

Optimising the Provision of Healthcare in the Face of Seemingly Impossible Demands

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Portfolio optimisation offers a new and radical approach to the funding and resource allocation decisions that are critical for the provision of improved Healthcare. These decisions, made in the context that the increasing demand for Healthcare will always exceed capacity, involve a myriad of services and facilities that have to be planned to give the best possible service.

Examples of such issues include allocating Health Authority funding to provider service contracts, determining the 'best' R&D investment profile, deciding the relative focus on national IM&T strategy initiatives, strategic planning of Acute Trust facilities, and developing a range of community care programmes. Where there are such competing claims on ultimately limited funding or resources, determining the best allocation is a notoriously complex matter. Traditional methods such as prioritisation over-simplify the impact each initiative or decision will have and run into the difficulties of comparing 'apples and oranges'. Therefore subjective and expert judgement has to be applied widely to handle the complex balance of moral and physical values. The situation is better handled as a portfolio of opportunities analysed in a manner to enhance the ultimate judgement of those who must make the final difficult and sensitive choices.

The techniques of portfolio optimisation are widely used in industry for technical planning situations and are being increasingly used at the strategic level in the face of intense demands for improved business performance. Their use is very much less common in other sectors. Part of the reason for this is the perceived difficulty of dealing with non-financial factors, precisely those that are so critical in Healthcare. However, performance measures are increasingly accepted for Healthcare as an indicator of efficiency as well as a commitment to the public for a specified level of service. We suggest considering an approach using portfolio optimisation for resource allocation decisions and planning programmes of development initiatives. It has been applied in other public sector organisations as well as pharmaceutical R&D companies, and has already been considered by some Trusts and R&D groups. This method would take full account of the variety of targets and constraints that NHS organisations must work within, including the crucial service quality aspects. It would be supported by analytical means to determine initially a series of valid scenarios for optimum portfolios for a complex set of performance targets, constraints and candidate opportunities.

We propose to apply the normal key steps for a portfolio optimisation approach. Fundamental is the definition of overall service targets and constraints. These should include service aspects such as throughput and response time, qualitative factors such as the balance of prevention and cure and estimated probability of treatment success, and financial and manpower limits. It is important also to consider the potential interactions between the opportunities and any alternatives available for a given purpose. The analysis would enhance human judgement through much improved information on the consequences and results of various scenarios and so manual adjustment would be essential to ensure that human insight is brought to bear and to allow individuals to convince themselves of its optimality.

The method would differ from purely analytical techniques as it would provide decision makers with a calculated optimum result to which they can then apply their judgement. It is objective and verifiable and re-evaluation is possible at any time as events intervene. A number of 'indirect' benefits are achieved which are also of critical importance. The portfolio method concentrates

attention on overall service targets and constraints and promotes clear articulation of an organisation's desired achievement. Furthermore, the clarity of the service targets and the transparency of the evaluation and selection process highlight opportunities to adjust resources, processes or structures in order to achieve even higher performance. The approach is of great potential benefit for this crucial aspect of Healthcare management.

Please contact VPI Partners if you are interested in discussing these ideas.