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HEAD TO HEAD

# Should we scrap the target of a maximum four hour wait in emergency departments?

Pressure to achieve arbitrary targets is not a valid improvement strategy and leads to perverse incentives and use of resources, claims **Peter Campbell**, but **Adrian Boyle** and **Ian Higginson** say no alternative exists to keep emergency departments working

Peter Campbell *independent public health consultant*[1], Adrian Boyle *consultant*[2], Ian Higginson *consultant*[3]

[1]Institute of Public Health, University of Heidelberg, Germany; [2]Emergency Department, Cambridge University Hospitals Foundation Trust, Cambridge, UK; [3]Emergency Department, Plymouth Hospitals NHS Trust, Plymouth, UK

## Yes—Peter Campbell

Consulting on health system projects in numerous developing countries has taught me that whenever health workers fear targets, sustained improvements in care are unlikely. Pressurising NHS emergency departments in England to see, treat, and admit or discharge patients within four hours exemplifies this.[1]

We've had 13 years: surely enough time to hit the four hour mark sustainably? Yet this year, as more patients wait longer,[1] the health secretary reinterpreted the target to include only urgent cases, not all attendances.[2] Hospitals are relieved: by redefining "urgent" the target can be met and funding secured.

Although supporters of the target argue that emergency departments have been strengthened by investment and that waiting times are under control, the target's destructive consequences negate these gains.

### Undeserved rewards

In the last three months of 2002, well before financial incentives were introduced for hitting targets, almost 7% of emergency departments already managed 95% of patients within four hours[3] so rewarding them was unnecessary. And, without needing incentive linked targets, organisational reforms alone have reduced waiting times.[4]

Masterful managers manipulate. The National Audit Office admits that patients triaged into parallel acute assessment units aren't counted[5]: so in reality patients wait longer than reported. Patients have been "stacked" in ambulances[6] or hurriedly admitted near the deadline.[7 8]Processes have been introduced that favour younger patients at the expense of older patients, whose complicated problems often take longer to manage.[9 10]

Targets may be met, but only by diverting resources to emergency departments (satisfying their staff) and away from hospital departments that don't have targets, where, with less staffing and monitoring, patients can wait for hours. Such target driven behaviour was a cause of the Mid-Staffordshire scandal.[11]

### Why four hours?

Although the reason was never given, might four hours have originated from the mean (average) waiting time across all emergency departments? But the mean isn't a valid way to determine good or bad, normality or not; when appraising a child's growth chart, we postulate abnormality outside the 5th to 95th percentiles, not when the mean is breached.

How else could the target be set? Aiming for best practice, perhaps two hours, would be unrealistic for most departments. A more realistic target, say six hours, won't satisfy patients or authorities. Compromise at five hours and the target would probably be met today. Targets are ultimately the result of negotiation and best guesses. A missed target could always be the result of departmental failure, but it could equally be down to poor guesswork. If so, then rewards or penalties for performance cannot be awarded automatically. And why are unrealistic guess makers never held to account?

### Toyota's improvement steps

W Edwards Deming, of the Plan-Do-Study-Act method and Toyota fame, emphasised that sustainable improvement—increasing quality (eg, less waiting time) and reducing costs—cannot be achieved through giving managers or workers incentives to meet numerical targets.[12 13] Data should be used not to command but to explain. Statistical distribution of current waiting times explains that if, for example, 95% of England's hospitals see urgent cases within five hours, this is

Correspondence to: P Campbell peterinwork@gmail.com, A Boyle adrian.boyle@addenbrookes.nhs.uk

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normal given the system's overall capacity within its current constraints.

Deming advocated two improvement steps that Toyota followed but we ignore.[12] Firstly, outlying departments' underperformance (or overperformance) should be assessed for individual causes to be addressed (or learnt from). Secondly, the majority (95%) of emergency departments will probably improve only if the system improves. This entails tackling system issues such as funding, staffing, bed capacity, and patient flow patterns: the role of authorities not hospitals.[10]

Our problem is not the target itself: it's the fear engendered by (financial) incentives that makes it difficult to report the truth, promote manipulation, and cause deterioration of one unit for the sake of targets focused on another. My opponents can't imagine emergency departments performing without pressure from targets, yet organisations influenced by Deming, such as Toyota, overachieved: isn't it time to reconsider our steps?

## No—Adrian Boyle and Ian Higginson

The four hour target is a simple, well understood measure that drives flow throughout the whole urgent care system. However, suggesting that it is no longer relevant is like changing the rule because you don't like the result. There is no realistic alternative.

Crowding in emergency departments is consistently associated with increased mortality and long hospital stays.[14-17] Full emergency departments lead to ambulances queuing outside hospitals, unable to offload and attend other emergencies. Patients admitted through crowded emergency departments are more likely to be admitted to the wrong sort of ward, receive less good care, and have longer inpatient stays.[18] Before the target was introduced, being a sick patient in an emergency department was pretty awful. Emergency departments were often full, waiting times were long, and care was poor. Frail elderly patients had lengthy delays, with inadequate nursing and medical care. Furthermore, crowded emergency departments have poor working conditions and increase staff burnout and reduced retention.[19]

### Target has worked

The four hour target was introduced to the NHS in England in 2004 as a measure to combat crowding. The combination of relentless focus and pressure has meant that the target itself has acquired a bad name. However, this is the fault of the way it has been implemented and managed, rather than of the target itself.

There is no doubt the target has reduced waiting times in emergency departments. It was regularly met until 2015, indicating that it is achievable when resources match demand. However, the NHS as a whole has not achieved it since June 2015, and this reflects the increasing demand and on our full hospitals. The availability of years of performance data from the target allows robust benchmarking to understand performance. It is intuitive, relatively robust to gaming, and applies to all patients.

The target is a powerful lever to improve staffing and bed management, establish short stay units near emergency departments, and develop ambulatory care units. These allow patients to be assessed away from the emergency department and have a shorter length of stay than would occur with an admission to an inpatient bed. Implementation has been associated with more doctors employed in emergency departments, better access to investigations, and better hospital bed management.[20]

### Reductions in mortality

On balance, time based targets are probably associated with reductions in mortality. Although a large UK database study found that implementation of the four hour target was not associated with reduced mortality,[21] a single centre UK study showed that improvements in performance against the standard were associated with absolute reductions in mortality in admitted patients.[22] Several Australian studies that have evaluated time based targets have shown reduced mortality associated with introducing a time based target.[23-25] New Zealand's six hour target has also been associated with decreased mortality.[26] Certainly, it does not increase mortality, and, perhaps counterintuitively, it does not increase attendances at emergency departments.[20]

Although the target applies only to emergency departments, it has stimulated and driven greater understanding of the whole urgent care pathway. It is generally accepted that the target can be met only if the whole hospital is engaged.[27] Losing the target would result in reduced incentives for politicians and managers to pay attention to resourcing both emergency care patients and the wider urgent and emergency care system, leading to worse crowding. The NHS is likely to be facing its most challenging winter, with widespread financial and performance problems, staff shortages, and low morale. Eliminating the four hour target would only make this worse.

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