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Can we improve the health system with performance reporting?

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Key messages

- Advanced healthcare systems are moving toward greater efficiency, transparency and accountability, and this trend will continue, particularly in fiscally-constrained environments

- There is no single measure that will improve service delivery and patient outcomes, ensure financial sustainability and increase accountability and transparency in a health system

- Performance reporting in healthcare will work if properly developed and implemented keeping the following twelve lessons in mind:

Program design

- Understand the social, political and economic considerations carefully before setting targets, monitoring performance and reporting on them
- Strive for mandatory, system-wide participation
- Allow health providers and organisations to drive improvements in a devolved manner, which are patient-centred
- Strive for more than just wait-time measures—such measures could include re-admission rates, ward infection rates and in-hospital death rates
- Include both public and non-public performance reporting mechanisms
- Be mindful of minimising dysfunctional, unintended consequences
- Always pilot before rolling out

Data collection and reporting

- Strive for continual design, accuracy and relevancy testing of measures and the way data are collected and reported
- Ensure data collection is not an end in itself but a driver of positive change within the health system, and avoid onerous data collection and reporting overburden
- Real-time reporting should be the goal, which delivers comparative clinical performance data *back to* health service providers and organisations

Stakeholders

- Engage key stakeholders, especially clinicians and senior leadership, but also the media and general public
- Change the culture of provider organisations to foster learning over punishing and judging, which also allows clinical staff to raise questions and concerns

Can we improve the health system with performance reporting?

Introduction

In August 2011, the Council of Australian Governments signed the National Health Reform Agreement, which dictated major reforms to the organisation, funding and delivery of health and aged care in Australia.[1] A key initiative was the establishment of the National Health Performance Authority to publish, in accordance with the Performance and Accountability Framework, quarterly public reports on the performance of every Local Hospital Network, the hospitals within it, every private hospital and every Medicare Local.[2,3]

The agreement also described national targets designed to improve access to elective surgery, known as the National Elective Surgery Target or NEST, and to emergency departments, known as the National Emergency Access Target or NEAT. The elective surgery target is for 100 per cent of patients in each urgency category to be seen within a recommended time—with variations according to state or territory—by 2015. The emergency department target is for 90 per cent of all people presenting to a public hospital emergency department to either physically leave the emergency department for hospital admission, or to be referred to another hospital for treatment or to be discharged within four hours.[2]

As part of the agreement, the Australian Government agreed to provide incentive payments to encourage the states and territories to meet these targets.[4,5,6,7,8] It signalled its intention to take a more interventionist approach by making a total of $1.55 billion available to them to achieve the targets over the eight year life of the agreement.[6]

While the 2011 agreement constituted a major change to accountability and funding arrangements within Australia's health system, a change in government at the federal level has resulted in a shift away from these arrangements, as evident in the 2014 federal budget.[9]

National Health Performance Authority

Established as an independent body on 1 July 2011, the National Health Performance Authority provides consumers, clinicians, service providers and policymakers with nationally consistent and locally relevant information on the performance of public and private hospitals and other health service providers against a set of 48 indicators: 17 hospitals indicators and 31 indicators for primary healthcare organisations. These indicators, outlined in the Performance and Accountability Framework, were adopted by the Council of Australian Governments in May 2012.[2,3]

The key objective of both the authority and the framework is to deliver a safe, high-quality health system through transparency, accountability and robust performance reporting. The data that are collected are meant to help local health services and the Australian health system better understand the causes of poor performance—leading to the identification of effective practices to be used to innovate and drive system-wide improvements. As of 2013, the authority started publishing quarterly reports in this regard. [4,8,10,11]

Performance reporting is not new in Australia. There is a long history of reporting on various hospital and health indicators prior to, and in addition to, the establishment of the National Health

Performance Authority. Examples include the Productivity Commission's annual *Report on Government Services*,[12] a number of the Australian Institute of Health and Welfare's roughly 150 annual reporting activities,[13] and reports by the Council of Australian Governments' Reform Council, which determine if states and territories are meeting various performance benchmarks, such as the national elective surgery and emergency access targets, and are entitled to linked funding.[1] There are also a number of reporting activities at the state and territory level.

Seeking more streamlined and efficient arrangements to collect and report data, in 2014, the Australian Government has stated it intends to merge a number of bodies with related functions, which include both the National Health Performance Authority and the Australian Institute of Health and Welfare among others, into a new Health Productivity and Performance Commission.[14,15] At the time of writing, consultations with state and territory governments have yet to occur, and the exact role and function of the commission, especially regarding data collection and reporting, is not clear.

Targets, monitoring performance and reporting

Target setting in healthcare is when a central authority sets targets and expected levels of performance across its system. By setting targets a jurisdiction prioritises what matters within its health system.[16] Ideally, on-going performance monitoring of these targets aims to improve the quality of care across the health system by providing timely and accurate feedback that can help improve practice both in areas of activity that are already working well and in problem areas.[17]

Many countries are placing increased demands on health services to improve quality and performance, and health departments, agencies and organisations across the United States, Canada, Europe and Australia are increasingly using performance data to track the quality of healthcare being delivered by public and private health services and clinical teams.[8,18,19,20]

Historically, performance data were used for internal accountability and quality control within departments of health and professional organisations mandated to self-regulate their specialised field of clinical care.[21,22,23] In recent times, however, performance data have increasingly become publicly reported in an effort to drive quality improvements and financial efficiencies across health systems and to empower health consumers to navigate the health system.[17,18]

An initial concern among individuals against performance reporting was the potential negative impact on the public's trust and health professionals' morale should the media misinterpret complex data causing public overreaction.[24] An editorial in the *British Medical Journal* argued against public reporting in 1994 using statements such as, 'suitable for sports but not hospitals' and 'actually harmful because they were diverting resources away from patient care'.[25] That said, public reporting of health data is now an accepted reality that is increasingly supported by health policymakers and practitioners worldwide.[18]

In Australia, the National Health and Hospital Reform Commission and others have emphasized the importance of using robust, even complex, data as a tool for continuous improvement in the health system. Unfortunately, activities that are relatively simple to measure, such as patient waiting times, have become the focus of political debate both in Australia and internationally while development of more complex measures for many aspects of care—such as teaching, training and research, mental health care and so on, has lagged behind and is still a work in progress.[26,27]

International experience

United States and Canada

Many countries have been using forms of public reporting of performance measures for more than two decades with varying degrees of success. Lessons learned from previous experience have helped shape current practice. The United States was an early adopter of public reporting. Currently, its national Centers for Medicare and Medicaid Services produce comparative quality reports of its participating providers against a range of quality indicators, while the National Committee for Quality Assurance makes available comparative quality information on health plans. State governments, other health providers and stakeholders, such as The Joint Commission, which is an independent, not-for-profit, accreditation organisation, undertake various public reporting activities.[18,20]

In Canada, public reporting is conducted by federal, provincial and territorial governments, advocacy groups and independent, arm's length agencies established by governments, such as the Canadian Institute for Health Information.[20]

United Kingdom

In the United Kingdom, much time and effort has been invested in developing a system of target setting, performance monitoring and public reporting to drive quality improvement and financial efficiency in the National Health Service. Various government departments and agencies have worked to modernise the National Health Service by developing hundreds of goals, benchmarks and associated measures in order to measure, track and report on progress across the health system.[20]

The United Kingdom's experience offers an informative case study, which is discussed in Annex 1. Its early introduction of a national approach to setting targets and publicly reporting the results provided Australian policymakers lessons on how to develop and implement a similar system while avoiding many of the unintended consequences the National Health Service experienced.

Australian experience

Australia's 2011 National Health Reform Agreement adopted a national approach to setting performance targets, monitoring them and publicly reporting the results. Initially, Western Australia led the way, largely based on the United Kingdom's four hour emergency wait-time target model. Beyond the four hour target, non-publicly reported data were, and continue to be, used routinely for internal accountability and quality control within health departments across Australia and professional organisations mandated to self-regulate their specialised field of clinical care.

In general practice, for example, a confidential feedback loop to clinicians has been provided by the Australian Primary Care Collaboratives Program while the Health Roundtable provides data across acute hospital settings.[28,29] The Australian and New Zealand Audit of Surgical Mortality, run by the Royal Australasian College of Surgeons, is a national quality assurance program aimed at the ongoing improvement of surgical care. It has been providing feedback to surgeons on their cases as well as undertaking a peer review process of concerning case deaths. The program has led to better care, less enthusiasm for futile surgery and a real reduction in surgical mortality.[30]

Queensland Health has used non-public reporting to improve performance. It has systems in place that continually report against a range of clinician endorsed indicators. Data are made accessible through a Variable Life-Adjusted Display, which provides a graphical representation of clinical outcomes over time and highlights the cumulative difference between expected and actual outcomes.[31]

Four hour rule program in Western Australia

Western Australia commenced a progressive implementation of a four hour target in its public hospital emergency departments in April 2009. Known as the four hour rule program, the objective is to improve the quality of patient care provided in the state's public health system. Based in part on the United Kingdom model, Western Australia's four hour rule program preceded Australia's 2011 National Health Reform Agreement, which similarly included an emergency department wait-time target.[32,33]

Hospitals in the first stage of the four hour rule program roll-out were expected to reach the target of 98 per cent of patients arriving at emergency departments being seen and admitted, discharged or transferred within a four hour timeframe by April 2011.[32,33] While the adoption of the program was not without incident, early indications suggest the target has had a positive impact on treatment times.[33]

Critically, it appears that Western Australia learned some important lessons from the United Kingdom regarding implementation. In particular, there was a focus on addressing systemic issues outside the emergency department, as well as within, and on creating a positive culture to enable change rather than a punitive culture where staff are pressured into achieving it.[34]

In 2012, Western Australia's Department of Health published a report on its four hour rule program, which demonstrated significant improvement in meeting targets but which also showed similar experiences as the United Kingdom. Among other things, the report indicated the target led to falling mortality rates within emergency departments. Hospital staff overwhelmingly supported the current program, or a variation of the program, in spite of indications of levels of stress among some hospital staff, the feeling of intimidation among some junior medical officers, the feeling that targets were focused too much on the clock rather than patient care and the burden of meeting targets falling disproportionately on a small group of dedicated staff.[32,33,35,36]

Targets and the National Health Reform Agreement

Western Australia's four hour rule program was superseded by the Council of Australian Governments' national health reforms and subsequent national partnership agreements. The 2011 National Health Reform Agreement mandated the collection and public reporting of data on a comprehensive range of hospital and primary healthcare service performance indicators from both the public and private health systems at service provider level.[2]

An expert advisory panel reviewed the targets established under the National Health Reform Agreement and developed an implementation plan prior to their formal adoption and implementation. In its findings, the expert panel emphasised successful implementation and

achievement of targets would be dependent on effective clinician engagement, system wide commitment, clinical redesign, and continual monitoring of progress and quality.[37]

The resulting National Partnership Agreement on Improving Public Hospital Services included performance indicators related to a four hour target for emergency department lengths of stay, better known as the National Emergency Access Target, and for lengths of time spent waiting for elective surgery, better known as the National Elective Surgery Target.[38]

In 2014, the Australian Government stated it intends to merge a number of reporting bodies, cease funding guarantees under the National Health Reform Agreement and revise federal public hospital funding arrangements.[14,15,39] State and territory governments have yet to be consulted, and the future of both the National Emergency Access Target and the National Elective Surgery Target is unclear.

National Emergency Access Target

The goal of the National Emergency Access Target is to increase the proportion of emergency department patients who physically leave the emergency department either for admission to hospital, referral to another hospital, or discharge, in four hours or less. Beginning in January 2012, states and territories agreed to varying annual targets for 2012, 2013 and 2014 progressing toward meeting the national wait-time goal—by 31 December 2015, 90 per cent of emergency department visits will be completed in 4 hours or less.[4,40,41]

The Australian Institute of Health and Welfare, the National Health Performance Authority and the Council of Australian Governments Reform Council have all reported on the performance of state and territory governments against emergency department targets. The reports indicated large variations in performance between and within hospitals grouped by size. Notably, large hospitals tended to perform worse than smaller ones, with patients requiring admission to hospital spending longer in the emergency department than those who were discharged. [4,38,40,41]

At the time of writing only 2012 data were publicly available. 2012 data indicate five states and territories achieved proportions of patients leaving the emergency department in four hours or less that were higher than the 2010 baseline data specified in the agreement. Only Western Australia exceeded its 2012 target whereas all other states and territories fell short. Overall, 65.5 per cent of patients presenting to a public hospital emergency department had their visit to the emergency department completed in four hours or less.[38,41] Table 1 presents the findings.

Table 1: National Emergency Access Target results by state and territory, 2012

	NSW	Vic	Qld	WA	SA	Tas	ACT	NT
Measure	**Per cent**							
2010 baseline	61.8	65.9	63.8	71.3	59.4	66.0	55.8	66.2
2012 target	69.0	70.0	70.0	76.0	67.0	72.0	64.0	69.0
2012 achievement	61.1	65.0	66.9	78.5	66.0	67.0	56.7	64.3

Source: Australian Institute of Health and Welfare, 2013 [38]

Interestingly, emergency departments in Western Australia generally performed better than their peers in other states and territories suggesting the earlier introduction in Western Australia of its four hour rule program may have contributed to the improved performance.

It is worth noting recent studies have shown 30 per cent of Australians attend emergency departments each year, and the rate is increasing annually by two per cent.[42] It remains to be seen how emergency departments will strive to meet targets, should they still exist, if health policymakers fail to address the outside factors bringing an ever increasing number of patients to emergency departments who could effectively be treated through other, and less costly, means.

National Elective Surgery Target

The goal of the National Elective Surgery Target is to increase the proportion of elective surgery patients seen within clinically recommended times and to reduce the number of patients waiting beyond the clinically recommended time.[38,41]

The target is made up of two parts where Part 1 sets targets for the proportion of patients seen within clinically recommended times, and Part 2 sets targets for the number of days a patient should wait if the patient has already exceeded clinically recommended times. Part 2 also requires the 10 per cent of patients who have waited the longest beyond the clinically recommended time for surgery are seen within that year. These three requirements are assessed against three levels of urgency that determine clinically recommended times for procedures. The clinically recommended times within which surgery, or another appropriate treatment, should occur are:

- 30 days for Category 1—Urgent
- 90 days for Category 2—Semi-urgent
- 365 days for Category 3—Non-urgent [38,41]

At the time of writing only 2012 data were publicly available. In 2012, there were almost 671,000 admissions from public hospital elective surgery waiting lists, as either an elective or an emergency admission. Median waiting times ranged from 27 days in Queensland to 55 days in the Australian Capital Territory.[38] The performance of each jurisdiction against the National Elective Surgery Target is summarised in Table 2.

While emergency departments in Western Australia performed better than their peers in regard to the four hour wait-time rule this did not give an advantage to Western Australia's hospitals in meeting elective surgery targets.

Table 2: National Elective Surgery Target results by state and territory, 2012

	NEST Part 1 Seen within clinically Recommended times			NEST Part 2 Average overdue waiting time			Longest-waiting 10% of overdue patients seen by Dec. 2012		
Urgency category →	**1**	**2**	**3**	**1**	**2**	**3**	**1**	**2**	**3**
New South Wales									
Victoria									
Queensland									
Western Australia									
South Australia									
Tasmania									
Aus. Capital Territory									
Northern Territory									

KEY

Achieved target	Partially achieved target	Did not reach previous year's target or baseline

Source: Council of Australian Governments Reform Council, 2013 [41]

What does the evidence say?

The research evidence remains sparse despite the growing and wide-spread use of health system targets, performance monitoring and both their non-public and public reporting for more than the past two decades. The vast majority of studies emanate from the United States and the United Kingdom while Australian research has been quite limited. Many of the studies examine different types of performance schemes in different kinds of settings, making it difficult to compare outcomes.

That said, the evidence that does exist depicts a positive trend over time with most of the recent evidence underscoring this point. This may be attributed to health policymakers using past lessons to better inform current policy and practice resulting in more sophisticated targets and systems of monitoring and reporting.

A 2008 systematic review, published in *Annals of Internal Medicine*, compiled the results of multiple, independent studies in the field, and concluded that public performance reporting could stimulate hospitals to improve the quality of care they provide. While it cited several studies where this occurred the authors noted the sparseness of research evidence.[43]

In 2010, the New South Wales Government's Bureau of Health Information commissioned an update on the evidence since that 2008 review. While also noting the sparseness of evidence, it concluded that the credible findings that have been reported demonstrate public reporting of performance measures is having positive impacts on quality improvements and clinical outcomes among organisational healthcare providers, such as hospitals and nursing homes. It is also having a positive impact on patient and health plan selection of organisational healthcare providers and insurance providers. The evidence update indicated public reporting may increase individual providers avoiding taking on risker patients or undertaking riskier procedures, and that some disadvantaged population

groups may be worse off.[20] All said, the main takeaways are that a positive trend has emerged in support but much more research is required into public reporting of performance measures in order to reach a definitive conclusion.

Table 3 summarises the findings of the 2010 evidence update. All the studies included in the 2008 systematic review and the 2010 evidence update were from the United States, United Kingdom and Canada—none were available from Australia.

Table 3: Public reporting of performance measures, review of evidence key findings, 2010

	Selection	Quality improvement	Clinical outcomes	Unintended consequences
Health plans	Considerable & consistent evidence public reporting can & does influence health plan choice	Very early & limited evidence public reporting has increased health plan quality improvement activities	Very little & uncertain evidence	Very little & uncertain evidence
Organisational providers	Recent preliminary evidence indicates public reporting may significantly affect consumers' selection decisions—more evidence needed to confirm	Consistently strong evidence public reporting stimulates quality improvement activities at hospital level	Mixed results, but majority of studies showed significant positive impact, & most recent studies with better design point to positive impact	Limited evidence, but more recent studies do not support concerns
Individual providers	Some evidence supports patients & health plans influenced by public reporting	No evidence	No evidence	Some evidence public reporting increases doctor risk-avoidance; limited early evidence disadvantaged groups may be worse off

Source: Bureau of Health Information, 2010 [20]

While a positive trend has emerged, the literature highlights a number of stumbling blocks, which should be noted. Patients and referring doctors have been slow to embrace published data to inform their selection of individual or organisational health service providers.[23,44] Often if patients or referring doctors are in a rural or remote location they do not have the luxury of choosing the better option because their options are limited.[23]

Health service providers continue to prefer feedback to improve their performance through non-public means.[45] They cite continuing concerns over the accuracy of the measures used to assess their performance, the interpretation of the data and the way in which the data are presented to the general public, which may not have the health literacy to understand what the data mean.[18,23,46]

Finally, the research consistently warns of the many unintended consequences that can result from setting targets, measuring their results and reporting the data publicly, which include:

- Tunnel vision: concentrating on clinical areas measured to the detriment of other important areas [16,19,23,47]
- Sub-optimisation: pursuing narrow objectives at the expense of broader strategic coordination [23,48]
- Myopia: concentrating on short-term issues while neglecting long-term criteria [19,23,49]
- Convergence: not being exposed as an outlier rather than desiring to be outstanding [23]
- Gaming: altering behaviour to gain strategic advantage [8,16,19,23,27]
- Misrepresentation: including creative accounting and fraud [23]
- Toxification: increasing pressure on employees poisoning the workplace environment as organisations trying to meet targets [8,48]
- Overload: overload of unused information [19]

As health policymakers become more familiar with the potential problems and unintended consequences associated with targets, measuring performance and reporting, they appear to be getting better at designing and implementing systems that are able to avoid earlier pitfalls. Recent research increasingly demonstrates the positive impacts on provider and plan selection as well as on quality improvements and clinical outcomes among organisational healthcare providers.[20] Much cited evidence points to a number of positive outcomes emerging, which include:

- More engaged clinicians [37,50,51,52]
- Increased involvement of senior leadership [18,37,50,51,53]
- Increased sense of accountability to internal and external customers [18]
- Priorities refocused to close identified service and indicator gaps [18,51]
- Positive peer competition [18,23,51]
- Increased data awareness [18]
- Increase in quality improvement activities [18,20,43,50,51,54,55]
- Standardised and accurate measures developed [51,56,57]
- Improved clinical outcomes [20,54,55,58,59]
- Improved quality of care [43,60]
- Publicly reported quality measures appear to improve over time [50]

The positive benefits of setting, monitoring and reporting targets are aptly demonstrated in a 2006 case study published in *Health Economics*. The National Health Services of England and Wales diverged following devolution in the 1990s, most notably with respect to the use of wait-time targets, which were progressively strengthened in England but were abandoned in Wales in the immediate post-devolution period. An analysis of data over a six year period concluded English hospitals recorded increased levels of activity, undertook more day case activity and mortality rates fell while Welsh hospitals recorded consistent levels of activity, undertook falling levels of day cases, more non-elective patients were admitted and mortality rates rose. The Welsh office reacted by reintroducing targets.[55]

Setting targets, monitoring performance and reporting: what are the lessons?

Healthcare systems are moving toward greater efficiency, transparency and accountability, and this trend will continue, particularly in fiscally-constrained environments. As the use of health system targets, performance monitoring and both their non-public and public reporting are here to stay, health policymakers, administrators and clinicians need to consider the common lessons to improve the delivery of service and drive system-wide efficiency, transparency and accountability. Researchers identify the following twelve lessons:

Program design

- Understand the social, political and economic considerations carefully before setting targets, monitoring performance and reporting on them [20,23]
- Strive for mandatory, system-wide participation [23]
- Allow health providers and organisations to drive improvements in a devolved manner, which are patient-centred [23,53]
- Strive for more than just wait-time measures—such measures could include re-admission rates, ward infection rates and in-hospital death rates [27,56]
- Include both public and non-public performance reporting mechanisms [45,61]
- Be mindful of minimising dysfunctional, unintended consequences [8, 20,23]
- Always pilot before rolling out [8]

Data collection and reporting

- Strive for continual design, accuracy and relevancy testing of measures and the way data are collected and reported [8,20,23,56,57]
- Ensure data collection is not an end in itself but a driver of positive change within the health system, and avoid onerous data collection and reporting overburden [23,61]
- Real-time reporting should be the goal, which delivers comparative clinical performance data *back to* health service providers and organisations [8,53,56,61]

Stakeholders

- Engage key stakeholders, especially clinicians and senior leadership, but also the media and general public [20,53]
- Change the culture of provider organisations to foster learning over punishing and judging, which also allows clinical staff to raise questions and concerns [8,20,23,53]

For some, however, the debate over different models of performance monitoring and reporting is peripheral because they believe it is most effective when used in conjunction with linked funding or financial incentive schemes.[54]

Implications for policymakers

Australia's political leaders initiated a significant reform of the health system in 2007. However, in 2014, the Australian Government signalled its intention to move away from the agreement it had negotiated with the states and territories. The original reforms were meant to improve service delivery and patient outcomes, to ensure financial sustainability through greater efficiency and to increase accountability and transparency. It is not yet clear how, or if, the federal government will work with state and territory governments to achieve these goals in the future.

Expand and strengthen performance monitoring and reporting

The research evidence increasingly supports the use of targets, performance monitoring and their public and non-public reporting as drivers of quality improvements and clinical outcomes in health systems.

Currently, the National Health Performance Authority and a number of other Australian Government bodies, such as the Australian Institute of Health and Welfare, report on 48 performance indicators related to community care and hospitals. Unfortunately, the data measured do not go beyond wait-times and population health statistics, and they are not collected, analysed and reported in real-time.

In addition to the current 48 performance indicators, policymakers should develop a number of more complex measures, such as: quality of care, patient pathways and ease of navigating the system, teaching and training and the implementation of research and new findings into practice.

Data from current reporting, while accurate and clear, is dated, sometimes by as much as one to two years. If the goal is to help local health services and the health system understand the causes of poor performance and identify effective practices to be taken up by poorer performing services then efforts should be made to develop real-time data collection, analysis and reporting. This will require political will and financial capital spent on smart knowledge management systems that link data and analyse patterns of health service use and unwanted variations in performance and outcomes.

Health policymakers now have an opportunity to address these issues. The process by which the Australian Government creates the new Health Productivity and Performance Commission through the merger of various existing bodies should allow for a review of existing and potentially new performance indicators, the manner and speed in which they are collected and the way they are reported.

Conclusion

There is no single measure that will drive efficiency, quality and safety. Over a number of years, Australian policymakers have implemented a number of reforms across the health system, which build upon each other. However, it is currently unclear where the reform process is headed. Regardless of how Australian policymakers decide to structure the mechanics of the health system, they should embrace the positive benefits of setting and monitoring targets as well as reporting on their results, which are proving to increase efficiency, transparency, accountability, service delivery and improve patient outcomes.

Annex 1: a case study of the United Kingdom's use of targets, monitoring performance and reporting

In September 2001, Prime Minister Tony Blair's Labour government introduced an annual three star rating system across the National Health Service where the performance of health services within National Health Service Trusts was assessed against up to 50 targets, which included a small set of key targets and a wider set of targets in a 'balanced scorecard'.[16,47] The technical nature of the scoring system meant a trust could do poorly on one key target but not receive a zero rating. This resulted in some trusts trying to avoid zero star ratings by spending their way out of trouble, running up massive deficits, and only failing on the one key target of maintaining a financial balance. A trust could also perform poorly on a number of targets but still receive three stars.[16,47,62]

A number of these targets were linked to patient wait-times. One target stipulated 100 per cent of patients be offered an appointment to see a general practitioner within two working days upon request, but this led to many general practitioners refusing to book appointments more than two working days in advance.[16] In response to public concern over long emergency department wait-times, another target stipulated 100 per cent of patients presenting to an emergency department must be seen, treated, admitted or discharged within four hours. This target, however, was soon modified to 98 per cent of patients to allow for clinical exceptions.[16,48]

Alarming distortions in clinical care resulted from the four hour target, such as patients being reviewed on the basis of their length of stay rather than clinical need, and patients not always being seen in order of clinical priority. In one reported case, a patient who had waited for three hours was found a bed before a patient who had waited five hours because the five hour patient had already 'breached' the four hour target.[48]

Clinicians had mixed views about the value of targets, and many were concerned the four hour emergency department target would not be achievable. Two emergency department doctors at Derriford Hospital in Plymouth, describe in the *British Medical Journal*, an environment where enormous pressure was exerted on hospital staff to meet targets. While some additional resources were provided for staffing and workforce innovations, they report that more fundamental changes, such as needed cultural change, were much harder to achieve. Further, they state that while many of the causes for long emergency department wait-times are rooted outside emergency departments, most of the proposed solutions focused on the inside of them.[48]

Important functions such as teaching, audit and the development of guidelines were also neglected in a drive to 'hit a single performance measure'.[48] Nonetheless, the National Health Service's four hour target did yield some successes. Among them were an increased presence of experienced and senior staff in emergency departments, greater utilisation of nurse practitioners, and the development of community-based walk-in centres to reduce emergency department demand.[34,63]

Cracks began to emerge in the National Health Service's star rating system and the four hour emergency department wait-time rule, which ultimately doomed them. One notorious case was at Stafford Hospital where revelations of poor standards of care led to a full public inquiry chaired by Robert Francis. Over a three-year period ending in 2009, an estimated 400 to 1,200 people died at Stafford than might have been expected.[64,65,66] In his final report, Francis stated the failures at Stafford Hospital and the Mid-Staffordshire National Health Service Trust, which ran the hospital,

were 'in part the consequence of allowing a focus on reaching national access targets, achieving financial balance and seeking foundation trust status to be at the cost of delivering acceptable standards of care'.[66]

Shortly after the Stafford Hospital revelation, the Basildon and Thurrock University National Health Service Hospitals Foundation Trust was also found to have serious problems that led to the death of up to 400 patients a year despite the trust having a good rating.[67,68]

In 2010, Prime Minister David Cameron's recently elected Conservative government cited these revelations as the evidence and rationale for abolishing the four hour target and replacing it with a set of clinical quality indicators meant to broaden the measurement of quality to cover effectiveness of treatment and the overall patient experience.[33,53,69] According to Cameron, 'targets were being pursued rather than clinical outcomes, [and as a result] people died needlessly'.[70]

Health Secretary Andrew Lansley said the decision was made in response to evidence that the target was 'being pursued not in order to give the best possible care to patients—but in spite of what would be the best possible care for patients'.[64] Ultimately, the government did not abolish the target outright but simply included a downgraded 95 per cent target as part of a broader set of clinical quality indicators.[53,71]

While positive outcomes can be identified, the common story of how the star rating system and emergency department targets were implemented in the United Kingdom would seem to provide a case study in how not to implement performance targets and public reporting. It was a system that resulted in increased pressure on staff, which in some cases led to gaming, fudging data, and a focus on achieving targets at the expense of good clinical outcomes. Moreover, it demonstrates how poor implementation of publicly reported targets can, in some cases, produce perverse, unintended outcomes and result in poor quality care.

With past lessons in mind, the Care Quality Commission, a non-departmental public body established in 2009 to regulate and inspect health and social care in England, stated in March 2013 it wanted hospital-level ratings quickly introduced across England where the ratings are updated with real-time data and a detailed narrative is presented alongside each rating.[68]

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