



EDITORIALS

Value based healthcare

Reducing unwarranted variation to maximise the value of healthcare for populations

Muir Gray *visiting professor*

Nuffield Department of Primary Care Health Sciences, Oxford, UK

How can the gap between need and demand on the one hand and resources on the other be closed or even narrowed? Since the global financial collapse most countries have reduced or reversed annual increases in the resources invested in health services, creating a big problem for those who pay for or manage health services, many of whom are also clinicians.

The techniques that have been developed over the past 20 years include evidence based decision making (to ensure that only interventions with strong evidence of cost effectiveness are used), quality improvement (to improve outcomes), and cost reduction. These are all necessary but not sufficient. A new approach is emerging called value based healthcare, which aims to increase the value that is derived from the resources available for a population.

The Choosing Wisely campaign, led in the United Kingdom by the Academy of Medical Royal Colleges, has identified many interventions that could be substantially reduced without adverse effects on the population.¹ *The BMJ's* leadership on overdiagnosis and “too much medicine” focuses more on the trend to overuse interventions that are effective but of low or negative value when used to excess. Clinicians are unaware that they are using an intervention excessively, as Jack Wennberg first showed in his classic studies in New England. These studies led to the publication of the Dartmouth Atlas of Healthcare and the concept of unwarranted variation—that is, variation that cannot be explained by need or by the preferences of populations.²

The NHS Atlases of Variation from the NHS RightCare programme, which was introduced to get more value from resources, are based on his model. They show wide variation in funding, access, and outcome.³ Sometimes the variations relate to quality of care and are easy to interpret—the proportion of patients in a hospital admitted to a stroke unit, for example. More challenging questions arise when the population is used as the denominator. What is the right population level of investment for people with musculoskeletal problems, for example, when investment varies 1.9-fold across England? What is the right rate of knee arthroscopy (40-fold variation)? What proportion of people “should” die at home (1.7-fold variation)? These are questions of value not quality, and they raise the possibility of both overuse and underuse.

Value has two dimensions when considering populations. The first is allocative value—how well the resources available for the whole population have been allocated to different groups, such as people with cancer or people with mental health problems. Financial allocation to both these groups varies 1.9-fold across different commissioners, and there is no evidence that this is the result of deliberative decision making or related to need. Even greater variations in spending exist for subgroups within each programme budget—for example, differences in allocations for asthma, chronic obstructive pulmonary disease, or sleep apnoea within the budget for respiratory problems—and this second level of allocative value must be the responsibility of clinicians. Once the resources have been allocated they have to be used optimally for everyone in need in that population—for example, for all elderly people with frailty or all adults with atrial fibrillation.

There is, however, an important difference in the use of the term value in the American literature. Papers from the US reporting the effect of “value based pricing” measure value by relating outcomes to resource use in patients treated by an accountable care organisation. However, the populations served by these organisations are not always easy to define⁴ and are not the same as the populations of geographically defined health services such as those operating in the United Kingdom, Italy, or Scandinavia.

Reporting on the cost of achieving particular outcomes is important but would be termed efficiency, not value, in the NHS. Health professionals in the NHS are responsible for clearly defined populations and need to be constantly aware of the possibility of both underuse of their services by people in greater need and overuse by those in lesser need.

Doctors who manage clinical services are responsible for optimising outcomes for their patients, at the lowest possible cost. In other words, they are responsible for maximising the efficiency of the service. But optimising value for the whole population requires a different approach, and this has been called population medicine. Clinicians with responsibility for population healthcare, as distinct from service efficiency, must ensure that the right people reach the right service. This might mean, for example, switching resources along the whole care pathway from drug treatment to prevention, or vice versa, or

improving training for all generalists who use that particular specialist service.⁵ This responsibility is distinct from the management of a specialist service and requires a new set of skills focused on value, systems design, and shared decision making in a fully informed population.⁶

Improvements in the quality, safety, and productivity of health services are not enough to meet the challenges that all health services face and would continue to face even if resources were to increase.⁷ Doing the right things to optimise value is determined not only by evidence and the needs of a particular population but also by the pattern of services that has evolved during decades of growth. The striking variation shown in the NHS RightCare Atlases of Variation highlights the opportunities for improving value. We must now embrace value based healthcare alongside the models of evidence based medicine⁸ and quality improvement that have dominated debate in the past 20 years.

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Healthcare, a company that organises training on value based healthcare.

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