Exploring how the Isle of Wight used a value for money approach to set local priorities

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Deciding where to allocate resources is a critical process for the NHS. To ensure that these decisions are sound, fair and strategic, they need to be made in ways that are evidence based, transparent and systematic. This briefing describes work carried out by NHS Isle of Wight and the London School of Economics, with backing from the Health Foundation, to support a robust and inclusive decision-making process.

The approach detailed in this briefing has the benefit of being backed by an expert technical team with a rigorous ‘value for money’ analysis. But perhaps the real opportunity for primary care trusts (PCTs) is that it has been combined with a successful social approach. The extensive stakeholder engagement on the Isle of Wight is the biggest success story of this initiative; it has created widespread confidence in the decisions that were taken and assured buy-in to the subsequent spending commitments.

For PCTs, maintaining the status quo is not an option. To help maintain quality without growth money, and with the possibility of real-terms funding cuts in the future, PCTs will increasingly have to squeeze those services that add little value. Faced with difficult disinvestment decisions, stakeholder involvement will become all the more important to PCTs. Systematically engaging staff, patients and the public will help them to understand why these decisions are worthwhile and correct.

This case study shows how it might be done. It exposes, in a visual way, the ‘opportunity cost’ incurred when the funding of an existing intervention prevents investment in another demonstrably more beneficial option.

Difficult financial times lie ahead, but huge priorities such as improving public health and reducing health inequalities will not go away – in fact, they may become even more pressing. The approach highlighted within this briefing provides valuable direction in its support of innovative, community-based solutions to prevention – solutions that have improved patient care and created financial savings.

The approach is now being tested with NHS Sheffield, which raises more complex challenges. It’s a system where commissioning and provision are not integrated, where there are multiple providers and where we are dealing with a bigger, less easily defined population. Each of these factors will offer wider lessons for similar PCTs. Look out for our review of the NHS Sheffield project, to be published in 2010.

This briefing describes an approach to priority-setting that has been developed and tested to assist world class commissioning. The Health Foundation funded the project, which was carried out by the London School of Economics (LSE) working with NHS Isle of Wight.

Commissioners need to prioritise to make the most of limited resources. Maximising health improvement and reducing health inequalities will become all the more demanding with tighter finances. Decisions about allocating resources need to be made in ways that are evidence based, transparent and systematic to ensure that they are sound, fair and strategic.

The approach detailed in this briefing critically incorporates engagement with a wide range of stakeholders, and couples this with technical value for money analysis. This allows commissioners to take account of different factors when deciding which areas of healthcare to focus on, and provides evidence to determine where resources can most effectively be invested.

The Health Foundation is now supporting LSE to test variations on this approach elsewhere in the UK, with the aim of making it as useful and effective as possible for commissioners.
Policy Context

Transparent and systematic priority-setting always has an important role to play, but lately the spotlight has fallen on commissioners – assessing their core competencies and re-establishing long-term priorities.

World class commissioning

Work is underway to raise ambitions for a new form of commissioning that delivers better health and wellbeing for the population, improving health outcomes and reducing health inequalities: ‘adding life to years and years to life’. Commissioners will shape this new approach to healthcare delivery, in which difficult decisions will have to be taken.

The commissioning cycle begins with an assessment of the population’s health needs. This is followed by a review of service provision to identify gaps and potential improvements. Finally, decisions are taken about priorities; these form the PCT’s strategic plan for the next five years.

Identifying priorities is a key skill for commissioners. Breaking free of outdated patterns of provision requires taking systematic, evidence based decisions about what treatments and services to commission. Allocating resources is a politically sensitive and complex issue, and it’s often difficult to convince the public and clinicians that decisions are fair, appropriate and the best possible option.

Therefore, priority-setting needs to be robust enough to withstand challenges. Everyone who delivers, receives or purchases healthcare should understand and contribute to how priorities are set. In this way, decision making is consistent, and PCTs are more likely to make fair decisions that balance competing needs.

World class commissioning calls on PCTs to satisfy 10 competencies. These two are particularly relevant to priority-setting:

- Competency 3: Proactively build continuous and meaningful engagement with the public and patients to shape services and improve health.
- Competency 6: Prioritise investment according to local needs, service requirement and NHS values.

Reducing Health Inequalities

In 2004, the public service agreement with the Treasury committed the Department of Health to targets for reducing inequalities in health outcomes, as measured by infant mortality and life expectancy at birth. Since then, reducing health inequalities has been a key commitment for the NHS.

Yet, despite substantial investment, key measures of health inequality are still widening. Although the NHS cannot tackle health inequalities alone, PCTs are responsible locally for leading partnerships and influencing partners to help improve health and reduce health inequalities. One of the ways PCTs can achieve this is by designing services accessible to those who most need them. Commissioning is therefore a key means of helping to reduce health inequalities.


Based on the principle that NHS services should improve health and prevent disease, not just provide treatment, this white paper calls for ‘national and local NHS service planning and commissioning arrangements which recognise the needs of all parts of the population and develop services to focus improvement on areas with the worst health outcomes’.

The white paper stresses the ‘need to tackle health inequalities head-on’, and adds: ‘Developing new, innovative models of care and pursuing opportunities for sustained action as well as quick wins will be particularly important in tackling inequalities’.

NHS Isle of Wight is unique in the NHS in England in that commissioning and provision of care are integrated into one organisation. Like all PCTs, it faces its own distinct local challenges in serving its population of 140,000.

Underlying problems affecting the island’s native population, especially children, include poor dental health, high rates of obesity and eating disorders, and poor school achievement. Yet these problems have been partially masked by the better health of the more prosperous ‘incomers’ who have moved there to retire.

The key health challenges:
- 22% of the population are aged 65 or over, a proportion that will rise to 24% by 2012 – higher than the England or South East average
- people aged 65 or over account for 36% of elective and 42% of non-elective admissions
- although higher than the national average, life expectancy varies by eight years between electoral wards
- 12 electoral wards need targeted action to reduce health inequalities
- 5,000 children live in low-income households
- 5,000 adults claim incapacity benefit
- 26,000 adults smoke
- 27,000 adults and 2,400 children are clinically obese
- a further 46,000 adults and 2,300 children are overweight
- 80,000 adults are insufficiently physically active to prevent adverse effects on their health
- 41% of five-year-olds have decayed, missing or filled teeth
- 26,000 residents report a long-term illness, health problem or disability limiting daily activities or work
- there are 1,700 prisoners in three prisons.

Isle of Wight: In Context

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Three main causes account for 70% of the excess deaths that result in the life expectancy gap: cancer – 26%, circulatory disease – 36%, respiratory disease – 13%.

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Challenges, Priority Areas and Goals

Challenges
Three main causes account for 70% of the excess deaths that result in the life expectancy gap:
- cancer – 26% of deaths
- circulatory disease – 36%; of which 43% are coronary heart disease and 28% stroke
- respiratory disease – 13% of deaths
- another 5% are due to external causes of injury and poisoning, nearly half of which are suicides; the island has long had a high suicide rate.

Priority areas
In light of the challenges, the PCT board recommended focusing on five priority areas for commissioning:
- cancer
- circulatory diseases
- respiratory diseases
- mental health
- children’s services.

Goals
At the same time, the PCT also set three strategic commissioning goals:
- reducing health inequality – because the life expectancy gap has been increasing
- ‘adding life to years’ – particularly important because of the elderly population and prevalence of long-term conditions
- maintaining a sustainable and viable provider service – people value having a comprehensive district general hospital on the island despite its comparatively small population.

Despite these challenges, the island context does have its advantages. Public Health Director and Chief Medical Adviser Dr Jenifer Smith says: ‘We have a small, easily defined population. Also, key clinicians work in the same organisation as the commissioners and are geographically near. That probably makes it easier to bring them together.’
With the opportunity to invest £2m over two years, the PCT wanted not only to ensure that priority-setting for this funding was transparent and systematic, but also to maximise confidence in its commissioning decisions. With LSE’s help, the PCT adopted a socio-technical approach that made use of decision conferencing and multi-criteria decision analysis.

**Decision conferencing**

Decision conferencing involves working in groups with an impartial facilitator. It uses on-the-spot computer-based modeling where appropriate data exists. Where it does not, it incorporates participants’ knowledge. It does not allow either to disproportionately affect the results. The model and the results it generates are displayed continuously throughout: such visual aids can empower those without technical knowledge to take part effectively. Its purpose is to achieve:
- shared understanding of the issues – though not necessarily consensus
- a sense of common purpose
- while preserving individual differences of opinion
- commitment to the way forward – but allowing individual differences in the paths taken.

**Multi-criteria decision analysis**

Decision making in healthcare is a complex task, inevitably involving trade-offs between the social, the political and the economic. Multi-criteria decision analysis is adopted by decision makers when they are faced with numerous and conflicting options. It highlights these conflicts, allows each to be properly assessed, and adds transparency and accountability to decision making.
The aim of the workshops was for the stakeholders to declare where investment was most needed and how best to deploy it, so that they ‘owned’ both problem and solution. ‘Very often it’s difficult to take the local public and clinicians along,’ says London School of Economics researcher and facilitator Mara Airoldi. ‘But unless those who are implementing the recommendations agree or understand why you are doing it, the risk is it will not happen.’

As the first stage of the process, one-day stakeholder workshops were held for each of the five priority areas: two for circulatory diseases, one for cancer, one for coronary heart disease and one for stroke. These workshops brought together commissioners, clinicians, patients, local authority and voluntary sector representatives, nurses and GPs, and were supported by a member of the executive team; overall, around 100 people took part. The London School of Economics facilitators attended at least one other workshop to ensure a consistency of approach.

Step 1: Stakeholder Workshops

The aim of the workshops was for the stakeholders to declare where investment was most needed and how best to deploy it, so that they ‘owned’ both problem and solution. ‘Very often it’s difficult to take the local public and clinicians along,’ says London School of Economics researcher and facilitator Mara Airoldi. ‘But unless those who are implementing the recommendations agree or understand why you are doing it, the risk is it will not happen.’

Gradually it became evident which of the proposed interventions would bring most benefit. Usually the workshops found it easy to reach consensus, although the workshop focusing on cancer struggled to do so.

‘It was this systematic questioning and comparing of interventions alongside each other using the same criteria – improving the health of the population, reducing health inequalities, feasibility, and value for money – that enabled them to see the three that were affordable and likeliest to make the biggest difference. So we were able to put forward a shortlist,’ says Ms Airoldi.

Between them, the six workshops generated a total of 21 potential strategic initiatives to improve population health and quality of life while reducing health inequalities. These initiatives were to form the focus of the next stage of the process.
The next stage was a priority-setting event, at which the 21 interventions to emerge from the workshops were reviewed by a panel of stakeholders. This 25-strong group included executive and non-executive directors, local authority representatives, patients representatives, GPs, the PCT’s professional executive committee and commissioning managers. Organised as a decision conference, the event was facilitated by two researchers from LSE.

In a transparent and systematic process involving discussion and challenge, participants built a model of the costs and value to the PCT of the 21 interventions. Each intervention was scored – and all the scores were weighted using multi-criteria decision analysis, to ensure that they were comparable.

The four key criteria were:
- health benefit: the intervention’s potential benefit in quality and length of life compared to current care – assuming successful implementation – multiplied by the number of patients who benefit each year
- health inequalities: the extent to which the intervention could reduce differences in access and in health outcomes – across geographical areas; between men and women; and for special groups
- probability of success: the likelihood of achieving the benefits assuming funding is granted – and taking into account ease of implementation, workforce availability, acceptability to stakeholders and the environment, and the complexity of the process
- cost: the extra funding needed to set up and run the intervention for two years.

Each intervention’s overall health benefit to the population was shown visually, as in the example in the figure above. The overall benefit to the population is represented by the area of the rectangle: the bigger it is, the greater the benefit.

But would such benefit from an intervention be value for money? To calculate this, we simply divide its benefit score by the extra funding it needs; the resulting ratio indicates the intervention’s value for money.

All 21 interventions examined by NHS Isle of Wight were ranked according to this ratio. A high ranking suggested that for each pound spent, the intervention returned the greatest possible benefit. A low ranking indicated that it would take a relatively large investment to return a unit of benefit. Where the results surprised participants, they were explored extensively, with assessments of cost and benefit revised if necessary.

Of course, a PCT may have reasons to fund a low-scoring intervention – for example, if it is a core duty of the NHS. Value for money ranking should inform the commissioning strategy but not be the sole criterion or prescribe action.
The calculations shown opposite and above produce the units of benefit achieved for each pound invested in an intervention. ‘Benefit’ takes into account length and quality of life added, the number of people who would gain, the contribution to reducing health inequalities and the feasibility of implementing the intervention. This is not, therefore, the same as the more familiar cost per quality-adjusted life year (QALY) calculation often used in gauging health gain.

As you can see in the figure above, the calculation can be represented as a graph, with costs along the horizontal axis and benefits on the vertical axis.

- The gradient represents value for money (VFM): the steeper it is, the greater an intervention’s value for money.
- The triangle’s size reflects the number of potential beneficiaries: the bigger it is, the more people would benefit from the intervention.
- Both attributes are important: an intervention with high VFM may benefit only a handful of people and vice versa.

Where an intervention has a low VFM score, it is worth analysing the costs and benefits of each of its constituent elements to understand what determines the low score. This is particularly important where commissioners consider it unacceptable not to invest at all in an area.

For example, a strategic initiative on ‘primary prevention’ in children’s services may produce 46 units of health benefit, and cost £600,000 over two years, resulting in a low VFM score of 0.06. The intervention comprises five elements: health visitors, nursery nurses, school nurses, parenting programmes and teenage pregnancy/sexual health services. Examining the VFM triangle for each element places the low overall score in context.

All five triangles – ordered from the steepest to the shallowest – can be combined in one graph, producing a large triangle that indicates total cost and benefit, the gradient of which represents average VFM. A case could then be made for concentrating investment in those elements with higher than average VFM – that is, those with the steepest triangles.
Dr Jenifer Smith, Public Health Director and Chief Medical Adviser praises the transparent nature of the process and the ease with which it enabled the PCT to engage a wide range of people – ‘all in one room together and party to exactly the same route to the decision’.

The methodology visually demonstrates the nature of the choices to be made and the scale of an intervention’s potential impact. For example, it revealed little impact would be made by treating all stroke patients in a stroke unit and ensuring they received thrombolysis.

As Dr Smith comments: ‘It’s quite hard for all of us to weigh up the differences between treating one or two very seriously ill people with the latest technology or treating very large numbers out in the community who may not be perceived to be as acutely in need of health services. This is a means of translating that into measurable benefits of some sort.’

She adds: ‘It’s hard work and people put real effort into it, but one of the big selling points is that it wasn’t difficult getting people for a second year. They value their contribution – getting their voice heard and really engaging in the process.’

Although Dr Smith acknowledges that ‘some of the calculations of benefit are quite crude’, she argues that this does not hinder rational discussion of competing options. ‘The real benefit is engagement in the process.’

The priority-setting initiative was recognised at the South Central Regional Health and Social Care Awards, where the joint team received the Excellence in Commissioning Award.

Isle of Wight PCT was looking to invest £2m over two years in the interventions up for discussion. Reducing the burden of chronic respiratory disease, especially asthma, was a strong contender from the start. Although prevalence of asthma is increasing, complications are largely preventable, and the PCT felt there should be no deaths and few admissions related to the condition.

Yet despite high spending on asthma-relieving drugs, the island continued to experience asthma deaths and many admissions. It has been determined that the root of the problem was the fact that patients were poorly trained in using ventilators.

By investing in improving patients’ inhaler technique, the PCT was able to halve asthma emergency admissions. ‘That wouldn’t have happened without this process,’ says Dr Smith. ‘They are small numbers but it is a sustained decrease, which is heartening.’

Prescribing costs too have fallen in an ‘equally dramatic’ fashion. ‘I would emphasise that these were wasted drugs. We haven’t stopped giving any treatment for asthma. We’ve helped people make the best use of certain drugs so that we could take them off others.’

Other investment decisions included:
– re-focusing services to provide more community support for elderly people with dementia
– re-training staff to provide a more proactive, preventive approach to help children adopt healthy lifestyles, working with parents and schools
– tackling the high proportion of referrals to child and adolescent mental health services – often off the island – by improving support in primary and community care.

Dr Smith says: ‘We haven’t disinvested, but we’ve not taken forward some things that some people wanted.’
This approach to priority-setting enables managers – in the words of world class commissioning competency 3 – to ‘proactively build continuous and meaningful engagement with the public and patients’. It also provides a transparent and systematic means of deciding investment according to local needs, service requirement and NHS values – as competency 6 states.

‘Getting the NHS to do things differently is hard, and because there are a limited number of things you can do, you want to make sure you’re putting your efforts into something with huge impact,’ says LSE’s Professor Gwyn Bevan, who led the research. Dr Smith says: ‘You’re able to show the board that what you want to invest in could get 10% more benefit in terms of health outcome than doing it another way. The board doesn’t always want to do that, but it’s a very good way to understand the basis on which you’re making decisions.’

‘The process may also correct the bias towards acute interventions,’ says Professor Bevan. ‘Clearly it’s much better to prevent stroke than to have to treat it. This approach enables people to see the nature of that trade-off, which is otherwise not really spelt out.’

It also provides an audit trail. ‘You can go back and see why a decision was made and examine whether it’s still true or change priorities,’ says Dr Smith.

Ms Airoldi says: ‘It empowers them to justify even the difficult decisions, especially if they’re looking at disinvestment, which is politically very, very difficult to do.’ As Professor Bevan points out: ‘It’s going to be really hard to get public support to cut things, so the hope is that by doing things through this transparent process, you should win public support. PCTs should be in a much better position to make hard choices.’
Next Steps

Working with Sheffield PCT

With support from the Health Foundation, development of the approach detailed in this briefing will now concentrate on Sheffield PCT. The NHS’s funding outlook has changed drastically since the Isle of Wight project. The development team now wants to adapt the methodology for a different economic climate and a new set of local challenges.

Sheffield PCT needs to reduce its deficit, so will have to disinvest in some services to invest in others. LSE researchers are working with the PCT on three major spending areas – dentistry, cancer and mental health – that account for £200m of the PCT’s £900m budget. Expenditure per head in each area exceeds the cluster average, with dentistry spending 15% above the average.

‘Is there a business case for substituting new types of care for current care because it will bring better outcomes?’ asks Ms Airoldi. ‘We need to get that discussion going.’

LSE and Sheffield PCT will hold two decision conferences for each care area. The first will be to structure the task and ‘chunk’ activity, defining how much is spent on particular interventions, assessing who will benefit and predicting its impact on health. Once scores have been calculated and weighted, value for money triangles will be constructed.

‘Making sensible disinvestment decisions needs this kind of understanding and engagement to put the chief executive in a strong negotiating position,’ says Ms Airoldi.

Look out for our Improvement in Practice reports, which share practical insights into how the quality of care can be improved. The work of Sheffield PCT and LSE, supported by the Health Foundation, will be published in 2010.

For more information about our value for money work, please contact our Research and Development Team at research@health.org.uk or call us on 020 7257 8000.

To download these reports, visit our website www.health.org.uk or call 020 7257 8000

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  Dr John Øvretveit, September 2009
  A review of evidence of which improvements to quality reduce costs to health service providers.
  www.health.org.uk/save_money

– Measuring value for money in healthcare: concepts and tools
  Peter C Smith, September 2009
  Describes the various concepts of value for money and examines how measures are constructed. It discusses the challenges inherent in measuring value for money and assesses the priorities for future efforts in this domain.
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