English National Health Service Acute Trusts (Veronica Toffolutti and David Stuckler)
- The Forgotten Middle: Many **Middle-Income Seniors** Will Have **Insufficient Resources** For Housing And Health Care (Caroline F Pearson, Charlene C Quinn, S Loganathan, A R Datta, B B Mace, and D C Grabowski)
- What Can Be Done To Better Support Older Adults To **Age Successfully In Their Homes And Communities?** (Christopher Herbert and J H Molinsky)
- Challenges For **Middle-Income Elders In An Aging Society** (John W Rowe and The Research Network on an Aging Society)
- **Recognizing Trauma In The Healer** (Mary C Vance)

URL	<a href="https://www.longwoods.com/publications/nursing-leadership/25810/1/vol.-32-special-issue">https://www.longwoods.com/publications/nursing-leadership/25810/1/vol.-32-special-issue</a>
Notes	<p>A special issue of <i>Nursing Leadership</i> has been published with the theme ‘Nursing in a Digital Hospital’. Articles in this issue of <i>Nursing Leadership</i> include:</p> <ul style="list-style-type: none"> <li>• <b>Nursing Leadership in the Fully Digital Practice Realm</b> (V Burkoski)</li> <li>• <b>Transforming Nursing Practice through Digitalization</b> (Sandra DeLuca)</li> <li>• <b>Closed-Loop Medication System: Leveraging Technology to Elevate Safety</b> (Vanessa Burkoski, Jennifer Yoon, Shirley Solomon, Trevor N T Hall, Albert B Karas, Scott R Jarrett and Barbara E Collins)</li> <li>• <b>Smartphone Technology: Enabling Prioritization of Patient Needs</b> and Enhancing the Nurse-Patient Relationship (Vanessa Burkoski, Jennifer Yoon, Derek Hutchinson, Kevin Fernandes, S Solomon, B E Collins and S R Jarrett)</li> <li>• <b>Patient Empowerment and Nursing Clinical Workflows Enhanced by Integrated Bedside Terminals</b> (Vanessa Burkoski, Jennifer Yoon, Derek Hutchinson, T N T Hall, S Solomon, S Gelmi, K Fernandes and B E Collins)</li> <li>• <b>Violence Prevention: Technology-Enabled Therapeutic Intervention</b> (Vanessa Burkoski, Nataly Farshait, Jennifer Yoon, Peter V Clancy, Kevin Fernandes, Micheal R Howell, Shirley Solomon, M E Orrico and B E Collins)</li> <li>• <b>Experiences of Nurses Working in a Fully Digital Hospital: A Phenomenological Study</b> (Vanessa Burkoski, Jennifer Yoon, Derek Hutchinson, Shirley Solomon and Barbara E Collins)</li> <li>• <b>Generational Differences in Hospital Technology Adoption: A Cross-Sectional Study</b> (Vanessa Burkoski, Jennifer Yoon, Derek Hutchinson, Trevor N T Hall, Shirley Solomon and Barbara E Collins)</li> <li>• <b>Optimizing Nursing Practice through Integration of Best Practice Guidelines into Electronic Medical Records</b> (Vanessa Burkoski, Jennifer Yoon, N Farshait, D Hutchinson, B E Collins, S Solomon and D Grinspun)</li> </ul>

*BMJ Quality and Safety* online first articles

URL	<a href="https://qualitysafety.bmj.com/content/early/recent">https://qualitysafety.bmj.com/content/early/recent</a>
Notes	<p><i>BMJ Quality and Safety</i> has published a number of ‘online first’ articles, including:</p> <ul style="list-style-type: none"> <li>• Major reductions in <b>unnecessary aspartate aminotransferase and blood urea nitrogen tests</b> with a quality improvement initiative (Rachel Strauss, Alex Cressman, Mark Cheung, Adina Weirnerman, Suzanne Waldman, Edward Etchells, Alireza Zahirieh, Piero Tartaro, Jeremy Rezmovitz, Jeannie Callum)</li> <li>• Altering <b>standard admission order sets</b> to promote clinical laboratory stewardship: a cohort quality improvement study (Benjamin Leis, Andrew Frost, Rhonda Bryce, Andrew W Lyon, Kelly Coverett)</li> </ul>

*International Journal for Quality in Health Care* online first articles

URL	<a href="https://academic.oup.com/intqhc/advance-articles">https://academic.oup.com/intqhc/advance-articles</a>
Notes	<p><i>International Journal for Quality in Health Care</i> has published a number of ‘online first’ articles, including:</p> <ul style="list-style-type: none"> <li>• <b>Bedside medication delivery programs:</b> suggestions for systematic evaluation and reporting (Parul Agarwal; Jashvant Poeran; Joanne Meyer; Linda Rogers; David L Reich; Madhu Mazumdar)</li> <li>• The <b>ethical oversight of learning health care activities</b> in Switzerland: a qualitative study (Stuart McLennan)</li> </ul>

## Online resources

[UK] NICE Guidelines and Quality Standards

<https://www.nice.org.uk/guidance>

The UK's National Institute for Health and Care Excellence (NICE) has published new (or updated) guidelines and quality standards. The latest reviews or updates are:

- NICE Guideline NG131 **Prostate cancer: diagnosis and management**  
<https://www.nice.org.uk/guidance/ng131>
- Quality Standard QS91 **Prostate cancer** <https://www.nice.org.uk/guidance/qs91>

[USA] Patient Safety Primers

<https://psnet.ahrq.gov/primers/>

The Patient Safety Primers from the (US) Agency for Healthcare Research and Quality (AHRQ) discuss key concepts in patient safety. Each primer defines a topic, offers background information on its epidemiology and context, and provides links to relevant materials.

- **Opioid Safety** This primer focuses on the safety hazards posed by indiscriminate opioid prescribing. The Primer describes the nature of the opioid epidemic as a patient safety problem, discusses the epidemiology of opioid prescribing and its resultant effects on patient safety and mortality, and reviews strategies that have been implemented to address the epidemic.  
<https://psnet.ahrq.gov/primers/primer/48/Opioid-Safety>

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