POLICY

Value-based healthcare: is it the way forward?

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ABSTRACT

It is undeniable that the NHS, our universal healthcare system, is struggling to meet the needs and expectations of a population that is very different from its inception in 1948. Costs are rising inexorably and, yet, patient experience of their healthcare is often not what we would want it to be. Inequities still exist, both in terms of access to care and clinical outcome. As we spend more and more, surprisingly little is known about the extent to which we are meeting the healthcare goals and outcomes that really matter to patients. Equally, clinical teams are stretched and facing burnout as we emerge slowly from the pandemic.

Meanwhile, value-based healthcare has gathered momentum worldwide as a lens through which to examine these problems. But does it provide helpful solutions? This article examines the strengths and limitations of value-based healthcare and its application in the UK context.

KEYWORDS: value-based healthcare, outcomes, evidence-based medicine

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What is the problem we are trying to solve?

There is a growing problem in health and care worldwide. The cost of care is rising at a significant and unsustainable pace in all healthcare systems but the outcomes that matter to people are not improving at the same rate and inequalities are prevalent.

Several movements have sprung up in recent years to try and tackle this, particularly aimed at healthcare professionals; for example, to reduce waste through reducing unwarranted variation and low-value care, or to improve outcomes through shared goal setting and decision making with patients about their care. We have examples such as 'Slow Medicine' in Italy, 'Realistic Medicine' in Scotland and 'Choosing Wisely' internationally. 'Prudent Healthcare' was launched in Wales in 2014 as a wider policy initiative and was swiftly built upon using the principles of value-based healthcare (VBHC) as a delivery mechanism.

However, improving outcomes and achieving sustainability in healthcare systems requires far more than professional clinical movements can manage in isolation.

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Theory

The concept of value in healthcare is by no means new and there are competing definitions, theories and approaches to achieving value.[1] However, what they all have in common is that we should achieve the best possible outcomes for people receiving care at the lowest cost. It follows, therefore, that value can never be about cost cutting arbitrarily. Poor outcomes come with a high cost: both human and financial.

Perhaps the controversies and disagreements about VBHC are not so much about how we define value, or whether we should pursue it, but about how we can achieve it?

Porter and Teisberg defined it in *Redefining health care* as the outcomes that matter to people relative to the cost of achieving those outcomes across a whole pathway of care.[2] The central premise of the Porter/Teisberg approach is that standardised outcomes should be measured, compared with other institutions and rewarded through outcomes-based payments.[2] In *How to get better value healthcare*, Prof Sir Muir Gray *et al* better encapsulate the NHS context by describing how resources may be allocated fairly for highest value for population health.[3] There is less emphasis on outcome measurement or what we need to understand from the perspective of patients. A further definition from the Centre for Evidence-Based Medicine, Oxford, attempts to bring these two definitions together: 'Value-based healthcare is the equitable, sustainable and transparent use of the available resources to achieve better outcomes and experiences for every person.'[4]

All of these approaches describe integration of care as a key driver for value in healthcare. Porter and Teisberg describe integrated practice units as a structure that enables coordination of care (and payment) around an individual's single disease.[2] This approach is not feasible or practicable in many healthcare systems, and also creates fragmentation of care in other ways, especially for those with multiple morbidities. In the UK, the integrated health boards in Scotland and Wales, and the integrated care systems in England may be more useful structures to adopt VBHC principles.

Value judgments in healthcare occur along a spectrum from individual to population, depending on your political and ethical persuasions. We can, therefore, see that the methods used to drive value in healthcare are highly contextual and affected by our values. This applies to mechanisms for paying for healthcare, and the extent to which competition is regarded as a useful tool to drive improvements in value.

Much of the literature and critique surrounding VBHC has become obsessed with how we pay for healthcare and if outcomes-based payments are truly effective in improving

outcomes and reducing costs at a population level. There is little evidence that outcomes-based payments are effective. Does this matter? Perhaps not. As we will see, there are many mechanisms to improve outcomes and reduce costs across a whole system of care and the appropriate financial levers must be designed in the context of the local healthcare system.

Perspectives on measuring outcomes

It is certainly desirable for us to gain a greater knowledge of the outcomes that matter to patients and to what extent they are being achieved. Standardised sets of outcomes (such as those proposed by the International Consortium for Healthcare Outcomes Measurement) go some way to achieving this, bringing together information about patient case mix variables, treatment variables, clinical outcomes and patient-reported outcome measures (PROMs).

This sort of information (minus PROMs) has traditionally been captured in clinical audit; a VBHC approach demands that we make this information available electronically for analysis on a rolling basis, rather than as an annual audit report. What we have learned about capturing PROMs is that they are far more useful as a communication tool between patients and their clinicians about symptom burden and quality of life than they are as a comparator between different teams or organisations.[5] An outcome in this context, therefore, may be better defined as a milestone in a person's healthcare journey, not just an endpoint. As we know, many external factors affect that outcome including and especially the patient's own goals and preferences for care. If we rely only on standardised outcome measurements, we will miss the point and fail to create value at all.

Evidence-based medicine

Evidence-based medicine was intended to help resolve some of these issues through the rigorous application of evidence from, for example, randomised controlled trials. Through only doing that which improved care, eliminating low-value interventions and raising standards through reducing unwarranted variation, we could improve value; for example, health economists have for many years used the best available evidence to support decision making about the adoption of new health technologies.[6] Here is the latest definition of health technology assessment (HTA) as a process: 'HTA is a multidisciplinary process that uses explicit methods to determine the value of a health technology at different points in its lifecycle. The purpose is to inform decision-making in order to promote an equitable, efficient, and high-quality health system.'[7] However, HTA value judgments are 'point in time' cost-effectiveness assessments using the best available (but often incomplete) evidence. They do not consider affordability or what will be displaced elsewhere in healthcare if the technology is adopted. Arguably they also tend towards a system biased towards technology adoption (even if outcome benefit is modest) rather than investing in, say, social care or patient support. Far from managing and slowing down the medical industrial complex, it has accelerated it.

Furthermore, we have seen a proliferation of evidence-based single disease guidelines and protocols designed to support the delivery of high-quality care. On the one hand, this represents a desirable 'raising of the bar', through the creation of standardised care processes. On the other hand, it represents a bewildering tangle of instructions that require careful navigation, particularly for those living with multiple comorbidities. There is a danger that we have unintentionally created a formulaic approach to medicine, forgetting the second part of David Sackett's definition of evidence-based medicine.[8] We must remember that the evidential basis for many guidelines is frequently extrapolated to patients who would have been excluded from the very trials generating the evidence.

How do we increase value for patients?

Improving outcomes (and healthcare system sustainability) demands a helicopter view of the patient 'pathway' of care, looking at the interventions from prevention through to end-of-life care in the context of chronic life-limiting illness, or prevention through to resolution/discharge.

Fig 1 demonstrates how we may optimise value through a variety of techniques across a pathway of care, with specific examples for heart failure.

It follows, then, that higher value interventions (ie greatest gain in outcomes / unit cost) occur earlier in the pathway in the prevention space (primary and secondary), and in timely diagnosis and optimisation. This does not mean that we should not invest in the rest of the pathway, but we should always maximise where we can have greater impact. This is a problem for our system, which struggles to invest in interventions with a longer time horizon for benefit. We can also create much better outcomes for patients in palliative and supportive care with the use of PROMs and attention to what really matters to people receiving care and to carers.[9]

Patients, clinicians, organisations and payers all have a role to play in creating value through attention to the elements (Table 1).

It takes two to tango: supporting patients

The best outcomes are achieved when people are fully equipped to work in partnership with their healthcare professionals. Therefore, we should support our population in raising health literacy both in how to navigate the healthcare system and in how to engage with self-management of their condition.

We need to make far more progress in understanding the needs of our patients, including how we may tackle inequalities in health and start to reverse the 'inverse care law'. VBHC infrastructure supports this aim through the use of disaggregated data to see where we need to take action and quickly evaluate the impact of those actions. We need to speed up the way we evaluate new models of care using this data.[10] We saw excellent examples of this approach during the vaccination campaign.

All too often, healthcare organisation clinical strategies list self-management as a key 'tier 0' intervention and then go on to invest very little in it. The resources required include providing the right information in an understandable format, onboarding and support for digital tools, coaching, and access to peer group support. This enables people to gain the shared understanding of medicine that allows the shared goal setting and decision making needed for truly person-centred care.[11]

Professionalism and a culture of stewardship

Value in health is a multiprofessional activity. As we have seen, it is not about arbitrary cost-cutting. It can provide a common language that is understood by patients, clinicians, and financial and operational managers in healthcare. It is not just money that the system is short of. We simply do not have the workforce or the

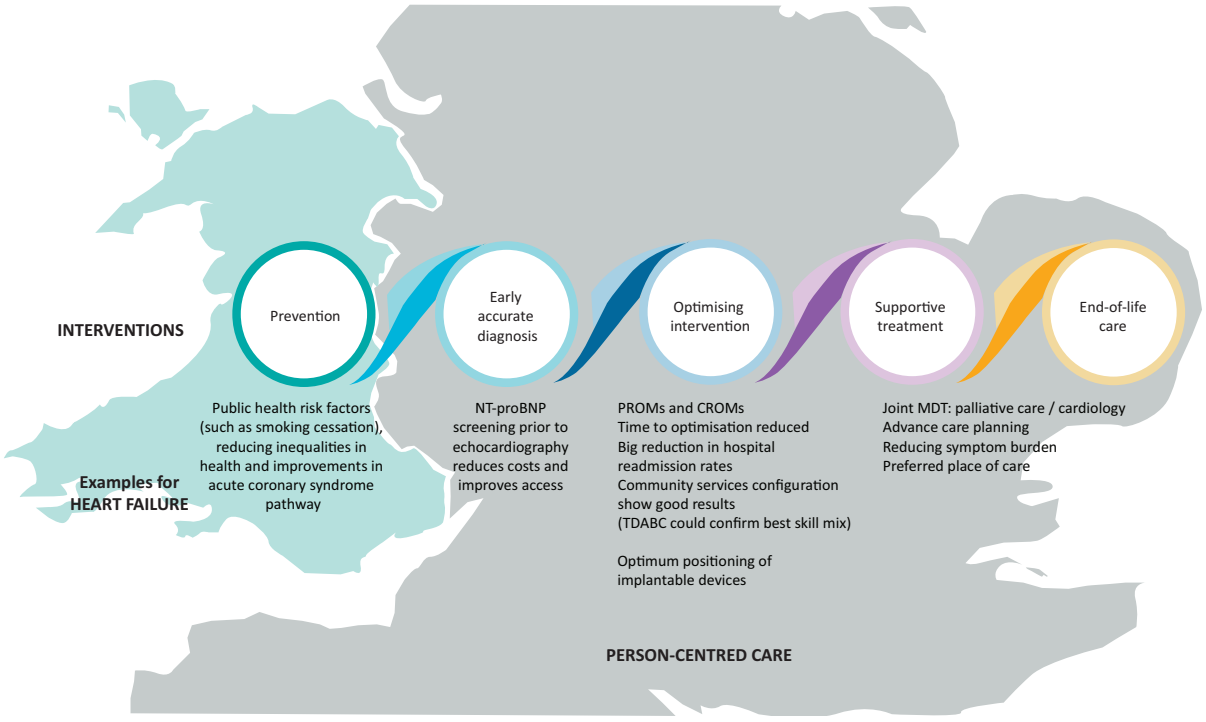

Fig 1. A whole pathway approach to delivering value in healthcare. With examples for care for people with heart failure. Adapted with permission from the Welsh Value in Health Centre (https://vbhc.nhs.wales). CROMs = clinician-reported outcome measures; NT-proBNP = N-terminal pro B-type natriuretic peptide; PROMs = patient-reported outcome measures; TDABC = time-driven activity-based costing.

buildings to continue to operate traditional models of care with the growing caseloads of chronic disease management.

As we aim for a culture of stewardship, every profession has roles and responsibilities in the system. VBHC should never be just about clinicians reducing costs through reducing unwarranted variation and low-value care, or by cost improvement plans in isolation. Clinicians, financial managers, operational managers and informaticians need to work together to achieve high-value care across the entire care pathway, managing the risks of investment and disinvestment as a team.

Keeping an eye on patient outcomes should also help us to achieve the correct balance between specialism and generalism in the physician workforce, along with the right skill mix in our clinical teams.

The carbon reduction agenda

Increasingly, the value-based agenda is becoming aligned with the green agenda. Fundamentally, this is because both viewpoints espouse improving population outcomes alongside reduced (sustainable) consumption. Whether this is in supporting new models of asynchronous care that reduce patient journeys when face-to-face appointments are not required, or tackling inhalers or anaesthetic gases, the two movements are very much aligned. This is also true at a policy level when looking at commonalities between different policy areas such as health, education, leisure and the circular economy.

Table 1. Factors involved in improving outcomes and reducing costs

Patient factors	Healthcare factors
Raise health literacy	Financing for value, optimum allocation and prioritisation of resources, and incentivising best practices
Support healthy behaviours towards prevention and optimisation of quality of life	Decrease unwarranted variation of low-value care
Support shared understanding of medicine towards the best choices	Optimum positioning of drugs and devices
Supported self management	Tailoring treatment to the individual's goals and context including preferred place of care
	New models of care, digital health and releasing capacity in the system
	Focus on meeting true unmet need and reducing inequities

Adapted with permission from the Welsh Value in Health Centre (https://vbhc.nhs.wales).

Getting practical

Everyone working in healthcare is under great pressure. What can we do to increase value and start to create a sustainable healthcare system that produces the best possible outcomes and joy at work for its professionals?

The micro level: at the level of the consultation, we must create the core conditions for the therapeutic relationship to thrive. This means giving enough time and information for patients and their clinical teams to plot the right course for the best outcome. It means supporting continuity of care. From a clinician perspective, it means considering the goals and preferences of patients alongside the guidelines, and practising the gentlest form of medicine to get the desired outcome. Organisations and regulators have a responsibility to support clinicians to do this.

The meso level: there needs to be optimum allocation of resources and optimisation of all interventions across the whole pathway of care, underpinned by a person-centred approach (Fig 1). Truly investing in asynchronous care and supported self-management could start to improve capacity within the system and patient experience.[12]

The macro level: paying for healthcare is highly contextual to the country in which one applies value-based principles. There is a debate to be had about how much we are willing to pay for healthcare, both as individuals and as a state. This debate is becoming more urgent by the day as the affordability of new technologies starts to encroach upon the expenditure on other vital interventions and care. We need to be assured that everything we do is adding value. Onward collection of outcome data is a must if we are to generate real-world evidence of what is really happening perhaps as an adjunct to HTA processes.[13]

The role of data and digital technology in value-based healthcare

VBHC demands a far more data-informed approach to decision-making at all levels. It represents a cultural shift in healthcare delivery and infrastructure is required to help us edge towards this way of working. Healthcare systems and provider organisations require a series of enablers to be put in place to support this shift. In Wales, as with other implementation examples around the world, these are usually arranged as six key enablers (Fig 2).[14]

Digital

Digital communication with patients is a key enabler for VBHC. Through enhancing interaction between patients and their clinical teams, we can create new models of care through enabling a series of tasks to be completed by patients: from appointment management to access to records to chronic disease management.

Data

VBHC demands a far more data-informed approach to decision making at all levels. Clinical and patient-reported outcome data need to be surfaced and presented to all those who need it: in the consultation, for service planning, for improvement and to inform resource allocation. Data 'dashboards' are necessary but insufficient. We must derive actionable insights from the data, as we did during the vaccine campaign and other interventions during the pandemic.

Conclusion

Evidence-based medicine turned out not to be a panacea for creating value in healthcare and it is highly unlikely that VBHC will turn out to be one as well. However, the basic premise of value in health is indisputable and that's the point. When we pick apart what we mean by value to the individual and the population as a whole, we can start to understand the ways in which we can improve value and the tools we need to achieve that. This will be a task akin to painting the Forth Bridge: it will never end. It is everyone's responsibility. It certainly requires buy in at a grass roots level, but unless policy and organisational strategy support delivery, innovating clinical teams will quickly become frustrated in their actions.

Understanding our outcomes is important. Rather than measuring outcomes as a dataset with which to reward or penalise providers of healthcare, they are arguably far more valuable as a set of information through which we begin to understand the needs of our patients and understand how we may direct our resources more effectively to meet those needs.

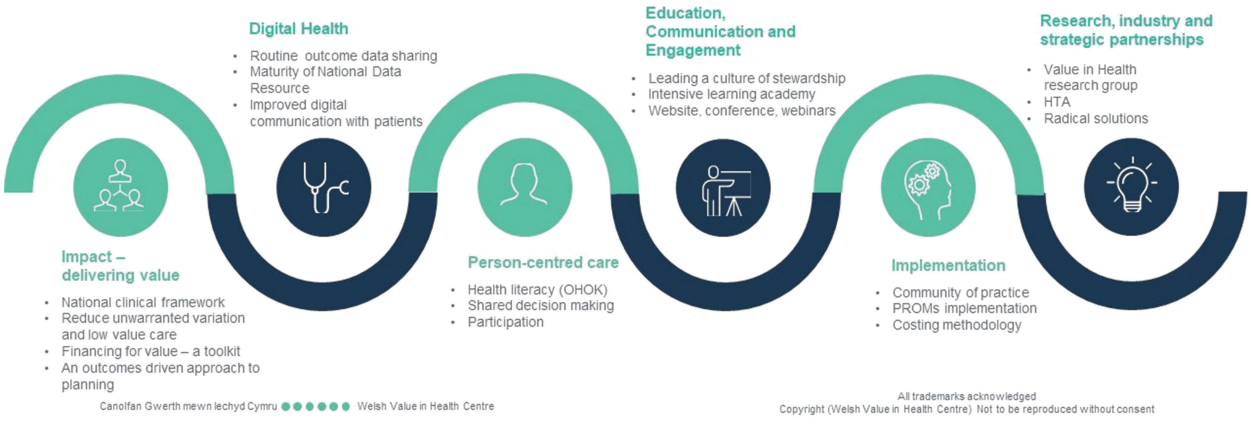

Fig 2. Six key enablers for value-based healthcare. Welsh Value in Health Centre's enablers facilitate the delivery of value-based care across the whole pathway of care, for the whole population of Wales, equitably. Reproduced with permission from the Welsh Value in Health Centre (https://vbhc. nhs.wales) .

There will always be tough decisions to make in medicine, whether at the patient level in deciding whether to have a treatment, at the organisation level deciding how to configure care for the population it serves, or from deciding the allocation of resources by government. As Atul Gawande says, 'Life is choices. They are relentless.'[15] Therefore, we need noble principles, and actionable information and tools to help us make and deliver those decisions. VBHC is not a panacea, but it is a very helpful approach to tackling the wicked issues of 21st century medicine. ■

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