

Value-based health care: the strategy that will solve the NHS?

The NHS increasingly seems to be facing crisis after crisis, resulting from underfunding according to some sources and inefficiency according to others, or a combination of the two. Yet the ability to provide high quality care, which is also free at the point of care within the NHS, is still admired by rest of the world.

There have been many attempts to solve the paradoxes which occur within this highly complicated and complex health-care system. The Carter report (Department of Health, 2016) identifies significant savings that could be made, NHS Improvement (2016) made the case for the need for patient level information and costings, and multiple agencies recognize the need for better quality data and for organizations to use agreed standards to provide accurate comparative data to drive quality. The imperative is to improve the provision of preventative health care and treat patients closer to home or in the community to avoid unnecessary and expensive hospital admissions (NHS England, 2017). Furthermore it is essential to recognize that a health-care system cannot function without an equally functioning and funded social care system alongside to integrate all aspects of care.

Most pressing is the realization that the patient should be at the centre of all processes that relate to their care, in the design and delivery of that care, and that the outcomes that matter are the ones that are important to the patient, not their physician or politician.

This month's issue contains a symposium which has its origins in Harvard Business School, Cambridge MA. There are now a

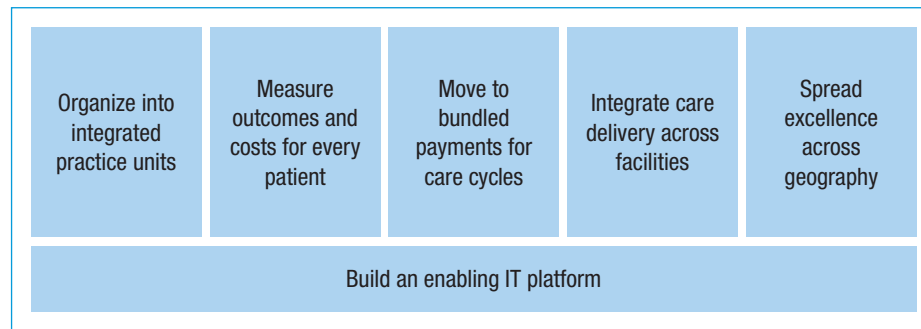


Figure 1. The five basic principles of value-based health-care delivery. Adapted from Porter and Lee (2013).

significant cohort of UK clinicians who attended the annual value-based health-care delivery intensive seminar run by Professors Michael Porter, Elizabeth Teisberg and Robert Kaplan. In 2006 Porter and Teisberg published the seminal book *Redefining Healthcare: Creating Value-based Competition on Results*. The concepts within this have now evolved to the point at which some major American and European health-care providers are using value-based health-care delivery to organize and deliver better outcomes, increase efficiency and increase market share. Dell Medical School in Texas is now organizing its medical curriculum around delivery of value-based health care. The most recent incarnation of value-based health-care delivery was published in 2013, the ambitiously titled *The Strategy That will solve Healthcare* (Porter and Lee, 2013).

The overriding concept within value-based health-care delivery is that:

$$\text{Value} = \frac{\text{Health outcomes}}{\text{Costs of delivering the outcomes}}$$

Here value is patient centred, and relates to the outcomes that matter most to the patient, not the clinician. Value can be increased by improving outcomes, lowering costs, or both.

Five principles to optimize health care

To optimize value, health care should be organized around five principles, supported by an enabling IT platform as shown in *Figure*

1. These five principles are not mutually exclusive or independent of each other, and the greatest likelihood of increasing value will occur when all are applied simultaneously.

Organize around conditions

Each of the five main directives merit attention. The first is to organize around integrated practice units which deal with a specific condition, for example diabetes, and include all the necessary staff, e.g. physicians, surgeons, chiropodists, nutritionists, psychologists and radiologists, or alternatively a defined segment of the population in primary care (i.e. chronic conditions in the elderly). In this way all the patient's needs are met at one location with clinicians being arranged around conditions and at the convenience of the patient rather than the traditional model of discrete individual clinical silos at the convenience of the physician.

Measure outcomes

The second is to measure outcomes that are meaningful for the patient and costs, for the whole cycle of care, for every patient. While this seems daunting it is only at patient level that duplication and waste can be easily identified. Here one of the most interesting of the five directives in value-based health-care delivery is encountered, which is to use time-driven activity-based costing to understand cost at a patient level. This is especially interesting given the work that NHS Improvement (<https://improvement>.

Dr Patrick Dobbs, Consultant Anaesthetist and Associate Medical Director, Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield S10 2JF

Dr David Warriner, Cardiology Registrar, Department of Cardiology, Leeds Teaching Hospitals NHS Trust, Leeds

Correspondence to: Dr P Dobbs (patrick.dobbs@sth.nhs.uk)

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nhs.uk) has been doing, which now requires all foundation trusts to implement patient level information and costing.

Time-driven activity-based costing requires the clinical team to build a process map of what happens to the patient from the start to the end of his/her visit. The novel and possibly game-changing potential of time-driven activity-based costing is the way in which engagement of the clinicians is required to build this process map, to understand and analyse every step and to identify duplication and waste in terms of non-value added steps. The team can suggest and implement changes which can typically add 15–25% efficiency savings, either in changing the way activities occur or by clinicians working to the top of their grade (Anzai et al, 2017).

Outcomes at present are often measures of process compliance with guidelines or headline values such as mortality. In contrast value-based health-care delivery measures outcomes across three tiers, specific to the disease or intervention (Porter, 2010). For example below would be the outcomes for a hip replacement operation:

Tier 1 health status achieved

- Health status achieved or retained, e.g. survival
- Degree of health or recovery, e.g. function.

Tier 2 process of recovery

- Process of recovery
- Disutility of care or treatment process (e.g. diagnostic errors, ineffective care, complications, adverse effects), e.g. time to return to work.

Tier 3 sustainability of health

- Nature of recurrences, e.g. length of hospital stay
- Long term consequences of therapy, e.g. able to live independently.

Outcomes measurement is a science in itself; national and international cooperation is required in order that consistent and comprehensive measurement is achieved globally. Only by this means will meaningful comparison occur and rapid improvement be stimulated. An international group has been established to develop and publish agreed

outcome measurements, the International Consortium for Health Outcomes Measurement (www.ichom.org).

Look at payment methods

The third process relates to the way in which patient interactions are funded. In general payments by fee for service or by capitation do not drive improved value. Capitation rewards providers for spending less but not for improving outcomes and fee for service does not include the complete care cycle and overall outcomes. The method of payment best aligned to the value agenda is bundled payments. In this method payment is made for a complete cycle of acute care (i.e. hip replacement including all rehabilitation), the overall care for a defined period in chronic care (elderly chronic illnesses) or primary and preventative care for a defined population group (i.e. healthy children). In this way the provider is rewarded for improving the health outcomes and efficiency of its services.

Integrate services

The fourth relates to integrating services across facilities. In the UK this will mean looking at the services provided across multi-site organizations, or providers situated in close proximity and choosing which service line provides the best value, as per the new care models (NHS England, 2016). Reorganization of services is a unpalatable political question, but nevertheless provides opportunities to improve care and increase efficiency, if organizations are consistently underperforming.

Spread excellence

In the fifth process, organizations should seek to spread excellence across geography. This may be by a hub and spoke model whereby the same clinical standards are used by all clinicians, or by networks working together and those in underperforming centres visiting higher performing centres and vice versa. The goal is to work towards the highest standards together.

Information technology

Finally, the whole process described above must be supported by an enabling IT

KEY POINTS

- Value-based health-care delivery principles may be of benefit to the NHS.
- Patients should be at the centre of health-care design and delivery.
- Clinicians can be engaged in productivity and efficiency savings using patient-level costings.

system. This may be the golden pot at the end of the rainbow as a fully functional IT system which enables clinicians seems to be the Achilles' heel for many health-care providers.

Conclusions

While caution must always accompany the announcement of a universal 'cure' for the any health-care system, let alone one the width of the NHS, there is much of merit in value-based health-care delivery that can be used by NHS staff and management to improve value for patients.

In this issue, value-based health-care delivery from the perspectives of a surgeon, a hospital trust and psychiatrist will be considered and what they may mean for the NHS. **BJHM**

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